

Sealing Solutions

Solutions for all sealing applications



FLUID POWER CATALOG

Seals for Hydraulic and Pneumatic Systems





Quality Policy

We are committed to continuous improvement of our products and services to meet and fully satisfy our customer's needs and expectations while providing a safe, participatory environment for our employees and an acceptable return on investment for the Sealing Solutions Group.

We are committed to supplying quality products and error-free services, on-time, to our customers. To realize this commitment, we will achieve, and maintain, quality certification to an internationally recognized quality standard, and embrace Total Quality Commitment as our operating policy.

Our customers, both internal and external, are the focus of our efforts, and their complete satisfaction is the parameter by which our success as a supplier is measured. We will maintain open, constructive partnerships with our customers.

All our employees have equal opportunity and are treated with fairness and respect. The health and safety of the individual is a primary concern. We foster an atmosphere that encourages teamwork, creativity, and personal growth. The training required for achieving and maintaining the company's quality standards is identified and provided. Our employees are encouraged to contribute to company-wide quality improvement.

Items listed in this catalog are not all necessarily available at your closest stocking location.

Original equipment part numbers and brand names are for reference purposes only. We do not imply that these items are the product of original equipment manufacturers.

The information stated is based on the knowledge gained through years of experience in the distribution and application of seals. However, unknown factors in the application of seals can considerably change the conditions which may cause the above information to be invalid.

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This edition supersedes all earlier editions.

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Sealing Solutions Group

We have published our Parts Vol. 6 Seals and related Parts Catalog from our customer's perspective. This edition includes many new products and expanded sizes in every section. We offer our customers unparalleled selection from the largest national seal inventory in North America.

We service our customers from seven national locations with real-time online inventory support and integrated shipping procedures. The exact products you need to do the job, when and where you need them.

Our dedication to service, quality and customer satisfaction have set the industry standards you have come to depend on :

- Expanded product selection
- Complete technical references
- Machining tolerances for all products
- Application and profile-selection schematics
- Value added design assistance and support services




Need help selecting a special profile or ordering prototype seals for new design applications?

- Full machine shop facilities in-house for prompt delivery. Teflon, Polyurethane, Nylon, Delrin, Rulon, Dyna-Max, Hytrel, Nitrile, and other machineable-polymers in stock
- O'Ring vulcanizing centers for immediate delivery
- Custom packaging for parts, seal kits and customer specific kitting programs

Ask for a copy of our Shaft Seal and Seal Kit Catalogs.





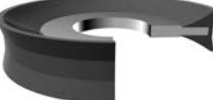











Contact any of our customer service associates at the location nearest to you. They will be eager to assist you.

| Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page | |
|---|---|--------------------|---|---------------------------------------|---|--|-----|-------------|-------------|
| CUSTOM MANUFACTURED AND DESIGNED SEALS | | | | | | | | i | |
| SERVICES | | | | | | | | viii | |
| INCH SIZE ROD WIPERS |  | AN |  | Polyurethane | -65°F /+200°F -54°C /+93°C | <1.6 ft/s (0.5 m/s) | N/A | H | A 2 |
| |  | D |  | Polyurethane AU 90A | -65°F /+200°F -54°C /+93°C | <1.6 ft/s (0.5 m/s) | N/A | H | A 5 |
| |  | H |  | Polyurethane AU 90A Nitrile | -65°F /+200°F -54°C /+93°C -40°F /+250°F -40°C /+121°C | <1.6 ft/s (0.5 m/s) <3.3 ft/s (1.6 m/s) | N/A | H/P | A 8 |
| |  | K |  | Polyurethane AU 90A | -65°F /+200°F -50°C /+93°C | <1.6 ft/s (0.5 m/s) | N/A | H | A 10 |
| |  | D & K |  | Nitrile | -40°F /+200°F -40°C /+93°C | <1.6 ft/s (0.5 m/s) | N/A | H/P | A 12 |
| |  | EX1 |  | BR.PTFE/ Nitrile | -40°F /+200°F -40°C /+93°C | <13 ft/s (4 m/s) | N/A | H | A 13 |
| |  | EX2 EX5 |  | BR.PTFE/ Nitrile | -40°F /+200°F -40°C /+93°C | <13 ft/s (4 m/s) | N/A | H | A 16 |
| |  | BW/S |  | Brass/Nitrile | -40°F /+240°F -40°C /+116°C | N/A | N/A | H | A 19 |

| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
|---------------------------------|---|--------------|---|---|--|--------------------------|---|-----|-------------|
| INCH SIZE ROD WIPERS |  | J |  | Polyurethane/ Steel | -65°F /+ 200°F -54°C /+ 93°C | < 1.6 ft/s (0.5 m/s) | N/A | H | A 22 |
| |  | J/N |  | Nitrile/Steel | -40°F /+ 250°F -40°C /+ 121°C | < 1.6 ft/s (0.5 m/s) | N/A | H/P | A 26 |
| |  | J/DL |  | Polyurethane/ Steel | -40°F /+ 230°F -40°C /+ 110°C | < 1.6 ft/s (0.5 m/s) | N/A | H | A 28 |
| INCH SIZE ROD SEALS |  | UR |  | Polyurethane AU 92A | -40°F /+ 230°F -40°C /+ 110°C | < 1.6 ft/s (0.5 m/s) | ≤6000 psi (≤414 bar) | H | B 2 |
| |  | E5 |  | Carboxylated Nitrile | -10°F /+ 250°F -23°C /+ 121°C | < 3.3 ft/s (1 m/s) | ≤250 psi (≤17 bar) | P | B 8 |
| |  | BS |  | Polyurethane AU 92A | -40°F /+ 230°F -40°C /+ 110°C | < 1.6 ft/s (0.5 m/s) | ≤6000 psi (≤414 bar) | H | B 9 |
| |  | BS/3L |  | Polyurethane AU 92A | -65°F /+ 220°F -54°C /+ 104°C | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤345 bar) | H | B 11 |
| |  | BS/SL |  | Nitrile 80A Fluorocarbon | -40°F /+ 250°F -40°C /+ 121°C -20°F /+ 400°F -29°C /+ 204°C | < 1.6 ft/s (0.5 m/s) | ≤1000 psi (≤69 bar) ≤2000 psi (≤137 bar) | H | B 12 |
| |  | RE |  | Polyurethane/ Nitrile/ Polyacetal | -40°F /+ 212°F -40°C /+ 100°C | < 1.5 ft/s (0.46 m/s) | ≤10 000 psi (≤700 bar) | H | B 13 |
| |  | BT |  | Polyurethane AU 90A | -65°F /+ 275°F -54°C /+ 135°C | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤345 bar) | H | B 15 |

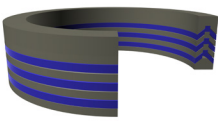

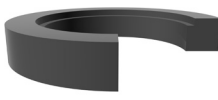









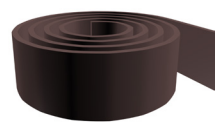

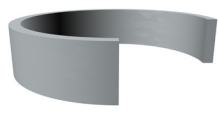

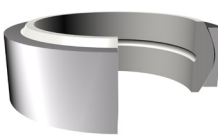

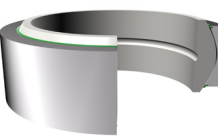

| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
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| INCH SIZE ROD SEALS |  | BR |  | Polyurethane AU 90A/ Polyacetal | -65°F /+ 275°F -54°C /+ 135°C | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤345 bar) | H | B 19 |
| |  | HBY |  | Polyurethane AU 94A/ Polyacetal | -40°F /+ 230°F -40°C /+ 110°C | < 1.6 ft/s (0.5 m/s) | ≤8000 psi (≤552 bar) | H | B 20 |
| |  | HBY-CAT |  | Polyurethane/ Polyacetal | -40°F /+ 230°F -40°C /+ 110°C | < 1.6 ft/s (0.5 m/s) | ≤8000 psi (≤552 bar) | H | B 21 |
| |  | CAT SEAL RING |  | Polyurethane AU 92A | -40°F /+ 212°F -40°C /+ 100°C | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤345 bar) | H | B 22 |
| |  | CAT STEP SEAL |  | PTFE/Nitrile | -30°F /+ 220°F -34°C /+ 104°C | < 13 ft/s (4 m/s) | ≤5800 psi (≤400 bar) | H | B 24 |
| |  | RSS |  | BR.PTFE/Nitrile | -40°F /+ 250°F -40°C /+ 121°C | < 13 ft/s (4 m/s) | ≤5000 psi (≤345 bar) | H | B 25 |
| |  | R2B |  | BR.PTFE/Nitrile | -40°F /+ 250°F -40°C /+ 121°C | < 13 ft/s (4 m/s) | ≤5000 psi (≤345 bar) | H | B 31 |
| |  | TR |  | Nitrile/Nylon | -40°F /+ 225°F -40°C /+ 107°C | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤345 bar) | P | B 33 |
| |  | V6 |  | Polyurethane AU 90A Nitrile 80A Fluorocarbon 90A | -65°F /+ 225°F -54°C /+ 107°C -40°F /+ 250°F -40°C /+ 121°C -20°F /+ 400°F -29°C /+ 204°C | < 3.3 ft/s (1 m/s) | N/A | P | B 36 |
| |  | STANDARD POLYPAK® |  | Polyurethane/ Nitrile | -65°F /+ 200°F -54°C /+ 93°C | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤345 bar) | H | C 2 |













| INCH SIZE SYMMETRICAL SEALS | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
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| | | DEEP POLYPAK® | | Polyurethane/ Nitrile | -65°F /+ 200°F -54°C /+ 93°C | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤ 345 bar) | H | C 13 |
| | | TYPE B POLYPAK® | | Polyurethane/ Nitrile | -65°F /+ 200°F -54°C /+ 93°C | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤ 345 bar) | H | C 20 |
| | | SPRING LOADED POLYPAK® | | Polyurethane/ Stainless steel | -65°F /+ 200°F (-54°C /+ 93°C) | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤345 bar) | H | C 29 |
| | | MODULAR BACKUP | | Polyurethane AU 65D | -65°F /+ 250°F -54°C /+ 121°C | N/A | ≤7000psi (≤483 bar) | H | C 31 |
| | | ZA SEALS | | Polyurethane/ Nitrile | -60°F /+ 210°F (-51°C /+ 99°C) | <3.2 ft/s (0.98 m/s) | ≤5800 psi (≤400 bar) | H | C 34 |
| | | DZ SEALS | | Polyurethane/ Nitrile | -60°F /+ 210°F (-51°C /+ 99°C) | <3.2 ft/s (0.98 m/s) | ≤5800 psi (≤400 bar) | H | C 35 |
| | | US | | Polyurethane AU 92A | -40°F /+ 230°F -40°C /+ 110°C | < 1.6 ft/s (0.5 m/s) | ≤6000 psi (≤414 bar) | H | C 37 |
| | | AN6226 | | Nitrile 80A | -40°F /+ 250°F -40°C /+ 121°C | < 1.6 ft/s (0.5 m/s) | ≤500 psi (≤34 bar) | H/P | C 43 |
| | | 8400 | | Nitrile 80A Fluorocarbon | -40°F /+ 250°F -40°C /+ 121°C -5°F /+ 400°F -21°C /+ 204°C | Pneu. 3.3 ft/s 1 m/s Hydr. 1.6 ft/s 0.5 m/s Pneu. 250 psi (17 bar) Pneu. 250 psi (17 bar) | Pneu. 250 psi (17 bar) Pneu. 250 psi (17 bar) | H/P | C 45 |
| | HU | | Nitrile | -40°F /+ 250°F -40°C /+ 121°C | < 1.6 ft/s (0.5 m/s) | ≤2000 psi (≤138 bar) | H | C 48 | |



















| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
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| INCH SIZE PISTON SEALS |  | UP |  | Polyurethane AU 92A | -40°F /+ 230°F -40°C /+ 110°C | < 1.6 ft/s (0.5 m/s) | ≤6000 psi (≤414 bar) | H | D 2 |
| |  | E4 |  | Carboxylated Nitroxile 83A | -10°F /+ 250°F -23°C /+ 121°C | < 3 ft/s (0.9 m/s) | ≤250 psi (≤17 bar) | H/P | D 6 |
| |  | CB |  | Nitrile/Steel | -40°F /+ 220°F -40°C /+ 104°C | < 3.3 ft/s (1 m/s) | ≤800 psi (≤55 bar) | H/P | D 7 |
| |  | CF |  | Neo-Fabric | -40°F /+ 250°F -40°C /+ 121°C | < 3.3 ft/s (1 m/s) | ≤3000 psi (≤210 bar) | H | D 9 |
| |  | CH |  | Nitrile 80/90A | -40°F /+ 250°F -40°C /+ 121°C | < 3.3 ft/s (1 m/s) | ≤150 psi (≤10 bar) | H/P | D 12 |
| |  | TP TP/1 TP/2 |  | Nitrile/Nylon | -40°F /+ 225°F -40°C /+ 107°C | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤344 bar) | H/P | D 15 |
| |  | PSP |  | Polyurethane/ Nitrile | -30°F /+225°F -34°C /+107°C | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤ 345 bar) | H | D 19 |
| |  | PSP-A-AT |  | Polyurethane/ Nitrile | -30°F /+225°F -34°C /+107°C | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤ 345 bar) | H | D 21 |
| |  | BP |  | Polyurethane/ Nitrile | -30°F /+ 250°F -34°C /+ 121°C | < 1.6 ft/s (0.5 m/s) | ≤7000 psi (≤ 483 bar) | H | D 23 |
| |  | PIP SEAL |  | Polyurethane/ Nitrile | -65°F /+ 200°F -54°C /+ 93°C | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤ 345 bar) | H | D 25 |

















| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
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| INCH SIZE PISTON SEALS |  | PIP RING |  | Polyurethane AU 65D | -65°F /+ 200°F -54°C /+ 93°C | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤ 345 bar) | H | D 29 |
| |  | TFES |  | GF.PTFE/Nitrile | -30°F /+ 230°F -34°C /+ 110°C | < 12 ft/s (3.7 m/s) | ≤5800 psi (≤ 400 bar) | H | D 31 |
| |  | 160G |  | GF.PTFE/Nitrile | -30°F /+ 230°F -34°C /+ 110°C | < 12 ft/s (3.7 m/s) | ≤5800 psi (≤ 400 bar) | H | D 33 |
| |  | 169B |  | BR. PTFE/Nitrile | -30°F /+ 230°F -34°C /+ 110°C | < 12 ft/s (3.7 m/s) | ≤5800 psi (≤ 400 bar) | H | D 34 |
| |  | 169G |  | GF. PTFE/Nitrile | -30°F /+ 230°F -34°C /+ 110°C | < 12 ft/s (3.7 m/s) | ≤5800 psi (≤ 400 bar) | H | D 36 |
| |  | 169U |  | Polyurethane/ Nitrile | -40°F /+ 250°F -40°C /+ 121°C | < 2 ft/s (0.6 m/s) | ≤5000 psi (≤ 345 bar) | H | D 37 |
| |  | CAT-TYPE-1 |  | GF.PTFE/ Nitrile | -30°F /+ 230°F -34°C /+ 110°C | < 12 ft/s (3.7 m/s) | ≤5800 psi (≤ 400 bar) | H | D 39 |
| |  | AQ |  | BR. PTFE/Nitrile | -30°F /+ 230°F -34°C /+ 110°C | < 10 ft/s (3 m/s) | ≤5800 psi (≤ 400 bar) | H | D 41 |
| |  | PS2470 |  | BR. PTFE/Nitrile | -30°F /+ 230°F -34°C /+ 110°C | < 12 ft/s (3.7 m/s) | ≤5800 psi (≤ 400 bar) | H | D 43 |
| |  | C914 |  | Nylon/Nitrile | -40°F /+ 250°F -40°C /+ 121°C | < 3.3 ft/s (1 m/s) | ≤7000 psi (≤ 483 bar) | H | D 45 |




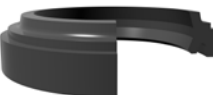





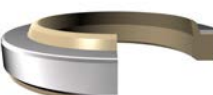


| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
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| INCH SIZE PISTON SEALS |  | CAT-TYPE-3 |  | Nylon/Nitrile | -40°F /+ 250°F -40°C /+ 121°C | <3.3 ft/s (1 m/s) | ≤7000 psi (≤ 483 bar) | H | D 46 |
| |  | HDP 330 |  | Nylon/Nitrile | -22°F /+ 212°F -30°C /+ 100°C | <3 ft/s (0.9 m/s) | ≤8700 psi (≤ 600 bar) | H | D 50 |
| |  | CTS |  | GF/M.PTFE/ Nylon/Nitrile | -30°F /+ 230°F -34°C /+ 110°C | <5 ft/s (1.5 m/s) | ≤6500 psi (≤ 448 bar) | H | D 51 |
| |  | CAT-TYPE-4 |  | GF/M.PTFE/ Nylon/Nitrile | -30°F /+ 230°F -34°C /+ 110°C | <5 ft/s (1.5 m/s) | ≤6500 psi (≤ 448 bar) | H | D 53 |
| |  | P1000 |  | Cast or ductile Iron | N/A | N/A | N/A | H | D 54 |
| |  | P1000 HYCO |  | Cast or ductile Iron | N/A | N/A | N/A | H | D 58 |
| |  | P3C |  | Neo-Fabric/ Polyamide | -22°F /+ 212°F -30°C /+ 100°C | <1.6 ft/s (0.5 m/s) | ≤10 000 psi (≤ 689 bar) | H | D 59 |
| |  | P3D |  | Nitrile/ Polyamide | -22°F /+ 212°F -30°C /+ 100°C | <1.6 ft/s (0.5 m/s) | ≤2300 psi (≤ 159 bar) | H | D 61 |
| |  | P5B |  | Nitrile/ Polyamide/ Polyester | -40°F /+ 230°F -40°C /+ 110°C | <1.6 ft/s (0.5 m/s) | ≤5800 psi (≤ 400 bar) | H | D 62 |
| |  | STANDARD VEE SETS |  | Nylon/Hytrel/ Neo-Fabric | -40°F /+ 230°F -40°C /+ 110°C | <1.6 ft/s (0.5 m/s) | ≤10 000 psi (≤ 690 bar) | H | E 2 |

| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
|-----------------------------------|---|---|---|---|--|--|---|-----|-------------|
| INCH SIZE VEE PACKINGS |  | “HYDROLOCK” VEE SET |  | Hytrel/Nylon | -40°F /+ 250°F -40°C /+ 121°C | < 1.6 ft/s (0.5 m/s) | ≤6000 psi (≤ 414 bar) | H | E 9 |
| |  | “GUIDELOCKS” |  | Nylon | -40°F /+ 250°F -40°C /+ 121°C | < 1.6 ft/s (0.5 m/s) | N/A | H | E 11 |
| |  | VEE COIL |  | Neo-Fabric | -40°F /+ 230°F -40°C /+ 110°C | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤ 345 bar) | H | E 13 |
| INCH SIZE GUIDING ELEMENTS |  | W1, W2, W3 W4, WR |  | GF.Nylon | -65°F /+ 275°F -54°C /+ 135°C | N/A | N/A | H/P | F 2 |
| |  | CAT - PISTON GUIDING ELEMENT |  | GF.Nylon | -65°F /+ 275°F -54°C /+ 135°C | N/A | N/A | H/P | F 12 |
| |  | CAT - ROD GUIDING ELEMENT |  | GF.Nylon | -65°F /+ 275°F -54°C /+ 135°C | N/A | N/A | H/P | F 16 |
| |  | WS |  | Bronze BR.PTFE/ BR60 Polyester/ PR | -400°F /+550°F -240°C /+287°C -40°F /+ 250°F -40°C /+ 121°C | <50 ft/s (15 m/s) <3.3 ft/s (1 m/s) | N/A | H/P | F 18 |
| |  | “DU” BEARING |  | BR.PTFE/Steel | -328°F /+536°F -200°C /+280°C | <8.2 ft/s (2.5 m/s) dry <16 ft/s (5 m/s) lubricated | ≤44 000 psi (≤ 3035 bar) * Compressive strength | H | F 22 |
| |  | SBB |  | Carbon Chromium Steel (w/o Seals) | -58°F /+ 302°F -50°C /+ 150°C | N/A | N/A | H | F 26 |
| |  | SBB-2RS |  | Carbon Chromium Steel (with Seals) | -22°F /+ 266°F -30°C /+ 130°C | N/A | N/A | H | F 27 |

| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
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| INCH SIZE O'RINGS | MATERIAL SELECTION | | | | | | | | G 2 |
| | STATIC O'RING SEALING | | | | | | | | G 10 |
| | DYNAMIC O'RING SEALING | | | | | | | | G 12 |
| |  | 2-XXX |  | All compounds | | N/A | N/A | H/P | G 14 |
| | TUBE FITTING BOSS SEALS | | | | | | | | G 24 |
| |  | 3-XXX |  | All compounds | | N/A | N/A | H/P | G 25 |
| |  | O-RING CORD |  | All compounds | | N/A | N/A | H | G 26 |
| |  | QUAD-RING CORD |  | Nitrile 70A | -30 °F / +250 °F (-34 °C / +121 °C) | N/A | N/A | H/P | G 26 |
| |  | SQUARE-RING CORD |  | Nitrile 70A | -40 °F / +250 °F (-40 °C / +121 °C) | N/A | N/A | H/P | G 27 |
| |  | VULCANIZED O-RING |  | All compounds | | N/A | N/A | H/P | G 28 |




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| INCH SIZE O'RINGS |  | 8-XXX |  | All compounds | | N/A | N/A | H/P | G 29 |
| |  | CONTOURED BACK-UP RINGS |  | Nitrile | -40°F / +250°F (-40°C / +121°C) | N/A | N/A | H/P | G 30 |
| |  | BACK-UP RINGS POLYURETHANE |  | Polyurethane/ U | -65°F / +200°F (-54°C / +93°C) | < 1.6 ft/s (0.5 m/s) | N/A | H/P | G 35 |
| |  | BACK-UP RINGS PTFE SOLID |  | PTFE | -320°F / +450°F (-196°C / +232°C) | < 1.6 ft/s (0.5 m/s) | N/A | H/P | G 40 |
| |  | BACK-UP RINGS PTFE SPLIT |  | PTFE | -320°F / +450°F (-196°C / +232°C) | < 1.6 ft/s (0.5 m/s) | N/A | H/P | G 45 |
| |  | 8700 |  | Polymyte V.PTFE | -65°F / +275°F (-54°C / +135°C) -320°F / +450°F (-196°C / +232°C) | N/A | N/A | H | G 50 |
| |  | ED - DIN CONNECTOR RINGS |  | Nitrile Fluorocarbon Ethylene Propylene | -22°F / +212°F (-30°C / +100°C) -4°F / +392°F (-20°C / +200°C) -49°F / +302°F (-45°C / +150°C) | N/A | N/A | H | G 52 |
| |  | HEAD SEAL |  | Polyurethane | -40°F / +250°F (-40°C / +121°C) | N/A | ≤ 5000 psi (≤ 345 bar) | H | G 53 |
| |  | CAT O'RING KITS | | | | | | H | G 55 |
| | | CAT HOSE COUPLING SEALS |  | | | | | H | G 57 |

| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
|---|---|---|---|---|---|---------------|-------------------------|-----|-------------|
| INCH SIZE O'RINGS |  | SFS |  | Polyurethane AU 93A | -40 °F /+ 195 °F (-40 °C /+ 90 °C) | N/A | ≤3000 psi (≤207 bar) | H/P | G 58 |
| | PFS |  | -40 °F /+ 212 °F (-40 °C /+ 100 °C) | | ≤7250 psi (≤500 bar) | | | | |
| | BONDED SEAL TYPICAL APPLICATION AND REFERENCE CHART | | | | | | | | |
| |  | BS400 |  | Nitrile/ Carbon Steel | -30 °F /+ 225 °F (-34 °C /+ 107 °C) | N/A | N/A | H/P | G 61 |
| |  | BS400SC |  | Nitrile/ Carbon Steel | -30 °F /+ 225 °F (-34 °C /+ 107 °C) | N/A | N/A | H/P | G 62 |
| |  | 600 |  | Zinc Plated Steel/ Nitrile | -30 °F /+ 225 °F (-34 °C /+ 107 °C) | N/A | N/A | H/P | G 63 |
| |  | 7500 |  | Steel/Nitrile | -30 °F /+ 225 °F (-34 °C /+ 107 °C) | N/A | N/A | H/P | G 65 |
|  | PARKER ACCESSORIES | | | | | | | | G 66 |
|  | O'RING KITS AND ACCESSORIES | | | | | | | | G 68 |
| MISCELLANEOUS ACCESSORIES |  | CAPS & PLUGS | | | | | | H | H 2 |
| |  | ANTI-SEIZE |  | Aluminium Graphite Copper Graphite Nickel Graphite | -65 °F /+1600 °F (-54 °C /+ 871 °C) -65 °F /+ 1800 °F (-54 °C /+ 982 °C) -65 °F /+ 2600 °F (-54 °C /+ 1427 °C) | N/A | N/A | | H 8 |

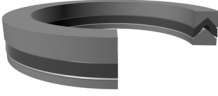













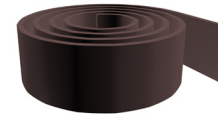

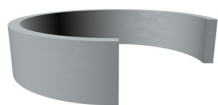

| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
|----------------------------------|---|------------------------|---|---------------------------|----------------------------------|------------------------|----------------|-----|-------------|
| MISCELLANEOUS ACCESSORIES |  | LOCK NUTS |  | with Nylon insert | N/A | N/A | N/A | H | H 9 |
| |  | RETAINING RINGS | | Carbon Steel | N/A | N/A | N/A | H | H 11 |
| METRIC SIZE ROD WIPERS |  | WA |  | Polyurethane AU 92A | -40°F /+212°F (-40°C /+100°C) | <2.6 ft/s (0.8 m/s) | N/A | H/P | I 2 |
| |  | WB |  | Polyurethane AU 90A & 92A | -40°F /+212°F (-40°C /+100°C) | <2.6 ft/s (0.8 m/s) | N/A | H/P | I 6 |
| |  | WC |  | Polyurethane AU 90A | -40°F /+212°F (-40°C /+100°C) | <2.6 ft/s (0.8 m/s) | N/A | H/P | I 8 |
| |  | WF |  | Polyurethane AU 94A | -40°F /+212°F (-40°C /+100°C) | <2.6 ft/s (0.8 m/s) | N/A | H | I 15 |
| |  | WG |  | Polyurethane AU 92A | -40°F /+212°F (-40°C /+100°C) | <2.6 ft/s (0.8 m/s) | N/A | H/P | I 17 |
| |  | WN |  | Nitrile/Steel | -40°F /+250°F (-40°C /+121°C) | <13 ft/s (4 m/s) | N/A | H/P | I 19 |
| |  | WO |  | Polyurethane/Steel | -40°F /+212°F (-40°C /+100°C) | <3.3 ft/s (1 m/s) | N/A | H | I 24 |
| |  | WR |  | Polyurethane/Steel | -40°F /+212°F (-40°C /+100°C) | <3.3 ft/s (1 m/s) | N/A | H | I 29 |



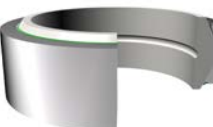

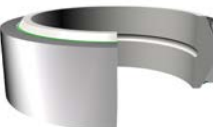









| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
|---------------------------|---|---------------|---|--|----------------------------------|-------------------------|---------------------------|-----|-------------|
| METRIC SIZE ROD WIPERS |  | WS |  | Polyurethane/ Steel | -40°F /+212°F (-40°C /+100°C) | <3.3 ft/s (1 m/s) | N/A | H | I 30 |
| |  | WT |  | Nitrile/Steel Polyurethane/ Steel/ | -40°F /+212°F (-40°C /+100°C) | N/A | N/A | H | I 33 |
| |  | WV |  | PTFE/Nitrile | -30°F /+130°F (-34°C /+54°C) | <50 ft/s (15 m/s) | N/A | H/P | I 37 |
| |  | WW |  | PTFE/Nitrile | -30°F /+130°F (-34°C /+54°C) | <50 ft/s (15 m/s) | N/A | H | I 39 |
| |  | PPW |  | Polyurethane AU 93A | -40°F /+212°F (-40°C /+100°C) | <2.6 ft/s (0.8 m/s) | N/A | H | I 42 |
| METRIC SIZE ROD SEALS |  | RA |  | Polyurethane AU 92A | -31°F /+212°F (-35°C /+100°C) | <1.6 ft/s (0.5 m/s) | ≤6000 psi (≤414 bar) | H | J 2 |
| |  | RA/N |  | Nitrile 90A | -40°F /+212°F (-30°C /+100°C) | <1.6 ft/s (0.5 m/s) | ≤2300 psi (≤160 bar) | H | J 10 |
| |  | RC |  | Polyurethane AU 93A | -40°F /+212°F (-40°C /+100°C) | <1.6 ft/s (0.5 m/s) | ≤5800 psi (≤400 bar) | H | J 14 |
| |  | RC/AER |  | Polyurethane/ Polyacetal | -40°F /+212°F (-40°C /+100°C) | <1.6 ft/s (0.5 m/s) | ≤10 000 psi (≤700 bar) | H | J 24 |
| |  | RE |  | Polyurethane/ Nitrile/ Polyacetal | -40°F /+212°F (-40°C /+100°C) | <1.5 ft/s (0.46 m/s) | ≤10 000 psi (≤700 bar) | H | J 26 |














| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
|--------------------------|---|----------------------------------|---|---------------------------------------|--|------------------------|---------------------------|-----|-------------|
| METRIC SIZE ROD SEALS |  | RH |  | Polyurethane AU 94A/ Polyacetal | -30°F /+230°F (-34°C /+110°C) | <3.3 ft/s (1 m/s) | ≤8500 psi (≤584 bar) | H | J 28 |
| |  | RV |  | Nitrile/ Neo-Fabric/ Polyacetal | -22°F /+230°F (-30°C /+110°C) | <1.6 ft/s (0.5 m/s) | ≤10 000 psi (≤700 bar) | H | J 30 |
| |  | RX |  | BR.PTFE/ Nitrile | -22°F /+212°F (-30°C /+100°C) | <16 ft/s (5 m/s) | ≤5800 psi (≤400 bar) | H | J 33 |
| |  | RZ |  | BR.PTFE/ Nitrile | -22°F /+212°F (-30°C /+100°C) | <16 ft/s (5 m/s) | ≤5800 psi (≤400 bar) | H | J 37 |
| |  | R5/U |  | Polyurethane AU 93A | -31°F /+176°F (-35°C /+80°C) | <3.3 ft/s (1 m/s) | ≤300 psi (≤20 bar) | P | J 40 |
| |  | R12 |  | Nylon/PTFE/ NBR | 40°F /+220°F (-40°C /+104°C) | <3 ft/s (0.9 m/s) | ≤5 000 psi (≤345 bar) | H | J 41 |
| |  | R16 |  | BR.PTFE/ Nitrile | -30°F /+250°F (-34°C /+121°C) | <3.3 ft/s (1 m/s) | ≤5000 psi (≤345 bar) | H | J 42 |
| |  | R19 |  | Polyurethane AU 94A | -22°F /+212°F (-30°C /+100°C) | <1.6 ft/s (0.5 m/s) | ≤4400 psi (≤300 bar) | H | J 45 |
| |  | SD/N, ST/N SD/T, ST/T |  | /N - Nylon /T - BR.PTFE | -40°F /+250°F (-40°C /+121°C) -40°F /+250°F (-40°C /+121°C) | | N/A | H | J 46 |
| |  | A |  | Polyurethane AU 93A | -40°F /+212°F (-40°C /+100°C) | <1.6 ft/s (0.5 m/s) | ≤5800 psi (≤400 bar) | H | K 2 |

| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
|--------------------------------------|---|-------------|---|----------------------------|------------------------------------|-------------------------|-------------------------|-----|-------------|
| METRIC SIZE SYMMETRICAL SEALS |  | A/N |  | Nitrile 90A | -22°F /+212°F (-30°C /+100°C) | < 1.6 ft/s (0.5 m/s) | ≤250 psi (≤17 bar) | H/P | K 14 |
| |  | B |  | Polyurethane/ Nitrile | -50°F /+230°F (-45°C /+110°C) | < 1.6 ft/s (0.5 m/s) | ≤5000 psi (≤345 bar) | H | K 29 |
| METRIC SIZE PISTON SEALS |  | PB |  | Polyurethane AU 93A | -40°F /+212°F (-40°C /+100°C) | < 1.6 ft/s (0.5 m/s) | ≤5800 psi (≤400 bar) | H | L 2 |
| |  | PB-1 |  | Polyurethane AU 93A | -31°F /+176°F (-35°C /+80°C) | <3.3 ft/s (1 m/s) | ≤290 psi (≤20 bar) | H/P | L 9 |
| |  | PB/N |  | Nitrile 85A | -22°F /+212°F (-30°C /+100°C) | < 1.6 ft/s (0.5 m/s) | ≤2300 psi (≤160 bar) | H/P | L 11 |
| |  | PH |  | Nitrile/Nylon | -20°F /+220°F (-29°C /+104°C) | < 1.6 ft/s (0.5 m/s) | ≤3000 psi (≤205 bar) | H | L 17 |
| |  | PR |  | Neo-Fabric/ Polyamide | -22°F /+212°F (-30°C /+100°C) | < 1.6 ft/s (0.5 m/s) | ≤7250 psi (≤500 bar) | H | L 18 |
| |  | KR |  | Polyacetal | -40°F /+230°F (-40°C /+110°C) | N/A | N/A | H/P | L 20 |
| |  | PZ |  | Cast or ductile Iron | -450°F /+450°F (-268°C /+232°C) | N/A | N/A | H | L 21 |
| |  | PZ/B |  | Brass | -450°F /+450°F (-268°C /+232°C) | N/A | N/A | | L 22 |

| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
|-----------------------------|---|-------------------|---|-------------------------------------|------------------------------------|-------------------------|---------------------------|-----|-------------|
| METRIC SIZE PISTON SEALS |  | P1B |  | Nitrile/Steel | -22°F /+ 212°F (-30°C /+ 100°C) | <3.3 ft/s (1 m/s) | ≤580 psi (≤40 bar) | H/P | L 24 |
| |  | P1B-1 |  | Nitrile/Steel | -30°F /+ 230°F (-34°C /+ 110°C) | <12 ft/s (3.7 m/s) | ≤5800 psi (≤400 bar) | H | L 25 |
| |  | P2B |  | PTFE/Nitrile | -40°F /+ 225°F (-40°C /+ 107°C) | <50 ft/s (15 m/s) | ≤5000 psi (≤345 bar) | H | L 27 |
| |  | ST/N |  | Nylon | -40°F /+220°F (-40°C /+104°C) | N/A | N/A | H | L30 |
| |  | P2B/U |  | Polyurethane/ Nitrile | -22°F /+ 212°F (-30°C /+ 100°C) | <1.6 ft/s (0.5 m/s) | ≤5800 psi (≤400 bar) | H | L 31 |
| |  | P2E |  | Polyurethane/ Nitrile | -22°F /+ 212°F (-30°C /+ 100°C) | <1.5 ft/s (0.46 m/s) | ≤5800 psi (≤400 bar) | H | L 33 |
| |  | P2G |  | Nylon/Nitrile | -22°F /+ 230°F (-30°C /+ 110°C) | <3.3 ft/s (0.1 m/s) | ≤11 600 psi (≤800 bar) | H | L 34 |
| |  | P3C |  | Neo-Fabric/ Acetal | -22°F /+ 212°F (-30°C /+ 100°C) | <1.6 ft/s (0.5 m/s) | ≤6000 psi (≤414 bar) | H | L 36 |
| |  | P4A |  | GF/M.PTFE/ Nylon/ Nitrile | -40°F /+ 250°F (-40°C /+ 121°C) | <5 ft/s (1.5 m/s) | ≤6500 psi (≤400 bar) | H | L 37 |
| |  | P5B, P5B-1 |  | Nitrile/ Polyamide/ Polyester | -40°F /+ 230°F (-40°C /+ 110°C) | <1.6 ft/s (0.5 m/s) | ≤5800psi (≤400 bar) | H/P | L 39 |

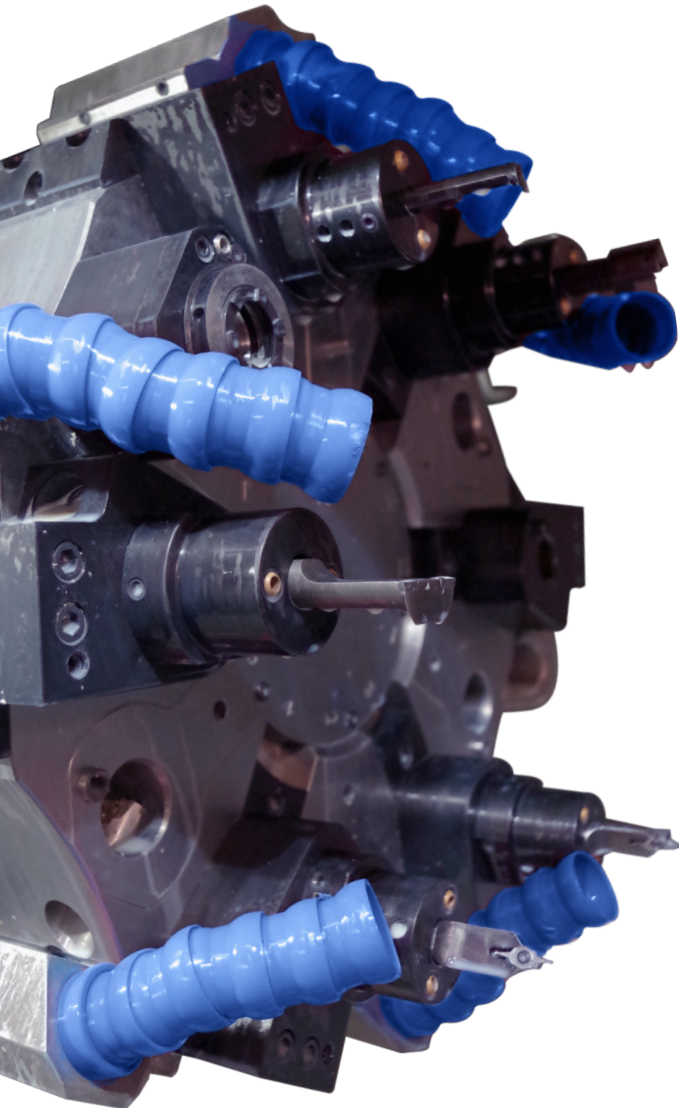
| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page | |
|---|---|---|---|---|--|--|--|-----|-------------|-------------|
| METRIC SIZE V PACKINGS |  | V1 |  | Neo-Fabric/ Polyamide/ Nitrile | -22°F /+230°F (-30°C /+110°C) | <1.6 ft/s (0.5 m/s) | ≤3626 psi (≤250 bar) | H | M 2 | |
| |  | V3 |  | Neo-Fabric/ Polyamide/ Nitrile | -22°F /+230°F (-30°C /+110°C) | <1.6 ft/s (0.5 m/s) | 5800 psi (400 bar) | H | M 4 | |
| METRIC SIZE GUIDING ELEMENTS |  | GB |  | BR.PTFE | -50°F /+400°F (-46°C /+204°C) | <13 ft/s (4 m/s) | N/A | H/P | N 3 | |
| |  | GB/N |  | GF.Nylon | -40°F /+250°F (-40°C /+121°C) | <3 ft/s (0.9 m/s) | N/A | H | N 5 | |
| |  | CAT - PISTON GUIDING ELEMENT |  | Nylon | -40°F /+250°F (-40°C /+121°C) | N/A | N/A | H/P | N 11 | |
| |  | CAT - ROD GUIDING ELEMENT |  | GF.Nylon | -65°F /+275°F (-54°C /+135°C) | N/A | N/A | H/P | N 12 | |
| |  | GC |  | Phenolic | -10°F /+250°F (-23°C /+121°C) | <3 ft/s (0.9 m/s) | ≤250 psi (≤17 bar) * Compressive strength | H | N 13 | |
| |  | WS |  | Bronze BR.PTFE/ BR60 Polyester/ PR | -400°F /+550°F (-240°C /+287°C) -40°F /+250°F (-40°C /+121°C) | <50 ft/s (15 m/s) <3.3 ft/s (1 m/s)a | N/A | H/P | N 31 | |
| | “DU” REFERENCE TABLE | | | | | | | | | N 33 |
| |  | “DU” BEARINGS |  | BR.PTFE/Steel | -328°F /+536°F (-200°C /+280°C) | <8.2 ft/s (2.5 m/s) dry <16 ft/s (5 m/s) lubricated | ≤44 000 psi (≤3035 bar) * Compressive strength | H | N 33 | |

| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
|---|---|---------------------------|---|---|--|----------------------|---------------------------|-----|-------------|
| METRIC SIZE GUIDING ELEMENTS |  | GE |  | Nylon | -67°F /+250°F (-55°C /+121°C) | <3.3 ft/s (1 m/s) | ≤5000 psi (≤344 bar) | H | N 43 |
| |  | GE-ES2RS |  | Steel | -22°F /+266°F (-30°C /+130°C) | N/A | N/A | H | N 45 |
| |  | GE-GS2RS |  | Steel | -22°F /+266°F (-30°C /+130°C) | N/A | N/A | H | N 46 |
| METRIC SIZE O'RINGS | MATERIAL SELECTION | | | | | | | | O 2 |
| | O'RING INSTALLATION DIMENSIONS | | | | | | | | O 3 |
| |  | METRIC O'RINGS |  | Nitrile 70, Nitrile 90A Fluorocarbon 80A | -40°F /+266°F (-40°C /+130°C) -13°F /+428°F (-25°C /+220°C) | | | H/P | O 10 |
| | O'RING CHART JIS B2401 | | | | | | | | O 83 |
| |  | O'RINGS JIS METRIC |  | Nitrile 90A | -10°F /+250°F (-23°C /+121°C) | <3.3 ft/s (1 m/s) | ≤250 psi (≤17 bar) | H/P | O 85 |
| |  | QUAD RINGS |  | Nitrile 70A | -30°F /+230°F (-45°C /+110°C) | <3.3 ft/s (1 m/s) | ≤10 000 psi (≤700 bar) | H/P | O 88 |
| |  | HEAD SEAL |  | Polyurethane | -10°F /+250°F (-23°C /+121°C) | N/A | ≤5000 psi (≤345 bar) | H | O 91 |

| | Product Image | Series | Profile | Material | Temperature Range | Surface Speed | Pressure Range | H/P | Page |
|-----------------------------------|---|--|---|--|--|---------------|----------------|-----|----------------|
| METRIC SIZE O'RINGS |  | O'RING CORD |  | All compounds | | N/A | N/A | H/P | 0 94 |
| |  | VULCANIZED O'RINGS |  | Nitrile 70A Fluorocarbon 75 | N/A | N/A | N/A | H/P | 0 94 |
| |  | O'RING KITS | | | N/A | | N/A | H/P | 0 95 |
| |  | SD/T - BACK-UP RINGS |  | V.PTFE | -320°F /+ 450°F (-196°C /+ 232°C) | N/A | N/A | H/P | 0 96 |
| |  | SD/U - BACK-UP RINGS |  | Polyurethane AU 95A | -40°F /+ 195°F (-40°C /+ 91°C) | N/A | N/A | H/P | 0 99 |
| |  | USIT RINGS |  | Carbon Steel/ Nitrile/ Carbon Steel/ Fluorocarbon | -65°F /+ 225°F (-15°C /+ 107°C) -15°F /+ 400°F (-26°C /+ 205°C) | N/A | N/A | H/P | 0 101 |
| |  | USIT RINGS SELF CENTERING |  | Carbon Steel/ Nitrile/ Carbon Steel/ Fluorocarbon | -65°F /+225°F (-54°C /+107°C) -15°F /+ 400°F (-26°C /+ 205°C) | N/A | N/A | H/P | 0 103 |
| USIT RINGS REFERENCE TABLE | | | | | | | | | 0 104 |
| TECHNICAL INFORMATION | PARKER MATERIAL OVERVIEW | | | | | | | | Tech 2 |
| | FREUDENBERG-NOK MATERIAL OVERVIEW | | | | | | | | Tech 10 |
| | ISO METRIC TOLERANCE CHART | | | | | | | | Tech 12 |
| | O'RING SIZE CHART - INCH | | | | | | | | Tech 20 |
| | CONVERSION TABLE INCH/METRIC | | | | | | | | Tech 22 |

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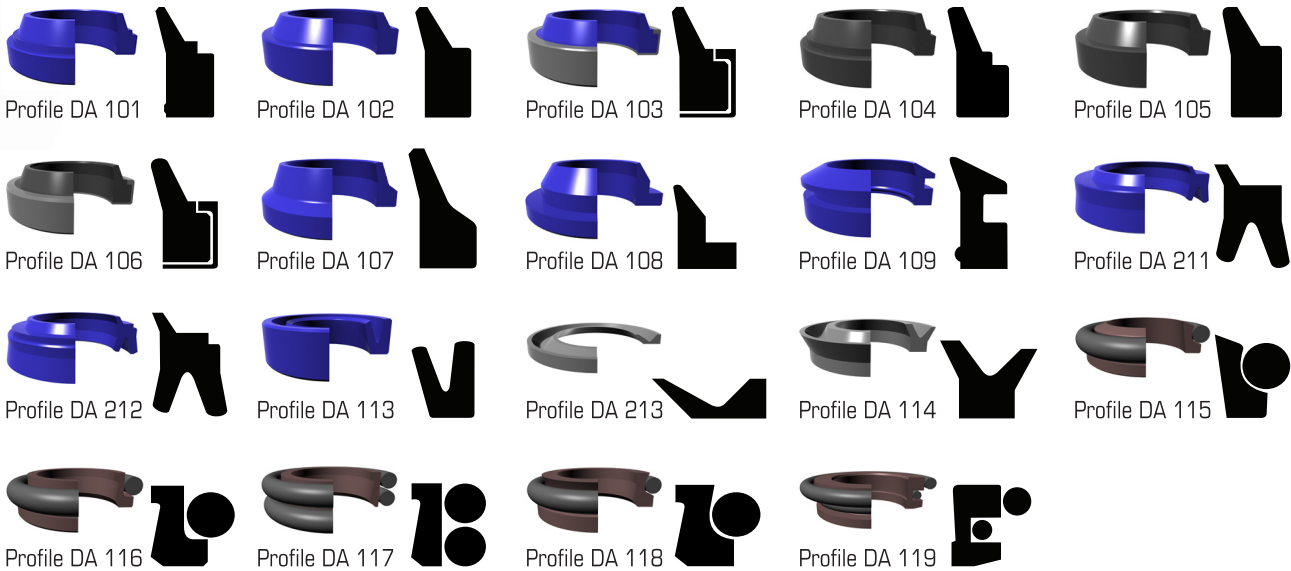
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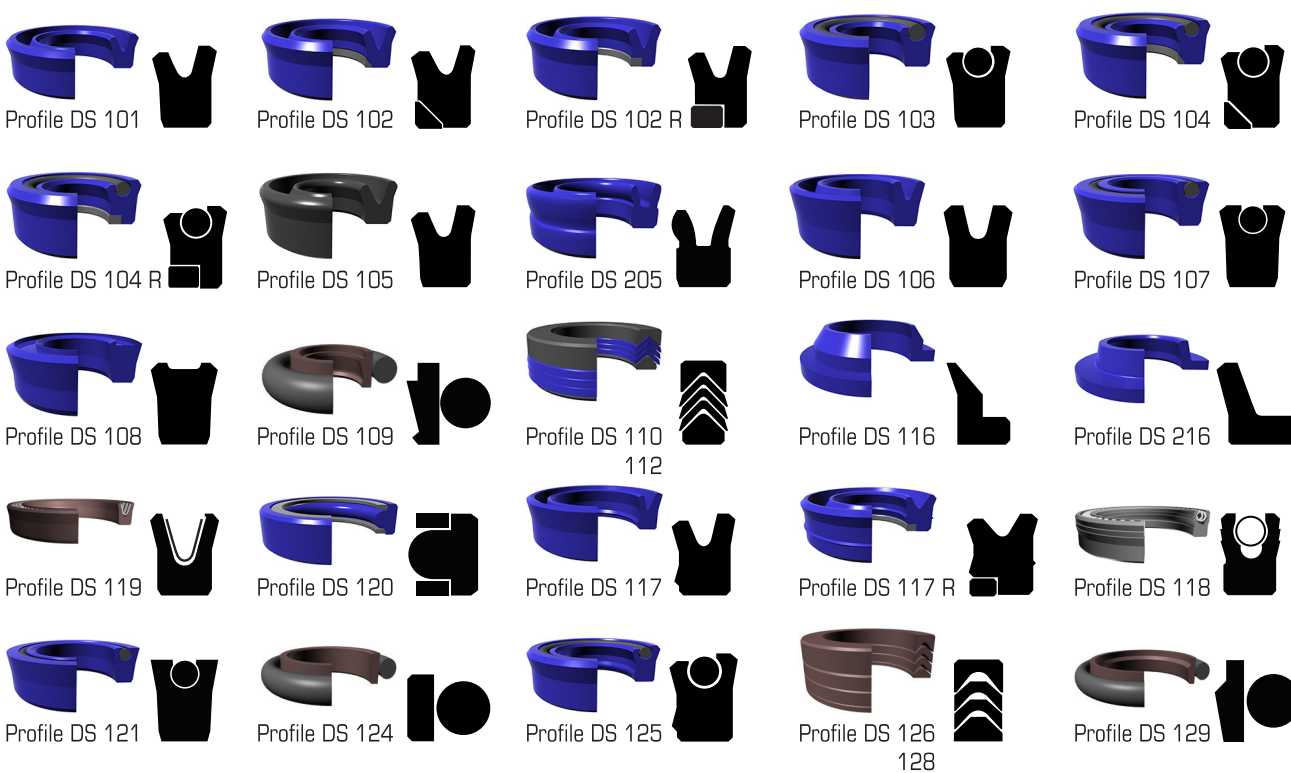


Contact us for more information!

Rod Wipers



Rod Seals



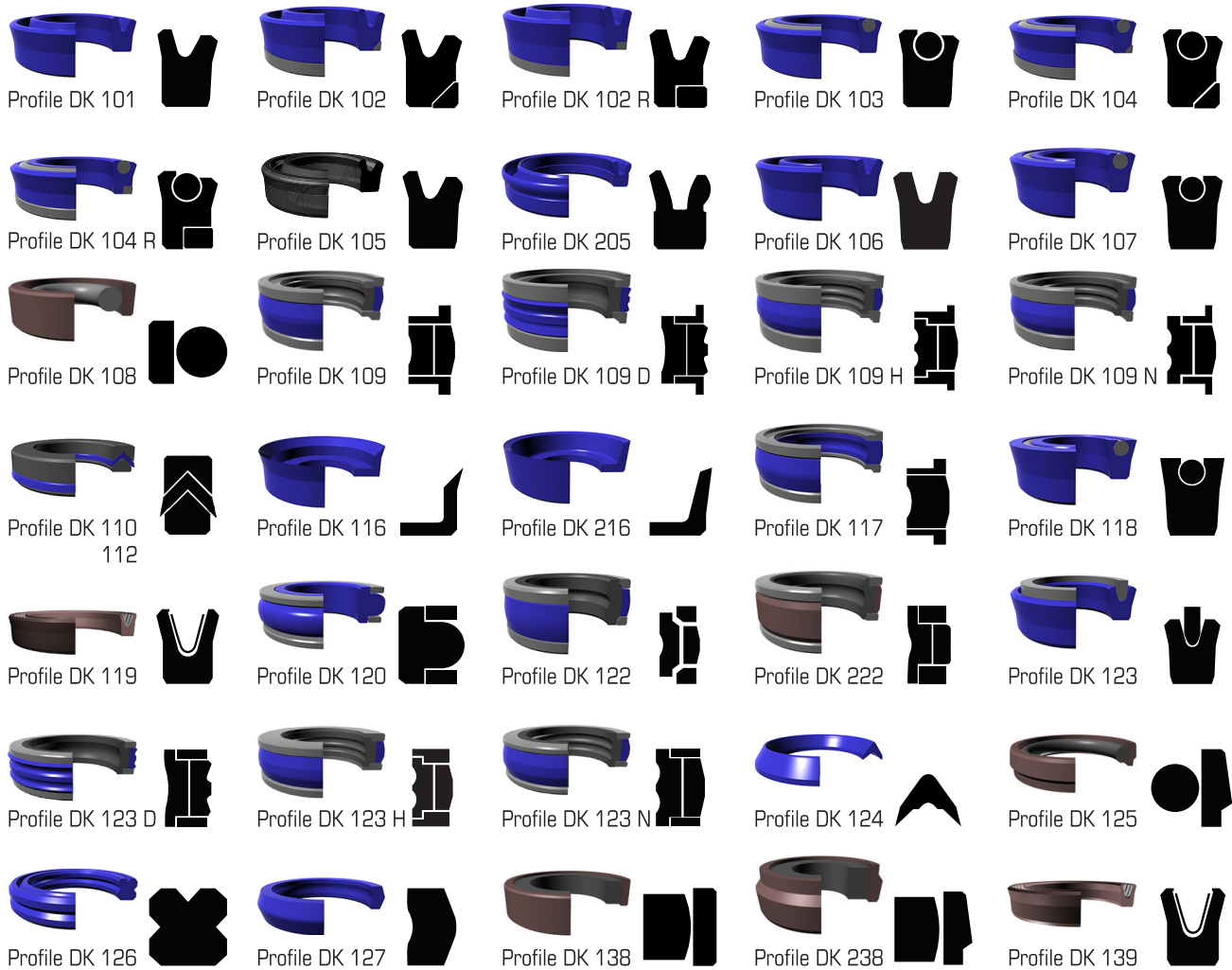
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Profile Guide

Rod Seals



Piston Seals



Piston Seals



Profile DK 140



Profile DK 141



Profile DK 142



Profile DK 143



Profile DK 144



Profile DK 145



Profile DK 150



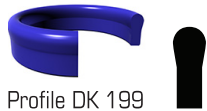
Profile DK 151



Profile DK 153

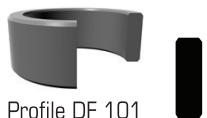


Profile DK 154



Profile DK 199

Guide Rings



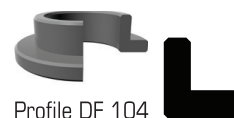
Profile DF 101



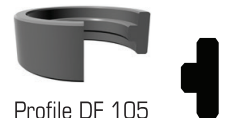
Profile DF 102



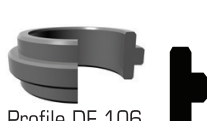
Profile DF 103



Profile DF 104



Profile DF 105



Profile DF 106



Profile DF 107



Profile DF 108



Profile DFB 102

Back-up Rings



Profile DST 108



Profile DST 109



Profile DST 110



Profile DST 111



Profile DST 112



Profile DST 113

XPRESS

Profile Guide

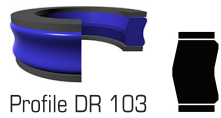
Rotary Seals



Profile DR 101



Profile DR 102



Profile DR 103



Profile DR 104



Profile DR 105



Profile DA 106



Profile DR 107



Profile DR 108



Profile DR 109



Profile DR 110



Profile DR 111



Profile DR 112



Profile DR 115



Profile DR 116



Profile DR 117



Profile DR 118



Profile DR 119



Profile DR 121



Profile DR 201



Profile DR 202



Profile DR 203



Profile DR 204



Profile DR 205



Profile DR 206



Profile DR 207

Miscellaneous Seals



Profile DFL 101



Profile DFL 102



Profile DFL 103



Profile DFL 104



Profile DFL 105



Profile DFL 106



Profile DFL 107



Profile DFL 108



Profile DFL 109



Profile DFL 110



Profile DFL 111

MATERIALS GUIDE

| Material Data | | | | Material Type | | | | | |
|--------------------------------------|------------------------|-------------------|----------|---------------|-----------|---------|----------------|-----------------|-----------------|
| Property | Measurement Conditions | Unit of measure | DIN | Polyurethane | | | | | |
| | | | | 94 AU 30000 | 94 AU 925 | HPU FDA | 93 AU V167 FDA | 93 AU 21730 FDA | 94 AU 21420 FDA |
| Color | | | | blue | blue | red | red | blue | red |
| Specific Gravity | | g/cm ³ | 53 479 | 1.17 | 1.18 | 1.20 | 1.21 | 1.19 | - |
| Hardness | | shore A | 53 505 | 94 | 94 | 94 | 93 | 94 | - |
| | | shore D | 53 505 | 46 | 43 | - | 47 | 45 | - |
| Extension Modulus | 100% elongation | N/mm ² | 53 455 | - | - | 16 | 13.5 | 15 | 15 |
| Tensile strength | | N/mm ² | 53 455 | 62 | 64 | 60 | 50 | 62 | 50 |
| Elongation | | % | 53 455 | 550 | 470 | 430 | 397 | 420 | 350 |
| Tear Strength | | KN/m | 53 515 | - | 95 | - | - | - | - |
| | | KN/m | ISO 31-1 | - | - | 150 | 110 | 107 | 110 |
| Resilience | | % | 53 512 | - | - | 35 | - | - | - |
| Abrasion | | mm ³ | 53 516 | - | - | 17 | - | - | - |
| E-Modulus Strength | | N/mm ² | 53 517 | - | - | - | - | - | - |
| Compression Set | 20°C/24 hours | % | ISO 815 | 20 | - | - | - | - | - |
| | 70°C/22 hours | % | ISO 815 | - | 23 | - | 27 | 28 | 27 |
| | 70°C/70 hours | % | ISO 815 | - | - | 28 | - | - | - |
| | 70°C/100 hours | % | ISO 815 | 49 | - | - | - | - | - |
| | 100°C/22 hours | % | ISO 815 | - | - | - | 34 | 38 | 33 |
| | 150°C/22 hours | % | ISO 815 | - | - | - | - | - | - |
| | 175°C/22 hours | % | ISO 815 | - | - | - | - | - | - |
| Temperature, minimum | | °C | | -35°C | -30°C | -20°C | -20°C | -25°C | -20°C |
| | | °F | | -31°F | -22°F | -4°F | -4°F | -13°F | -4°F |
| Temperature, maximum | | °C | | +120°C | +110°C | +110°C | +110°C | +100°C | +110°C |
| | | °F | | +248°F | +230°F | +230°F | +230°F | 212°F | +230°F |
| Temperature, max. water/steam | | °C | | - | - | +80°C | - | - | - |
| | | °F | | - | - | -112°F | - | - | - |
| Temperature, max. hot air | | °C | | - | - | - | - | - | - |
| | | °F | | - | - | - | - | - | - |

MATERIALS GUIDE

| Material Type | | | | | | | | | |
|------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------------|---------------------|------------------|-------------------|------------------|
| NBR | H-NBR | FKM | EPDM | Silicone | PTFE virgin | PTFE glass/ moS2 | PTFE bronze | FQN polyacetal | PA polyamide |
| black | green | brown | black | blue | white | gray | bronze | white/black | natural/black |
| 1.23 | 1.32 | 2.51 | 1.23 | 1.60 | 2.16 | 2.30 | 3.20 | 1.41 | 1.13 |
| 85 | 85 | 85 | 85 | 85 | - | - | - | - | - |
| - | - | - | - | - | 55 | 63 | 69 | 85 | 85 |
| 11 | 9.7 | 10 | 9.2 | - | - | - | - | - | - |
| 17 | 19.5 | 14 | 14 | 7.5 | 27 | 15 | 14 | 70 | 80 |
| 150 | 245 | 200 | 130 | 150 | 350 | 280 | 170 | 40 | 40 |
| - | - | - | - | - | - | - | - | - | - |
| 9 | 6 | 6 | 9 | 12 | - | - | - | - | - |
| 20 | 30 | 7 | 34 | 35 | - | - | - | - | - |
| 130 | 110 | 200 | 108 | - | - | - | - | - | - |
| - | - | - | - | - | 540 | 1350 | 1375 | 3000 | 3000 |
| - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - |
| - | - | - | 24 | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - |
| 9 | 21.1 | 5 | 18 | - | - | - | - | - | - |
| - | 27.7 | 6 | 20 | - | - | - | - | - | - |
| - | - | 7.7 | - | 34 | - | - | - | - | - |
| -30°C -22°F | -20°C -4°F | -20°C -4°F | -45°C -49°F | -60°C -76°F | -200°C -328°F | -200°C -328°F | -200°C -328°F | -45°C -49°F | -40°C -49°F |
| +110°C +230°F | +150°C +302°F | +220°C +428°F | +130°C +266°F | +200°C +392°F | +260°C +500°F | +260°C +500°F | +260°C +500°F | +100°C +212°F | +110°C +230°F |
| - | +130°C +266°F | +150°C +302°F | +150°C +302°F | +120°C +248°F | - | - | - | - | - |
| - | +180 short +356 short | +300 short +572 short | +180 short +356 short | +300 short +572 short | - | - | - | - | - |

MANUFACTURING SERVICES

Vulcanizing Center

Our vulcanizing center offers you an economical and fast solution for your non-standard and large diameter o'ring requirements. With the use of standard cord stock, vulcanized O'rings offer you a dimensionally custom-made solid ring using a hot-bonded process. The splice-and jointed area of the ring offers full flexibility and allows for a reliable sealing performance.

We carry an extensive inventory of standard o'ring cord in both inch and metric cross-section, We also have access to a large variety of materials, other standard shapes of cord and tubing as well as custom made extruded profiles.

For available coumpound and cross sections please refer to catalogue page **G28** (inch) or **094** (Metric)



Precision Split Oil Seal

We offer split-to-measure oil seals for rapid on-site installation without requiring equipment disassembly.

Split Vee-Packings Sets

Our pre-cut vee-packing sets allow for quick turnaround time for seal assemblies that are of non-standard diameters or of oversized dimensions.



MANUFACTURING SERVICES

Cut gaskets



Our gasket cutting facility offers you precut gaskets in a variety of brand names, materials and manufacturing processes.

Materials :

Rubber
Polyurethane
Non-Asbestos
PTFE
Cork
Felt
Sponge
Foam
Expanded PTFE
And more

Services :

Die cutting services
Hand cutting services
Custom stripping
Short yardage

All our gaskets are made to the customer's exact specification. We also offer design and engineering assistance in order to assist you in finding the best solution for each of your gasketing requirements.



Custom kitting and labeling

Custom kitting, boxing and labeling is available to facilitate your assembly line or your aftermarket sales network. Our custom labeling can also include your corporate logo, part numbers, or any other personalized identification.



Engineering / Technical support

Our technical representatives are there to help you in your design or solving your applications problems.

With our expertise, large product offering and renowned supplier we have the solution.

We can also offer to our customer product-training seminars and we have regional training programs that are scheduled on a continuous basis.

Emergency 24/7

We are there when it matters!

Emergency service 24/7 available at certain locations.

Please contact us for more details, minimum service fees apply.



Customer Service

Since 1981, we are dedicated to outstanding customer service qualified employees will be happy meet your requirements. From urgent daily orders to custom solutions we are ready to meet the challenge.

Inventory

We service our customers from seven strategic locations stocked with over 44,000 items in 70,000 square feet of national warehouse space.



Quality products

We are proud to represent world-renown leaders in the field of industrial sealing as their franchised distributor, insuring our customers that the products that we distribute and manufacture are the best quality found in the industry today. We have rigorous quality standard our suppliers are required to meet, exceed strict inspections for tolerance and material standards.

Sealing Solutions

Website

Technical library
Catalogs
Brochure

Links to our main suppliers
for more technical info

Online inventory/purchasing

The screenshot shows the website's navigation bar with a 'Shop Here!' button and links for Home, Parts, About us, Markets, Services, Downloads, Useful Links, and Emergency 24/7. Below the navigation bar is a large image of various seals and O-rings. The main content area features four icons: 'PRODUCTS' (gears), 'DID YOU KNOW?' (lightbulb), 'SERVICES' (wrench and gear), and 'PROMOTIONS' (dollar sign). At the bottom, there is a video player with a play button, the Parker logo, and the text 'PREFERRED DISTRIBUTOR FREUDENBERG-NOK'.

Video

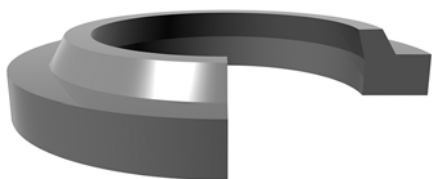
www.sealsonline.com



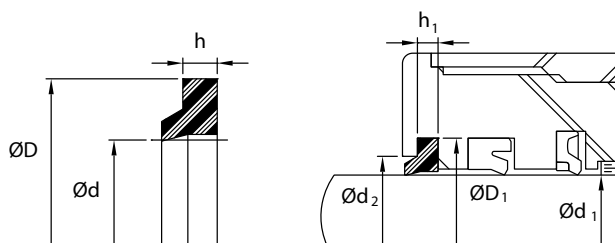


| | | | |
|--|------------------|---|----|
| | AN | A | 2 |
| | D | A | 5 |
| | H | A | 8 |
| | K | A | 10 |
| | D & K WIPER CORD | A | 12 |
| | EX1 | A | 13 |
| | EX2 EX5 | A | 16 |
| | BW/S | A | 19 |
| | J | A | 22 |
| | J/N | A | 26 |
| | J/DL | A | 28 |

AN - Rod wipers - Inch



| Standard Material | Temperature Range | Surface Speed |
|-------------------|-------------------------------------|----------------------|
| Polyurethane | -65°F to +200°F (-54°C to +93°C) | < 1.6 ft/s (0.5 m/s) |



AN-style rod wipers are designed to ensure proper fit with all MS-28776 (MS-33675) dash size grooves. The slotted heel design (when available) prevents pressure traps from forming between the rod seal and wiper. This profile of wiper requires very little radial or axial space. This is why they are ideal in light to medium duty hydraulic and pneumatic applications where such space constraints are present.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | d2 | Tol. | D1 | Tol. | h1 | Tol. |
| AN-01 | 0.500 | +0.000 -0.002 | 0.500 | 0.766 | 0.104 | 0.647 | +0.005 -0.000 | 0.760 | +0.004 -0.000 | 0.107 | +0.003 -0.003 |
| AN-02 | 0.562 | | 0.562 | 0.829 | 0.104 | 0.710 | | 0.823 | | 0.107 | |
| AN-03 | 0.625 | | 0.625 | 0.891 | 0.104 | 0.772 | | 0.885 | | 0.107 | |
| AN-04 | 0.687 | | 0.687 | 0.954 | 0.104 | 0.834 | | 0.948 | | 0.107 | |
| AN-05 | 0.750 | | 0.750 | 1.016 | 0.104 | 0.897 | | 1.010 | | 0.107 | |
| AN-06 | 0.812 | | 0.812 | 1.090 | 0.104 | 0.960 | | 1.084 | | 0.107 | |
| AN-07 | 0.875 | | 0.875 | 1.153 | 0.104 | 1.023 | | 1.147 | | 0.107 | |
| AN-08 | 0.937 | | 0.937 | 1.215 | 0.104 | 1.085 | | 1.209 | | 0.107 | |
| AN-09 | 1.000 | | 1.000 | 1.278 | 0.104 | 1.148 | | 1.272 | | 0.107 | |
| AN-10 | 1.062 | | 1.062 | 1.340 | 0.104 | 1.210 | | 1.334 | | 0.107 | |
| AN-11 | 1.125 | | 1.125 | 1.403 | 0.104 | 1.273 | | 1.397 | | 0.107 | |
| AN-12 | 1.187 | | 1.187 | 1.465 | 0.104 | 1.335 | | 1.459 | | 0.107 | |
| AN-13 | 1.250 | | 1.250 | 1.528 | 0.104 | 1.398 | | 1.522 | | 0.107 | |
| AN-14 | 1.312 | | 1.312 | 1.622 | 0.104 | 1.480 | | 1.614 | | 0.107 | |
| AN-15 | 1.375 | | 1.375 | 1.685 | 0.104 | 1.542 | | 1.677 | | 0.107 | |
| AN-16 | 1.437 | | 1.437 | 1.747 | 0.104 | 1.605 | | 1.739 | | 0.107 | |
| AN-17 | 1.500 | | 1.500 | 1.810 | 0.104 | 1.668 | | 1.802 | | 0.107 | |
| AN-M | 1.562 | | 1.562 | 1.872 | 0.104 | 1.730 | | 1.864 | | 0.107 | |
| AN-18 | 1.625 | | 1.625 | 1.935 | 0.104 | 1.793 | | 1.927 | | 0.107 | |
| AN-19 | 1.750 | | 1.750 | 2.060 | 0.104 | 1.918 | | 2.052 | | 0.107 | |
| AN-A | 1.812 | | 1.812 | 2.123 | 0.104 | 1.981 | | 2.115 | | 0.107 | |
| AN-20 | 1.875 | ▼ | 1.875 | 2.185 | 0.104 | 2.043 | ▼ | 2.177 | ▼ | 0.107 | ▼ |

AN series - AU 90A



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | d2 | Tol. | D1 | Tol. | h1 | Tol. |
| AN-21 | 2.000 | +0.000 -0.002 | 2.000 | 2.310 | 0.104 | 2.178 | +0.005 -0.000 | 2.302 | +0.004 -0.000 | 0.107 | +0.003 -0.003 |
| AN-B | 2.062 | | 2.062 | 2.373 | 0.104 | 2.241 | | 2.365 | | 0.107 | |
| AN-22 | 2.125 | | 2.125 | 2.435 | 0.104 | 2.303 | | 2.427 | | 0.107 | |
| AN-23 | 2.250 | | 2.250 | 2.560 | 0.104 | 2.428 | | 2.552 | | 0.107 | |
| AN-C | 2.312 | | 2.312 | 2.622 | 0.104 | 2.490 | | 2.614 | | 0.107 | |
| AN-24 | 2.375 | | 2.375 | 2.685 | 0.104 | 2.553 | | 2.677 | | 0.107 | |
| AN-CC | 2.437 | | 2.437 | 2.748 | 0.104 | 2.616 | | 2.740 | | 0.107 | |
| AN-25 | 2.500 | | 2.500 | 2.810 | 0.104 | 2.678 | | 2.802 | | 0.107 | |
| AN-D | 2.562 | | 2.562 | 2.873 | 0.104 | 2.741 | | 2.865 | | 0.107 | |
| AN-26 | 2.625 | | 2.625 | 2.999 | 0.119 | 2.834 | | 2.989 | | 0.122 | |
| AN-27 | 2.750 | | 2.750 | 3.124 | 0.119 | 2.959 | | 3.114 | | 0.122 | |
| AN-28 | 2.875 | | 2.875 | 3.249 | 0.119 | 3.084 | | 3.239 | | 0.122 | |
| AN-29 | 3.000 | | 3.000 | 3.374 | 0.119 | 3.209 | | 3.364 | | 0.122 | |
| AN-30 | 3.125 | | 3.125 | 3.499 | 0.119 | 3.334 | | 3.489 | | 0.122 | |
| AN-31 | 3.250 | | 3.250 | 3.624 | 0.119 | 3.459 | | 3.614 | | 0.122 | |
| AN-32 | 3.375 | | 3.375 | 3.749 | 0.119 | 3.584 | | 3.739 | | 0.122 | |
| AN-33 | 3.500 | | 3.500 | 3.874 | 0.119 | 3.709 | | 3.864 | | 0.122 | |
| AN-34 | 3.625 | | 3.625 | 3.999 | 0.119 | 3.834 | | 3.989 | | 0.122 | |
| AN-35 | 3.750 | | 3.750 | 4.124 | 0.119 | 3.959 | | 4.114 | | 0.122 | |
| AN-36 | 3.875 | | 3.875 | 4.249 | 0.119 | 4.084 | | 4.239 | | 0.122 | |
| AN-37 | 4.000 | | 4.000 | 4.439 | 0.135 | 4.240 | | 4.427 | | 0.138 | |
| AN-38 | 4.125 | | 4.125 | 4.564 | 0.135 | 4.365 | | 4.552 | | 0.138 | |
| AN-39 | 4.250 | ▼ | 4.250 | 4.689 | 0.135 | 4.490 | | 4.677 | ▼ | 0.138 | |
| AN-40 | 4.375 | +0.000 -0.003 | 4.375 | 4.814 | 0.135 | 4.615 | | 4.802 | +0.005 -0.000 | 0.138 | |
| AN-41 | 4.500 | | 4.500 | 4.939 | 0.135 | 4.740 | | 4.927 | | 0.138 | |
| AN-42 | 4.625 | | 4.625 | 5.064 | 0.135 | 4.865 | | 5.052 | | 0.138 | |
| AN-43 | 4.750 | | 4.750 | 5.189 | 0.135 | 4.990 | | 5.177 | | 0.138 | |
| AN-44 | 4.875 | | 4.875 | 5.314 | 0.135 | 5.115 | | 5.302 | | 0.138 | |
| AN-45 | 5.000 | | 5.000 | 5.439 | 0.135 | 5.240 | | 5.427 | | 0.138 | |
| AN-46 | 5.125 | | 5.125 | 5.564 | 0.135 | 5.365 | | 5.552 | | 0.138 | |
| AN-47 | 5.250 | | 5.250 | 5.689 | 0.135 | 5.490 | | 5.677 | | 0.138 | |
| AN-48 | 5.375 | | 5.375 | 5.814 | 0.135 | 5.615 | | 5.802 | | 0.138 | |
| AN-49 | 5.500 | | 5.500 | 5.939 | 0.135 | 5.740 | | 5.927 | | 0.138 | |
| AN-50 | 5.625 | | 5.625 | 6.128 | 0.151 | 5.896 | | 6.114 | | 0.154 | |
| AN-51 | 5.750 | | 5.750 | 6.254 | 0.151 | 6.022 | | 6.239 | | 0.154 | |
| AN-52 | 5.875 | | 5.875 | 6.379 | 0.151 | 6.146 | | 6.364 | | 0.154 | |
| AN-53 | 6.000 | | 6.000 | 6.504 | 0.151 | 6.272 | | 6.489 | | 0.154 | |
| AN-54 | 6.250 | | 6.250 | 6.754 | 0.151 | 6.522 | | 6.739 | | 0.154 | |
| AN-55 | 6.500 | | 6.500 | 7.004 | 0.151 | 6.772 | | 6.989 | | 0.154 | |
| AN-56 | 6.750 | | 6.750 | 7.254 | 0.151 | 7.022 | | 7.239 | | 0.154 | |
| AN-57 | 7.000 | | 7.000 | 7.504 | 0.151 | 7.272 | | 7.489 | | 0.154 | |
| AN-58 | 7.250 | | 7.250 | 7.754 | 0.151 | 7.522 | | 7.739 | | 0.154 | |
| AN-L | 7.375 | | 7.375 | 7.879 | 0.151 | 7.647 | | 7.864 | | 0.154 | |
| AN-59 | 7.500 | | 7.500 | 8.004 | 0.151 | 7.772 | | 7.989 | | 0.154 | |
| AN-60 | 7.750 | | 7.750 | 8.254 | 0.151 | 8.022 | | 8.239 | | 0.154 | |
| AN-61 | 8.000 | ▼ | 8.000 | 8.504 | 0.151 | 8.272 | ▼ | 8.489 | ▼ | 0.154 | ▼ |

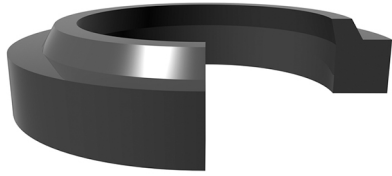


AN series - AU 90A

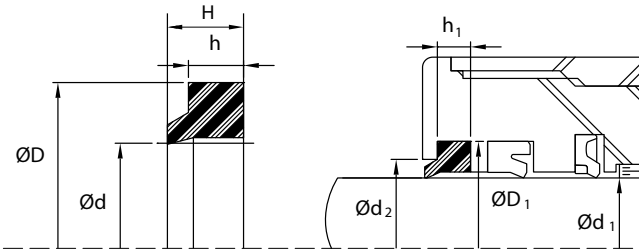
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|------------|---------------|------------------|-------------------------|--------|-------|--------------------|------------------|--------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | d2 | Tol. | D1 | Tol. | h1 | Tol. |
| AN-DD | 8.125 | +0.000 -0.003 | 8.125 | 8.629 | 0.151 | 8.397 | +0.005 -0.000 | 8.614 | +0.005 -0.000 | 0.154 | +0.003 -0.003 |
| AN-61.5 | 8.250 | | 8.250 | 8.754 | 0.151 | 8.522 | | 8.739 | | 0.154 | |
| AN-62 | 8.500 | | 8.500 | 9.004 | 0.151 | 8.772 | | 8.989 | | 0.154 | |
| AN-63 | 9.000 | | 9.000 | 9.504 | 0.151 | 9.272 | | 9.489 | | 0.154 | |
| AN-E | 9.250 | | 9.250 | 9.754 | 0.151 | 9.522 | | 9.739 | | 0.154 | |
| AN-64 | 9.500 | | 9.500 | 10.004 | 0.151 | 9.772 | | 9.989 | | 0.154 | |
| AN-65 | 10.000 | | 10.000 | 10.504 | 0.151 | 10.272 | | 10.489 | | 0.154 | |
| AN-66 | 10.500 | | 10.500 | 11.004 | 0.151 | 10.772 | | 10.989 | | 0.154 | |
| AN-F | 10.750 | | 10.750 | 11.254 | 0.151 | 11.022 | | 11.239 | | 0.154 | |
| AN-67 | 11.000 | | 11.000 | 11.504 | 0.151 | 11.272 | | 11.489 | | 0.154 | |
| AN-FF | 11.250 | | 11.250 | 11.759 | 0.166 | 11.522 | | 11.739 | | 0.169 | |
| AN-68 | 11.500 | | 11.500 | 12.009 | 0.166 | 11.772 | | 11.989 | | 0.169 | |
| AN-69 | 12.000 | | 12.000 | 12.509 | 0.166 | 12.272 | | 12.489 | | 0.169 | |
| AN-G | 12.750 | | 12.750 | 13.259 | 0.166 | 13.022 | | 13.239 | | 0.169 | |
| AN-K | 13.750 | ▼ | 13.750 | 14.259 | 0.166 | 14.022 | ▼ | 14.239 | ▼ | 0.169 | ▼ |



D - Rod wipers - Inch



| Standard Material | Temperature Range | Surface Speed |
|-------------------|-------------------------------------|----------------------|
| Polyurethane | -65°F to +200°F (-54°C to +93°C) | < 1.6 ft/s (0.5 m/s) |



D-style rod wipers are an outstanding choice for light, medium duty hydraulic and pneumatic applications. The slotted heel (when available) design prevents pressure traps from forming between the rod seal and wiper. Broad tooling availability, up to 30", makes the **D-style** a good choice for large rod diameters. The snap-in design is oversized for a snug fit and excellent stability. This makes the **D-style** a great all-round wiper in an economical package.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|-------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | d2 | Tol. | D1 | Tol. | h1 | Tol. |
| D-00187 | 0.187 | +0.000 -0.002 | 0.187 | 0.437 | 0.125 | 0.341 | +0.010 -0.000 | 0.427 | +0.006 -0.000 | 0.124 | +0.004 -0.000 |
| D-00250 | 0.250 | | 0.250 | 0.500 | 0.125 | 0.410 | | 0.497 | | 0.124 | |
| D-00312 | 0.312 | | 0.312 | 0.562 | 0.125 | 0.475 | | 0.560 | | 0.124 | |
| D-00375 | 0.375 | | 0.375 | 0.625 | 0.125 | 0.535 | | 0.622 | | 0.124 | |
| D-00437 | 0.437 | | 0.437 | 0.687 | 0.125 | 0.600 | | 0.685 | | 0.124 | |
| D-00500 | 0.500 | | 0.500 | 0.750 | 0.125 | 0.660 | | 0.747 | | 0.124 | |
| D-00562 | 0.562 | | 0.562 | 0.812 | 0.125 | 0.725 | | 0.810 | | 0.124 | |
| D-00625 | 0.625 | | 0.625 | 0.875 | 0.125 | 0.785 | | 0.872 | | 0.124 | |
| D-00687 | 0.687 | | 0.687 | 0.937 | 0.125 | 0.850 | | 0.935 | | 0.124 | |
| D-00750 | 0.750 | +0.000 -0.003 | 0.750 | 1.125 | 0.187 | 0.995 | | 1.122 | | 0.187 | |
| D-00812 | 0.812 | | 0.812 | 1.187 | 0.187 | 1.060 | | 1.185 | | 0.187 | |
| D-00875 | 0.875 | | 0.875 | 1.250 | 0.187 | 1.120 | | 1.247 | | 0.187 | |
| D-01000 | 1.000 | | 1.000 | 1.375 | 0.187 | 1.245 | | 1.372 | | 0.187 | |
| D-01062 | 1.062 | | 1.062 | 1.437 | 0.187 | 1.310 | | 1.435 | | 0.187 | |
| D-01125 | 1.125 | | 1.125 | 1.500 | 0.187 | 1.370 | | 1.497 | | 0.187 | |
| D-01187 | 1.187 | | 1.187 | 1.562 | 0.187 | 1.435 | | 1.560 | | 0.187 | |
| D-01250 | 1.250 | | 1.250 | 1.625 | 0.187 | 1.495 | | 1.622 | | 0.187 | |
| D-01312 | 1.312 | | 1.312 | 1.687 | 0.187 | 1.560 | | 1.685 | | 0.187 | |
| D-01375 | 1.375 | | 1.375 | 1.750 | 0.187 | 1.620 | | 1.747 | | 0.187 | |
| D-01437 | 1.437 | | 1.437 | 1.812 | 0.187 | 1.685 | | 1.810 | | 0.187 | |
| D-01500 | 1.500 | | 1.500 | 1.875 | 0.187 | 1.745 | | 1.872 | | 0.187 | |
| D-01562 | 1.562 | | 1.562 | 1.937 | 0.187 | 1.810 | | 1.935 | | 0.187 | |



D series - AU 90A

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | d2 | Tol. | D1 | Tol. | h1 | Tol. |
| D-01625 | 1.625 | +0.000 -0.003 | 1.625 | 2.000 | 0.187 | 1.870 | +0.010 -0.000 | 1.997 | +0.006 -0.000 | 0.187 | +0.004 -0.000 |
| D-01750 | 1.750 | | 1.750 | 2.125 | 0.187 | 1.995 | | 2.122 | | 0.187 | |
| D-01875 | 1.875 | | 1.875 | 2.250 | 0.187 | 2.120 | | 2.247 | | 0.187 | |
| D-02000 | 2.000 | | 2.000 | 2.500 | 0.250 | 2.327 | | 2.497 | | 0.249 | |
| D-02000-1 | 2.000 | | 2.000 | 2.375 | 0.187 | 2.245 | | 2.372 | | 0.187 | |
| D-02125 | 2.125 | | 2.125 | 2.625 | 0.250 | 2.452 | | 2.622 | | 0.249 | |
| D-02250 | 2.250 | | 2.250 | 2.750 | 0.250 | 2.577 | | 2.747 | | 0.249 | |
| D-02312 | 2.312 | | 2.312 | 2.812 | 0.250 | 2.640 | | 2.810 | | 0.249 | |
| D-02375 | 2.375 | | 2.375 | 2.875 | 0.250 | 2.702 | | 2.872 | | 0.249 | |
| D-02500 | 2.500 | | 2.500 | 3.000 | 0.250 | 2.827 | | 2.997 | | 0.249 | |
| D-02562 | 2.562 | | 2.562 | 3.062 | 0.250 | 2.890 | | 3.060 | | 0.249 | |
| D-02625 | 2.625 | | 2.625 | 3.125 | 0.250 | 2.952 | | 3.122 | | 0.249 | |
| D-02750 | 2.750 | | 2.750 | 3.250 | 0.250 | 3.077 | | 3.247 | | 0.249 | |
| D-02875 | 2.875 | ▼ | 2.875 | 3.375 | 0.250 | 3.202 | | 3.372 | | 0.249 | |
| D-03000 | 3.000 | +0.000 -0.004 | 3.000 | 3.500 | 0.250 | 3.327 | | 3.497 | | 0.249 | |
| D-03125 | 3.125 | | 3.125 | 3.625 | 0.250 | 3.452 | | 3.622 | | 0.249 | |
| D-03250 | 3.250 | | 3.250 | 3.750 | 0.250 | 3.577 | | 3.747 | | 0.249 | |
| D-03375 | 3.375 | | 3.375 | 3.875 | 0.250 | 3.702 | | 3.872 | | 0.249 | |
| D-03500 | 3.500 | | 3.500 | 4.000 | 0.250 | 3.827 | | 3.997 | | 0.249 | |
| D-03625 | 3.625 | | 3.625 | 4.125 | 0.250 | 3.952 | | 4.122 | | 0.249 | |
| D-03750 | 3.750 | | 3.750 | 4.250 | 0.250 | 4.077 | | 4.247 | | 0.249 | |
| D-03875 | 3.875 | | 3.875 | 4.375 | 0.250 | 4.202 | | 4.372 | | 0.249 | |
| D-04000 | 4.000 | | 4.000 | 4.500 | 0.250 | 4.327 | | 4.497 | | 0.249 | |
| D-04000-1 | 4.000 | | 4.000 | 4.625 | 0.312 | 4.368 | | 4.625 | | 0.312 | |
| D-04125 | 4.125 | | 4.125 | 4.625 | 0.250 | 4.452 | | 4.622 | | 0.249 | |
| D-04250 | 4.250 | | 4.250 | 4.750 | 0.250 | 4.577 | | 4.747 | | 0.249 | |
| D-04375 | 4.375 | | 4.375 | 4.875 | 0.250 | 4.702 | | 4.872 | | 0.249 | |
| D-04500 | 4.500 | | 4.500 | 5.250 | 0.375 | 4.993 | | 5.247 | | 0.374 | |
| D-04500-1 | 4.500 | | 4.500 | 5.000 | 0.250 | 4.827 | | 4.997 | | 0.249 | |
| D-04625 | 4.625 | | 4.625 | 5.375 | 0.375 | 5.118 | | 5.372 | | 0.374 | |
| D-04750 | 4.750 | | 4.750 | 5.500 | 0.375 | 5.243 | | 5.497 | | 0.374 | |
| D-04750-1 | 4.750 | | 4.750 | 5.250 | 0.250 | 5.077 | | 5.247 | | 0.249 | |
| D-04875 | 4.875 | | 4.875 | 5.625 | 0.375 | 5.368 | | 5.622 | | 0.374 | |
| D-05000 | 5.000 | | 5.000 | 5.750 | 0.375 | 5.493 | | 5.747 | | 0.374 | |
| D-05000-1 | 5.000 | | 5.000 | 5.500 | 0.250 | 5.327 | | 5.497 | | 0.249 | |
| D-05125 | 5.125 | | 5.125 | 5.875 | 0.375 | 5.618 | | 5.872 | | 0.374 | |
| D-05250 | 5.250 | | 5.250 | 6.000 | 0.375 | 5.743 | | 5.997 | | 0.374 | |
| D-05375 | 5.375 | | 5.375 | 6.125 | 0.375 | 5.868 | | 6.122 | | 0.374 | |
| D-05500 | 5.500 | | 5.500 | 6.250 | 0.375 | 5.993 | | 6.247 | | 0.374 | |
| D-05500-1 | 5.500 | | 5.500 | 6.125 | 0.375 | 5.868 | | 6.122 | | 0.374 | |
| D-05625 | 5.625 | | 5.625 | 6.375 | 0.375 | 6.118 | | 6.372 | | 0.374 | |
| D-05750 | 5.750 | | 5.750 | 6.500 | 0.375 | 6.243 | | 6.497 | | 0.374 | |
| D-05875 | 5.875 | | 5.875 | 6.625 | 0.375 | 6.368 | | 6.622 | | 0.374 | |
| D-06000 | 6.000 | | 6.000 | 6.750 | 0.375 | 6.493 | | 6.747 | | 0.374 | |
| D-06125 | 6.125 | | 6.125 | 6.875 | 0.375 | 6.618 | | 6.872 | | 0.374 | |
| D-06250 | 6.250 | ▼ | 6.250 | 7.000 | 0.375 | 6.743 | ▼ | 6.997 | ▼ | 0.374 | ▼ |

D series - AU 90A

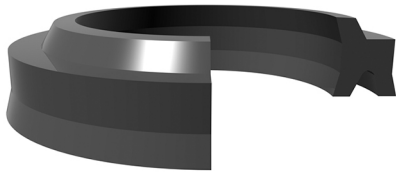


| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|------------|--------------|------------------|-------------------------|--------|-------|--------------------|------------------|--------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | d2 | Tol. | D1 | Tol. | h1 | Tol. |
| D-06250-1 | 6.250 | +0.000 -0.004 | 6.250 | 6.750 | 0.250 | 6.577 | +0.010 -0.000 | 6.747 | +0.006 -0.000 | 0.249 | +0.004 -0.000 |
| D-06500 | 6.500 | | 6.500 | 7.250 | 0.375 | 6.993 | | 7.247 | | 0.374 | |
| D-06500-1 | 6.500 | | 6.500 | 7.500 | 0.500 | 7.100 | | 7.497 | | 0.499 | |
| D-06625 | 6.625 | | 6.625 | 7.375 | 0.375 | 7.118 | | 7.372 | | 0.374 | |
| D-06750 | 6.750 | ▼ | 6.750 | 7.500 | 0.375 | 7.243 | | 7.497 | | 0.374 | |
| D-07000 | 7.000 | +0.000 -0.005 | 7.000 | 7.750 | 0.375 | 7.493 | | 7.747 | | 0.374 | |
| D-07000-1 | 7.000 | | 7.000 | 8.000 | 0.500 | 7.600 | | 8.000 | | 0.500 | |
| D-07000-2 | 7.000 | | 7.000 | 8.000 | 0.400 | 7.600 | | 8.000 | | 0.400 | |
| D-07000-3 | 7.000 | | 7.000 | 7.500 | 0.250 | 7.327 | | 7.500 | | 0.250 | |
| D-07250 | 7.250 | | 7.250 | 8.000 | 0.375 | 7.743 | | 7.997 | | 0.374 | |
| D-07500 | 7.500 | | 7.500 | 8.250 | 0.375 | 7.993 | | 8.247 | | 0.374 | |
| D-07500-1 | 7.500 | | 7.500 | 8.500 | 0.500 | 8.100 | | 8.500 | | 0.500 | |
| D-07500-2 | 7.500 | | 7.500 | 8.500 | 0.375 | 8.100 | | 8.500 | | 0.374 | |
| D-07750 | 7.750 | | 7.750 | 8.500 | 0.375 | 8.243 | | 8.497 | | 0.374 | |
| D-08000 | 8.000 | | 8.000 | 8.750 | 0.375 | 8.493 | | 8.747 | | 0.374 | |
| D-08000-1 | 8.000 | | 8.000 | 8.500 | 0.250 | 8.327 | | 8.497 | | 0.249 | |
| D-08000-2 | 8.000 | | 8.000 | 9.000 | 0.500 | 8.600 | | 9.000 | | 0.500 | |
| D-08125-1 | 8.125 | | 8.125 | 8.625 | 0.250 | 8.457 | | 8.625 | | 0.250 | |
| D-08250 | 8.250 | | 8.250 | 9.000 | 0.375 | 8.743 | | 8.997 | | 0.374 | |
| D-08500 | 8.500 | | 8.500 | 9.250 | 0.375 | 8.993 | | 9.247 | | 0.374 | |
| D-08500-1 | 8.500 | | 8.500 | 9.000 | 0.250 | 8.827 | | 8.997 | | 0.249 | |
| D-08750 | 8.750 | | 8.750 | 9.500 | 0.375 | 9.243 | | 9.497 | | 0.374 | |
| D-08875 | 8.875 | | 8.875 | 9.625 | 0.375 | 9.368 | | 9.622 | | 0.374 | |
| D-09000 | 9.000 | | 9.000 | 9.750 | 0.375 | 9.493 | | 9.747 | | 0.374 | |
| D-09000-1 | 9.000 | | 9.000 | 10.000 | 0.500 | 9.600 | | 10.000 | | 0.500 | |
| D-09250 | 9.250 | | 9.250 | 10.000 | 0.375 | 9.743 | | 9.997 | | 0.374 | |
| D-09500 | 9.500 | | 9.500 | 10.250 | 0.375 | 9.993 | | 10.247 | | 0.374 | |
| D-09750 | 9.750 | | 9.750 | 10.500 | 0.375 | 10.243 | | 10.497 | | 0.374 | |
| D-09750-1 | 9.750 | | 9.750 | 10.250 | 0.250 | 10.077 | | 10.247 | | 0.249 | |
| D-10000 | 10.000 | | 10.000 | 11.000 | 0.500 | 10.659 | | 10.997 | | 0.499 | |
| D-10000-1 | 10.000 | | 10.000 | 10.500 | 0.250 | 10.327 | | 10.497 | | 0.249 | |
| D-10250 | 10.250 | | 10.250 | 11.250 | 0.500 | 10.909 | | 11.247 | | 0.499 | |
| D-10500 | 10.500 | | 10.500 | 11.500 | 0.500 | 11.159 | | 11.497 | | 0.499 | |
| D-10625 | 10.625 | | 10.625 | 11.625 | 0.500 | 11.248 | | 11.622 | | 0.499 | |
| D-10750 | 10.750 | | 10.750 | 11.750 | 0.500 | 11.409 | | 11.747 | | 0.499 | |
| D-11000 | 11.000 | | 11.000 | 12.000 | 0.500 | 11.659 | | 11.997 | | 0.499 | |
| D-11250 | 11.250 | | 11.250 | 12.250 | 0.500 | 11.909 | | 12.247 | | 0.499 | |
| D-11500 | 11.500 | | 11.500 | 12.500 | 0.500 | 12.159 | | 12.497 | | 0.499 | |
| D-11750 | 11.750 | | 11.750 | 12.750 | 0.500 | 12.409 | | 12.747 | | 0.499 | |
| D-12000 | 12.000 | | 12.000 | 13.000 | 0.500 | 12.659 | | 12.997 | | 0.499 | |
| D-12500 | 12.500 | | 12.500 | 13.500 | 0.500 | 13.159 | | 13.497 | | 0.499 | |
| D-13000 | 13.000 | | 13.000 | 14.000 | 0.500 | 13.659 | | 13.997 | | 0.499 | |
| D-13500 | 13.500 | | 13.500 | 14.500 | 0.500 | 14.159 | | 14.497 | | 0.499 | |
| D-13750 | 13.750 | | 13.750 | 14.750 | 0.500 | 14.409 | | 14.747 | | 0.499 | |
| D-14000 | 14.000 | | 14.000 | 15.000 | 0.500 | 14.659 | | 14.997 | | 0.499 | |
| D-14750 | 14.750 | ▼ | 14.750 | 15.750 | 0.500 | 15.409 | ▼ | 15.747 | ▼ | 0.499 | ▼ |

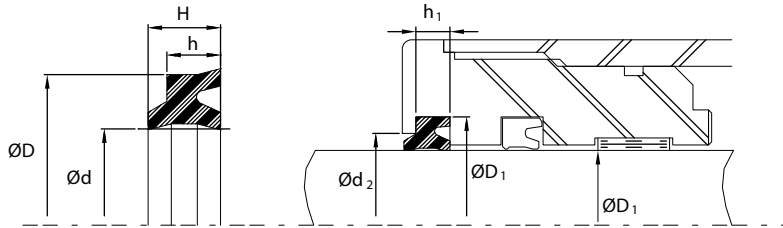
D series - AU 90A

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|------------|--------------|------------------|-------------------------|--------|-------|--------------------|------------------|--------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | d2 | Tol. | D1 | Tol. | h1 | Tol. |
| D-15000 | 15.000 | +0.000 -0.005 | 15.000 | 16.000 | 0.500 | 15.659 | +0.010 -0.000 | 15.997 | +0.006 -0.000 | 0.499 | +0.004 -0.000 |
| D-16000 | 16.000 | | 16.000 | 17.000 | 0.500 | 16.659 | | 16.997 | | 0.499 | |
| D-16500 | 16.500 | | 16.500 | 17.500 | 0.500 | 17.159 | | 17.447 | | 0.499 | |
| D-18000 | 18.000 | | 18.000 | 19.000 | 0.500 | 18.659 | | 18.997 | | 0.499 | |
| D-18500 | 18.500 | | 18.500 | 19.500 | 0.500 | 19.159 | | 19.447 | | 0.499 | |
| D-20000 | 20.000 | | 20.000 | 21.000 | 0.500 | 20.659 | | 20.997 | | 0.499 | |
| D-30000 | 30.000 | ▼ | 30.000 | 31.000 | 0.500 | 30.659 | ▼ | 30.997 | ▼ | 0.499 | ▼ |

H - Rod wipers - inch



| Standard Materials | Temperature Range | Surface Speed |
|--------------------|--------------------------------------|----------------------|
| Polyuréthane | -65°F to +200°F (-54°C to +93°C) | < 1.6 ft/s (0.5 m/s) |
| Nitrile /N | -40°F to +250°F (-40°C to +121°C) | < 3.3 ft/s (1 m/s) |



H-style rod wipers are double-lip excluders sharing identical geometries for combining the actions of rod sealing and wiping. H wipers, available in plastic compounds, are intended for medium pressure hydraulic applications as a redundant rod seal or for low pressure systems as the sole rod seal and wiper. **H-style** available in rubber compounds, are typically used for pneumatic cylinders where lower friction is required.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

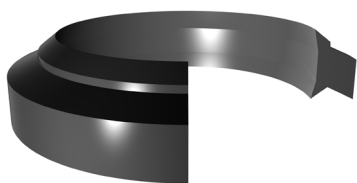
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | d2 | Tol. | D1 | Tol. | h1 | Tol. |
| H-00250 | 0.250 | +0.000 -0.001 | 0.250 | 0.562 | 0.194 | 0.370 | +0.002 -0.000 | 0.552 | +0.002 -0.000 | 0.203 | +0.005 -0.000 |
| H-00312 | 0.312 | | 0.312 | 0.625 | 0.194 | 0.432 | | 0.615 | | 0.203 | |
| H-00375 | 0.375 | | 0.375 | 0.687 | 0.194 | 0.495 | | 0.677 | | 0.203 | |
| H-00500 | 0.500 | | 0.500 | 0.812 | 0.194 | 0.620 | | 0.802 | | 0.203 | |
| H-00625 | 0.625 | | 0.625 | 0.937 | 0.194 | 0.745 | | 0.927 | | 0.203 | |
| H-00625-1 | 0.625 | ▼ | 0.625 | 1.000 | 0.212 | 0.760 | ▼ | 0.990 | ▼ | 0.218 | ▼ |

H series - AU 90A & NBR

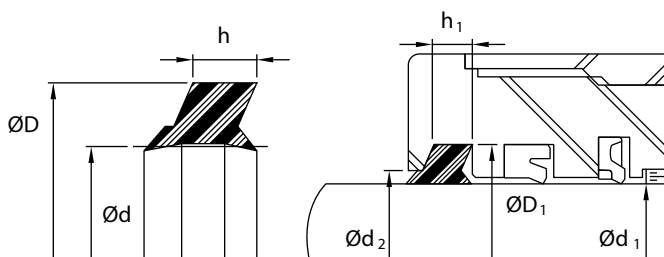


| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|------------|--------------|------------------|-------------------------|--------|-------|--------------------|------------------|--------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | d2 | Tol. | D1 | Tol. | h1 | Tol. |
| H-00750 | 0.750 | +0.000 -0.001 | 0.750 | 1.062 | 0.194 | 0.870 | +0.002 -0.000 | 1.052 | +0.002 -0.000 | 0.203 | +0.005 -0.000 |
| H-00875 | 0.875 | | 0.875 | 1.250 | 0.212 | 1.010 | | 1.240 | | 0.218 | |
| H-00937 | 0.937 | | 0.937 | 1.312 | 0.212 | 1.072 | +0.003 -0.000 | 1.302 | +0.003 -0.000 | 0.218 | |
| H-01000 | 1.000 | | 1.000 | 1.375 | 0.212 | 1.135 | | 1.365 | | 0.218 | |
| H-01125 | 1.125 | | 1.125 | 1.500 | 0.212 | 1.260 | | 1.490 | | 0.218 | |
| H-01250 | 1.250 | | 1.250 | 1.625 | 0.212 | 1.385 | | 1.615 | | 0.218 | |
| H-01375 | 1.375 | | 1.375 | 1.750 | 0.212 | 1.510 | | 1.740 | | 0.218 | |
| H-01500 | 1.500 | | 1.500 | 1.875 | 0.212 | 1.635 | | 1.865 | | 0.218 | |
| H-01625 | 1.625 | | 1.625 | 2.000 | 0.212 | 1.760 | | 1.990 | | 0.218 | |
| H-01750 | 1.750 | | 1.750 | 2.125 | 0.212 | 1.885 | | 2.115 | | 0.218 | |
| H-01875 | 1.875 | | 1.875 | 2.250 | 0.212 | 2.010 | | 2.240 | | 0.218 | |
| H-02000 | 2.000 | | 2.000 | 2.375 | 0.212 | 2.135 | | 2.365 | | 0.218 | |
| H-02125 | 2.125 | | 2.125 | 2.500 | 0.212 | 2.260 | | 2.490 | | 0.218 | |
| H-02187 | 2.187 | | 2.187 | 2.687 | 0.275 | 2.323 | | 2.683 | | 0.281 | |
| H-02250 | 2.250 | | 2.250 | 2.750 | 0.275 | 2.385 | | 2.745 | | 0.281 | |
| H-02375 | 2.375 | | 2.375 | 2.875 | 0.275 | 2.510 | | 2.870 | | 0.281 | |
| H-02500 | 2.500 | | 2.500 | 3.000 | 0.275 | 2.635 | | 2.995 | | 0.281 | |
| H-02625 | 2.625 | | 2.625 | 3.125 | 0.275 | 2.760 | | 3.120 | | 0.281 | |
| H-02750 | 2.750 | ▼ | 2.750 | 3.250 | 0.275 | 2.885 | | 3.245 | | 0.281 | |
| H-03000 | 3.000 | +0.000 -0.002 | 3.000 | 3.500 | 0.275 | 3.135 | | 3.495 | | 0.281 | |
| H-03250 | 3.250 | | 3.250 | 3.750 | 0.275 | 3.385 | | 3.745 | | 0.281 | |
| H-03500 | 3.500 | | 3.500 | 4.000 | 0.275 | 3.635 | | 3.995 | | 0.281 | |
| H-03625 | 3.625 | | 3.625 | 4.125 | 0.275 | 3.760 | | 4.120 | | 0.281 | |
| H-03750 | 3.750 | | 3.750 | 4.250 | 0.275 | 3.885 | | 4.245 | | 0.281 | |
| H-03875 | 3.875 | | 3.875 | 4.375 | 0.275 | 4.010 | | 4.370 | | 0.281 | |
| H-04000 | 4.000 | | 4.000 | 4.500 | 0.275 | 4.135 | | 4.495 | | 0.281 | |
| H-04500 | 4.500 | | 4.500 | 5.000 | 0.275 | 4.635 | | 4.995 | | 0.281 | |
| H-04750 | 4.750 | | 4.750 | 5.250 | 0.275 | 4.885 | | 5.245 | | 0.281 | |
| H-05000 | 5.000 | | 5.000 | 5.500 | 0.275 | 5.135 | | 5.495 | | 0.281 | |
| H-05125 | 5.125 | | 5.125 | 5.625 | 0.275 | 5.260 | | 5.620 | | 0.281 | |
| H-05250 | 5.250 | | 5.250 | 5.750 | 0.275 | 5.385 | | 5.745 | | 0.281 | |
| H-05500 | 5.500 | | 5.500 | 6.000 | 0.275 | 5.635 | | 5.995 | | 0.281 | |
| H-06000 | 6.000 | | 6.000 | 6.500 | 0.275 | 6.135 | | 6.495 | | 0.281 | |
| H-06500 | 6.500 | | 6.500 | 7.000 | 0.275 | 6.635 | | 6.995 | | 0.281 | |
| H-07000 | 7.000 | | 7.000 | 7.500 | 0.275 | 7.135 | | 7.495 | | 0.281 | |
| H-07500 | 7.500 | | 7.500 | 8.000 | 0.275 | 7.635 | | 7.995 | | 0.281 | |
| H-08000 | 8.000 | | 8.000 | 8.500 | 0.275 | 8.135 | | 8.495 | | 0.281 | |
| H-08500 | 8.500 | | 8.500 | 9.000 | 0.275 | 8.635 | | 8.995 | | 0.281 | |
| H-10000 | 10.000 | ▼ | 10.000 | 10.500 | 0.275 | 10.135 | ▼ | 10.495 | ▼ | 0.281 | ▼ |

K - Rod wipers - Inch



| Standard Material | Temperature Range | Surface Speed |
|-------------------|-------------------------------------|----------------------|
| Polyurethane | -65°F to +200°F (-54°C to +93°C) | < 1.6 ft/s (0.5 m/s) |



K-style rod wipers offer a unique, light-load contact lip on both the sealing and wiping lips, making these excluders suitable for light duty industrial hydraulic applications. They are most commonly used in conjunction with rod seals to provide a redundant film-breaking lip.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|-------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | d2 | Tol. | D1 | Tol. | h1 | Tol. |
| K-00500 | 0.500 | +0.000 -0.002 | 0.500 | 0.750 | 0.150 | 0.625 | +0.000 -0.005 | 0.760 | +0.005 -0.000 | 0.155 | +0.005 -0.000 |
| K-00625 | 0.625 | | 0.625 | 0.875 | 0.150 | 0.750 | | 0.885 | | 0.155 | |
| K-00687 | 0.687 | | 0.687 | 0.937 | 0.150 | 0.812 | | 0.947 | | 0.155 | |
| K-00750 | 0.750 | | 0.750 | 1.125 | 0.190 | 0.832 | | 1.135 | | 0.195 | |
| K-00875 | 0.875 | | 0.875 | 1.250 | 0.190 | 0.957 | | 1.260 | | 0.195 | |
| K-01000 | 1.000 | | 1.000 | 1.375 | 0.190 | 1.082 | | 1.385 | | 0.195 | |
| K-01125 | 1.125 | | 1.125 | 1.500 | 0.190 | 1.207 | | 1.510 | | 0.195 | |
| K-01187 | 1.187 | | 1.187 | 1.562 | 0.190 | 1.269 | | 1.572 | | 0.195 | |
| K-01250 | 1.250 | | 1.250 | 1.625 | 0.190 | 1.332 | | 1.635 | | 0.195 | |
| K-01375 | 1.375 | | 1.375 | 1.750 | 0.190 | 1.457 | | 1.760 | | 0.195 | |
| K-01437 | 1.437 | | 1.437 | 1.812 | 0.190 | 1.519 | | 1.822 | | 0.195 | |
| K-01500 | 1.500 | | 1.500 | 1.875 | 0.190 | 1.582 | | 1.885 | | 0.195 | |
| K-01750 | 1.750 | | 1.750 | 2.125 | 0.190 | 1.832 | | 2.135 | | 0.195 | |
| K-01875 | 1.875 | | 1.875 | 2.250 | 0.190 | 1.957 | | 2.260 | | 0.195 | |
| K-01937 | 1.937 | | 1.937 | 2.312 | 0.190 | 2.019 | | 2.322 | | 0.195 | |
| K-02000 | 2.000 | | 2.000 | 2.375 | 0.190 | 2.082 | | 2.385 | | 0.195 | |
| K-02125 | 2.125 | | 2.125 | 2.500 | 0.190 | 2.207 | | 2.510 | | 0.195 | |
| K-02187 | 2.187 | | 2.187 | 2.562 | 0.190 | 2.269 | | 2.572 | | 0.195 | |
| K-02250 | 2.250 | | 2.250 | 2.750 | 0.250 | 2.407 | | 2.760 | | 0.255 | |
| K-02250-1 | 2.250 | | 2.250 | 2.625 | 0.190 | 2.332 | | 2.635 | | 0.195 | |
| K-02470 | 2.470 | | 2.470 | 2.970 | 0.250 | 2.627 | | 2.980 | | 0.255 | |
| K-02500 | 2.500 | ▼ | 2.500 | 3.000 | 0.250 | 2.657 | ▼ | 3.010 | ▼ | 0.255 | ▼ |

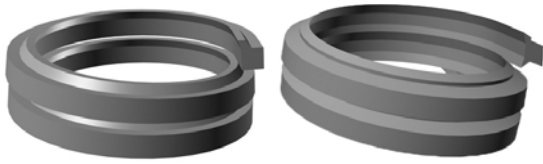


| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | d2 | Tol. | D1 | Tol. | h1 | Tol. |
| K-02500-1 | 2.500 | +0.000 -0.002 | 2.500 | 2.875 | 0.190 | 2.582 | +0.000 -0.005 | 2.885 | +0.005 -0.000 | 0.195 | +0.005 -0.000 |
| K-02625 | 2.625 | | 2.625 | 3.125 | 0.250 | 2.782 | | 3.135 | | 0.255 | |
| K-02750 | 2.750 | | 2.750 | 3.250 | 0.250 | 2.907 | | 3.260 | | 0.255 | |
| K-02750-1 | 2.750 | | 2.750 | 3.125 | 0.190 | 2.832 | | 3.135 | | 0.195 | |
| K-02875 | 2.875 | | 2.875 | 3.375 | 0.250 | 3.032 | | 3.385 | | 0.255 | |
| K-03000 | 3.000 | | 3.000 | 3.500 | 0.250 | 3.157 | | 3.510 | | 0.255 | |
| K-03000-1 | 3.000 | | 3.000 | 3.375 | 0.190 | 3.082 | | 3.385 | | 0.195 | |
| K-03250 | 3.250 | | 3.250 | 3.750 | 0.250 | 3.407 | | 3.760 | | 0.255 | |
| K-03375 | 3.375 | | 3.375 | 3.875 | 0.250 | 3.532 | | 3.885 | | 0.255 | |
| K-03500 | 3.500 | | 3.500 | 4.000 | 0.250 | 3.657 | | 4.010 | | 0.255 | |
| K-03500-1 | 3.500 | | 3.500 | 3.875 | 0.190 | 3.582 | | 3.885 | | 0.195 | |
| K-03625 | 3.625 | | 3.625 | 4.125 | 0.250 | 3.782 | | 4.135 | | 0.255 | |
| K-03687 | 3.687 | | 3.687 | 4.187 | 0.250 | 3.844 | | 4.197 | | 0.255 | |
| K-03750 | 3.750 | | 3.750 | 4.250 | 0.250 | 3.907 | | 4.260 | | 0.255 | |
| K-03750-1 | 3.750 | | 3.750 | 4.125 | 0.190 | 3.832 | | 4.135 | | 0.195 | |
| K-03970 | 3.970 | | 3.970 | 4.470 | 0.250 | 4.127 | | 4.480 | | 0.255 | |
| K-04000 | 4.000 | | 4.000 | 4.500 | 0.250 | 4.157 | | 4.510 | | 0.255 | |
| K-04062 | 4.062 | | 4.062 | 4.562 | 0.250 | 4.219 | | 4.572 | | 0.255 | |
| K-04125 | 4.125 | | 4.125 | 4.625 | 0.250 | 4.282 | | 4.635 | | 0.255 | |
| K-04250 | 4.250 | ▼ | 4.250 | 4.750 | 0.250 | 4.407 | | 4.760 | | 0.255 | |
| K-04437 | 4.437 | +0.000 -0.003 | 4.437 | 4.937 | 0.250 | 4.594 | | 4.947 | | 0.255 | |
| K-04500 | 4.500 | | 4.500 | 5.000 | 0.250 | 4.657 | | 5.010 | | 0.255 | |
| K-04531 | 4.531 | | 4.531 | 5.031 | 0.250 | 4.688 | | 5.041 | | 0.255 | |
| K-04625 | 4.625 | | 4.625 | 5.125 | 0.250 | 4.782 | | 5.135 | | 0.255 | |
| K-04700 | 4.700 | | 4.700 | 5.200 | 0.250 | 4.857 | | 5.210 | | 0.255 | |
| K-04750 | 4.750 | | 4.750 | 5.250 | 0.250 | 4.907 | | 5.260 | | 0.255 | |
| K-04875 | 4.875 | | 4.875 | 5.375 | 0.250 | 5.032 | | 5.385 | | 0.255 | |
| K-05000 | 5.000 | | 5.000 | 5.500 | 0.250 | 5.157 | | 5.510 | | 0.255 | |
| K-05250 | 5.250 | | 5.250 | 5.750 | 0.250 | 5.407 | | 5.760 | | 0.255 | |
| K-05375 | 5.375 | | 5.375 | 5.875 | 0.250 | 5.532 | | 5.885 | | 0.255 | |
| K-05500 | 5.500 | | 5.500 | 6.000 | 0.250 | 5.657 | | 6.010 | | 0.255 | |
| K-05950 | 5.950 | | 5.950 | 6.450 | 0.250 | 6.107 | | 6.460 | | 0.255 | |
| K-06000 | 6.000 | | 6.000 | 6.500 | 0.250 | 6.157 | | 6.510 | | 0.255 | |
| K-07000 | 7.000 | ▼ | 7.000 | 7.500 | 0.250 | 7.157 | ▼ | 7.510 | ▼ | 0.255 | ▼ |

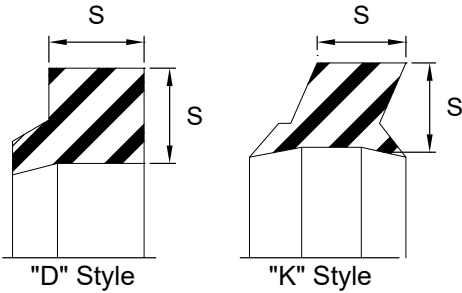




D & K Wiper Cord - Rod wipers - Inch



| Standard Material | Temperature Range | Surface Speed |
|-------------------|-------------------------------------|----------------------|
| Nitrile | -40°F to +200°F (-40°C to +93°C) | < 1.6 ft/s (0.5 m/s) |



An economical wiper made from 70 duro Nitrile can be offered to users of both pneumatic and hydraulic equipment. A length of wiper strip is cut to the circumference of the rod and inserted in the recess to form the wiper and keep out foreign material. The simplicity of the design plus the fact that the wiper will not cause scoring makes it very popular.

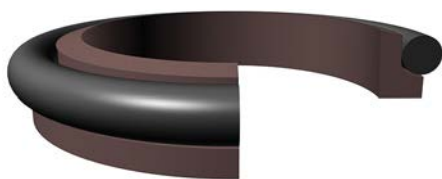
Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | Nominal Seal Dimensions | | Housing Dimensions | | | | | |
|-------------|--------------|-------------------------|---------------|--------------------|------|----|------|----|------|
| | Tol. | S | Tol. | d1 | Tol. | D1 | Tol. | h1 | Tol. |
| WC-00156K | | 0.156 | +0.010/-0.010 | | | | | | |
| WC-00187D | | 0.187 | +0.013/-0.013 | | | | | | |
| WC-00187K | | 0.187 | +0.013/-0.013 | | | | | | |
| WC-00250K | | 0.250 | +0.016/-0.016 | | | | | | |

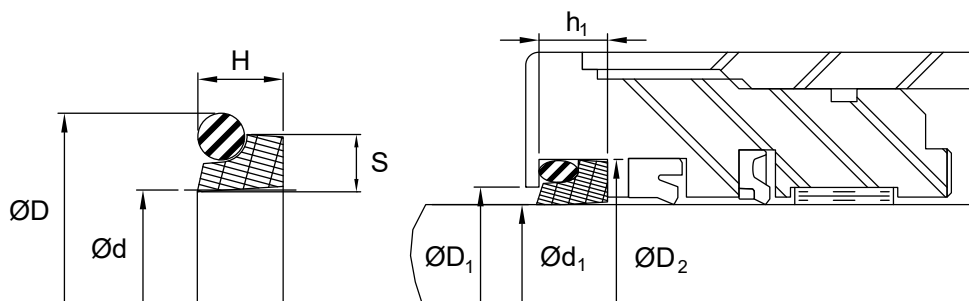
INCREMENT OF 1 FT.



EX1 - Rod wipers - Inch



| Standard Material | Temperature Range | Surface Speed |
|---------------------|-------------------------------------|-------------------|
| BR.PTFE/ Nitrile | -40°F to +200°F (-40°C to +93°C) | < 13 ft/s (4 m/s) |



EX1-style rod wipers are comprised of a scraper element made of PTFE/Bronze and an O'Ring as a loader ring. The scraping function is performed by the PTFE element while the O'Ring guarantees that the scraper lip presses against the sliding surface uniformly.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Inspection Dimensions | | | | Housing Dimensions | | | | | |
|-------------|--------------|------------------|-----------------------|---|---|------|--------------------|------------------|-------|------------------|-------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | D2 | Tol. | h1 | Tol. |
| EX1-00250 | 0.250 | +0.000 -0.002 | 0.250 | | | -011 | 0.356 | +0.000 -0.005 | 0.436 | +0.002 -0.000 | 0.144 | +0.005 -0.000 |
| EX1-00312 | 0.312 | | 0.312 | | | -012 | 0.418 | | 0.498 | | 0.144 | |
| EX1-00375 | 0.375 | | 0.375 | | | -013 | 0.481 | | 0.561 | | 0.144 | |
| EX1-00437 | 0.437 | | 0.437 | | | -014 | 0.543 | | 0.623 | | 0.144 | |
| EX1-00500 | 0.500 | | 0.500 | | | -113 | 0.637 | | 0.766 | | 0.195 | |
| EX1-00500LD | 0.500 | | 0.500 | | | -015 | 0.606 | | 0.686 | | 0.144 | |
| EX1-00562 | 0.562 | | 0.562 | | | -209 | 0.699 | | 0.828 | | 0.195 | |
| EX1-00562LD | 0.562 | | 0.562 | | | -016 | 0.668 | | 0.748 | | 0.144 | |
| EX1-00625 | 0.625 | | 0.625 | | | -115 | 0.762 | | 0.891 | | 0.195 | |
| EX1-00625LD | 0.625 | | 0.625 | | | -017 | 0.731 | | 0.811 | | 0.144 | |
| EX1-00687 | 0.687 | | 0.687 | | | -116 | 0.824 | | 0.953 | | 0.195 | |
| EX1-00687LD | 0.687 | | 0.687 | | | -018 | 0.793 | | 0.873 | | 0.144 | |
| EX1-00750 | 0.750 | | 0.750 | | | -117 | 0.887 | | 1.016 | | 0.195 | |
| EX1-00750LD | 0.750 | | 0.750 | | | -019 | 0.856 | | 0.936 | | 0.144 | |
| EX1-00812 | 0.812 | | 0.812 | | | -213 | 0.949 | | 1.078 | | 0.195 | |
| EX1-00812LD | 0.812 | | 0.812 | | | -020 | 0.918 | | 0.998 | | 0.144 | |
| EX1-00875 | 0.875 | | 0.875 | | | -119 | 1.012 | | 1.141 | | 0.195 | |
| EX1-00875LD | 0.875 | | 0.875 | | | -021 | 0.981 | | 1.061 | | 0.144 | |
| EX1-00937 | 0.937 | | 0.937 | | | -215 | 1.074 | | 1.203 | | 0.195 | |
| EX1-00937LD | 0.937 | | 0.937 | | | -022 | 1.043 | | 1.123 | | 0.144 | |
| EX1-01000 | 1.000 | | 1.000 | | | -121 | 1.137 | | 1.266 | | 0.195 | |
| EX1-01000LD | 1.000 | ▼ | 1.000 | | | -023 | 1.106 | ▼ | 1.186 | ▼ | 0.144 | ▼ |



EX1 series - BR.PTFE/NBR

| Ref.Number | Rod Diameter | | Inspection Dimensions | | | | Housing Dimensions | | | | | |
|-------------|--------------|------------------|-----------------------|---|---|------|--------------------|------------------|-------|------------------|-------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | D2 | Tol. | h1 | Tol. |
| EX1-01062 | 1.062 | +0.000 -0.002 | 1.062 | | | -217 | 1.199 | +0.000 -0.005 | 1.328 | +0.002 -0.000 | 0.195 | +0.005 -0.000 |
| EX1-01062LD | 1.062 | | 1.062 | | | -024 | 1.168 | | 1.248 | | 0.144 | |
| EX1-01125 | 1.125 | | 1.125 | | | -123 | 1.262 | | 1.391 | | 0.195 | |
| EX1-01125LD | 1.125 | | 1.125 | | | -025 | 1.231 | | 1.311 | | 0.144 | |
| EX1-01187 | 1.187 | | 1.187 | | | -219 | 1.324 | | 1.453 | | 0.195 | |
| EX1-01187LD | 1.187 | | 1.187 | | | -026 | 1.293 | | 1.373 | | 0.144 | |
| EX1-01250 | 1.250 | | 1.250 | | | -125 | 1.387 | | 1.516 | | 0.195 | |
| EX1-01250LD | 1.250 | | 1.250 | | | -027 | 1.356 | | 1.436 | | 0.144 | |
| EX1-01312 | 1.312 | | 1.312 | | | -221 | 1.449 | | 1.578 | | 0.195 | |
| EX1-01312LD | 1.312 | | 1.312 | | | -028 | 1.418 | | 1.498 | | 0.144 | |
| EX1-01375 | 1.375 | | 1.375 | | | -127 | 1.512 | | 1.641 | | 0.195 | |
| EX1-01375LD | 1.375 | | 1.375 | | | -028 | 1.481 | | 1.561 | | 0.144 | |
| EX1-01437 | 1.437 | | 1.437 | | | -222 | 1.574 | | 1.703 | | 0.195 | |
| EX1-01437LD | 1.437 | | 1.437 | | | -029 | 1.543 | | 1.623 | | 0.144 | |
| EX1-01500 | 1.500 | | 1.500 | | | -129 | 1.637 | | 1.766 | | 0.195 | |
| EX1-01500LD | 1.500 | | 1.500 | | | -029 | 1.606 | | 1.686 | | 0.144 | |
| EX1-01625 | 1.625 | | 1.625 | | | -224 | 1.762 | | 1.891 | | 0.195 | |
| EX1-01625LD | 1.625 | | 1.625 | | | -030 | 1.731 | | 1.811 | | 0.144 | |
| EX1-01750 | 1.750 | | 1.750 | | | -133 | 1.887 | | 2.016 | | 0.195 | |
| EX1-01750LD | 1.750 | | 1.750 | | | -031 | 1.856 | | 1.936 | | 0.144 | |
| EX1-01875 | 1.875 | | 1.875 | | | -226 | 2.012 | | 2.141 | | 0.195 | |
| EX1-01875LD | 1.875 | | 1.875 | | | -032 | 1.981 | | 2.061 | | 0.144 | |
| EX1-02000 | 2.000 | | 2.000 | | | -137 | 2.137 | | 2.266 | | 0.195 | |
| EX1-02000LD | 2.000 | | 2.000 | | | -033 | 2.106 | | 2.187 | | 0.144 | |
| EX1-02125 | 2.125 | | 2.125 | | | -228 | 2.262 | | 2.391 | | 0.195 | |
| EX1-02125LD | 2.125 | | 2.125 | | | -034 | 2.231 | | 2.311 | | 0.144 | |
| EX1-02250 | 2.250 | | 2.250 | | | -141 | 2.387 | | 2.516 | | 0.195 | |
| EX1-02250LD | 2.250 | | 2.250 | | | -035 | 2.356 | | 2.436 | | 0.144 | |
| EX1-02375 | 2.375 | | 2.375 | | | -230 | 2.512 | | 2.641 | | 0.195 | |
| EX1-02375LD | 2.375 | | 2.375 | | | -036 | 2.481 | | 2.561 | | 0.144 | |
| EX1-02500 | 2.500 | | 2.500 | | | -145 | 2.637 | | 2.766 | | 0.195 | |
| EX1-02500LD | 2.500 | | 2.500 | | | -037 | 2.606 | | 2.686 | | 0.144 | |
| EX1-02625 | 2.625 | | 2.625 | | | -232 | 2.782 | | 2.971 | | 0.240 | |
| EX1-02750 | 2.750 | | 2.750 | | | -233 | 2.907 | | 3.096 | | 0.240 | |
| EX1-02875 | 2.875 | ▼ | 2.875 | | | -234 | 3.032 | | 3.221 | | 0.240 | |
| EX1-03000 | 3.000 | +0.000 -0.003 | 3.000 | | | -235 | 3.157 | | 3.345 | | 0.240 | |
| EX1-03125 | 3.125 | | 3.125 | | | -236 | 3.282 | | 3.470 | | 0.240 | |
| EX1-03250 | 3.250 | | 3.250 | | | -237 | 3.407 | | 3.595 | | 0.240 | |
| EX1-03375 | 3.375 | | 3.375 | | | -238 | 3.532 | | 3.720 | | 0.240 | |
| EX1-03500 | 3.500 | | 3.500 | | | -239 | 3.657 | | 3.845 | | 0.240 | |
| EX1-03625 | 3.625 | | 3.625 | | | -240 | 3.782 | | 3.970 | | 0.240 | |
| EX1-03750 | 3.750 | | 3.750 | | | -241 | 3.907 | | 4.095 | | 0.240 | |
| EX1-03875 | 3.875 | ▼ | 3.875 | | | -242 | 4.032 | | 4.220 | | 0.240 | |
| EX1-04000 | 4.000 | +0.000 -0.005 | 4.000 | | | -243 | 4.157 | | 4.345 | | 0.240 | |
| EX1-04125 | 4.125 | | 4.125 | | | -244 | 4.282 | | 4.470 | | 0.240 | |
| EX1-04250 | 4.250 | ▼ | 4.250 | | | -245 | 4.407 | ▼ | 4.595 | ▼ | 0.240 | ▼ |

EX1 series - BR.PTFE/NBR



| Ref.Number | Rod Diameter | | Inspection Dimensions | | | | Housing Dimensions | | | | | |
|------------|--------------|------------------|-----------------------|---|---|------|--------------------|------------------|--------|------------------|-------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | D2 | Tol. | h1 | Tol. |
| EX1-04375 | 4.375 | +0.000 -0.005 | 4.375 | | | -246 | 4.532 | +0.000 -0.005 | 4.720 | +0.000/-0.002 | 0.240 | +0.005 -0.000 |
| EX1-04500 | 4.500 | | 4.500 | | | -247 | 4.657 | | 4.845 | +0.003 -0.000 | 0.240 | |
| EX1-04625 | 4.625 | | 4.625 | | | -248 | 4.782 | | 4.970 | | 0.240 | |
| EX1-04750 | 4.750 | | 4.750 | | | -249 | 4.907 | | 5.095 | | 0.240 | |
| EX1-04875 | 4.875 | | 4.875 | | | -250 | 5.032 | | 5.220 | | 0.240 | |
| EX1-05000 | 5.000 | | 5.000 | | | -251 | 5.157 | | 5.345 | | 0.240 | |
| EX1-05125 | 5.125 | | 5.125 | | | -252 | 5.282 | | 5.470 | | 0.240 | |
| EX1-05250 | 5.250 | | 5.250 | | | -253 | 5.407 | | 5.595 | | 0.240 | |
| EX1-05375 | 5.375 | | 5.375 | | | -254 | 5.532 | | 5.720 | | 0.240 | |
| EX1-05500 | 5.500 | | 5.500 | | | -255 | 5.657 | | 5.845 | | 0.240 | |
| EX1-05625 | 5.625 | | 5.625 | | | -250 | 5.782 | | 5.970 | | 0.240 | |
| EX1-05750 | 5.750 | | 5.750 | | | -257 | 5.907 | | 6.095 | | 0.240 | |
| EX1-05875 | 5.875 | | 5.875 | | | -258 | 6.032 | | 6.220 | | 0.240 | |
| EX1-06000 | 6.000 | | 6.000 | | | -258 | 6.157 | | 6.345 | | 0.240 | |
| EX1-06250 | 6.250 | | 6.250 | | | -259 | 6.407 | | 6.595 | | 0.240 | |
| EX1-06500 | 6.500 | | 6.500 | | | -260 | 6.657 | | 6.845 | | 0.240 | |
| EX1-06750 | 6.750 | | 6.750 | | | -261 | 6.907 | | 7.095 | | 0.240 | |
| EX1-07000 | 7.000 | | 7.000 | | | -262 | 7.157 | | 7.345 | | 0.240 | |
| EX1-07250 | 7.250 | | 7.250 | | | -263 | 7.407 | | 7.595 | | 0.240 | |
| EX1-07500 | 7.500 | | 7.500 | | | -264 | 7.657 | | 7.845 | | 0.240 | |
| EX1-07750 | 7.750 | | 7.750 | | | -265 | 7.907 | | 8.045 | ▼ | 0.240 | |
| EX1-08000 | 8.000 | | 8.000 | | | -266 | 8.157 | | 8.345 | +0.005 -0.000 | 0.240 | |
| EX1-08500 | 8.500 | | 8.500 | | | -268 | 8.657 | | 8.845 | | 0.240 | |
| EX1-09000 | 9.000 | | 9.000 | | | -270 | 9.157 | | 9.345 | | 0.240 | |
| EX1-09500 | 9.500 | | 9.500 | | | -272 | 9.657 | | 9.845 | | 0.240 | |
| EX1-10000 | 10.000 | ▼ | 10.000 | | | -274 | 10.157 | ▼ | 10.345 | ▼ | 0.240 | ▼ |



EX2 - EX5 - Rod wipers - Inch

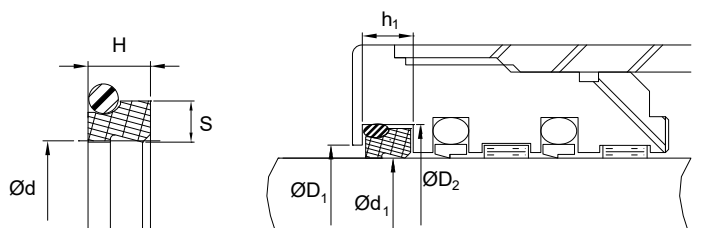


EX2



EX5

| Standard Material | Temperature Range | Surface Speed |
|---------------------|-------------------------------------|-------------------|
| BR.PTFE/ Nitrile | -40°F to +200°F (-40°C to +93°C) | < 13 ft/s (4 m/s) |



EX2/EX5-style rod wipers are double-lips scraper with asymmetrical lips installed one behind the other. **EX2/EX5-style** rod wipers are installed with an elastomeric O'Ring in a single groove. While the **EX2/EX5-style** ring does the scraping duties, the O'Ring insures a positive pressure on the sliding surface to compensate for any deflection or misalignment of the rod.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Inspection Dimensions | | | | Housing Dimensions | | | | | |
|-------------|--------------|------------------|-----------------------|-------|-------|------|--------------------|------------------|-------|------------------|-------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | D2 | Tol. | h1 | Tol. |
| EX2-00312 | 0.312 | +0.000 -0.001 | 0.312 | 0.076 | 0.126 | -012 | 0.373 | +0.004 -0.000 | 0.503 | +0.001 -0.000 | 0.146 | +0.008 -0.000 |
| EX2-00375 | 0.375 | | 0.375 | 0.076 | 0.126 | -013 | 0.435 | | 0.565 | | 0.146 | |
| EX2-00437 | 0.437 | +0.000 -0.002 | 0.437 | 0.076 | 0.126 | -014 | 0.497 | | 0.628 | +0.002 -0.000 | 0.146 | |
| EX2-00500 | 0.500 | | 0.500 | 0.076 | 0.126 | -015 | 0.560 | | 0.690 | | 0.146 | |
| EX2-00500HD | 0.500 | | 0.500 | 0.116 | 0.176 | -113 | 0.560 | | 0.770 | | 0.196 | |
| EX2-00562 | 0.562 | | 0.562 | 0.076 | 0.126 | -016 | 0.622 | | 0.753 | | 0.146 | |
| EX2-00562HD | 0.562 | | 0.562 | 0.116 | 0.176 | -114 | 0.622 | | 0.833 | | 0.196 | |
| EX2-00625 | 0.625 | | 0.625 | 0.076 | 0.126 | -017 | 0.685 | | 0.815 | | 0.146 | |
| EX2-00625HD | 0.625 | | 0.625 | 0.116 | 0.176 | -115 | 0.685 | | 0.895 | | 0.196 | |
| EX2-00687 | 0.687 | | 0.687 | 0.076 | 0.126 | -018 | 0.747 | | 0.878 | | 0.146 | |
| EX2-00687HD | 0.687 | | 0.687 | 0.116 | 0.176 | -116 | 0.747 | ▼ | 0.958 | | 0.196 | |
| EX2-00750 | 0.750 | | 0.750 | 0.076 | 0.126 | -019 | 0.810 | +0.005 -0.000 | 0.940 | | 0.146 | |
| EX2-00750HD | 0.750 | | 0.750 | 0.116 | 0.176 | -117 | 0.810 | | 1.020 | | 0.196 | |
| EX2-00812 | 0.812 | | 0.812 | 0.076 | 0.126 | -020 | 0.872 | | 1.003 | | 0.146 | |
| EX2-00812HD | 0.812 | | 0.812 | 0.116 | 0.176 | -118 | 0.872 | | 1.083 | | 0.196 | |
| EX2-00875 | 0.875 | | 0.875 | 0.076 | 0.126 | -021 | 0.935 | | 1.065 | | 0.146 | |
| EX2-00875HD | 0.875 | | 0.875 | 0.116 | 0.176 | -119 | 0.935 | | 1.145 | | 0.196 | |
| EX2-00937 | 0.937 | | 0.937 | 0.076 | 0.126 | -022 | 0.997 | | 1.128 | | 0.146 | |
| EX2-00937HD | 0.937 | | 0.937 | 0.116 | 0.176 | -120 | 0.997 | | 1.208 | | 0.196 | |
| EX2-01000 | 1.000 | | 1.000 | 0.076 | 0.126 | -023 | 1.060 | | 1.190 | | 0.146 | |
| EX2-01000HD | 1.000 | | 1.000 | 0.116 | 0.176 | -121 | 1.060 | | 1.270 | | 0.196 | |
| EX2-01062 | 1.062 | ▼ | 1.062 | 0.116 | 0.176 | -122 | 1.122 | ▼ | 1.333 | ▼ | 0.196 | ▼ |

EX2 - EX5 series - BR.PTFE/NBR



| Ref.Number | Rod Diameter | | Inspection Dimensions | | | | Housing Dimensions | | | | | |
|------------|--------------|------------------|-----------------------|-------|-------|------|--------------------|------------------|-------|------------------|-------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | D2 | Tol. | h1 | Tol. |
| EX2-01125 | 1.125 | +0.000 -0.002 | 1.125 | 0.116 | 0.176 | -123 | 1.185 | +0.005/-0.000 | 1.395 | +0.002 -0.000 | 0.196 | +0.008 -0.000 |
| EX2-01187 | 1.187 | | 1.187 | 0.116 | 0.176 | -124 | 1.247 | | 1.458 | | 0.196 | |
| EX2-01250 | 1.250 | | 1.250 | 0.116 | 0.176 | -125 | 1.310 | +0.006 -0.000 | 1.520 | | 0.196 | |
| EX2-01312 | 1.312 | | 1.312 | 0.116 | 0.176 | -126 | 1.372 | | 1.583 | | 0.196 | |
| EX2-01375 | 1.375 | | 1.375 | 0.116 | 0.176 | -127 | 1.435 | | 1.645 | | 0.196 | |
| EX2-01437 | 1.437 | | 1.437 | 0.116 | 0.176 | -128 | 1.497 | | 1.708 | | 0.196 | |
| EX2-01500 | 1.500 | | 1.500 | 0.116 | 0.176 | -129 | 1.560 | | 1.770 | | 0.196 | |
| EX5-01500 | 1.500 | | 1.500 | 0.154 | 0.232 | -131 | 1.560 | | 1.846 | | 0.248 | |
| EX2-01562 | 1.562 | | 1.562 | 0.116 | 0.176 | -130 | 1.622 | | 1.833 | | 0.196 | |
| EX2-01625 | 1.625 | | 1.625 | 0.116 | 0.176 | -131 | 1.685 | | 1.895 | | 0.196 | |
| EX2-01687 | 1.687 | | 1.687 | 0.116 | 0.176 | -132 | 1.747 | | 1.958 | | 0.196 | |
| EX2-01750 | 1.750 | | 1.750 | 0.116 | 0.176 | -133 | 1.810 | | 2.020 | | 0.196 | |
| EX2-01812 | 1.812 | | 1.812 | 0.116 | 0.176 | -134 | 1.872 | | 2.083 | | 0.196 | |
| EX2-01875 | 1.875 | | 1.875 | 0.116 | 0.176 | -135 | 1.935 | | 2.145 | | 0.196 | |
| EX2-01937 | 1.937 | ▼ | 1.937 | 0.116 | 0.176 | -136 | 1.997 | ▼ | 2.208 | ▼ | 0.196 | |
| EX2-02000 | 2.000 | +0.000 -0.003 | 2.000 | 0.116 | 0.176 | -137 | 2.060 | +0.007 -0.000 | 2.270 | +0.003 -0.000 | 0.196 | |
| EX5-02000 | 2.000 | | 2.000 | 0.154 | 0.232 | -138 | 2.060 | | 2.346 | | 0.248 | |
| EX2-02125 | 2.125 | | 2.125 | 0.116 | 0.176 | -139 | 2.185 | | 2.395 | | 0.196 | |
| EX2-02250 | 2.250 | | 2.250 | 0.116 | 0.176 | -141 | 2.310 | | 2.520 | | 0.196 | |
| EX2-02375 | 2.375 | | 2.375 | 0.116 | 0.176 | -143 | 2.435 | | 2.645 | | 0.196 | |
| EX2-02500 | 2.500 | | 2.500 | 0.116 | 0.176 | -145 | 2.560 | | 2.770 | | 0.196 | |
| EX5-02500 | 2.500 | | 2.500 | 0.154 | 0.232 | -146 | 2.560 | | 2.846 | | 0.248 | |
| EX2-02625 | 2.625 | | 2.625 | 0.116 | 0.176 | -147 | 2.685 | | 2.895 | | 0.196 | |
| EX2-02750 | 2.750 | | 2.750 | 0.116 | 0.176 | -149 | 2.810 | | 3.020 | | 0.196 | |
| EX2-02875 | 2.875 | | 2.875 | 0.116 | 0.176 | -151 | 2.935 | | 3.145 | | 0.196 | |
| EX2-03000 | 3.000 | | 3.000 | 0.116 | 0.176 | -151 | 3.060 | | 3.270 | | 0.196 | |
| EX5-03000 | 3.000 | | 3.000 | 0.213 | 0.303 | -236 | 3.080 | | 3.480 | | 0.319 | |
| EX2-03125 | 3.125 | | 3.125 | 0.116 | 0.176 | -152 | 3.185 | ▼ | 3.395 | | 0.196 | |
| EX2-03250 | 3.250 | | 3.250 | 0.116 | 0.176 | -152 | 3.310 | +0.009 -0.000 | 3.520 | | 0.196 | |
| EX2-03375 | 3.375 | | 3.375 | 0.116 | 0.176 | -153 | 3.435 | | 3.645 | | 0.196 | |
| EX2-03500 | 3.500 | | 3.500 | 0.116 | 0.176 | -153 | 3.560 | | 3.770 | | 0.196 | |
| EX5-03500 | 3.500 | | 3.500 | 0.213 | 0.303 | -240 | 3.580 | | 3.980 | | 0.319 | |
| EX2-03625 | 3.625 | | 3.625 | 0.116 | 0.176 | -154 | 3.685 | | 3.895 | | 0.196 | |
| EX2-03750 | 3.750 | | 3.750 | 0.116 | 0.176 | -154 | 3.810 | | 4.020 | | 0.196 | |
| EX2-03875 | 3.875 | | 3.875 | 0.116 | 0.176 | -155 | 3.935 | | 4.145 | | 0.196 | |
| EX2-04000 | 4.000 | | 4.000 | 0.116 | 0.176 | -155 | 4.060 | | 4.270 | | 0.196 | |
| EX5-04000 | 4.000 | | 4.000 | 0.213 | 0.303 | -243 | 4.080 | | 4.480 | | 0.319 | |
| EX2-04125 | 4.125 | | 4.125 | 0.116 | 0.176 | -156 | 4.185 | | 4.395 | | 0.196 | |
| EX2-04250 | 4.250 | | 4.250 | 0.116 | 0.176 | -156 | 4.310 | | 4.520 | | 0.196 | |
| EX2-04375 | 4.375 | | 4.375 | 0.116 | 0.176 | -157 | 4.435 | | 4.645 | | 0.196 | |
| EX2-04500 | 4.500 | | 4.500 | 0.116 | 0.176 | -157 | 4.560 | | 4.770 | | 0.196 | |
| EX5-04500 | 4.500 | | 4.500 | 0.213 | 0.303 | -247 | 4.580 | | 4.980 | | 0.319 | |
| EX2-04625 | 4.625 | ▼ | 4.625 | 0.116 | 0.176 | -158 | 4.685 | ▼ | 4.895 | ▼ | 0.196 | |
| EX2-04750 | 4.750 | +0.000 -0.004 | 4.750 | 0.116 | 0.176 | -158 | 4.810 | +0.010 -0.000 | 5.020 | +0.004 -0.000 | 0.196 | |
| EX2-04875 | 4.875 | | 4.875 | 0.116 | 0.176 | -159 | 4.935 | | 5.145 | | 0.196 | |
| EX2-05000 | 5.000 | ▼ | 5.000 | 0.116 | 0.176 | -159 | 5.060 | ▼ | 5.270 | ▼ | 0.196 | ▼ |

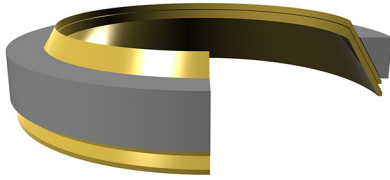


EX2 - EX5 series - BR.PTFE/NBR

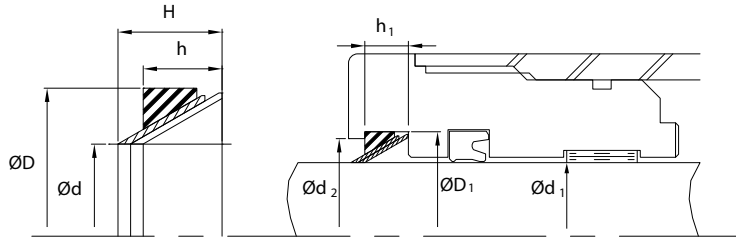
| Ref.Number | Rod Diameter | | Inspection Dimensions | | | | Housing Dimensions | | | | | |
|-------------|--------------|------------------|-----------------------|-------|-------|------|--------------------|------------------|--------|------------------|-------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | D2 | Tol. | h1 | Tol. |
| EX5-05000 | 5.000 | +0.000 -0.004 | 5.000 | 0.213 | 0.303 | -251 | 5.080 | +0.010 -0.000 | 5.480 | +0.004 -0.000 | 0.319 | +0.008 -0.000 |
| EX2-05125 | 5.125 | | 5.125 | 0.116 | 0.176 | -160 | 5.185 | | 5.395 | | 0.196 | |
| EX2-05250 | 5.250 | | 5.250 | 0.116 | 0.176 | -160 | 5.310 | | 5.520 | | 0.196 | |
| EX2-05375 | 5.375 | | 5.375 | 0.116 | 0.176 | -161 | 5.435 | | 5.645 | | 0.196 | |
| EX2-05500 | 5.500 | | 5.500 | 0.116 | 0.176 | -161 | 5.560 | | 5.770 | | 0.196 | |
| EX5-05500 | 5.500 | | 5.500 | 0.276 | 0.358 | -359 | 5.600 | | 6.130 | | 0.374 | |
| EX2-05625 | 5.625 | | 5.625 | 0.116 | 0.176 | -162 | 5.685 | | 5.895 | | 0.196 | |
| EX2-05750 | 5.750 | | 5.750 | 0.116 | 0.176 | -162 | 5.810 | | 6.020 | | 0.196 | |
| EX2-06000 | 6.000 | | 6.000 | 0.116 | 0.176 | -163 | 6.060 | | 6.270 | | 0.196 | |
| EX2-06000HD | 6.000 | | 6.000 | 0.148 | 0.216 | -258 | 6.060 | | 6.345 | | 0.236 | |
| EX5-06000 | 6.000 | | 6.000 | 0.276 | 0.358 | -362 | 6.100 | | 6.630 | | 0.374 | |
| EX2-06250 | 6.250 | | 6.250 | 0.148 | 0.216 | -259 | 6.310 | | 6.595 | | 0.236 | |
| EX2-06500 | 6.500 | | 6.500 | 0.148 | 0.216 | -260 | 6.560 | | 6.845 | | 0.236 | |
| EX5-06500 | 6.500 | | 6.500 | 0.276 | 0.358 | -364 | 6.600 | | 7.130 | | 0.374 | |
| EX2-06750 | 6.750 | | 6.750 | 0.148 | 0.216 | -261 | 6.810 | | 7.095 | | 0.236 | |
| EX2-07000 | 7.000 | | 7.000 | 0.148 | 0.216 | -262 | 7.060 | | 7.345 | | 0.236 | |
| EX5-07000 | 7.000 | ▼ | 7.000 | 0.276 | 0.358 | -366 | 7.100 | ▼ | 7.630 | ▼ | 0.374 | |
| EX2-07250 | 7.250 | +0.000 -0.005 | 7.250 | 0.148 | 0.216 | -263 | 7.310 | +0.011 -0.000 | 7.595 | +0.005 -0.000 | 0.236 | |
| EX2-07500 | 7.500 | | 7.500 | 0.148 | 0.216 | -264 | 7.560 | | 7.845 | | 0.236 | |
| EX2-07750 | 7.750 | | 7.750 | 0.148 | 0.216 | -265 | 7.810 | | 8.095 | | 0.236 | |
| EX2-08000 | 8.000 | | 8.000 | 0.148 | 0.216 | -266 | 8.060 | | 8.345 | | 0.236 | |
| EX5-08000 | 8.000 | | 8.000 | 0.276 | 0.358 | -370 | 8.100 | | 8.630 | | 0.374 | |
| EX2-08250 | 8.250 | | 8.250 | 0.148 | 0.216 | -267 | 8.310 | | 8.595 | | 0.236 | |
| EX2-08500 | 8.500 | | 8.500 | 0.148 | 0.216 | -268 | 8.560 | | 8.845 | | 0.236 | |
| EX2-08750 | 8.750 | | 8.750 | 0.148 | 0.216 | -269 | 8.810 | | 9.095 | | 0.236 | |
| EX2-09000 | 9.000 | | 9.000 | 0.148 | 0.216 | -270 | 9.060 | | 9.345 | | 0.236 | |
| EX5-09000 | 9.000 | | 9.000 | 0.276 | 0.358 | -374 | 9.100 | | 9.630 | | 0.374 | |
| EX2-09250 | 9.250 | | 9.250 | 0.148 | 0.216 | -271 | 9.310 | | 9.595 | | 0.236 | |
| EX2-09500 | 9.500 | | 9.500 | 0.148 | 0.216 | -272 | 9.560 | | 9.845 | | 0.236 | |
| EX2-09750 | 9.750 | | 9.750 | 0.148 | 0.216 | -273 | 9.810 | ▼ | 10.095 | | 0.236 | |
| EX2-10000 | 10.000 | | 10.000 | 0.148 | 0.216 | -274 | 10.060 | +0.013 -0.000 | 10.345 | | 0.236 | |
| EX2-10000HD | 10.000 | | 10.000 | 0.202 | 0.300 | -377 | 10.080 | | 10.480 | | 0.332 | |
| EX5-10000 | 10.000 | ▼ | 10.000 | 0.276 | 0.358 | -377 | 10.100 | ▼ | 10.630 | ▼ | 0.374 | ▼ |



BW/S - Rod wipers - Inch



| Standard Material | Temperature Range |
|-------------------|--------------------------------------|
| Brass/Nitrile | -40°F to +240°F (-40°C to +116°C) |



BW/S-style metal scrapers are used to remove the toughest, most abrasive contaminants that may adhere to cylinder rods, including ice, adhesives, coatings and other potentially damaging materials. By using rubber energizing elements behind the dual-contact scrapers, the **BW/S-style** scrapers provide the best possible removal of stubborn contaminants.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|-------------|--------------|------------------|-------------------------|---|---|--------------------|------------------|-------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | d2 | Tol. | D1 | Tol. | h1 | Tol. |
| BW-00250S/5 | 0.250 | + .001 - .002 | 0.250 | | | 0.464 | + .000 - .010 | 0.500 | + .003 - .003 | 0.125 | + .003 - .001 |
| BW-00312S/5 | 0.312 | | 0.312 | | | 0.526 | | 0.562 | | 0.125 | |
| BW-00375S/5 | 0.375 | | 0.375 | | | 0.589 | | 0.625 | | 0.125 | |
| BW-00437S/5 | 0.437 | | 0.437 | | | 0.651 | | 0.687 | | 0.125 | |
| BW-00500S/5 | 0.500 | | 0.500 | | | 0.714 | | 0.750 | | 0.125 | |
| BW-00562S/5 | 0.562 | | 0.562 | | | 0.776 | | 0.812 | | 0.125 | |
| BW-00625S/5 | 0.625 | | 0.625 | | | 0.839 | | 0.875 | | 0.125 | |
| BW-00687S/5 | 0.687 | | 0.687 | | | 0.901 | | 0.937 | | 0.125 | |
| BW-00750S/6 | 0.750 | | 0.750 | | | 1.082 | | 1.125 | | 0.187 | |
| BW-00812S/6 | 0.812 | | 0.812 | | | 1.144 | | 1.187 | | 0.187 | |
| BW-00875S/6 | 0.875 | | 0.875 | | | 1.207 | | 1.250 | | 0.187 | |
| BW-00937S/6 | 0.937 | | 0.937 | | | 1.269 | | 1.312 | | 0.187 | |
| BW-01000S/6 | 1.000 | | 1.000 | | | 1.332 | | 1.375 | | 0.187 | |
| BW-01062S/6 | 1.062 | | 1.062 | | | 1.394 | | 1.437 | | 0.187 | |
| BW-01125S/6 | 1.125 | | 1.125 | | | 1.457 | | 1.500 | | 0.187 | |
| BW-01187S/6 | 1.187 | | 1.187 | | | 1.519 | | 1.562 | | 0.187 | |
| BW-01250S/6 | 1.250 | | 1.250 | | | 1.582 | | 1.625 | | 0.187 | |
| BW-01312S/9 | 1.312 | | 1.312 | | | 1.644 | | 1.687 | | 0.187 | |
| BW-01375S/6 | 1.375 | | 1.375 | | | 1.707 | | 1.750 | | 0.187 | |
| BW-01437S/6 | 1.437 | | 1.437 | | | 1.769 | | 1.812 | | 0.187 | |
| BW-01500S/6 | 1.500 | | 1.500 | | | 1.832 | | 1.875 | | 0.187 | |
| BW-01562S/6 | 1.562 | ↓ | 1.562 | | | 1.894 | ↓ | 1.937 | ↓ | 0.187 | ↓ |



BW/S series - BRASS/NBR

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|-------------|--------------|------------------|-------------------------|---|---|--------------------|------------------|-------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | d2 | Tol. | D1 | Tol. | h1 | Tol. |
| BW-01625S/6 | 1.625 | +0.001 -0.002 | 1.625 | | | 1.957 | +0.000 -0.010 | 2.000 | +0.003 -0.003 | 0.187 | +0.003 -0.001 |
| BW-01687S/6 | 1.687 | | 1.687 | | | 2.019 | | 2.062 | | 0.187 | |
| BW-01750S/6 | 1.750 | | 1.750 | | | 2.082 | | 2.125 | | 0.187 | |
| BW-01812S/6 | 1.812 | | 1.812 | | | 2.144 | | 2.187 | | 0.187 | |
| BW-01875S/6 | 1.875 | | 1.875 | | | 2.207 | | 2.250 | | 0.187 | |
| BW-01937S/6 | 1.937 | | 1.937 | | | 2.269 | | 2.312 | | 0.187 | |
| BW-02000S/7 | 2.000 | | 2.000 | | | 2.440 | | 2.500 | | 0.250 | |
| BW-02062S/7 | 2.062 | | 2.062 | | | 2.502 | | 2.562 | | 0.250 | |
| BW-02125S/7 | 2.125 | | 2.125 | | | 2.565 | | 2.625 | | 0.250 | |
| BW-02187S/7 | 2.187 | | 2.187 | | | 2.627 | | 2.687 | | 0.250 | |
| BW-02250S/7 | 2.250 | | 2.250 | | | 2.690 | | 2.750 | | 0.250 | |
| BW-02312S/7 | 2.312 | | 2.312 | | | 2.752 | | 2.812 | | 0.250 | |
| BW-02375S/7 | 2.375 | | 2.375 | | | 2.815 | | 2.875 | | 0.250 | |
| BW-02437S/7 | 2.437 | | 2.437 | | | 2.877 | | 2.937 | | 0.250 | |
| BW-02500S/7 | 2.500 | | 2.500 | | | 2.940 | | 3.000 | | 0.250 | |
| BW-02562S/7 | 2.562 | | 2.562 | | | 3.002 | | 3.062 | | 0.250 | |
| BW-02625S/7 | 2.625 | | 2.625 | | | 3.065 | | 3.125 | | 0.250 | |
| BW-02687S/7 | 2.687 | | 2.687 | | | 3.127 | | 3.187 | | 0.250 | |
| BW-02750S/7 | 2.750 | | 2.750 | | | 3.190 | | 3.250 | | 0.250 | |
| BW-02812S/7 | 2.812 | | 2.812 | | | 3.252 | | 3.312 | | 0.250 | |
| BW-02875S/7 | 2.875 | | 2.875 | | | 3.315 | | 3.375 | | 0.250 | |
| BW-02937S/7 | 2.937 | | 2.937 | | | 3.377 | | 3.437 | | 0.250 | |
| BW-03000S/7 | 3.000 | | 3.000 | | | 3.440 | | 3.500 | | 0.250 | |
| BW-03125S/7 | 3.125 | | 3.125 | | | 3.565 | | 3.625 | | 0.250 | |
| BW-03250S/7 | 3.250 | | 3.250 | | | 3.690 | | 3.750 | | 0.250 | |
| BW-03375S/7 | 3.375 | | 3.375 | | | 3.815 | | 3.875 | | 0.250 | |
| BW-03500S/7 | 3.500 | | 3.500 | | | 3.940 | | 4.000 | | 0.250 | |
| BW-03625S/7 | 3.625 | | 3.625 | | | 4.065 | | 4.125 | | 0.250 | |
| BW-03750S/7 | 3.750 | | 3.750 | | | 4.190 | | 4.250 | | 0.250 | |
| BW-03875S/7 | 3.875 | | 3.875 | | | 4.315 | | 4.375 | | 0.250 | |
| BW-04000S/7 | 4.000 | | 4.000 | | | 4.440 | | 4.500 | | 0.250 | |
| BW-04125S/7 | 4.125 | | 4.125 | | | 4.565 | | 4.625 | | 0.250 | |
| BW-04250S/7 | 4.250 | | 4.250 | | | 4.690 | | 4.750 | | 0.250 | |
| BW-04375S/7 | 4.375 | | 4.375 | | | 4.815 | | 4.875 | | 0.250 | |
| BW-04500S/8 | 4.500 | | 4.500 | | | 5.160 | | 5.250 | | 0.375 | |
| BW-04625S/8 | 4.625 | | 4.625 | | | 5.285 | | 5.375 | | 0.375 | |
| BW-04750S/8 | 4.750 | | 4.750 | | | 5.410 | | 5.500 | | 0.375 | |
| BW-04875S/8 | 4.875 | | 4.875 | | | 5.535 | | 5.625 | | 0.375 | |
| BW-05000S/8 | 5.000 | | 5.000 | | | 5.660 | | 5.750 | | 0.375 | |
| BW-05125S/8 | 5.125 | | 5.125 | | | 5.785 | | 5.875 | | 0.375 | |
| BW-05250S/8 | 5.250 | | 5.250 | | | 5.910 | | 6.000 | | 0.375 | |
| BW-05375S/8 | 5.375 | | 5.375 | | | 6.035 | | 6.125 | | 0.375 | |
| BW-05500S/8 | 5.500 | | 5.500 | | | 6.160 | | 6.250 | | 0.375 | |
| BW-05625S/8 | 5.625 | | 5.625 | | | 6.285 | | 6.375 | | 0.375 | |
| BW-05750S/8 | 5.750 | | 5.750 | | | 6.410 | | 6.500 | | 0.375 | |
| BW-05875S/8 | 5.875 | ▼ | 5.875 | | | 6.535 | ▼ | 6.625 | ▼ | 0.375 | ▼ |

BW/S series - BRASS/NBR



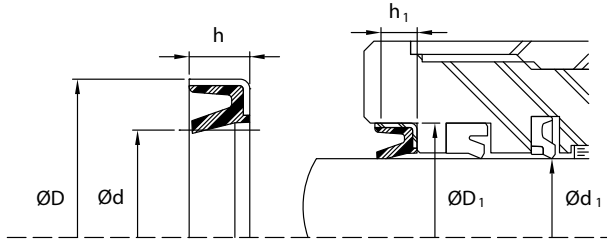
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|-------------|---------------|------------------|-------------------------|---|---|--------------------|------------------|--------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | d2 | Tol. | D1 | Tol. | h1 | Tol. |
| BW-06000S/8 | 6.000 | +0.001 -0.002 | 6.000 | | | 6.660 | +0.000 -0.010 | 6.750 | +0.003 -0.003 | 0.375 | +0.003 -0.001 |
| BW-06250S/8 | 6.250 | | 6.250 | | | 6.910 | | 7.000 | | 0.375 | |
| BW-06500S/8 | 6.500 | | 6.500 | | | 7.160 | | 7.250 | | 0.375 | |
| BW-06750S/8 | 6.750 | | 6.750 | | | 7.410 | | 7.500 | | 0.375 | |
| BW-07000S/8 | 7.000 | | 7.000 | | | 7.660 | | 7.750 | | 0.375 | |
| BW-07250S/8 | 7.250 | | 7.250 | | | 7.910 | | 8.000 | | 0.375 | |
| BW-07500S/8 | 7.500 | | 7.500 | | | 8.160 | | 8.250 | | 0.375 | |
| BW-07750S/8 | 7.750 | | 7.750 | | | 8.410 | | 8.500 | | 0.375 | |
| BW-08000S/8 | 8.000 | | 8.000 | | | 8.660 | | 8.750 | | 0.375 | |
| BW-08250S/8 | 8.250 | | 8.250 | | | 8.910 | | 9.000 | | 0.375 | |
| BW-08500S/8 | 8.500 | | 8.500 | | | 9.160 | | 9.250 | | 0.375 | |
| BW-08750S/8 | 8.750 | | 8.750 | | | 9.410 | | 9.500 | | 0.375 | |
| BW-09000S/8 | 9.000 | | 9.000 | | | 9.660 | | 9.750 | | 0.375 | |
| BW-09250S/8 | 9.250 | | 9.250 | | | 9.910 | | 10.000 | | 0.375 | |
| BW-09500S/8 | 9.500 | | 9.500 | | | 10.160 | | 10.250 | | 0.375 | |
| BW-09750S/8 | 9.750 | | 9.750 | | | 10.410 | | 10.500 | | 0.375 | |
| BW-10000S/9 | 10.000 | ▼ | 10.000 | | | 10.880 | ▼ | 11.000 | ▼ | 0.500 | ▼ |



J - Rod wipers - Inch



| Standard Material | Temperature Range | Surface Speed |
|--------------------|-------------------------------------|---------------------|
| Polyurethane/Steel | -65°F to +200°F (-40°C to +93°C) | <1.6 ft/s (0.5 m/s) |



J-style rod wipers are molded from urethane and encased in a heavy-duty metal case. The press-fit installation guards against O.D. contamination and requires simple counter-bore machining. The wiping lip gives them exceptional abrasion resistance and outstanding endurance under difficult operating conditions. They are highly effective in removing dust, mud and moisture from the rod.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| J05001000250 | 0.500 | +0.000 -0.002 | 0.500 | 1.000 | 0.250 | 1.000 | +0.001 -0.001 | 0.250 | +0.015 -0.000 |
| J06251125312 | 0.625 | | 0.625 | 1.125 | 0.312 | 1.125 | | 0.312 | |
| J07501250250 | 0.750 | +0.000 -0.003 | 0.750 | 1.250 | 0.250 | 1.250 | | 0.250 | |
| J07501250312 | 0.750 | | 0.750 | 1.250 | 0.312 | 1.250 | | 0.312 | |
| J08751125156 | 0.875 | | 0.875 | 1.125 | 0.156 | 1.125 | | 0.156 | |
| J08751375312 | 0.875 | | 0.875 | 1.375 | 0.312 | 1.375 | | 0.312 | |
| J10001500312 | 1.000 | | 1.000 | 1.500 | 0.312 | 1.500 | | 0.312 | |
| J11251625312 | 1.125 | | 1.125 | 1.625 | 0.312 | 1.625 | | 0.312 | |
| J11871625250 | 1.187 | | 1.187 | 1.625 | 0.250 | 1.625 | | 0.250 | |
| J12501625125 | 1.250 | | 1.250 | 1.625 | 0.125 | 1.625 | | 0.125 | |
| J12501750250 | 1.250 | | 1.250 | 1.750 | 0.250 | 1.750 | | 0.250 | |
| J12501750312 | 1.250 | | 1.250 | 1.750 | 0.312 | 1.750 | | 0.312 | |
| J12502062375 | 1.250 | | 1.250 | 2.062 | 0.375 | 2.062 | | 0.375 | |
| J13751875312 | 1.375 | | 1.375 | 1.875 | 0.312 | 1.875 | | 0.312 | |
| J15001875125 | 1.500 | | 1.500 | 1.875 | 0.125 | 1.875 | | 0.125 | |
| J15001875250 | 1.500 | | 1.500 | 1.875 | 0.250 | 1.875 | | 0.250 | |
| J15002000250 | 1.500 | | 1.500 | 2.000 | 0.250 | 2.000 | | 0.250 | |
| J15002000312 | 1.500 | | 1.500 | 2.000 | 0.312 | 2.000 | | 0.312 | |
| J15002125312 | 1.500 | | 1.500 | 2.125 | 0.312 | 2.125 | | 0.312 | |
| J15002250375 | 1.500 | | 1.500 | 2.250 | 0.375 | 2.250 | | 0.375 | |
| J16252125250 | 1.625 | | 1.625 | 2.125 | 0.250 | 2.125 | | 0.250 | |
| J16252125312 | 1.625 | ▼ | 1.625 | 2.125 | 0.312 | 2.125 | ▼ | 0.312 | ▼ |

J series - AU/STEEL



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|--------|-------------------------|-------|-------|--------------------|--------|-------|--------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| J17502125125 | 1.750 | +0.000 | 1.750 | 2.125 | 0.125 | 2.125 | | 0.125 | |
| J17502250125 | 1.750 | -0.003 | 1.750 | 2.250 | 0.125 | 2.250 | +0.001 | 0.125 | +0.015 |
| J17502250187 | 1.750 | | 1.750 | 2.250 | 0.187 | 2.250 | | 0.187 | |
| J17502250250 | 1.750 | | 1.750 | 2.250 | 0.250 | 2.250 | | 0.250 | |
| J17502250312 | 1.750 | | 1.750 | 2.250 | 0.312 | 2.250 | | 0.312 | |
| J17502437375 | 1.750 | | 1.750 | 2.437 | 0.375 | 2.437 | | 0.375 | |
| J17502500375 | 1.750 | | 1.750 | 2.500 | 0.375 | 2.500 | | 0.375 | |
| J18752375312 | 1.875 | | 1.875 | 2.375 | 0.312 | 2.375 | | 0.312 | |
| J18752562375 | 1.875 | | 1.875 | 2.562 | 0.375 | 2.562 | | 0.375 | |
| J20002375250 | 2.000 | | 2.000 | 2.375 | 0.250 | 2.375 | | 0.250 | |
| J20002500187 | 2.000 | | 2.000 | 2.500 | 0.187 | 2.500 | | 0.187 | |
| J20002500250 | 2.000 | | 2.000 | 2.500 | 0.250 | 2.500 | | 0.250 | |
| J20002500312 | 2.000 | | 2.000 | 2.500 | 0.312 | 2.500 | | 0.312 | |
| J20002625250 | 2.000 | | 2.000 | 2.625 | 0.250 | 2.625 | | 0.250 | |
| J20002687375 | 2.000 | | 2.000 | 2.687 | 0.375 | 2.687 | | 0.375 | |
| J20002750375 | 2.000 | | 2.000 | 2.750 | 0.375 | 2.750 | | 0.375 | |
| J21252500125 | 2.125 | | 2.125 | 2.500 | 0.125 | 2.500 | | 0.125 | |
| J21252625250 | 2.125 | | 2.125 | 2.625 | 0.250 | 2.625 | | 0.250 | |
| J21872687375 | 2.187 | | 2.187 | 2.687 | 0.375 | 2.687 | | 0.375 | |
| J22502750187 | 2.250 | | 2.250 | 2.750 | 0.187 | 2.750 | | 0.187 | |
| J22502750250 | 2.250 | | 2.250 | 2.750 | 0.250 | 2.750 | | 0.250 | |
| J22502750312 | 2.250 | | 2.250 | 2.750 | 0.312 | 2.750 | | 0.312 | |
| J22503000375 | 2.250 | | 2.250 | 3.000 | 0.375 | 3.000 | | 0.375 | |
| J23123125375 | 2.312 | | 2.312 | 3.125 | 0.375 | 3.125 | | 0.375 | |
| J23752875312 | 2.375 | | 2.375 | 2.875 | 0.312 | 2.875 | | 0.312 | |
| J23753125375 | 2.375 | | 2.375 | 3.125 | 0.375 | 3.125 | | 0.375 | |
| J25002875125 | 2.500 | | 2.500 | 2.875 | 0.125 | 2.875 | | 0.125 | |
| J25003000187 | 2.500 | | 2.500 | 3.000 | 0.187 | 3.000 | | 0.187 | |
| J25003000312 | 2.500 | | 2.500 | 3.000 | 0.312 | 3.000 | | 0.312 | |
| J25003125250 | 2.500 | | 2.500 | 3.125 | 0.250 | 3.125 | | 0.250 | |
| J25003187375 | 2.500 | | 2.500 | 3.187 | 0.375 | 3.187 | | 0.375 | |
| J25003250250 | 2.500 | | 2.500 | 3.250 | 0.250 | 3.250 | | 0.250 | |
| J25003250375 | 2.500 | | 2.500 | 3.250 | 0.375 | 3.250 | | 0.375 | |
| J26253125250 | 2.625 | | 2.625 | 3.125 | 0.250 | 3.125 | | 0.250 | |
| J26253125312 | 2.625 | | 2.625 | 3.125 | 0.312 | 3.125 | | 0.312 | |
| J27503250187 | 2.750 | | 2.750 | 3.250 | 0.187 | 3.250 | | 0.187 | |
| J27503250312 | 2.750 | | 2.750 | 3.250 | 0.312 | 3.250 | | 0.312 | |
| J27503500250 | 2.750 | | 2.750 | 3.500 | 0.250 | 3.500 | | 0.250 | |
| J27503500375 | 2.750 | | 2.750 | 3.500 | 0.375 | 3.500 | | 0.375 | |
| J27503500500 | 2.750 | | 2.750 | 3.500 | 0.500 | 3.500 | | 0.500 | |
| J27503750500 | 2.750 | | 2.750 | 3.750 | 0.500 | 3.750 | | 0.500 | |
| J28753375312 | 2.875 | ▼ | 2.875 | 3.375 | 0.312 | 3.375 | | 0.312 | |
| J30003500312 | 3.000 | +0.000 | 3.000 | 3.500 | 0.312 | 3.500 | | 0.312 | |
| J30003750250 | 3.000 | -0.004 | 3.000 | 3.750 | 0.250 | 3.750 | | 0.250 | |
| J30003750375 | 3.000 | | 3.000 | 3.750 | 0.375 | 3.750 | | 0.375 | |
| J30004000500 | 3.000 | ▼ | 3.000 | 4.000 | 0.500 | 4.000 | ▼ | 0.500 | ▼ |



J series - AU/STEEL

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| J31253750312 | 3.125 | +0.000 -0.004 | 3.125 | 3.750 | 0.312 | 3.750 | +0.001 -0.001 | 0.312 | +0.015 -0.000 |
| J31253750375 | 3.125 | | 3.125 | 3.750 | 0.375 | 3.750 | | 0.375 | |
| J32503750312 | 3.250 | | 3.250 | 3.750 | 0.312 | 3.750 | | 0.312 | |
| J32503750375 | 3.250 | | 3.250 | 3.750 | 0.375 | 3.750 | | 0.375 | |
| J32503875312 | 3.250 | | 3.250 | 3.875 | 0.312 | 3.875 | | 0.312 | |
| J32504000250 | 3.250 | | 3.250 | 4.000 | 0.250 | 4.000 | | 0.250 | |
| J32504250500 | 3.250 | | 3.250 | 4.250 | 0.500 | 4.250 | | 0.500 | |
| J33754000312 | 3.375 | | 3.375 | 4.000 | 0.312 | 4.000 | | 0.312 | |
| J35003875187 | 3.500 | | 3.500 | 3.875 | 0.187 | 3.875 | | 0.187 | |
| J35004000312 | 3.500 | | 3.500 | 4.000 | 0.312 | 4.000 | | 0.312 | |
| J35004125250 | 3.500 | | 3.500 | 4.125 | 0.250 | 4.125 | | 0.250 | |
| J35004125312 | 3.500 | | 3.500 | 4.125 | 0.312 | 4.125 | | 0.312 | |
| J35004250250 | 3.500 | | 3.500 | 4.250 | 0.250 | 4.250 | | 0.250 | |
| J35004250312 | 3.500 | | 3.500 | 4.250 | 0.312 | 4.250 | | 0.312 | |
| J35004250500 | 3.500 | | 3.500 | 4.250 | 0.500 | 4.250 | | 0.500 | |
| J35004500500 | 3.500 | | 3.500 | 4.500 | 0.500 | 4.500 | | 0.500 | |
| J36254250312 | 3.625 | | 3.625 | 4.250 | 0.312 | 4.250 | | 0.312 | |
| J37504250312 | 3.750 | | 3.750 | 4.250 | 0.312 | 4.250 | | 0.312 | |
| J37504375312 | 3.750 | | 3.750 | 4.375 | 0.312 | 4.375 | | 0.312 | |
| J37504500312 | 3.750 | | 3.750 | 4.500 | 0.312 | 4.500 | | 0.312 | |
| J37504750500 | 3.750 | | 3.750 | 4.750 | 0.500 | 4.750 | | 0.500 | |
| J38754500312 | 3.875 | | 3.875 | 4.500 | 0.312 | 4.500 | | 0.312 | |
| J40004625187 | 4.000 | | 4.000 | 4.625 | 0.187 | 4.625 | | 0.187 | |
| J40004625312 | 4.000 | | 4.000 | 4.625 | 0.312 | 4.625 | | 0.312 | |
| J40004750312 | 4.000 | | 4.000 | 4.750 | 0.312 | 4.750 | | 0.312 | |
| J40005000500 | 4.000 | | 4.000 | 5.000 | 0.500 | 5.000 | | 0.500 | |
| J41254750312 | 4.125 | | 4.125 | 4.750 | 0.312 | 4.750 | | 0.312 | |
| J42504750187 | 4.250 | | 4.250 | 4.750 | 0.187 | 4.750 | | 0.187 | |
| J42504750312 | 4.250 | | 4.250 | 4.750 | 0.312 | 4.750 | | 0.312 | |
| J42504875312 | 4.250 | | 4.250 | 4.875 | 0.312 | 4.875 | | 0.312 | |
| J42505250500 | 4.250 | | 4.250 | 5.250 | 0.500 | 5.250 | | 0.500 | |
| J43755000312 | 4.375 | | 4.375 | 5.000 | 0.312 | 5.000 | | 0.312 | |
| J45005125312 | 4.500 | | 4.500 | 5.125 | 0.312 | 5.125 | | 0.312 | |
| J45005250312 | 4.500 | | 4.500 | 5.250 | 0.312 | 5.250 | | 0.312 | |
| J45005500250 | 4.500 | | 4.500 | 5.500 | 0.250 | 5.500 | | 0.250 | |
| J45005500312 | 4.500 | | 4.500 | 5.500 | 0.312 | 5.500 | | 0.312 | |
| J45005500500 | 4.500 | | 4.500 | 5.500 | 0.500 | 5.500 | | 0.500 | |
| J47505375312 | 4.750 | | 4.750 | 5.375 | 0.312 | 5.375 | | 0.312 | |
| J47505750500 | 4.750 | | 4.750 | 5.750 | 0.500 | 5.750 | | 0.500 | |
| J50005625250 | 5.000 | | 5.000 | 5.625 | 0.250 | 5.625 | | 0.250 | |
| J50005625312 | 5.000 | | 5.000 | 5.625 | 0.312 | 5.625 | | 0.312 | |
| J50005750312 | 5.000 | | 5.000 | 5.750 | 0.312 | 5.750 | | 0.312 | |
| J50006000500 | 5.000 | | 5.000 | 6.000 | 0.500 | 6.000 | | 0.500 | |
| J52505750312 | 5.250 | | 5.250 | 5.750 | 0.312 | 5.750 | | 0.312 | |
| J52505875312 | 5.250 | | 5.250 | 5.875 | 0.312 | 5.875 | | 0.312 | |
| J52506000312 | 5.250 | ▼ | 5.250 | 6.000 | 0.312 | 6.000 | ▼ | 0.312 | ▼ |

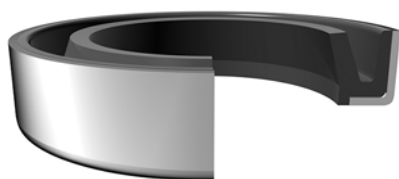
J series - AU/STEEL



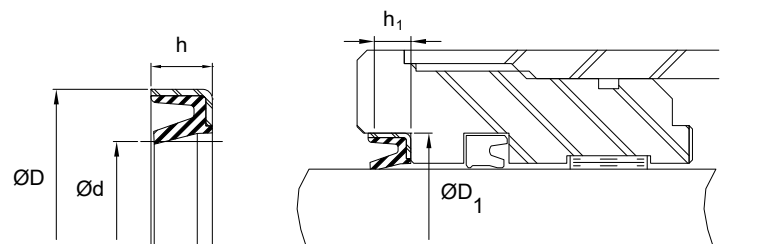
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| J55006125312 | 5.500 | +0.000 -0.004 | 5.500 | 6.125 | 0.312 | 6.125 | +0.001 -0.001 | 0.312 | +0.015 -0.000 |
| J55006125375 | 5.500 | | 5.500 | 6.125 | 0.375 | 6.125 | | 0.375 | |
| J55006250312 | 5.500 | | 5.500 | 6.250 | 0.312 | 6.250 | | 0.312 | |
| J55006500500 | 5.500 | | 5.500 | 6.500 | 0.500 | 6.500 | | 0.500 | |
| J57506375375 | 5.750 | | 5.750 | 6.375 | 0.375 | 6.375 | | 0.375 | |
| J57506750500 | 5.750 | | 5.750 | 6.750 | 0.500 | 6.750 | | 0.500 | |
| J60006625375 | 6.000 | | 6.000 | 6.625 | 0.375 | 6.625 | | 0.375 | |
| J60006750375 | 6.000 | | 6.000 | 6.750 | 0.375 | 6.750 | | 0.375 | |
| J60007000500 | 6.000 | | 6.000 | 7.000 | 0.500 | 7.000 | | 0.500 | |
| J62506750312 | 6.250 | | 6.250 | 6.750 | 0.312 | 6.750 | | 0.312 | |
| J63127250500 | 6.312 | | 6.312 | 7.250 | 0.500 | 7.250 | | 0.500 | |
| J65007250312 | 6.500 | | 6.500 | 7.250 | 0.312 | 7.250 | | 0.312 | |
| J65007500625 | 6.500 | | 6.500 | 7.500 | 0.625 | 7.500 | | 0.625 | |
| J67507250312 | 6.750 | | 6.750 | 7.250 | 0.312 | 7.250 | | 0.312 | |
| J67507375375 | 6.750 | | 6.750 | 7.375 | 0.375 | 7.375 | | 0.375 | |
| J67507750500 | 6.750 | ▼ | 6.750 | 7.750 | 0.500 | 7.750 | | 0.500 | |
| J70007750312 | 7.000 | +0.000 -0.005 | 7.000 | 7.750 | 0.312 | 7.750 | | 0.312 | |
| J70007875312 | 7.000 | | 7.000 | 7.875 | 0.312 | 7.875 | | 0.312 | |
| J70008000500 | 7.000 | | 7.000 | 8.000 | 0.500 | 8.000 | | 0.500 | |
| J72508000312 | 7.250 | | 7.250 | 8.000 | 0.312 | 8.000 | | 0.312 | |
| J72508250500 | 7.250 | | 7.250 | 8.250 | 0.500 | 8.250 | | 0.500 | |
| J80008750375 | 8.000 | | 8.000 | 8.750 | 0.375 | 8.750 | | 0.375 | |
| J81258625312 | 8.125 | | 8.125 | 8.625 | 0.312 | 8.625 | | 0.312 | |
| J85009125375 | 8.500 | | 8.500 | 9.125 | 0.375 | 9.125 | | 0.375 | |
| J90009750550 | 9.000 | | 9.000 | 9.750 | 0.550 | 9.750 | | 0.590 | |
| J90009875312 | 9.000 | | 9.000 | 9.875 | 0.312 | 9.875 | | 0.312 | |
| J975010250312 | 9.750 | | 9.750 | 10.250 | 0.312 | 10.250 | | 0.312 | |
| J1000011000500 | 10.000 | | 10.000 | 11.000 | 0.500 | 11.000 | | 0.500 | |
| J1100012000550 | 11.000 | | 11.000 | 12.000 | 0.550 | 12.000 | | 0.590 | |
| J1250013500550 | 12.500 | | 12.500 | 13.500 | 0.550 | 13.500 | | 0.590 | |
| J1350014500550 | 13.500 | ▼ | 13.500 | 14.500 | 0.550 | 14.500 | ▼ | 0.590 | ▼ |



J/N - Rod wipers - Inch



| Standard Material | Temperature Range | Surface Speed |
|-------------------|--------------------------------------|----------------------|
| Nitrile/Steel | -40°F to +250°F (-40°C to +121°C) | < 1.6 ft/s (0.5 m/s) |



A more economical version of the J-Series, the **J/N-style** combines the durability of the metal case and the simple groove machining dimensions with a nitrile (NBR) wiping lip. It is typically supplied in more compact dimensions than standard urethane metal clad wipers.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| J01870500125/N | 0.187 | +0.003 -0.003 | 0.187 | 0.500 | 0.125 | 0.500 | +0.001 -0.001 | 0.125 | +0.015 -0.000 |
| J03750625125/N | 0.375 | | 0.375 | 0.625 | 0.125 | 0.625 | | 0.125 | |
| J03750687156/N | 0.375 | | 0.375 | 0.687 | 0.156 | 0.687 | | 0.156 | |
| J05000687094/N | 0.500 | | 0.500 | 0.687 | 0.094 | 0.687 | | 0.094 | |
| J05000750125/N | 0.500 | | 0.500 | 0.750 | 0.125 | 0.750 | | 0.125 | |
| J05001125250/N | 0.500 | | 0.500 | 1.125 | 0.250 | 1.125 | | 0.250 | |
| J06250875125/N | 0.625 | | 0.625 | 0.875 | 0.125 | 0.875 | | 0.125 | |
| J06250937187/N | 0.625 | | 0.625 | 0.937 | 0.187 | 0.937 | | 0.187 | |
| J06251000125/N | 0.625 | | 0.625 | 1.000 | 0.125 | 1.000 | | 0.125 | |
| J06870937125/N | 0.687 | | 0.687 | 0.937 | 0.125 | 0.937 | | 0.125 | |
| J06871000187/N | 0.687 | | 0.687 | 1.000 | 0.187 | 1.000 | | 0.187 | |
| J07501000125/N | 0.750 | | 0.750 | 1.000 | 0.125 | 1.000 | | 0.125 | |
| J07501062187/N | 0.750 | | 0.750 | 1.062 | 0.187 | 1.062 | | 0.187 | |
| J07501125187/N | 0.750 | | 0.750 | 1.125 | 0.187 | 1.125 | | 0.187 | |
| J07501250250/N | 0.750 | | 0.750 | 1.250 | 0.250 | 1.250 | | 0.250 | |
| J08751125125/N | 0.875 | | 0.875 | 1.125 | 0.125 | 1.125 | | 0.125 | |
| J08751250187/N | 0.875 | | 0.875 | 1.250 | 0.187 | 1.250 | | 0.187 | |
| J10001250125/N | 1.000 | | 1.000 | 1.250 | 0.125 | 1.250 | | 0.125 | |
| J10001312125/N | 1.000 | | 1.000 | 1.312 | 0.125 | 1.312 | | 0.125 | |
| J10001375187/N | 1.000 | | 1.000 | 1.375 | 0.187 | 1.375 | | 0.187 | |
| J10001437250/N | 1.000 | | 1.000 | 1.437 | 0.250 | 1.437 | | 0.250 | |
| J10001500187/N | 1.000 | ▼ | 1.000 | 1.500 | 0.187 | 1.500 | ▼ | 0.187 | ▼ |

J/N series - NBR/STEEL

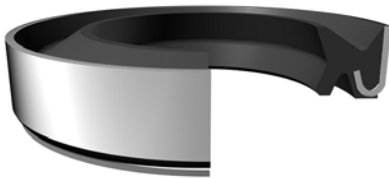


| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| J10001625250/N | 1.000 | +0.003 -0.003 | 1.000 | 1.625 | 0.250 | 1.625 | +0.001 -0.001 | 0.250 | +0.015 -0.000 |
| J10001625375/N | 1.000 | | 1.000 | 1.625 | 0.375 | 1.625 | | 0.375 | |
| J10621500187/N | 1.062 | | 1.062 | 1.500 | 0.187 | 1.500 | | 0.187 | |
| J11251375125/N | 1.125 | | 1.125 | 1.375 | 0.125 | 1.375 | | 0.125 | |
| J11251500187/N | 1.125 | | 1.125 | 1.500 | 0.187 | 1.500 | | 0.187 | |
| J11251500250/N | 1.125 | | 1.125 | 1.500 | 0.250 | 1.500 | | 0.250 | |
| J11251562250/N | 1.125 | | 1.125 | 1.562 | 0.250 | 1.562 | | 0.250 | |
| J11251625250/N | 1.125 | | 1.125 | 1.625 | 0.250 | 1.625 | | 0.250 | |
| J11871625250/N | 1.187 | | 1.187 | 1.625 | 0.250 | 1.625 | | 0.250 | |
| J12501500125/N | 1.250 | | 1.250 | 1.500 | 0.125 | 1.500 | | 0.125 | |
| J12501625250/N | 1.250 | | 1.250 | 1.625 | 0.250 | 1.625 | | 0.250 | |
| J12501687187/N | 1.250 | | 1.250 | 1.687 | 0.187 | 1.687 | | 0.187 | |
| J12501750250/N | 1.250 | | 1.250 | 1.750 | 0.250 | 1.750 | | 0.250 | |
| J12501875250/N | 1.250 | | 1.250 | 1.875 | 0.250 | 1.875 | | 0.250 | |
| J13751625125/N | 1.375 | | 1.375 | 1.625 | 0.125 | 1.625 | | 0.125 | |
| J13751750187/N | 1.375 | | 1.375 | 1.750 | 0.187 | 1.750 | | 0.187 | |
| J13751875250/N | 1.375 | | 1.375 | 1.875 | 0.250 | 1.875 | | 0.250 | |
| J15001750125/N | 1.500 | | 1.500 | 1.750 | 0.125 | 1.750 | | 0.125 | |
| J15001875187/N | 1.500 | | 1.500 | 1.875 | 0.187 | 1.875 | | 0.187 | |
| J15001875250/N | 1.500 | | 1.500 | 1.875 | 0.250 | 1.875 | | 0.250 | |
| J15002000187/N | 1.500 | | 1.500 | 2.000 | 0.187 | 2.000 | | 0.187 | |
| J15002000250/N | 1.500 | | 1.500 | 2.000 | 0.250 | 2.000 | | 0.250 | |
| J15622500250/N | 1.562 | | 1.562 | 2.500 | 0.250 | 2.500 | | 0.250 | |
| J16252000187/N | 1.625 | | 1.625 | 2.000 | 0.187 | 2.000 | | 0.187 | |
| J16252125250/N | 1.625 | | 1.625 | 2.125 | 0.250 | 2.125 | | 0.250 | |
| J17502125187/N | 1.750 | | 1.750 | 2.125 | 0.187 | 2.125 | | 0.187 | |
| J17502156187/N | 1.750 | | 1.750 | 2.156 | 0.187 | 2.156 | | 0.187 | |
| J17502250250/N | 1.750 | | 1.750 | 2.250 | 0.250 | 2.250 | | 0.250 | |
| J17502375250/N | 1.750 | | 1.750 | 2.375 | 0.250 | 2.375 | | 0.250 | |
| J17502625250/N | 1.750 | | 1.750 | 2.625 | 0.250 | 2.625 | | 0.250 | |
| J18752250187/N | 1.875 | | 1.875 | 2.250 | 0.187 | 2.250 | | 0.187 | |
| J18752500250/N | 1.875 | | 1.875 | 2.500 | 0.250 | 2.500 | | 0.250 | |
| J20002375187/N | 2.000 | | 2.000 | 2.375 | 0.187 | 2.375 | | 0.187 | |
| J20002500250/N | 2.000 | | 2.000 | 2.500 | 0.250 | 2.500 | | 0.250 | |
| J20002625250/N | 2.000 | | 2.000 | 2.625 | 0.250 | 2.625 | | 0.250 | |
| J20002687375/N | 2.000 | | 2.000 | 2.687 | 0.375 | 2.687 | | 0.375 | |
| J21252500187/N | 2.125 | | 2.125 | 2.500 | 0.187 | 2.500 | | 0.187 | |
| J22502625187/N | 2.250 | | 2.250 | 2.625 | 0.187 | 2.625 | | 0.187 | |
| J22502625250/N | 2.250 | | 2.250 | 2.625 | 0.250 | 2.625 | | 0.250 | |
| J22502750250/N | 2.250 | | 2.250 | 2.750 | 0.250 | 2.750 | | 0.250 | |
| J22502875250/N | 2.250 | | 2.250 | 2.875 | 0.250 | 2.875 | | 0.250 | |
| J23753000250/N | 2.375 | | 2.375 | 3.000 | 0.250 | 3.000 | ▼ | 0.250 | |
| J25003000250/N | 2.500 | | 2.500 | 3.000 | 0.250 | 3.000 | +0.002 -0.002 | 0.250 | |
| J25003125250/N | 2.500 | | 2.500 | 3.125 | 0.250 | 3.125 | | 0.250 | |
| J27503125187/N | 2.750 | | 2.750 | 3.125 | 0.187 | 3.125 | | 0.187 | |
| J27503250250/N | 2.750 | ▼ | 2.750 | 3.250 | 0.250 | 3.250 | ▼ | 0.250 | ▼ |

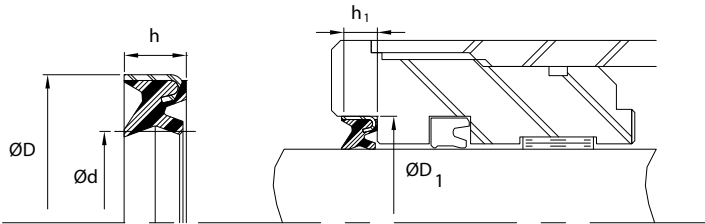
J/N series - NBR/STEEL

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| J27503750375/N | 2.750 | +0.003 -0.003 | 2.750 | 3.750 | 0.375 | 3.750 | +0.002 -0.002 | 0.375 | +0.015 -0.000 |
| J28753375250/N | 2.875 | | 2.875 | 3.375 | 0.250 | 3.375 | | 0.250 | |
| J30003500250/N | 3.000 | | 3.000 | 3.500 | 0.250 | 3.500 | | 0.250 | |
| J30003750250/N | 3.000 | | 3.000 | 3.750 | 0.250 | 3.750 | | 0.250 | |
| J32503875312/N | 3.250 | | 3.250 | 3.875 | 0.312 | 3.875 | | 0.312 | |
| J35004000250/N | 3.500 | ▼ | 3.500 | 4.000 | 0.250 | 4.000 | ▼ | 0.250 | ▼ |

J/DL - Rod wipers - Inch



| Standard Material | Temperature Range | Surface Speed |
|--------------------|--------------------------------------|----------------------|
| Polyurethane/Steel | -40°F to +230°F (-40°C to +110°C) | < 1.6 ft/s (0.5 m/s) |



J/DL-style rod wipers are a high performance wiper used in the toughest applications. The wiping edge removes the dirt and grime from the rod, thereby keeping the system running clean and at its peak performance. A secondary sealing edge prevents residual oil film from escaping, helping the system achieve zero leakage performance.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| J15002250433DL | 1.500 | +0.000 -0.003 | 1.500 | 2.250 | 0.433 | 2.250 | +0.001 -0.001 | 0.433 | +0.015 -0.000 |
| J17502437433DL | 1.750 | | 1.750 | 2.437 | 0.433 | 2.437 | | 0.433 | |
| J18752562433DL | 1.875 | | 1.875 | 2.562 | 0.433 | 2.562 | | 0.433 | |
| J20002687433DL | 2.000 | | 2.000 | 2.687 | 0.433 | 2.687 | | 0.433 | |
| J21252875433DL | 2.125 | | 2.125 | 2.875 | 0.433 | 2.875 | | 0.433 | |
| J22503000433DL | 2.250 | | 2.250 | 3.000 | 0.433 | 3.000 | | 0.433 | |
| J23753125433DL | 2.375 | ▼ | 2.375 | 3.125 | 0.433 | 3.125 | ▼ | 0.433 | ▼ |



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| J25003250433DL | 2.500 | +0.000 -0.003 | 2.500 | 3.250 | 0.433 | 3.250 | +0.001 -0.001 | 0.433 | +0.015 -0.000 |
| J26253375433DL | 2.625 | | 2.625 | 3.375 | 0.433 | 3.375 | | 0.433 | |
| J27503750550DL | 2.750 | ↓ | 2.750 | 3.750 | 0.550 | 3.750 | | 0.550 | |
| J30004000550DL | 3.000 | +0.000 -0.004 | 3.000 | 4.000 | 0.550 | 4.000 | | 0.550 | |
| J32504250550DL | 3.250 | | 3.250 | 4.250 | 0.550 | 4.250 | | 0.550 | |
| J35004500550DL | 3.500 | | 3.500 | 4.500 | 0.550 | 4.500 | | 0.550 | |
| J37504750550DL | 3.750 | | 3.750 | 4.750 | 0.550 | 4.750 | | 0.550 | |
| J40005000550DL | 4.000 | | 4.000 | 5.000 | 0.550 | 5.000 | | 0.550 | |
| J42505250550DL | 4.250 | | 4.250 | 5.250 | 0.550 | 5.250 | | 0.550 | |
| J47505750550DL | 4.750 | | 4.750 | 5.750 | 0.550 | 5.750 | | 0.550 | |
| J50006000550DL | 5.000 | | 5.000 | 6.000 | 0.550 | 6.000 | | 0.550 | |
| J52506250550DL | 5.250 | | 5.250 | 6.250 | 0.550 | 6.250 | | 0.550 | |
| J55006500550DL | 5.500 | | 5.500 | 6.500 | 0.550 | 6.500 | | 0.550 | |
| J57506750550DL | 5.750 | | 5.750 | 6.750 | 0.550 | 6.750 | | 0.550 | |
| J60007000550DL | 6.000 | | 6.000 | 7.000 | 0.550 | 7.000 | | 0.550 | |
| J65007500550DL | 6.500 | | 6.500 | 7.500 | 0.550 | 7.500 | | 0.550 | |
| J67507750550DL | 6.750 | ↓ | 6.750 | 7.750 | 0.550 | 7.750 | | 0.550 | |
| J70008000550DL | 7.000 | +0.000 -0.005 | 7.000 | 8.000 | 0.550 | 8.000 | | 0.550 | |
| J72508250550DL | 7.250 | | 7.250 | 8.250 | 0.550 | 8.250 | | 0.550 | |
| J75008500550DL | 7.500 | | 7.500 | 8.500 | 0.550 | 8.500 | | 0.550 | |
| J80009000550DL | 8.000 | | 8.000 | 9.000 | 0.550 | 9.000 | | 0.550 | |
| J87509750550DL | 8.750 | ↓ | 8.750 | 9.750 | 0.550 | 9.750 | ↓ | 0.550 | ↓ |

OTHER PROFILES ARE ALSO AVAILABLE ON REQUEST

Though this product offering contains a wide selection of commonly used parts in the marketplace, it is possible that you haven't found the exact part you were looking for.

















We have many other seal profiles available on request, please do not hesitate to contact us and we will do our best to help you locate the required part.



ROD WIPERS



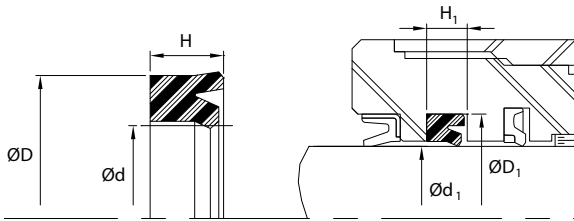


| | | | |
|---|---------------|---|----|
|  | UR | B | 2 |
|  | E5 | B | 8 |
|  | BS | B | 9 |
|  | BS/3L | B | 11 |
|  | BS/SL | B | 12 |
|  | RE | B | 13 |
|  | BT | B | 16 |
|  | BR | B | 19 |
|  | HBY | B | 20 |
|  | HBY-CAT | B | 21 |
|  | CAT SEAL RING | B | 22 |
|  | CAT STEP SEAL | B | 24 |
|  | RSS | B | 25 |
|  | R2B | B | 31 |
|  | TR | B | 33 |
|  | V6 | B | 36 |

UR - Rod seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|----------------------|
| Polyurethane | -40°F to +230°F (-40°C to +110°C) | ≤6000 psi (≤414 bar) | < 1.6 ft/s (0.5 m/s) |



The **UR-style** rod seal is a non-symmetrical hydraulic U-Cup type seal. The machined, beveled lip faces the rod to provide both low and high pressures as well as to wipe the rod of the fluid film. It is an economical design, exhibiting good wear and extrusion resistance.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| UR12500375 | 0.375 | + .000 - .002 | 0.375 | 0.625 | 0.125 | 0.625 | + .004 - .000 | 0.138 | + .015 - .000 |
| UR12500500 | 0.500 | | 0.500 | 0.750 | 0.125 | 0.750 | | 0.138 | |
| UR18700562-312 | 0.562 | | 0.562 | 0.937 | 0.312 | 0.937 | + .005 - .000 | 0.343 | |
| UR12500625 | 0.625 | | 0.625 | 0.875 | 0.125 | 0.875 | | 0.138 | |
| UR12500625-187 | 0.625 | | 0.625 | 0.875 | 0.187 | 0.875 | | 0.206 | |
| UR12500625-250 | 0.625 | | 0.625 | 0.875 | 0.250 | 0.875 | | 0.275 | |
| UR18700625 | 0.625 | | 0.625 | 1.000 | 0.187 | 1.000 | | 0.206 | |
| UR18700625-250 | 0.625 | | 0.625 | 1.000 | 0.250 | 1.000 | | 0.275 | |
| UR18700625-312 | 0.625 | | 0.625 | 1.000 | 0.312 | 1.000 | | 0.343 | |
| UR18700687 | 0.687 | | 0.687 | 1.062 | 0.187 | 1.062 | | 0.206 | |
| UR18700687-250 | 0.687 | | 0.687 | 1.062 | 0.250 | 1.062 | | 0.275 | |
| UR18700687-312 | 0.687 | ▼ | 0.687 | 1.062 | 0.312 | 1.062 | | 0.343 | |
| UR09400750-187 | 0.750 | + .000 - .003 | 0.750 | 0.937 | 0.187 | 0.937 | | 0.206 | |
| UR12500750 | 0.750 | | 0.750 | 1.000 | 0.125 | 1.000 | | 0.138 | |
| UR12500750-156 | 0.750 | | 0.750 | 1.000 | 0.156 | 1.000 | | 0.172 | |
| UR12500750-187 | 0.750 | | 0.750 | 1.000 | 0.187 | 1.000 | | 0.206 | |
| UR12500750-250 | 0.750 | | 0.750 | 1.000 | 0.250 | 1.000 | | 0.275 | |
| UR18700750 | 0.750 | | 0.750 | 1.125 | 0.187 | 1.125 | | 0.206 | |
| UR18700750-250 | 0.750 | | 0.750 | 1.125 | 0.250 | 1.125 | | 0.275 | |
| UR18700750-312 | 0.750 | | 0.750 | 1.125 | 0.312 | 1.125 | | 0.343 | |
| UR12500812 | 0.812 | | 0.812 | 1.062 | 0.125 | 1.062 | | 0.138 | |
| UR18700812-250 | 0.812 | ▼ | 0.812 | 1.187 | 0.250 | 1.187 | ▼ | 0.275 | ▼ |

UR series - AU 92A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| UR18700812-312 | 0.812 | +0.000 -0.003 | 0.812 | 1.187 | 0.312 | 1.187 | +0.005 -0.000 | 0.343 | +0.015 -0.000 |
| UR12500875 | 0.875 | | 0.875 | 1.125 | 0.125 | 1.125 | | 0.138 | |
| UR12500875-187 | 0.875 | | 0.875 | 1.125 | 0.187 | 1.125 | | 0.206 | |
| UR12500875-250 | 0.875 | | 0.875 | 1.125 | 0.250 | 1.125 | | 0.275 | |
| UR18700875 | 0.875 | | 0.875 | 1.250 | 0.187 | 1.250 | | 0.206 | |
| UR18700875-250 | 0.875 | | 0.875 | 1.250 | 0.250 | 1.250 | | 0.275 | |
| UR18700875-312 | 0.875 | | 0.875 | 1.250 | 0.312 | 1.250 | | 0.343 | |
| UR12500937-187 | 0.937 | | 0.937 | 1.187 | 0.187 | 1.187 | | 0.206 | |
| UR25000937-375 | 0.937 | | 0.937 | 1.000 | 0.375 | 1.000 | | 0.413 | |
| UR12501000 | 1.000 | | 1.000 | 1.250 | 0.125 | 1.250 | | 0.138 | |
| UR12501000-156 | 1.000 | | 1.000 | 1.250 | 0.156 | 1.250 | | 0.172 | |
| UR12501000-187 | 1.000 | | 1.000 | 1.250 | 0.187 | 1.250 | | 0.206 | |
| UR12501000-250 | 1.000 | | 1.000 | 1.250 | 0.250 | 1.250 | | 0.275 | |
| UR18701000 | 1.000 | | 1.000 | 1.375 | 0.187 | 1.375 | | 0.206 | |
| UR18701000-250 | 1.000 | | 1.000 | 1.375 | 0.250 | 1.375 | | 0.275 | |
| UR18701000-312 | 1.000 | | 1.000 | 1.375 | 0.312 | 1.375 | ▼ | 0.343 | |
| UR25001000 | 1.000 | | 1.000 | 1.500 | 0.250 | 1.500 | +0.007 -0.000 | 0.275 | |
| UR25001000-312 | 1.000 | | 1.000 | 1.500 | 0.312 | 1.500 | | 0.343 | |
| UR25001000-375 | 1.000 | | 1.000 | 1.500 | 0.375 | 1.500 | | 0.413 | |
| UR29701031-375 | 1.031 | | 1.031 | 1.625 | 0.375 | 1.625 | | 0.413 | |
| UR18701062-312 | 1.062 | | 1.062 | 1.437 | 0.312 | 1.437 | | 0.343 | |
| UR18701125-250 | 1.125 | | 1.125 | 1.500 | 0.250 | 1.500 | | 0.275 | |
| UR18701125-312 | 1.125 | | 1.125 | 1.500 | 0.312 | 1.500 | | 0.343 | |
| UR18701125-375 | 1.125 | | 1.125 | 1.500 | 0.312 | 1.500 | | 0.343 | |
| UR25001125 | 1.125 | | 1.125 | 1.625 | 0.250 | 1.625 | | 0.275 | |
| UR25001125-375 | 1.125 | | 1.125 | 1.625 | 0.375 | 1.625 | | 0.413 | |
| UR31201125 | 1.125 | | 1.125 | 1.750 | 0.312 | 1.750 | | 0.343 | |
| UR18701187-250 | 1.187 | | 1.187 | 1.562 | 0.250 | 1.562 | | 0.275 | |
| UR12501250-250 | 1.250 | | 1.250 | 1.500 | 0.250 | 1.500 | | 0.275 | |
| UR18701250-250 | 1.250 | | 1.250 | 1.625 | 0.250 | 1.625 | | 0.275 | |
| UR18701250-312 | 1.250 | | 1.250 | 1.625 | 0.312 | 1.625 | | 0.343 | |
| UR18701250-375 | 1.250 | | 1.250 | 1.625 | 0.375 | 1.625 | | 0.413 | |
| UR25001250 | 1.250 | | 1.250 | 1.750 | 0.250 | 1.750 | | 0.275 | |
| UR25001250-187 | 1.250 | | 1.250 | 1.750 | 0.187 | 1.750 | | 0.206 | |
| UR25001250-312 | 1.250 | | 1.250 | 1.750 | 0.312 | 1.750 | | 0.343 | |
| UR25001250-375 | 1.250 | | 1.250 | 1.750 | 0.375 | 1.750 | | 0.413 | |
| UR31201250-437 | 1.250 | | 1.250 | 1.875 | 0.437 | 1.875 | | 0.481 | |
| UR25001312-375 | 1.312 | | 1.312 | 1.812 | 0.375 | 1.812 | | 0.413 | |
| UR12501375-250 | 1.375 | | 1.375 | 1.625 | 0.250 | 1.625 | | 0.275 | |
| UR18701375-312 | 1.375 | | 1.375 | 1.750 | 0.312 | 1.750 | | 0.343 | |
| UR18701375-375 | 1.375 | | 1.375 | 1.750 | 0.375 | 1.750 | | 0.413 | |
| UR25001375-312 | 1.375 | | 1.375 | 1.875 | 0.312 | 1.875 | | 0.343 | |
| UR25001375-375 | 1.375 | | 1.375 | 1.875 | 0.375 | 1.875 | | 0.413 | |
| UR31201375-375 | 1.375 | | 1.375 | 2.000 | 0.375 | 2.000 | | 0.413 | |
| UR18701500-250 | 1.500 | | 1.500 | 1.875 | 0.250 | 1.875 | | 0.275 | |
| UR18701500-312 | 1.500 | ▼ | 1.500 | 1.875 | 0.312 | 1.875 | ▼ | 0.343 | ▼ |

UR series - AU 92A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| UR18701500-375 | 1.500 | +0.000 -0.003 | 1.500 | 1.875 | 0.375 | 1.875 | +0.007/-0.000 | 0.413 | +0.015 -0.000 |
| UR25001500-312 | 1.500 | | 1.500 | 2.000 | 0.312 | 2.000 | +0.008 -0.000 | 0.343 | |
| UR25001500-375 | 1.500 | | 1.500 | 2.000 | 0.375 | 2.000 | | 0.413 | |
| UR31201500-500 | 1.500 | | 1.500 | 2.125 | 0.500 | 2.125 | | 0.550 | |
| UR18701625-250 | 1.625 | | 1.625 | 2.000 | 0.250 | 2.000 | | 0.275 | |
| UR18701625-312 | 1.625 | | 1.625 | 2.000 | 0.312 | 2.000 | | 0.343 | |
| UR18701625-375 | 1.625 | | 1.625 | 2.000 | 0.375 | 2.000 | | 0.413 | |
| UR25001625-312 | 1.625 | | 1.625 | 2.875 | 0.312 | 2.125 | | 0.343 | |
| UR25001625-375 | 1.625 | | 1.625 | 2.875 | 0.375 | 2.125 | | 0.413 | |
| UR18701687-281 | 1.687 | | 1.687 | 2.062 | 0.281 | 2.062 | | 0.309 | |
| UR18701750-250 | 1.750 | | 1.750 | 2.125 | 0.250 | 2.125 | | 0.275 | |
| UR18701750-275 | 1.750 | | 1.750 | 2.125 | 0.275 | 2.125 | | 0.303 | |
| UR18701750-312 | 1.750 | | 1.750 | 2.125 | 0.312 | 2.125 | | 0.343 | |
| UR18701750-375 | 1.750 | | 1.750 | 2.125 | 0.375 | 2.125 | | 0.413 | |
| UR25001750 | 1.750 | | 1.750 | 2.250 | 0.250 | 2.250 | | 0.275 | |
| UR25001750-312 | 1.750 | | 1.750 | 2.250 | 0.312 | 2.250 | | 0.343 | |
| UR25001750-375 | 1.750 | | 1.750 | 2.250 | 0.375 | 2.250 | | 0.413 | |
| UR31201750-375 | 1.750 | | 1.750 | 2.375 | 0.375 | 2.375 | | 0.413 | |
| UR31201750-500 | 1.750 | | 1.750 | 2.375 | 0.500 | 2.375 | | 0.550 | |
| UR12501875-250 | 1.875 | | 1.875 | 2.125 | 0.250 | 2.125 | | 0.275 | |
| UR18701875-312 | 1.875 | | 1.875 | 2.250 | 0.312 | 2.250 | | 0.343 | |
| UR18701875-375 | 1.875 | | 1.875 | 2.250 | 0.375 | 2.250 | | 0.413 | |
| UR25001875-375 | 1.875 | | 1.875 | 2.375 | 0.375 | 2.375 | | 0.413 | |
| UR18702000-250 | 2.000 | | 2.000 | 2.375 | 0.250 | 2.375 | | 0.275 | |
| UR18702000-312 | 2.000 | | 2.000 | 2.375 | 0.312 | 2.375 | | 0.343 | |
| UR18702000-375 | 2.000 | | 2.000 | 2.375 | 0.375 | 2.375 | | 0.413 | |
| UR25002000 | 2.000 | | 2.000 | 2.500 | 0.250 | 2.500 | | 0.275 | |
| UR25002000-312 | 2.000 | | 2.000 | 2.500 | 0.312 | 2.500 | | 0.343 | |
| UR25002000-375 | 2.000 | | 2.000 | 2.500 | 0.375 | 2.500 | | 0.413 | |
| UR31202000 | 2.000 | | 2.000 | 2.625 | 0.312 | 2.625 | | 0.343 | |
| UR31202000-375 | 2.000 | | 2.000 | 2.625 | 0.375 | 2.625 | | 0.413 | |
| UR31202000-500 | 2.000 | | 2.000 | 2.625 | 0.500 | 2.625 | | 0.550 | |
| UR37502000 | 2.000 | | 2.000 | 2.750 | 0.375 | 2.750 | | 0.413 | |
| UR37502000-500 | 2.000 | | 2.000 | 2.750 | 0.500 | 2.750 | | 0.550 | |
| UR37502000-625 | 2.000 | | 2.000 | 2.750 | 0.625 | 2.750 | | 0.688 | |
| UR18702125 | 2.125 | | 2.125 | 2.500 | 0.187 | 2.500 | | 0.206 | |
| UR25002125-312 | 2.125 | | 2.125 | 2.625 | 0.312 | 2.625 | | 0.343 | |
| UR25002125-375 | 2.125 | | 2.125 | 2.625 | 0.375 | 2.625 | | 0.413 | |
| UR31202125-500 | 2.125 | | 2.125 | 2.750 | 0.500 | 2.750 | | 0.550 | |
| UR18702250-375 | 2.250 | | 2.250 | 2.625 | 0.375 | 2.625 | | 0.413 | |
| UR25002250-312 | 2.250 | | 2.250 | 2.750 | 0.312 | 2.750 | | 0.343 | |
| UR25002250-375 | 2.250 | | 2.250 | 2.750 | 0.375 | 2.750 | | 0.413 | |
| UR28102250-375 | 2.250 | | 2.250 | 2.812 | 0.375 | 2.812 | | 0.413 | |
| UR31202250-375 | 2.250 | | 2.250 | 2.875 | 0.375 | 2.875 | | 0.413 | |
| UR31202250-437 | 2.250 | | 2.250 | 2.875 | 0.437 | 2.875 | | 0.481 | |
| UR31202250-500 | 2.250 | ▼ | 2.250 | 2.875 | 0.500 | 2.875 | ▼ | 0.550 | ▼ |

UR series - AU 92A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| UR25002375-312 | 2.375 | +0.000 -0.003 | 2.375 | 2.875 | 0.312 | 2.875 | +0.008 -0.000 | 0.343 | +0.015 -0.000 |
| UR25002375-375 | 2.375 | | 2.375 | 2.875 | 0.375 | 2.875 | | 0.413 | |
| UR31202375-375 | 2.375 | | 2.375 | 3.000 | 0.375 | 3.000 | | 0.413 | |
| UR31202375-500 | 2.375 | | 2.375 | 3.000 | 0.500 | 3.000 | | 0.550 | |
| UR18702500-312 | 2.500 | | 2.500 | 2.875 | 0.312 | 2.875 | | 0.343 | |
| UR18702500-375 | 2.500 | | 2.500 | 2.875 | 0.375 | 2.875 | | 0.413 | |
| UR25002500 | 2.500 | | 2.500 | 3.000 | 0.250 | 3.000 | | 0.275 | |
| UR25002500-312 | 2.500 | | 2.500 | 3.000 | 0.312 | 3.000 | | 0.343 | |
| UR25002500-375 | 2.500 | | 2.500 | 3.000 | 0.375 | 3.000 | | 0.413 | |
| UR31202500-375 | 2.500 | | 2.500 | 3.125 | 0.375 | 3.125 | | 0.413 | |
| UR31202500-437 | 2.500 | | 2.500 | 3.125 | 0.437 | 3.125 | | 0.481 | |
| UR31202500-500 | 2.500 | | 2.500 | 3.125 | 0.500 | 3.125 | ▼ | 0.550 | |
| UR25002625-375 | 2.625 | | 2.625 | 3.125 | 0.375 | 3.125 | +0.009 -0.000 | 0.413 | |
| UR37502625-500 | 2.625 | | 2.625 | 3.375 | 0.500 | 3.375 | | 0.550 | |
| UR37502625-625 | 2.625 | | 2.625 | 3.375 | 0.625 | 3.375 | | 0.688 | |
| UR25002750-375 | 2.750 | | 2.750 | 3.250 | 0.375 | 3.250 | | 0.413 | |
| UR31202750-375 | 2.750 | | 2.750 | 3.375 | 0.375 | 3.375 | | 0.413 | |
| UR31202750-500 | 2.750 | ▼ | 2.750 | 3.375 | 0.500 | 3.375 | | 0.550 | |
| UR25003000-375 | 3.000 | +0.000 -0.004 | 3.000 | 3.500 | 0.375 | 3.500 | | 0.413 | |
| UR31203000-375 | 3.000 | | 3.000 | 3.625 | 0.375 | 3.625 | | 0.413 | |
| UR31203000-500 | 3.000 | | 3.000 | 3.625 | 0.500 | 3.625 | | 0.550 | |
| UR37503000 | 3.000 | | 3.000 | 3.750 | 0.375 | 3.750 | | 0.413 | |
| UR37503000-500 | 3.000 | | 3.000 | 3.750 | 0.500 | 3.750 | | 0.550 | |
| UR37503000-562 | 3.000 | | 3.000 | 3.750 | 0.562 | 3.750 | | 0.618 | |
| UR37503000-625 | 3.000 | | 3.000 | 3.750 | 0.625 | 3.750 | | 0.688 | |
| UR31203125-375 | 3.125 | | 3.125 | 3.750 | 0.375 | 3.750 | | 0.413 | |
| UR37503125-625 | 3.125 | | 3.125 | 3.875 | 0.625 | 3.875 | | 0.688 | |
| UR25003250-375 | 3.250 | | 3.250 | 3.750 | 0.375 | 3.750 | | 0.413 | |
| UR31203250-500 | 3.250 | | 3.250 | 3.875 | 0.500 | 3.875 | | 0.550 | |
| UR37503250-625 | 3.250 | | 3.250 | 4.000 | 0.625 | 4.000 | | 0.688 | |
| UR25003375-375 | 3.375 | | 3.375 | 3.875 | 0.375 | 3.875 | | 0.413 | |
| UR31203375-500 | 3.375 | | 3.375 | 4.000 | 0.500 | 4.000 | | 0.550 | |
| UR25003500-375 | 3.500 | | 3.500 | 4.000 | 0.375 | 4.000 | | 0.413 | |
| UR37503500 | 3.500 | | 3.500 | 4.250 | 0.375 | 4.250 | | 0.413 | |
| UR37503500-500 | 3.500 | | 3.500 | 4.250 | 0.500 | 4.250 | | 0.550 | |
| UR37503500-625 | 3.500 | | 3.500 | 4.250 | 0.625 | 4.250 | | 0.688 | |
| UR50003500-625 | 3.500 | | 3.500 | 4.500 | 0.625 | 4.500 | | 0.688 | |
| UR50003500-750 | 3.500 | | 3.500 | 4.500 | 0.750 | 4.500 | | 0.825 | |
| UR37503625 | 3.625 | | 3.625 | 4.375 | 0.375 | 4.375 | | 0.413 | |
| UR37503625-500 | 3.625 | | 3.625 | 4.375 | 0.500 | 4.375 | | 0.550 | |
| UR25003750-375 | 3.750 | | 3.750 | 4.250 | 0.375 | 4.250 | | 0.413 | |
| UR31203750-375 | 3.750 | | 3.750 | 4.375 | 0.375 | 4.375 | | 0.413 | |
| UR31203750-500 | 3.750 | | 3.750 | 4.375 | 0.500 | 4.375 | | 0.550 | |
| UR37503750-500 | 3.750 | | 3.750 | 4.500 | 0.500 | 4.500 | | 0.550 | |
| UR25003875-375 | 3.875 | | 3.875 | 4.375 | 0.375 | 4.375 | | 0.413 | |
| UR25004000 | 4.000 | ▼ | 4.000 | 4.500 | 0.250 | 4.500 | ▼ | 0.275 | ▼ |

UR series - AU 92A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| UR25004000-375 | 4.000 | +0.000 -0.004 | 4.000 | 4.500 | 0.375 | 4.500 | +0.009 -0.000 | 0.413 | +0.015 -0.000 |
| UR25004000-562 | 4.000 | | 4.000 | 4.500 | 0.562 | 4.500 | | 0.618 | |
| UR31204000-375 | 4.000 | | 4.000 | 4.625 | 0.375 | 4.625 | | 0.413 | |
| UR37504000 | 4.000 | | 4.000 | 4.750 | 0.375 | 4.750 | | 0.413 | |
| UR37504000-500 | 4.000 | | 4.000 | 4.750 | 0.500 | 4.750 | | 0.550 | |
| UR37504000-625 | 4.000 | | 4.000 | 4.750 | 0.625 | 4.750 | ▼ | 0.688 | |
| UR37504250-500 | 4.250 | | 4.250 | 5.000 | 0.500 | 5.000 | +0.010 -0.000 | 0.550 | |
| UR37504250-625 | 4.250 | | 4.250 | 5.000 | 0.625 | 5.000 | | 0.688 | |
| UR25004375-500 | 4.375 | | 4.375 | 5.125 | 0.500 | 5.125 | | 0.550 | |
| UR25004425-562 | 4.425 | | 4.425 | 4.750 | 0.562 | 4.750 | | 0.618 | |
| UR25004500-562 | 4.500 | | 4.500 | 5.000 | 0.562 | 5.000 | | 0.618 | |
| UR31204500-375 | 4.500 | | 4.500 | 5.125 | 0.375 | 5.125 | | 0.413 | |
| UR31204500-500 | 4.500 | | 4.500 | 5.125 | 0.500 | 5.125 | | 0.550 | |
| UR37504500-437 | 4.500 | | 4.500 | 5.250 | 0.437 | 5.250 | | 0.481 | |
| UR37504500-500 | 4.500 | | 4.500 | 5.250 | 0.500 | 5.250 | | 0.550 | |
| UR37504500-625 | 4.500 | | 4.500 | 5.250 | 0.625 | 5.250 | | 0.688 | |
| UR25004750-562 | 4.750 | | 4.750 | 5.250 | 0.562 | 5.250 | | 0.618 | |
| UR37504750-500 | 4.750 | | 4.750 | 5.500 | 0.500 | 5.500 | | 0.550 | |
| UR37504750-625 | 4.750 | | 4.750 | 5.500 | 0.625 | 5.500 | | 0.688 | |
| UR43704750-750 | 4.750 | | 4.750 | 5.625 | 0.750 | 5.625 | | 0.825 | |
| UR37504875-500 | 4.875 | | 4.875 | 5.625 | 0.500 | 5.625 | | 0.550 | |
| UR25005000-562 | 5.000 | | 5.000 | 5.500 | 0.562 | 5.500 | | 0.618 | |
| UR31205000-375 | 5.000 | | 5.000 | 5.625 | 0.375 | 5.625 | | 0.413 | |
| UR31205000-500 | 5.000 | | 5.000 | 5.625 | 0.500 | 5.625 | | 0.550 | |
| UR37505000-500 | 5.000 | | 5.000 | 5.750 | 0.500 | 5.750 | | 0.550 | |
| UR37505000-625 | 5.000 | | 5.000 | 5.750 | 0.625 | 5.750 | | 0.688 | |
| UR25005250-562 | 5.250 | | 5.250 | 5.750 | 0.562 | 5.750 | | 0.618 | |
| UR25005250-590 | 5.250 | | 5.250 | 5.750 | 0.590 | 5.750 | | 0.649 | |
| UR37505250-625 | 5.250 | | 5.250 | 6.000 | 0.625 | 6.000 | | 0.688 | |
| UR25005375-562 | 5.375 | | 5.375 | 5.875 | 0.562 | 5.875 | | 0.618 | |
| UR25005500-562 | 5.500 | | 5.500 | 6.000 | 0.562 | 6.000 | | 0.618 | |
| UR31205500-375 | 5.500 | | 5.500 | 6.125 | 0.375 | 6.125 | | 0.413 | |
| UR31205500-500 | 5.500 | | 5.500 | 6.125 | 0.500 | 6.125 | | 0.550 | |
| UR37505500-625 | 5.500 | | 5.500 | 6.250 | 0.625 | 6.250 | | 0.688 | |
| UR37505750-500 | 5.750 | | 5.750 | 6.500 | 0.500 | 6.500 | | 0.550 | |
| UR37505750-625 | 5.750 | | 5.750 | 6.500 | 0.625 | 6.500 | | 0.688 | |
| UR25006000-562 | 6.000 | | 6.000 | 6.500 | 0.562 | 6.500 | | 0.618 | |
| UR37506000-500 | 6.000 | | 6.000 | 6.750 | 0.500 | 6.750 | | 0.550 | |
| UR37506000-625 | 6.000 | | 6.000 | 6.750 | 0.625 | 6.750 | ▼ | 0.688 | |
| UR37506250-625 | 6.250 | | 6.250 | 7.000 | 0.625 | 7.000 | +0.011 -0.000 | 0.688 | |
| UR25006500-375 | 6.500 | | 6.500 | 7.000 | 0.375 | 7.000 | | 0.413 | |
| UR37506500-500 | 6.500 | | 6.500 | 7.250 | 0.500 | 7.250 | | 0.550 | |
| UR37506500-625 | 6.500 | | 6.500 | 7.250 | 0.625 | 7.250 | | 0.688 | |
| UR50006500-715 | 6.500 | | 6.500 | 7.500 | 0.715 | 7.500 | | 0.787 | |
| UR50006500-750 | 6.500 | | 6.500 | 7.500 | 0.750 | 7.500 | | 0.825 | |
| UR25006750-590 | 6.750 | ▼ | 6.750 | 7.250 | 0.590 | 7.250 | ▼ | 0.649 | ▼ |

UR series - AU 92A

ROD SEALS



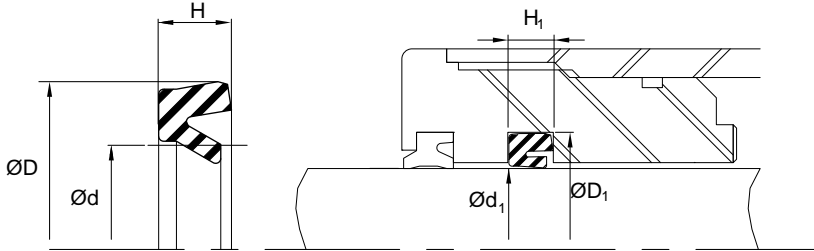
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-----------------|---------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| UR37506750-590 | 6.750 | +0.000/-0.004 | 6.750 | 7.500 | 0.590 | 7.500 | +0.011 -0.000 | 0.649 | +0.015 -0.000 |
| UR25007000-562 | 7.000 | +0.000 -0.005 | 7.000 | 7.500 | 0.562 | 7.500 | | 0.618 | |
| UR37507000-500 | 7.000 | | 7.000 | 7.750 | 0.500 | 7.750 | | 0.550 | |
| UR37507000-625 | 7.000 | | 7.000 | 7.750 | 0.625 | 7.750 | | 0.688 | |
| UR50007000-690 | 7.000 | | 7.000 | 8.000 | 0.690 | 8.000 | | 0.759 | |
| UR50007000-750 | 7.000 | | 7.000 | 8.000 | 0.750 | 8.000 | | 0.825 | |
| UR37507250-625 | 7.250 | | 7.250 | 8.000 | 0.625 | 8.000 | | 0.688 | |
| UR37507500-500 | 7.500 | | 7.500 | 8.250 | 0.500 | 8.250 | | 0.550 | |
| UR37507500-625 | 7.500 | | 7.500 | 8.250 | 0.625 | 8.250 | ▼ | 0.688 | |
| UR25008125-590 | 8.125 | | 8.125 | 8.625 | 0.590 | 8.625 | +0.012 -0.000 | 0.649 | |
| UR37508250-625 | 8.250 | | 8.250 | 9.000 | 0.625 | 9.000 | | 0.688 | |
| UR37508500-500 | 8.500 | | 8.500 | 9.250 | 0.500 | 9.250 | | 0.550 | |
| UR50008500 | 8.500 | | 8.500 | 9.500 | 0.500 | 9.500 | | 0.550 | |
| UR37509000-590 | 9.000 | | 9.000 | 9.750 | 0.590 | 9.750 | | 0.649 | |
| UR37509000-625 | 9.000 | | 9.000 | 9.750 | 0.625 | 9.750 | | 0.688 | |
| UR50009000-750 | 9.000 | | 9.000 | 10.000 | 0.750 | 10.000 | | 0.825 | |
| UR50009500-625 | 9.500 | | 9.500 | 10.500 | 0.625 | 10.500 | | 0.688 | |
| UR50009500-750 | 9.500 | | 9.500 | 10.500 | 0.750 | 10.500 | | 0.825 | |
| UR25009750-590 | 9.750 | | 9.750 | 10.250 | 0.590 | 10.250 | | 0.649 | |
| UR37509750-625 | 9.750 | ▼ | 9.750 | 10.500 | 0.625 | 10.500 | | 0.688 | |
| UR50010000-625 | 10.000 | +0.000 -0.006 | 10.000 | 11.000 | 0.625 | 11.000 | | 0.688 | |
| UR50010000-750 | 10.000 | | 10.000 | 11.000 | 0.750 | 11.000 | | 0.825 | |
| UR50012000-625 | 12.000 | | 12.000 | 13.000 | 0.625 | 13.000 | | 0.688 | |
| UR50012000-690 | 12.000 | | 12.000 | 13.000 | 0.690 | 13.000 | | 0.759 | |
| UR50012000-750 | 12.000 | | 12.000 | 13.000 | 0.750 | 13.000 | | 0.825 | |
| UR56215000-1000 | 15.000 | ▼ | 15.000 | 16.125 | 1.000 | 16.125 | ▼ | 1.100 | ▼ |



E5 - Rod seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|----------------------|--------------------------------------|-----------------------|-------------------|
| Carboxylated Nitrile | -10°F to +250°F (-23°C to +121°C) | ≤250 psi (≤17 bar) | <3.3 ft/s (1 m/s) |



The **E5-style** is a non-symmetrical rod seal designed to seal both lubricated and non-lubricated air. To ensure that critical surfaces retain lubrication, the seal incorporates a radius edge on the dynamic lip to create a hydroplaning effect over pre-lubricated surfaces.

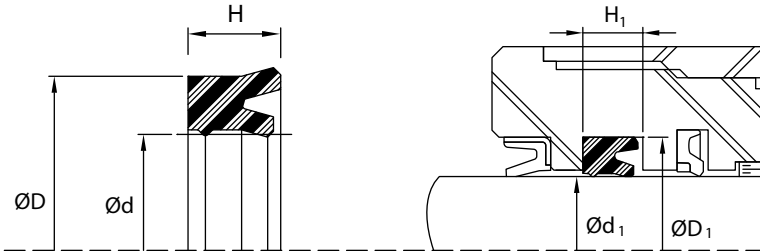
Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| E50400125 | 0.125 | +0.000 -0.001 | 0.125 | 0.375 | 0.125 | 0.375 | +0.002 -0.000 | 0.156 | +0.010 -0.010 |
| E50300187 | 0.187 | | 0.187 | 0.375 | 0.093 | 0.375 | | 0.125 | |
| E50400250 | 0.250 | | 0.250 | 0.500 | 0.125 | 0.500 | | 0.156 | |
| E50400375 | 0.375 | | 0.375 | 0.625 | 0.125 | 0.625 | | 0.156 | |
| E50400500 | 0.500 | | 0.500 | 0.750 | 0.125 | 0.750 | | 0.156 | |
| E50400625 | 0.625 | | 0.625 | 0.875 | 0.125 | 0.875 | | 0.156 | |
| E50400750 | 0.750 | | 0.750 | 1.000 | 0.125 | 1.000 | | 0.156 | |
| E50400875 | 0.875 | | 0.875 | 1.125 | 0.125 | 1.125 | | 0.156 | |
| E50401000 | 1.000 | | 1.000 | 1.250 | 0.125 | 1.250 | | 0.156 | |
| E50401250 | 1.250 | | 1.250 | 1.500 | 0.125 | 1.500 | | 0.156 | |
| E50501000 | 1.000 | | 1.000 | 1.312 | 0.156 | 1.312 | | 0.188 | |
| E50501250 | 1.250 | | 1.250 | 1.562 | 0.156 | 1.562 | | 0.188 | |
| E50501375 | 1.375 | | 1.375 | 1.687 | 0.156 | 1.687 | | 0.188 | |
| E50601375 | 1.375 | | 1.375 | 1.750 | 0.187 | 1.750 | | 0.219 | |
| E50601500 | 1.500 | | 1.500 | 1.875 | 0.187 | 1.875 | | 0.219 | |
| E50601625 | 1.625 | | 1.625 | 2.000 | 0.187 | 2.000 | | 0.219 | |
| E50601750 | 1.750 | | 1.750 | 2.125 | 0.187 | 2.125 | | 0.219 | |
| E50602000 | 2.000 | ▼ | 2.000 | 2.375 | 0.187 | 2.375 | ▼ | 0.219 | ▼ |

BS - Rod seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|----------------------|
| Polyurethane | -40°F to +230°F (-40°C to +110°C) | ≤6000 psi (≤414 bar) | < 1.6 ft/s (0.5 m/s) |



ROD SEALS



The **BS-style** uses the basic **UR** profile but adds a secondary lip on the inside portion of the heel for added stability. preventing the seal from rocking inside the groove on high cycling / long stroke type action.

Alternate Materials: For applications that may require an alternate material. please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| BS12500750-250 | 0.750 | +0.000 -0.001 | 0.750 | 1.000 | 0.250 | 1.000 | +0.005 -0.000 | 0.275 | +0.015 -0.000 |
| BS18700750-250 | 0.750 | | 0.750 | 1.125 | 0.250 | 1.125 | | 0.275 | |
| BS18700750-312 | 0.750 | | 0.750 | 1.125 | 0.312 | 1.125 | | 0.343 | |
| BS12501000-250 | 1.000 | | 1.000 | 1.250 | 0.250 | 1.250 | | 0.275 | |
| BS18701000-250 | 1.000 | | 1.000 | 1.375 | 0.250 | 1.375 | | 0.275 | |
| BS18701000-312 | 1.000 | | 1.000 | 1.375 | 0.312 | 1.375 | | 0.343 | |
| BS25001000-375 | 1.000 | | 1.000 | 1.500 | 0.375 | 1.500 | +0.007 -0.000 | 0.413 | |
| BS18701125-250 | 1.125 | | 1.125 | 1.500 | 0.250 | 1.500 | | 0.275 | |
| BS18701125-312 | 1.125 | | 1.125 | 1.500 | 0.312 | 1.500 | | 0.343 | |
| BS18701187-250 | 1.187 | | 1.187 | 1.562 | 0.250 | 1.562 | | 0.275 | |
| BS12501250-250 | 1.250 | | 1.250 | 1.500 | 0.250 | 1.500 | | 0.275 | |
| BS18701250-312 | 1.250 | | 1.250 | 1.625 | 0.312 | 1.625 | | 0.343 | |
| BS18701250-375 | 1.250 | | 1.250 | 1.625 | 0.375 | 1.625 | | 0.413 | |
| BS25001250-375 | 1.250 | | 1.250 | 1.750 | 0.375 | 1.750 | | 0.413 | |
| BS18701375-375 | 1.375 | | 1.375 | 1.750 | 0.375 | 1.750 | | 0.413 | |
| BS25001375-375 | 1.375 | | 1.375 | 1.875 | 0.375 | 1.875 | | 0.413 | |
| BS18701500-250 | 1.500 | +0.000 -0.002 | 1.500 | 1.875 | 0.250 | 1.875 | | 0.275 | |
| BS18701500-312 | 1.500 | | 1.500 | 1.875 | 0.312 | 1.875 | | 0.343 | |
| BS18701500-375 | 1.500 | | 1.500 | 1.875 | 0.375 | 1.875 | | 0.413 | |
| BS25001500-375 | 1.500 | | 1.500 | 2.000 | 0.375 | 2.000 | +0.008 -0.000 | 0.413 | |
| BS18701625-375 | 1.625 | | 1.625 | 2.000 | 0.375 | 2.000 | | 0.413 | |
| BS18701750-312 | 1.750 | | 1.750 | 2.125 | 0.312 | 2.125 | | 0.343 | |

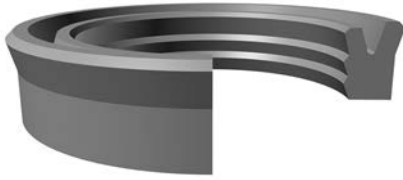
BS series - AU 92A

ROD SEALS

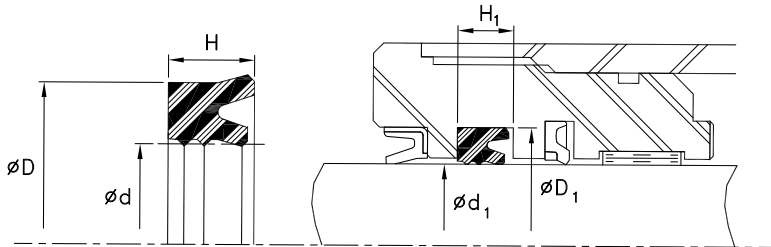


| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| BS18701750-375 | 1.750 | +0.000 -0.002 | 1.750 | 2.125 | 0.375 | 2.125 | +0.008 -0.000 | 0.413 | +0.015 -0.000 |
| BS25001750-312 | 1.750 | | 1.750 | 2.250 | 0.312 | 2.250 | | 0.343 | |
| BS25001750-375 | 1.750 | | 1.750 | 2.250 | 0.375 | 2.250 | | 0.413 | |
| BS31201750-375 | 1.750 | | 1.750 | 2.375 | 0.375 | 2.375 | | 0.413 | |
| BS31201750-437 | 1.750 | | 1.750 | 2.375 | 0.437 | 2.375 | | 0.481 | |
| BS31201750-500 | 1.750 | | 1.750 | 2.375 | 0.500 | 2.375 | | 0.550 | |
| BS18701875-375 | 1.875 | | 1.875 | 2.250 | 0.375 | 2.250 | | 0.413 | |
| BS18702000-312 | 2.000 | | 2.000 | 2.375 | 0.312 | 2.375 | | 0.343 | |
| BS18702000-375 | 2.000 | | 2.000 | 2.375 | 0.375 | 2.375 | | 0.413 | |
| BS25002000-375 | 2.000 | | 2.000 | 2.500 | 0.375 | 2.500 | | 0.413 | |
| BS31202000-500 | 2.000 | | 2.000 | 2.625 | 0.500 | 2.625 | | 0.550 | |
| BS18702250-375 | 2.250 | | 2.250 | 2.625 | 0.375 | 2.625 | | 0.413 | |
| BS25002250-375 | 2.250 | | 2.250 | 2.750 | 0.375 | 2.750 | | 0.413 | |
| BS25002375-375 | 2.375 | | 2.375 | 2.875 | 0.375 | 2.875 | | 0.413 | |
| BS18702500-375 | 2.500 | | 2.500 | 2.875 | 0.375 | 2.875 | ▼ | 0.413 | |
| BS25002500-375 | 2.500 | | 2.500 | 3.000 | 0.375 | 3.000 | +0.009 -0.000 | 0.413 | |
| BS31202500-500 | 2.500 | | 2.500 | 3.125 | 0.500 | 3.125 | | 0.550 | |
| BS18702625-375 | 2.625 | | 2.625 | 3.000 | 0.375 | 3.000 | | 0.413 | |
| BS25002750-375 | 2.750 | | 2.750 | 3.250 | 0.375 | 3.250 | | 0.413 | |
| BS31202750-500 | 2.750 | | 2.750 | 3.375 | 0.500 | 3.375 | | 0.550 | |
| BS37502750-625 | 2.750 | ▼ | 2.750 | 3.500 | 0.625 | 3.500 | | 0.688 | |
| BS25003000-375 | 3.000 | +0.000 -0.003 | 3.000 | 3.500 | 0.375 | 3.500 | | 0.413 | |
| BS31203000-500 | 3.000 | | 3.000 | 3.625 | 0.500 | 3.625 | | 0.550 | |
| BS37503000-500 | 3.000 | | 3.000 | 3.750 | 0.500 | 3.750 | | 0.550 | |
| BS25003250-375 | 3.250 | | 3.250 | 3.750 | 0.375 | 3.750 | | 0.413 | |
| BS25003375-375 | 3.375 | | 3.375 | 3.875 | 0.375 | 3.875 | | 0.413 | |
| BS25003500-375 | 3.500 | | 3.500 | 4.000 | 0.375 | 4.000 | | 0.413 | |
| BS37503500-625 | 3.500 | | 3.500 | 4.250 | 0.625 | 4.250 | | 0.688 | |
| BS25003750-375 | 3.750 | | 3.750 | 4.250 | 0.375 | 4.250 | | 0.413 | |
| BS37503750-500 | 3.750 | ▼ | 3.750 | 4.500 | 0.500 | 4.500 | | 0.550 | |
| BS25004000-375 | 4.000 | +0.000 -0.005 | 4.000 | 4.500 | 0.375 | 4.500 | | 0.413 | |
| BS25004000-562 | 4.000 | | 4.000 | 4.500 | 0.562 | 4.500 | | 0.618 | |
| BS31204000-375 | 4.000 | | 4.000 | 4.625 | 0.375 | 4.625 | ▼ | 0.413 | |
| BS37504000-500 | 4.000 | | 4.000 | 4.750 | 0.500 | 4.750 | +0.010 -0.000 | 0.550 | |
| BS37504000-625 | 4.000 | | 4.000 | 4.750 | 0.625 | 4.750 | | 0.688 | |
| BS37504250-625 | 4.250 | | 4.250 | 5.000 | 0.625 | 5.000 | | 0.688 | |
| BS25004500-562 | 4.500 | | 4.500 | 5.000 | 0.562 | 5.000 | | 0.618 | |
| BS37504500-625 | 4.500 | | 4.500 | 5.250 | 0.625 | 5.250 | | 0.688 | |
| BS25004750-562 | 4.750 | | 4.750 | 5.250 | 0.562 | 5.250 | | 0.618 | |
| BS37504750-625 | 4.750 | | 4.750 | 5.500 | 0.625 | 5.500 | | 0.688 | |
| BS37505000-500 | 5.000 | | 5.000 | 5.750 | 0.500 | 5.750 | | 0.550 | |
| BS37505000-625 | 5.000 | | 5.000 | 5.750 | 0.625 | 5.750 | | 0.688 | |
| BS25005500-562 | 5.500 | ▼ | 5.500 | 6.000 | 0.562 | 6.000 | ▼ | 0.618 | ▼ |

BS/3L - Rod seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|----------------------|
| Polyurethane | -64°F to +220°F (-54°C to +104°C) | ≤5000 psi (≤345 bar) | < 1.5 ft/s (0.5 m/s) |



ROD SEALS



This multi-lip rod seal combines the sealing capabilities of a lip-type, U-Cup seal along with the multi-lip sealing effectiveness of compression-type stacked packings. The multiple sealing edges insure dry-sealing performance while minimizing friction.

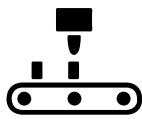
Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-------------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| BS12500500-218-3L | 0.500 | +0.000 -0.001 | 0.500 | 0.750 | 0.218 | 0.750 | +0.005 -0.000 | 0.219 | +0.015 -0.000 |
| BS12500625-218-3L | 0.625 | | 0.625 | 0.875 | 0.218 | 0.875 | | 0.219 | |
| BS15601000-240-3L | 1.000 | | 1.000 | 1.312 | 0.240 | 1.312 | | 0.219 | |
| BS15601375-240-3L | 1.375 | | 1.375 | 1.687 | 0.240 | 1.687 | | 0.250 | |
| BS18701750-270-3L | 1.750 | | 1.750 | 2.125 | 0.270 | 2.125 | | 0.281 | |
| BS18702000-270-3L | 2.000 | | 2.000 | 2.375 | 0.270 | 2.375 | | 0.281 | |
| BS21802500-300-3L | 2.500 | | 2.500 | 2.937 | 0.300 | 2.937 | | 0.312 | |
| BS21803000-300-3L | 3.000 | | 3.000 | 3.437 | 0.300 | 3.437 | | 0.312 | |
| BS25003500-330-3L | 3.500 | | 3.500 | 4.000 | 0.330 | 4.000 | | 0.344 | |
| BS25004000-330-3L | 4.000 | | 4.000 | 4.500 | 0.330 | 4.500 | | 0.344 | |
| BS25004500-330-3L | 4.500 | | 4.500 | 5.000 | 0.330 | 5.000 | | 0.344 | |
| BS28105000-355-3L | 5.000 | | 5.000 | 5.625 | 0.355 | 5.625 | | 0.375 | |
| BS31205500-380-3L | 5.500 | ▼ | 5.500 | 6.125 | 0.380 | 6.125 | ▼ | 0.406 | ▼ |

Markets segments we are servicing



Commercial
Marine



Forming
Machines



Pharmaceutical



Truck Bus



Construction



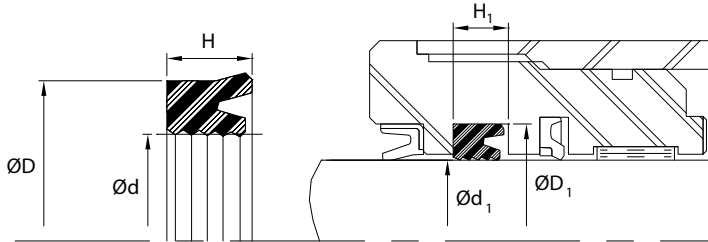
Aerospace

BS/SL - Rod seals - Inch

ROD SEALS



| Standard Materials | Temperature Range | Pressure Range | Surface Speed |
|--------------------|--------------------------------------|-------------------------|-------------------|
| Nitrile | -40°F to +250°F (-40°C to +121°C) | ≤1000 psi (≤69 bar) | <1.6 ft/s (1 m/s) |
| Fluorocarbon /V | -20°F to +400°F (-29°C to +204°C) | ≤2000 psi (≤137 bar) | <1.6 ft/s (1 m/s) |



Similar to the **BS/3L-style** has added serrations on the dynamic lip to enhance the pump-back action, ensuring dry rods, especially useful on industrial/mill-type cylinders.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

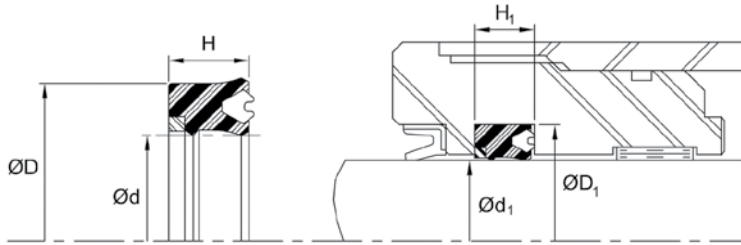
| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-------------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| BS12500625-156-SL | 0.625 | +0.000 -0.001 | 0.625 | 0.875 | 0.156 | 0.875 | +0.002 -0.000 | 0.219 | +0.010 -0.010 |
| BS15601000-187-SL | 1.000 | ▼ | 1.000 | 1.312 | 0.187 | 1.312 | | 0.250 | |
| BS15601375-187-SL | 1.375 | ▼ | 1.375 | 1.687 | 0.187 | 1.687 | | 0.250 | |
| BS18701750-218-SL | 1.750 | +0.000 -0.002 | 1.750 | 2.125 | 0.218 | 2.125 | | 0.281 | |
| BS18702000-218-SL | 2.000 | ▼ | 2.000 | 2.375 | 0.218 | 2.375 | | 0.281 | |
| BS21802500-240-SL | 2.500 | ▼ | 2.500 | 2.937 | 0.240 | 2.875 | | 0.312 | |
| BS21803000-240-SL | 3.000 | ▼ | 3.000 | 3.437 | 0.240 | 3.437 | ▼ | 0.312 | ▼ |



RE - Rod seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------------------------|--------------------------------------|---------------------------|-----------------------|
| Polyurethane/ Nitrile/Polyacetal | -40°F to +212°F (-40°C to +100°C) | ≤10 000 psi (≤700 bar) | < 1.5 ft/s (0.46 m/s) |



ROD SEALS



This high-pressure rod seal incorporates both an acetal anti-extrusion ring for pressure protection as well as a unique profiled energizer to ensure lip loading in all conditions. Twin-lip design insures dry rod sealing and added stability in the housing.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| MAXIMUM EXTRUSION GAP | | | |
|---|-------------------------|--------|---------------------------|
| The largest gap dimension appearing in operation on the non-pressurised side: | | | |
| Gap | Pressure | Gap | Pressure |
| 0.040" | ≤2400 psi (≤160 bar) | 0.016" | ≤7500 psi (≤500 bar) |
| 0.032" | ≤3750 psi (≤250 bar) | 0.010" | ≤10 000 psi (≤700 bar) |
| 0.024" | ≤6000 psi (≤400 bar) | | |

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|-------|-------------------------|-------|-------|--------------------|-------|-------|-------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| RE18701250-250 | 1.250 | -.001 | 1.250 | 1.625 | 0.250 | 1.625 | +.003 | 0.275 | +.010 |
| RE18701250-312 | 1.250 | -.003 | 1.250 | 1.625 | 0.312 | 1.625 | -.003 | 0.344 | -.000 |
| RE25001375-375 | 1.375 | ↓ | 1.375 | 1.875 | 0.375 | 1.875 | ↓ | 0.413 | ↓ |
| RE18701500-250 | 1.500 | ↓ | 1.500 | 1.875 | 0.250 | 1.875 | ↓ | 0.275 | ↓ |
| RE18701500-312 | 1.500 | ↓ | 1.500 | 1.875 | 0.312 | 1.875 | ↓ | 0.343 | ↓ |

RE series - AU/POM/NBR

ROD SEALS



| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|--------|-------------------------|-------|-------|--------------------|--------|-------|--------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| RE25001500-375 | 1.500 | - .001 | 1.500 | 2.000 | 0.375 | 2.000 | + .004 | 0.413 | + .010 |
| RE18701750-250 | 1.750 | - .003 | 1.750 | 2.125 | 0.250 | 2.125 | - .004 | 0.275 | - .000 |
| RE18701750-375 | 1.750 | | 1.750 | 2.125 | 0.375 | 2.125 | | 0.413 | |
| RE25001750-375 | 1.750 | ▼ | 1.750 | 2.250 | 0.375 | 2.250 | | 0.413 | |
| RE18702000-375 | 2.000 | - .001 | 2.000 | 2.375 | 0.375 | 2.375 | | 0.413 | |
| RE25002000-375 | 2.000 | - .004 | 2.000 | 2.500 | 0.375 | 2.500 | | 0.413 | |
| RE25002125-375 | 2.125 | | 2.125 | 2.625 | 0.375 | 2.625 | | 0.413 | |
| RE25002250-375 | 2.250 | | 2.250 | 2.750 | 0.375 | 2.750 | | 0.413 | |
| RE25002375-375 | 2.375 | | 2.375 | 2.875 | 0.375 | 2.875 | | 0.413 | |
| RE25002500-375 | 2.500 | | 2.500 | 3.000 | 0.375 | 3.000 | | 0.413 | |
| RE31202500-500 | 2.500 | | 2.500 | 3.125 | 0.500 | 3.125 | | 0.550 | |
| RE25002750-375 | 2.750 | | 2.750 | 3.250 | 0.375 | 3.250 | | 0.413 | |
| RE25003000-375 | 3.000 | | 3.000 | 3.500 | 0.375 | 3.500 | | 0.413 | |
| RE31203000-500 | 3.000 | | 3.000 | 3.625 | 0.500 | 3.625 | | 0.550 | |
| RE37503000-625 | 3.000 | ▼ | 3.000 | 3.750 | 0.625 | 3.750 | | 0.688 | |
| RE25003250-375 | 3.250 | - .001 | 3.250 | 3.750 | 0.375 | 3.750 | | 0.413 | |
| RE37503250-625 | 3.250 | - .005 | 3.250 | 4.000 | 0.625 | 4.000 | | 0.688 | |
| RE25003500-375 | 3.500 | | 3.500 | 4.000 | 0.375 | 4.000 | | 0.413 | |
| RE31203500-500 | 3.500 | | 3.500 | 4.125 | 0.500 | 4.125 | | 0.550 | |
| RE37503500-625 | 3.500 | | 3.500 | 4.250 | 0.625 | 4.250 | | 0.688 | |
| RE18703750-375 | 3.750 | | 3.750 | 4.125 | 0.375 | 4.125 | | 0.413 | |
| RE25003750-375 | 3.750 | | 3.750 | 4.250 | 0.375 | 4.250 | | 0.413 | |
| RE25004000-375 | 4.000 | | 4.000 | 4.500 | 0.375 | 4.500 | | 0.413 | |
| RE25004000-562 | 4.000 | | 4.000 | 4.500 | 0.562 | 4.500 | | 0.618 | |
| RE31204000-375 | 4.000 | | 4.000 | 4.625 | 0.375 | 4.625 | | 0.413 | |
| RE31204000-500 | 4.000 | | 4.000 | 4.625 | 0.500 | 4.625 | | 0.550 | |
| RE31204000-562 | 4.000 | | 4.000 | 4.625 | 0.562 | 4.625 | ▼ | 0.618 | |
| RE37504000-625 | 4.000 | | 4.000 | 4.750 | 0.625 | 4.750 | + .005 | 0.688 | |
| RE37504250-625 | 4.250 | | 4.250 | 5.000 | 0.625 | 5.000 | - .005 | 0.688 | |
| RE25004500-375 | 4.500 | | 4.500 | 5.000 | 0.375 | 5.000 | | 0.413 | |
| RE25004500-562 | 4.500 | | 4.500 | 5.000 | 0.562 | 5.000 | | 0.618 | |
| RE31204500-375 | 4.500 | | 4.500 | 5.125 | 0.375 | 5.125 | | 0.413 | |
| RE31204500-625 | 4.500 | | 4.500 | 5.125 | 0.625 | 5.125 | | 0.688 | |
| RE37504500-625 | 4.500 | ▼ | 4.500 | 5.250 | 0.625 | 5.250 | | 0.688 | |
| RE37505500-375 | 4.750 | - .001 | 4.750 | 5.500 | 0.375 | 5.500 | | 0.413 | |
| RE37505500-625 | 4.750 | - .006 | 4.750 | 5.500 | 0.625 | 5.500 | | 0.688 | |
| RE25005000-562 | 5.000 | | 5.000 | 5.500 | 0.562 | 5.500 | | 0.618 | |
| RE31205000-625 | 5.000 | | 5.000 | 5.625 | 0.625 | 5.625 | | 0.688 | |
| RE37505000-625 | 5.000 | | 5.000 | 5.750 | 0.625 | 5.750 | | 0.688 | |
| RE37505250-625 | 5.250 | | 5.250 | 6.000 | 0.625 | 6.000 | | 0.688 | |
| RE25005500-562 | 5.500 | | 5.500 | 6.000 | 0.562 | 6.000 | | 0.618 | |
| RE31205500-375 | 5.500 | | 5.500 | 6.125 | 0.375 | 6.125 | | 0.413 | |
| RE37505750-625 | 5.750 | | 5.750 | 6.500 | 0.625 | 6.500 | | 0.688 | |
| RE25006000-562 | 6.000 | | 6.000 | 6.500 | 0.562 | 6.500 | | 0.618 | |
| RE37506000-625 | 6.000 | | 6.000 | 6.750 | 0.625 | 6.750 | | 0.688 | |
| RE37506250-625 | 6.250 | ▼ | 6.250 | 7.000 | 0.625 | 7.000 | ▼ | 0.688 | ▼ |

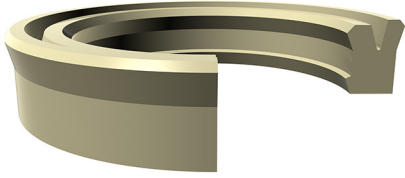
RE series - AU/POM/NBR



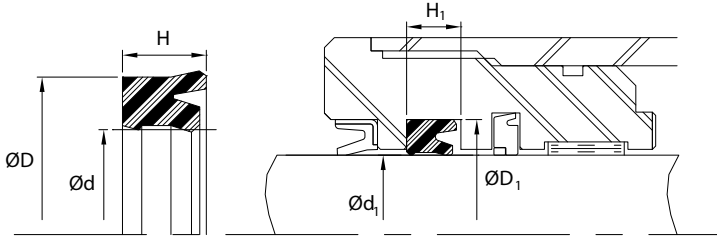
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| RE37506500-500 | 6.500 | -0.001 -0.006 | 6.500 | 7.250 | 0.500 | 7.250 | +0.005 -0.005 | 0.550 | +0.010 -0.000 |
| RE25006750-562 | 6.750 | | 6.750 | 7.250 | 0.562 | 7.250 | | 0.619 | |
| RE25007000-500 | 7.000 | | 7.000 | 7.500 | 0.500 | 7.500 | +0.006 -0.006 | 0.550 | |
| RE31207000-562 | 7.000 | | 7.000 | 7.625 | 0.562 | 7.625 | | 0.619 | |
| RE37507000-562 | 7.000 | | 7.000 | 7.750 | 0.562 | 7.750 | | 0.619 | |
| RE37507000-625 | 7.000 | ▼ | 7.000 | 7.750 | 0.625 | 7.750 | | 0.688 | |
| RE25008000-562 | 8.000 | -0.002 -0.006 | 8.000 | 8.500 | 0.562 | 8.500 | | 0.619 | |
| RE37508000-625 | 8.000 | | 8.000 | 8.750 | 0.625 | 8.750 | | 0.688 | |
| RE37508500-625 | 8.500 | | 8.500 | 9.250 | 0.625 | 9.250 | | 0.688 | |
| RE37509000-625 | 9.000 | | 9.000 | 9.750 | 0.625 | 9.750 | | 0.688 | |
| RE50009000-750 | 9.000 | ▼ | 9.000 | 10.000 | 0.750 | 10.000 | | 0.825 | |
| RE25010000-562 | 10.000 | -0.002 -0.007 | 10.000 | 10.500 | 0.562 | 10.500 | | 0.619 | |
| RE37510000-625 | 10.000 | | 10.000 | 10.750 | 0.625 | 10.750 | | 0.688 | |
| RE50010000-750 | 10.000 | | 10.000 | 11.000 | 0.750 | 11.000 | | 0.825 | |
| RE31210500-562 | 10.500 | | 10.500 | 11.125 | 0.562 | 11.125 | | 0.619 | |
| RE37511000-625 | 11.000 | | 11.000 | 11.750 | 0.625 | 11.750 | | 0.688 | |
| RE37512000-625 | 12.000 | | 12.000 | 12.750 | 0.625 | 12.750 | | 0.688 | |
| RE50012000-750 | 12.000 | ▼ | 12.000 | 13.000 | 0.750 | 13.000 | ▼ | 0.825 | |
| RE31213000-562 | 13.000 | -0.002 -0.008 | 13.000 | 13.625 | 0.562 | 13.625 | +0.007/-0.007 | 0.619 | |
| RE50014000-750 | 14.000 | | 14.000 | 15.000 | 0.750 | 15.000 | +0.008 -0.008 | 0.825 | |
| RE50015000-750 | 15.000 | ▼ | 15.000 | 16.000 | 0.750 | 16.000 | | 0.825 | ▼ |



BT - Rod seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|----------------------|
| Polyurethane | -65°F to +275°F (-54°C to +135°C) | ≤5000 psi (≤550 bar) | < 1.6 ft/s (0.5 m/s) |



A non-symmetrical design for use in hydraulic rod sealing applications, **BT-style** incorporates a more robust primary sealing lip and improved stability in the housing by moving the secondary lip to the very base of the heel. **BT-style** profile may be used as a stand-alone seal or in combination with the **BR-style** buffer seal for more critical sealing applications.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| BT12500219-225 | 0.219 | +0.000 -0.001 | 0.219 | 0.469 | 0.225 | 0.469 | +0.005 -0.000 | 0.248 | +0.015 -0.000 |
| BT12500250-187 | 0.250 | | 0.250 | 0.500 | 0.187 | 0.500 | | 0.206 | |
| BT12500312-187 | 0.312 | | 0.312 | 0.562 | 0.187 | 0.562 | | 0.206 | |
| BT12500375-187 | 0.375 | | 0.375 | 0.625 | 0.187 | 0.625 | | 0.206 | |
| BT12500500-125 | 0.500 | | 0.500 | 0.750 | 0.125 | 0.750 | | 0.138 | |
| BT12500500-187 | 0.500 | | 0.500 | 0.750 | 0.187 | 0.750 | | 0.206 | |
| BT12500500-250 | 0.500 | | 0.500 | 0.750 | 0.250 | 0.750 | | 0.275 | |
| BT12500562-250 | 0.562 | | 0.562 | 0.812 | 0.250 | 0.812 | | 0.275 | |
| BT12500625-187 | 0.625 | | 0.625 | 0.875 | 0.187 | 0.875 | | 0.206 | |
| BT12500625-250 | 0.625 | | 0.625 | 0.875 | 0.250 | 0.875 | | 0.275 | |
| BT18700625-275 | 0.625 | | 0.625 | 1.000 | 0.275 | 1.000 | | 0.303 | |
| BT18700625-312 | 0.625 | | 0.625 | 1.000 | 0.312 | 1.000 | | 0.343 | |
| BT12500750-187 | 0.750 | | 0.750 | 1.000 | 0.187 | 1.000 | | 0.206 | |
| BT12500750-250 | 0.750 | | 0.750 | 1.000 | 0.250 | 1.000 | | 0.275 | |
| BT18700750-250 | 0.750 | | 0.750 | 1.125 | 0.250 | 1.125 | | 0.275 | |
| BT18700812-250 | 0.812 | | 0.812 | 1.187 | 0.250 | 1.187 | | 0.275 | |
| BT12500875-187 | 0.875 | | 0.875 | 1.125 | 0.187 | 1.125 | | 0.206 | |
| BT12500875-250 | 0.875 | | 0.875 | 1.125 | 0.250 | 1.125 | | 0.275 | |
| BT12501000-187 | 1.000 | | 1.000 | 1.250 | 0.187 | 1.250 | | 0.206 | |
| BT15601000-219 | 1.000 | | 1.000 | 1.312 | 0.219 | 1.312 | | 0.241 | |
| BT12501000-250 | 1.000 | | 1.000 | 1.250 | 0.250 | 1.250 | | 0.275 | |
| BT18701000-312 | 1.000 | | 1.000 | 1.375 | 0.312 | 1.375 | | 0.343 | |
| BT25001000-375 | 1.000 | | 1.000 | 1.500 | 0.375 | 1.500 | | 0.413 | |
| BT12501125-250 | 1.125 | ▼ | 1.125 | 1.375 | 0.250 | 1.375 | ▼ | 0.275 | ▼ |

BT series - AU 90A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| BT18701125-250 | 1.125 | +0.000 -0.001 | 1.125 | 1.500 | 0.250 | 1.500 | +0.005 -0.000 | 0.275 | +0.015 -0.000 |
| BT18701125-312 | 1.125 | | 1.125 | 1.500 | 0.312 | 1.500 | | 0.343 | |
| BT25001125-375 | 1.125 | | 1.125 | 1.625 | 0.375 | 1.625 | | 0.413 | |
| BT12501250-187 | 1.250 | | 1.250 | 1.500 | 0.187 | 1.500 | | 0.206 | |
| BT15601250-218 | 1.250 | | 1.250 | 1.562 | 0.218 | 1.562 | | 0.240 | |
| BT12501250-250 | 1.250 | | 1.250 | 1.500 | 0.250 | 1.500 | | 0.275 | |
| BT18701250-312 | 1.250 | | 1.250 | 1.625 | 0.312 | 1.625 | | 0.343 | |
| BT25001250-375 | 1.250 | | 1.250 | 1.750 | 0.375 | 1.750 | | 0.413 | |
| BT15601375-219 | 1.375 | | 1.375 | 1.687 | 0.219 | 1.687 | | 0.241 | |
| BT12501375-250 | 1.375 | | 1.375 | 1.625 | 0.250 | 1.625 | | 0.275 | |
| BT18701375-250 | 1.375 | | 1.375 | 1.750 | 0.250 | 1.750 | | 0.275 | |
| BT15601375-312 | 1.375 | | 1.375 | 1.687 | 0.312 | 1.687 | | 0.343 | |
| BT18701375-312 | 1.375 | | 1.375 | 1.750 | 0.312 | 1.750 | | 0.343 | |
| BT25001375-375 | 1.375 | ▼ | 1.375 | 1.875 | 0.375 | 1.875 | | 0.413 | |
| BT12501500-187 | 1.500 | +0.000 -0.002 | 1.500 | 1.750 | 0.187 | 1.750 | | 0.206 | |
| BT12501500-250 | 1.500 | | 1.500 | 1.750 | 0.250 | 1.750 | | 0.275 | |
| BT18701500-250 | 1.500 | | 1.500 | 1.875 | 0.250 | 1.875 | | 0.275 | |
| BT18701500-375 | 1.500 | | 1.500 | 1.875 | 0.375 | 1.875 | | 0.413 | |
| BT25001500-375 | 1.500 | | 1.500 | 2.000 | 0.375 | 2.000 | | 0.413 | |
| BT31201500-375 | 1.500 | | 1.500 | 2.125 | 0.375 | 2.125 | | 0.413 | |
| BT18701625-375 | 1.625 | | 1.625 | 2.000 | 0.375 | 2.000 | | 0.413 | |
| BT25001625-375 | 1.625 | | 1.625 | 2.125 | 0.375 | 2.125 | | 0.413 | |
| BT12501750-187 | 1.750 | | 1.750 | 2.000 | 0.187 | 2.000 | | 0.206 | |
| BT18701750-250 | 1.750 | | 1.750 | 2.125 | 0.250 | 2.125 | | 0.275 | |
| BT18701750-312 | 1.750 | | 1.750 | 2.125 | 0.312 | 2.125 | | 0.343 | |
| BT18701750-375 | 1.750 | | 1.750 | 2.125 | 0.375 | 2.125 | | 0.413 | |
| BT25001750-375 | 1.750 | | 1.750 | 2.250 | 0.375 | 2.250 | | 0.413 | |
| BT31201750-500 | 1.750 | | 1.750 | 2.375 | 0.500 | 2.375 | | 0.550 | |
| BT18701875-312 | 1.875 | | 1.875 | 2.250 | 0.312 | 2.250 | | 0.343 | |
| BT18701875-375 | 1.875 | | 1.875 | 2.250 | 0.375 | 2.250 | | 0.413 | |
| BT18702000-250 | 2.000 | | 2.000 | 2.375 | 0.250 | 2.375 | | 0.275 | |
| BT18702000-312 | 2.000 | | 2.000 | 2.375 | 0.312 | 2.375 | | 0.343 | |
| BT18702000-375 | 2.000 | | 2.000 | 2.375 | 0.375 | 2.375 | | 0.413 | |
| BT25002000-375 | 2.000 | | 2.000 | 2.500 | 0.375 | 2.500 | | 0.413 | |
| BT31202000-500 | 2.000 | | 2.000 | 2.625 | 0.500 | 2.625 | | 0.550 | |
| BT37502000-500 | 2.000 | | 2.000 | 2.750 | 0.500 | 2.750 | | 0.550 | |
| BT18702125-250 | 2.125 | | 2.125 | 2.500 | 0.250 | 2.500 | | 0.275 | |
| BT18702125-312 | 2.125 | | 2.125 | 2.500 | 0.312 | 2.500 | | 0.343 | |
| BT25002125-375 | 2.125 | | 2.125 | 2.625 | 0.375 | 2.625 | | 0.413 | |
| BT18702250-312 | 2.250 | | 2.250 | 2.625 | 0.312 | 2.625 | | 0.343 | |
| BT18702250-375 | 2.250 | | 2.250 | 2.625 | 0.375 | 2.625 | | 0.413 | |
| BT25002250-375 | 2.250 | | 2.250 | 2.750 | 0.375 | 2.750 | | 0.413 | |
| BT25002375-375 | 2.375 | | 2.375 | 2.875 | 0.375 | 2.875 | | 0.413 | |
| BT21802500-281 | 2.500 | | 2.500 | 2.937 | 0.281 | 2.937 | | 0.309 | |
| BT21802500-312 | 2.500 | | 2.500 | 2.937 | 0.312 | 2.937 | | 0.343 | |
| BT18702500-375 | 2.500 | ▼ | 2.500 | 2.875 | 0.375 | 2.875 | ▼ | 0.413 | ▼ |

BT series - AU 90A

ROD SEALS

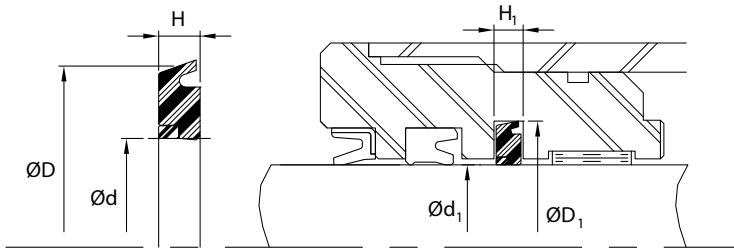


| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| BT21802500-375 | 2.500 | +0.000 -0.005 | 2.500 | 2.937 | 0.375 | 2.937 | +0.005 -0.000 | 0.413 | +0.015 -0.000 |
| BT25002500-375 | 2.500 | | 2.500 | 3.000 | 0.375 | 3.000 | | 0.413 | |
| BT31202500-500 | 2.500 | | 2.500 | 3.125 | 0.500 | 3.125 | | 0.550 | |
| BT18702625-375 | 2.625 | | 2.625 | 3.000 | 0.375 | 3.000 | | 0.413 | |
| BT25002625-375 | 2.625 | | 2.625 | 3.125 | 0.375 | 3.125 | | 0.413 | |
| BT25002750-375 | 2.750 | | 2.750 | 3.250 | 0.375 | 3.250 | | 0.413 | |
| BT31202750-500 | 2.750 | | 2.750 | 3.375 | 0.500 | 3.375 | | 0.550 | |
| BT37502750-625 | 2.750 | ▼ | 2.750 | 3.500 | 0.625 | 3.500 | | 0.688 | |
| BT21803000-281 | 3.000 | +0.000 -0.005 | 3.000 | 3.437 | 0.281 | 3.437 | | 0.309 | |
| BT18703000-375 | 3.000 | | 3.000 | 3.375 | 0.375 | 3.375 | | 0.413 | |
| BT25003000-375 | 3.000 | | 3.000 | 3.500 | 0.375 | 3.500 | | 0.413 | |
| BT31203000-500 | 3.000 | | 3.000 | 3.625 | 0.500 | 3.625 | | 0.550 | |
| BT37503000-500 | 3.000 | | 3.000 | 3.750 | 0.500 | 3.750 | | 0.550 | |
| BT25003250-375 | 3.250 | | 3.250 | 3.750 | 0.375 | 3.750 | | 0.413 | |
| BT25003500-312 | 3.500 | | 3.500 | 4.000 | 0.312 | 4.000 | | 0.343 | |
| BT18703500-375 | 3.500 | | 3.500 | 3.875 | 0.375 | 3.875 | | 0.413 | |
| BT25003500-375 | 3.500 | | 3.500 | 4.000 | 0.375 | 4.000 | | 0.413 | |
| BT31203500-500 | 3.500 | | 3.500 | 4.125 | 0.500 | 4.125 | | 0.550 | |
| BT25003750-375 | 3.750 | | 3.750 | 4.250 | 0.375 | 4.250 | | 0.413 | |
| BT31203750-500 | 3.750 | | 3.750 | 4.375 | 0.500 | 4.375 | | 0.550 | |
| BT18703875-312 | 3.875 | ▼ | 3.875 | 4.250 | 0.312 | 4.250 | | 0.343 | |
| BT25004000-312 | 4.000 | +0.000 -0.005 | 4.000 | 4.500 | 0.312 | 4.500 | | 0.343 | |
| BT25004000-375 | 4.000 | | 4.000 | 4.500 | 0.375 | 4.500 | | 0.413 | |
| BT31204000-375 | 4.000 | | 4.000 | 4.625 | 0.375 | 4.625 | | 0.413 | |
| BT25004000-562 | 4.000 | | 4.000 | 4.500 | 0.562 | 4.500 | | 0.618 | |
| BT37504000-625 | 4.000 | | 4.000 | 4.750 | 0.625 | 4.750 | | 0.688 | |
| BT25004250-562 | 4.250 | | 4.250 | 4.750 | 0.562 | 4.750 | | 0.618 | |
| BT37504250-625 | 4.250 | | 4.250 | 5.000 | 0.625 | 5.000 | | 0.688 | |
| BT37504250-713 | 4.250 | | 4.250 | 5.000 | 0.713 | 5.000 | | 0.784 | |
| BT25004500-312 | 4.500 | | 4.500 | 5.000 | 0.312 | 5.000 | | 0.343 | |
| BT31204500-375 | 4.500 | | 4.500 | 5.125 | 0.375 | 5.125 | | 0.413 | |
| BT37504500-625 | 4.500 | | 4.500 | 5.250 | 0.625 | 5.250 | | 0.688 | |
| BT28105000-344 | 5.000 | | 5.000 | 5.562 | 0.344 | 5.562 | | 0.378 | |
| BT25005000-375 | 5.000 | | 5.000 | 5.500 | 0.375 | 5.500 | | 0.413 | |
| BT37505000-500 | 5.000 | | 5.000 | 5.750 | 0.500 | 5.750 | | 0.550 | |
| BT37505000-625 | 5.000 | | 5.000 | 5.750 | 0.625 | 5.750 | | 0.688 | |
| BT37505250-625 | 5.250 | | 5.250 | 6.000 | 0.625 | 6.000 | | 0.688 | |
| BT31205500-375 | 5.500 | | 5.500 | 6.125 | 0.375 | 6.125 | | 0.413 | |
| BT37505500-625 | 5.500 | | 5.500 | 6.250 | 0.625 | 6.250 | | 0.688 | |
| BT37506000-625 | 6.000 | | 6.000 | 6.750 | 0.625 | 6.750 | | 0.688 | |
| BT50006500-625 | 6.500 | | 6.500 | 7.500 | 0.625 | 7.500 | | 0.688 | |
| BT37506750-625 | 6.750 | | 6.750 | 7.500 | 0.625 | 7.500 | | 0.688 | |
| BT50007000-750 | 7.000 | | 7.000 | 8.000 | 0.750 | 8.000 | | 0.825 | |
| BT37508000-625 | 8.000 | | 8.000 | 8.750 | 0.625 | 8.750 | | 0.688 | |
| BT37508500-625 | 8.500 | | 8.500 | 9.250 | 0.625 | 9.250 | | 0.688 | |
| BT37509500-625 | 9.500 | ▼ | 9.500 | 10.250 | 0.625 | 10.250 | ▼ | 0.688 | ▼ |

BR - Buffer seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-----------------------------|--|-------------------------|----------------------|
| Polyurethane/ Polyacetal | -65 °F to +275 °F (-54 °C to +135 °C) | ≤8000 psi (≤550 bar) | < 1.6 ft/s (0.5 m/s) |



ROD SEALS



The **BR-style** is designed to be used as a buffer seal alongside a secondary U-Cup type seal. This profile provides the majority of the sealing while protecting the secondary seal; it also incorporates a flexible static side lip and slotted pedestals to allow for a check-valve function, thus avoiding the risk of pressure-trapping.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Housing Dimensions | | | |
|--------------|--------------|------------------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | D1 | Tol. | H1 | Tol. |
| BR-01125* | 1.125 | +0.000 -0.001 | 1.500 | +0.008 -0.000 | 0.205 | +0.010 -0.000 |
| BR-01250* | 1.250 | | 1.815 | | 0.149 | |
| BR-01250-1 | 1.250 | | 1.625 | | 0.205 | |
| BR-01375* | 1.375 | | 1.750 | | 0.205 | |
| BR-01500* | 1.500 | +0.000 -0.002 | 2.063 | | 0.149 | |
| BR-01500-1 | 1.500 | | 2.000 | | 0.275 | |
| BR-01750SD | 1.750 | | 2.315 | | 0.149 | |
| BR-01750SD/1 | 1.750 | | 2.250 | | 0.275 | |
| BR-02000* | 2.000 | | 2.563 | | 0.149 | |
| BR-02000SD/1 | 2.000 | | 2.500 | | 0.275 | |
| BR-02250SD | 2.250 | | 2.925 | | 0.252 | |
| BR-02500 | 2.500 | | 3.175 | | 0.252 | |
| BR-02500SD/1 | 2.500 | | 3.000 | | 0.275 | |
| BR-02750SD | 2.750 | | 3.398 | | 0.252 | |

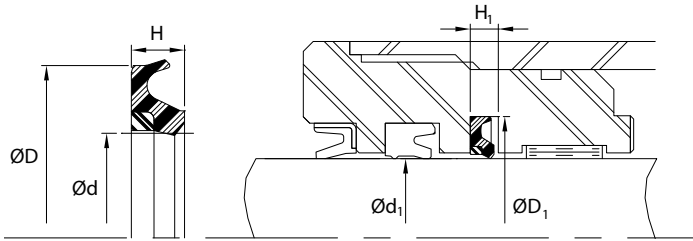
| Ref.Number | Rod Diameter | | Housing Dimensions | | | |
|--------------|--------------|------------------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | D1 | Tol. | H1 | Tol. |
| BR-03000 | 3.000 | +0.000 -0.003 | 3.646 | +0.008 -0.000 | 0.252 | +0.010 -0.000 |
| BR-03000SD/1 | 3.000 | | 3.500 | | 0.275 | |
| BR-03500 | 3.500 | | 4.165 | | 0.252 | |
| BR-03500SD/1 | 3.500 | | 4.000 | | 0.275 | |
| BR-03750 | 3.750 | | 4.250 | | 0.275 | |
| BR-04000SD | 4.000 | +0.000 -0.002 | 4.665 | | 0.252 | |
| BR-04000-1 | 4.000 | | 4.625 | | 0.343 | |
| BR-04250 | 4.250 | | 4.750 | | 0.275 | |
| BR-04500 | 4.500 | | 5.125 | | 0.343 | |
| BR-05000 | 5.000 | | 5.830 | | 0.358 | |
| BR-05500 | 5.500 | | 6.250 | | 0.412 | |

* No anti-extrusion ring

HBY - Buffer seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-----------------------------|--------------------------------------|-------------------------|----------------------|
| Polyurethane/ Polyacetal | -40°F to +230°F (-40°C to +110°C) | ≤8000 psi (≤552 bar) | < 1.6 ft/s (0.5 m/s) |



The HBY-style rod seals are used as buffer rings along with secondary U-Cup type seals. The anti-extrusion ring protects the rod sealing area from pressure spikes and the notched lip allows a pumping-back action suppressing any pressure-trap effect.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| HBY-01250* | 1.250 | +0.000/-0.001 | 1.250 | 1.812 | 0.125 | 1.819 | +0.005 -0.005 | 0.140 | +0.005 -0.005 |
| HBY-01500* | 1.500 | +0.000 -0.002 | 1.500 | 2.062 | 0.125 | 2.067 | | 0.140 | |
| HBY-01750* | 1.750 | | 1.750 | 2.312 | 0.125 | 2.319 | | 0.140 | |
| HBY-02000* | 2.000 | | 2.000 | 2.562 | 0.125 | 2.567 | | 0.140 | |
| HBY-02250 | 2.250 | | 2.250 | 2.937 | 0.187 | 2.929 | | 0.234 | |
| HBY-02500 | 2.500 | | 2.500 | 3.187 | 0.187 | 3.177 | | 0.234 | |
| HBY-02750 | 2.750 | | 2.750 | 3.375 | 0.187 | 3.402 | | 0.234 | |
| HBY-03000 | 3.000 | +0.000 -0.003 | 3.000 | 3.625 | 0.187 | 3.649 | | 0.234 | |
| HBY-03500 | 3.500 | | 3.500 | 4.187 | 0.187 | 4.169 | | 0.234 | |
| HBY-04000 | 4.000 | +0.000/-0.005 | 4.000 | 4.625 | 0.187 | 4.669 | | 0.234 | |

* No anti-extrusion ring

Markets segments we are servicing



Health & Safety



Power
Generation



Distribution



Ind Autom
Aftermarket



Power
Tools

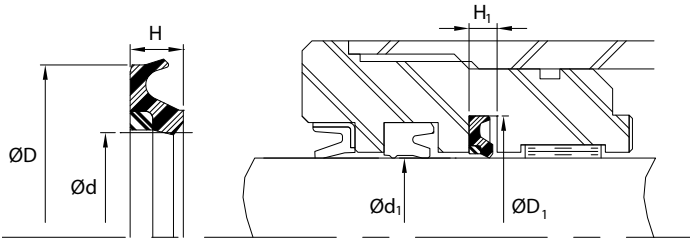


Fluid Power

HBY-CAT - Buffer seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-----------------------------|--------------------------------------|-------------------------|----------------------|
| Polyurethane/ Polyacetal | -40°F to +230°F (-40°C to +110°C) | ≤8000 psi (≤552 bar) | < 1.6 ft/s (0.5 m/s) |



The HBY-style rod seals are used as buffer rings along with secondary U-Cup type seals. The anti-extrusion ring protects the rod sealing area from pressure spikes and the notched lip allows a pumping-back action suppressing any pressure-trap effect.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

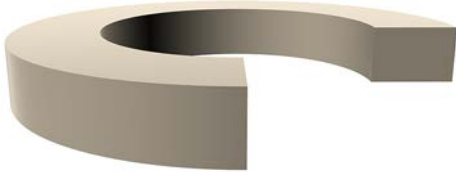
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|---------------|--------------|------------------|-------------------------|---|---|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| RCAT-1402310* | 1.375 | +0.000 -0.002 | 1.375 | | | 1.988 | +0.005 -0.005 | 0.252 | +0.005 -0.005 |
| RCAT-1410706* | 1.375 | | 1.375 | | | 1.988 | | 0.252 | |
| RCAT-1506738* | 1.750 | | 1.750 | | | 2.391 | | 0.220 | |
| RCAT-1438915* | 1.770 | | 1.770 | | | 2.382 | | 0.266 | |
| RCAT-1444055* | 2.000 | | 2.000 | | | 2.533 | | 0.140 | |
| RCAT-1506744 | 2.125 | | 2.125 | | | 2.766 | | 0.220 | |
| RCAT-1506750 | 2.500 | | 2.500 | | | 3.141 | | 0.220 | |
| RCAT-1485674 | 2.750 | ▼ | 2.750 | | | 3.390 | | 0.220 | |
| RCAT-1529022 | 3.000 | +0.000 -0.003 | 3.000 | | | 3.640 | | 0.220 | |
| RCAT-1400234 | 3.250 | | 3.250 | | | 3.890 | | 0.220 | |
| RCAT-1422633 | 3.500 | ▼ | 3.500 | | | 4.140 | | 0.220 | |
| RCAT-1306056 | 4.000 | +0.000 -0.005 | 4.000 | | | 4.640 | | 0.220 | |
| RCAT-1422634 | 4.500 | | 4.500 | | | 5.475 | | 0.250 | |
| RCAT-1506262 | 5.000 | | 5.000 | | | 5.960 | | 0.250 | |
| RCAT-1339572 | 5.500 | | 5.500 | | | 6.116 | | 0.250 | |
| RCAT-1615787 | 6.000 | | 6.000 | | | 6.618 | | 0.250 | |
| RCAT-1615788 | 6.000 | | 6.000 | | | 6.752 | | 0.537 | |
| RCAT-1367358 | 6.500 | | 6.500 | | | 7.502 | | 0.250 | |
| RCAT-1351995 | 7.000 | | 7.000 | | | 7.945 | | 0.250 | |
| RCAT-1367359 | 7.250 | | 7.250 | | | 8.083 | | 0.250 | |
| RCAT-1351997 | 7.500 | | 7.500 | | | 8.331 | | 0.325 | |
| RCAT-1493256 | 8.000 | | 8.000 | | | 8.827 | | 0.325 | |
| RCAT-1351999 | 8.750 | ▼ | 8.750 | | | 9.583 | ▼ | 0.325 | ▼ |

* No anti-extrusion ring

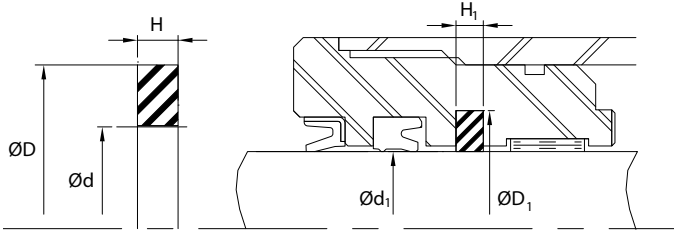
All manufacturer's names, part numbers and descriptions are use for reference purpose only. We do not imply that any part shown is the product of these manufacturers.



CAT Seal Ring - Buffer seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|---------------------|
| Polyurethane | -40°F to +212°F (-40°C to +100°C) | ≤5000 psi (≤345 bar) | < 1.6 ft/s (0.5m/s) |



This simple, flat urethane buffer seals protect the secondary rod seal from pressure spikes. It is often found on older types of mobile machinery.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-------------|--------------|------------------|-------------------------|---|---|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| RCAT-5P4673 | 0.875 | +0.000 -0.001 | 0.875 | | | O/R | +0.005 -0.005 | O/R | +0.005 -0.005 |
| RCAT-9J3497 | 1.250 | | 1.250 | | | 1.783 | | 0.140 | |
| RCAT-6J9733 | 1.500 | +0.000 -0.002 | 1.500 | | | 2.033 | | 0.140 | |
| RCAT-4T0487 | 1.625 | | 1.625 | | | 2.160 | | 0.140 | |
| RCAT-6J9178 | 1.750 | | 1.750 | | | 2.283 | | 0.140 | |
| RCAT-4T6778 | 1.875 | | 1.875 | | | 2.252 | | 0.140 | |
| RCAT-6J6917 | 2.000 | | 2.000 | | | 2.533 | | 0.140 | |
| RCAT-4T6127 | 2.125 | | 2.125 | | | 2.627 | | 0.140 | |
| RCAT-5J3616 | 2.250 | | 2.250 | | | 2.891 | | 0.220 | |
| RCAT-6J6916 | 2.375 | | 2.375 | | | 3.016 | | 0.220 | |
| RCAT-5J3620 | 2.500 | | 2.500 | | | 3.141 | | 0.220 | |
| RCAT-1U4020 | 2.625 | | 2.625 | | | 3.266 | | 0.220 | |
| RCAT-6J6553 | 2.750 | ▼ | 2.750 | | | 3.391 | | 0.220 | |
| RCAT-6J6915 | 3.000 | +0.000 -0.003 | 3.000 | | | 3.641 | | 0.220 | |
| RCAT-6J7167 | 3.250 | | 3.250 | | | 3.891 | | 0.220 | |
| RCAT-6J6736 | 3.500 | | 3.500 | | | 4.141 | | 0.220 | |
| RCAT-3G1259 | 3.625 | | 3.625 | | | 4.266 | | 0.220 | |
| RCAT-8J6070 | 3.750 | ▼ | 3.750 | | | 4.391 | | 0.220 | |
| RCAT-7J3863 | 4.000 | +0.000 -0.005 | 4.000 | | | O/R | | O/R | |
| RCAT-7J3864 | 4.000 | | 4.000 | | | O/R | | O/R | |
| RCAT-8J4627 | 4.000 | | 4.000 | | | 4.641 | | 0.220 | |
| RCAT-7J8943 | 4.250 | ▼ | 4.250 | | | 5.225 | ▼ | 0.250 | ▼ |

All manufacturer's names, part numbers and descriptions are use for reference purpose only. We do not imply that any part shown is the product of these manufacturers.

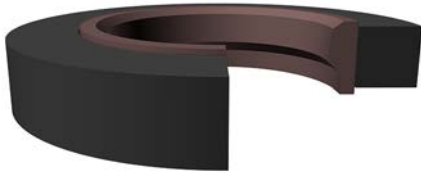
CAT Seal Ring series - cat x-ref - AU



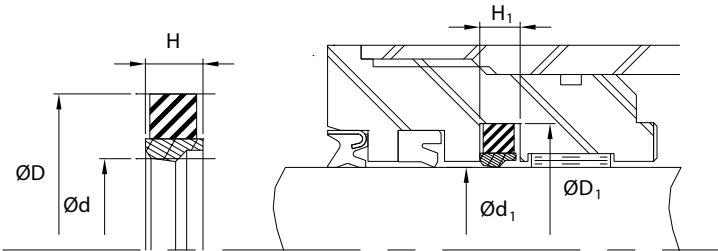
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|------------------|-------------------------|---|---|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| RCAT-3G5055 | 4.375 | +0.000 -0.005 | 4.375 | | | 5.225 | +0.000 -0.005 | 0.250 | +0.003 -0.003 |
| RCAT-8J0388 | 4.500 | | 4.500 | | | O/R | | O/R | |
| RCAT-3G8507 | 4.500 | | 4.500 | | | 5.475 | | 0.250 | |
| RCAT-7J9257 | 4.750 | | 4.750 | | | 5.725 | | 0.250 | |
| RCAT-9J2548 | 5.000 | | 5.000 | | | O/R | | O/R | |
| RCAT-9J3053 | 5.000 | | 5.000 | | | O/R | | O/R | |
| RCAT-8J4509 | 5.000 | | 5.000 | | | 5.960 | | 0.250 | |
| RCAT-4T5717 | 5.250 | | 5.250 | | | 6.210 | | 0.250 | |
| RCAT-8J9449 | 5.500 | | 5.500 | | | O/R | | O/R | |
| RCAT-8J9450 | 5.500 | | 5.500 | | | O/R | | O/R | |
| RCAT-9J5468 | 5.750 | | 5.750 | | | 6.725 | | 0.250 | |
| RCAT-7J3865 | 6.125 | | 6.125 | | | O/R | | O/R | |
| RCAT-7J3866 | 6.125 | | 6.125 | | | O/R | | O/R | |
| RCAT-9J1186 | 6.500 | | 6.500 | | | O/R | | O/R | |
| RCAT-9J1203 | 6.500 | | 6.500 | | | O/R | | O/R | |
| RCAT-6J8631 | 6.500 | | 6.500 | | | 7.502 | | 0.250 | |
| RCAT-3G8506 | 6.750 | | 6.750 | | | 7.695 | | 0.250 | |
| RCAT-9J2495 | 7.000 | | 7.000 | | | 7.945 | | 0.250 | |
| RCAT-8T3539 | 7.000 | | 7.000 | | | O/R | | O/R | |
| RCAT-8T3540 | 7.000 | | 7.000 | | | O/R | | O/R | |
| RCAT-5J1731 | 7.000 | | 7.000 | | | O/R | | O/R | |
| RCAT-5J5150 | 7.000 | | 7.000 | | | O/R | | O/R | |
| RCAT-4T4803 | 7.250 | | 7.250 | | | O/R | | O/R | |
| RCAT-4T4804 | 7.250 | | 7.250 | | | O/R | | O/R | |
| RCAT-7J3867 | 7.500 | | 7.500 | | | O/R | | O/R | |
| RCAT-7J3868 | 7.500 | | 7.500 | | | O/R | | O/R | |
| RCAT-1214165 | 7.750 | | 7.750 | | | O/R | | O/R | |
| RCAT-1214166 | 7.750 | | 7.750 | | | O/R | | O/R | |
| RCAT-8J9916 | 8.500 | | 8.500 | | | O/R | | O/R | |
| RCAT-6E0250 | 8.750 | | 8.750 | | | O/R | | O/R | |
| RCAT-6E0251 | 8.750 | | 8.750 | | | O/R | | O/R | |
| RCAT-6J7693 | 9.000 | | 9.000 | | | O/R | | O/R | |
| RCAT-8T3541 | 9.000 | | 9.000 | | | O/R | | O/R | |
| RCAT-8T3542 | 9.000 | | 9.000 | | | O/R | | O/R | |
| RCAT-4T4806 | 10.500 | | 10.500 | | | O/R | | O/R | |
| RCAT-4T4807 | 10.500 | | 10.500 | | | O/R | | O/R | |
| RCAT-1U4623 | 11.000 | | 11.000 | | | O/R | | O/R | |
| RCAT-1U4624 | 11.000 | | 11.000 | | | O/R | | O/R | |
| RCAT-8T7575 | 11.000 | | 11.000 | | | O/R | | O/R | |
| RCAT-8T7576 | 11.000 | | 11.000 | | | O/R | | O/R | |
| RCAT-1214163 | 11.500 | | 11.500 | | | O/R | | O/R | |
| RCAT-1214164 | 11.500 | | 11.500 | | | O/R | | O/R | |
| RCAT-8T7573 | 12.500 | | 12.500 | | | O/R | | O/R | |
| RCAT-8T7574 | 12.500 | ▼ | 12.500 | | | O/R | ▼ | O/R | ▼ |

All manufacturer's names, part numbers and descriptions are use for reference purpose only.
We do not imply that any part shown is the product of these manufacturers.

CAT Step Seal - Buffer seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|-------------------|
| PTFE/Nitrile | -30°F to +230°F (-34°C to +110°C) | ≤5800 psi (≤400 bar) | < 13 ft/s (4 m/s) |



This is a Caterpillar-specific two-piece buffer ring similar to the RSS design. but using a square energizer ring.

Alternate Materials: For applications that may require an alternate material. please contact our customer service department. Other sizes available on request.

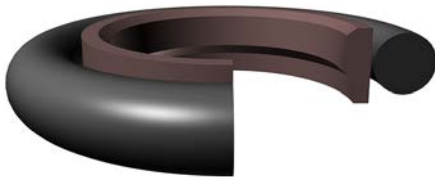
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|------------------|-------------------------|---|---|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| RCAT-1353251 | 1.250 | +0.000 -0.002 | 1.250 | | | 1.780 | +0.005 -0.005 | 0.140 | +0.005 -0.005 |
| RCAT-8C9122 | 1.500 | | 1.500 | | | 2.033 | | 0.140 | |
| RCAT-8C9117 | 1.625 | | 1.625 | | | 2.158 | | 0.140 | |
| RCAT-8C9123 | 1.750 | | 1.750 | | | 2.283 | | 0.140 | |
| RCAT-9X3566 | 1.875 | | 1.875 | | | 2.252 | | 0.140 | |
| RCAT-8C9124 | 2.000 | | 2.000 | | | 2.533 | | 0.140 | |
| RCAT-9X3568 | 2.125 | | 2.125 | | | 2.627 | | 0.140 | |
| RCAT-8C9125 | 2.250 | | 2.250 | | | 2.891 | | 0.220 | |
| RCAT-8C9138 | 2.375 | | 2.375 | | | 3.016 | | 0.220 | |
| RCAT-8C3839 | 2.500 | | 2.500 | | | 3.141 | | 0.220 | |
| RCAT-9T9363 | 2.625 | | 2.625 | | | 3.266 | | 0.220 | |
| RCAT-8C3841 | 2.750 | ▼ | 2.750 | | | 3.391 | | 0.220 | |
| RCAT-8C9126 | 3.000 | +0.000 -0.002 | 3.000 | | | 3.641 | | 0.220 | |
| RCAT-8C9121 | 3.250 | | 3.250 | | | 3.891 | | 0.220 | |
| RCAT-8C9127 | 3.500 | | 3.500 | | | 4.141 | | 0.220 | |
| RCAT-8C9128 | 3.750 | ▼ | 3.750 | | | 4.391 | | 0.220 | |
| RCAT-8C9129 | 4.000 | +0.000 -0.005 | 4.000 | | | 4.641 | | 0.220 | |
| RCAT-6E0425 | 4.250 | | 4.250 | | | 5.225 | | 0.250 | |
| RCAT-8C9144 | 4.500 | | 4.500 | | | 5.475 | | 0.250 | |
| RCAT-9X7261 | 4.750 | | 4.750 | | | 5.725 | | 0.250 | |
| RCAT-9X3581 | 5.000 | | 5.000 | | | 5.960 | | 0.250 | |
| RCAT-9X7267 | 5.250 | ▼ | 5.250 | | | 6.210 | ▼ | 0.250 | ▼ |

CAT Step Seal series - cat x-ref - AU

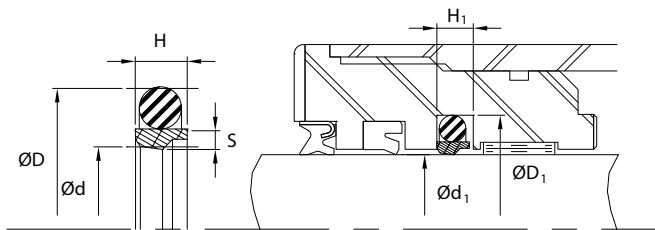
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|------------------|-------------------------|---|---|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| RCAT-9X3572 | 5.500 | +0.000 -0.005 | 5.500 | | | 6.116 | +0.005 -0.005 | 0.250 | +0.005 -0.005 |
| RCAT-9X3575 | 5.750 | | 5.750 | | | 6.725 | | 0.250 | |
| RCAT-9X3614 | 6.000 | | 6.000 | | | 6.619 | | 0.250 | |
| RCAT-9X7322 | 6.500 | | 6.500 | | | 7.502 | | 0.250 | |
| RCAT-8C9145 | 6.750 | | 6.750 | | | 7.695 | | 0.250 | |
| RCAT-8C9130 | 7.000 | | 7.000 | | | 7.945 | | 0.250 | |
| RCAT-1080133 | 7.250 | | 7.250 | | | 8.080 | | 0.250 | |
| RCAT-1080131 | 7.500 | | 7.500 | | | 8.330 | | 0.320 | |
| RCAT-6E0246 | 8.000 | | 8.000 | | | 8.833 | | 0.320 | |
| RCAT-9X7327 | 8.250 | | 8.250 | | | 9.080 | | 0.320 | |
| RCAT-1086212 | 8.750 | ▼ | 8.750 | | | 9.580 | ▼ | 0.320 | ▼ |

All manufacturer's names, part numbers and descriptions are use for reference purpose only. We do not imply that any part shown is the product of these manufacturers.

RSS - Buffer seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|-------------------|
| BR.PTFE/Nitrile | -40°F to +250°F (-40°C to +121°C) | ≤5000 psi (≤345 bar) | < 13 ft/s (4 m/s) |



The **RSS-style** seals may be used as primary (buffer-type) seals along with a secondary U-Cup type seal or in a tandem application with itself. A dual-material type seal, the dynamic sealing element offers a low-friction environment while the elastomeric static ring insures proper pre-loading of the seal assembly.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|--------------|------------------|-------------------------|-------|-------|------|--------------------|---------------|-------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| RSS-00312/1 | 0.312 | +0.000 -0.001 | 0.312 | 0.067 | 0.114 | -111 | 0.600 | +0.003/-0.000 | 0.130 | +0.004 -0.004 |
| RSS-00312/2 | 0.312 | | 0.312 | 0.100 | 0.153 | -206 | 0.733 | +0.004/-0.000 | 0.169 | |

RSS series - BR.PTFE/NBR

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|--------------|------------------|-------------------------|-------|-------|------|--------------------|---------------|-------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| RSS-00312/0 | 0.312 | +0.000 -0.001 | 0.312 | 0.039 | 0.079 | -012 | 0.505 | +0.003/-0.000 | 0.090 | +0.004 -0.004 |
| RSS-00375/1 | 0.375 | | 0.375 | 0.067 | 0.114 | -112 | 0.662 | +0.003/-0.000 | 0.130 | |
| RSS-00375/2 | 0.375 | | 0.375 | 0.100 | 0.153 | -207 | 0.796 | +0.004/-0.000 | 0.169 | |
| RSS-00375/0 | 0.375 | | 0.375 | 0.039 | 0.079 | -013 | 0.568 | +0.003/-0.000 | 0.090 | |
| RSS-00437/1 | 0.437 | | 0.437 | 0.067 | 0.114 | -113 | 0.725 | +0.003/-0.000 | 0.130 | |
| RSS-00437/2 | 0.437 | | 0.437 | 0.100 | 0.153 | -208 | 0.858 | +0.004/-0.000 | 0.169 | |
| RSS-00437/0 | 0.437 | | 0.437 | 0.039 | 0.079 | -014 | 0.630 | +0.003/-0.000 | 0.090 | |
| RSS-00500/1 | 0.500 | | 0.500 | 0.067 | 0.114 | -114 | 0.787 | +0.003/-0.000 | 0.130 | |
| RSS-00500/2 | 0.500 | | 0.500 | 0.100 | 0.153 | -209 | 0.921 | +0.004/-0.000 | 0.169 | |
| RSS-00500/0 | 0.500 | | 0.500 | 0.039 | 0.079 | -015 | 0.693 | +0.003/-0.000 | 0.090 | |
| RSS-00562/1 | 0.562 | | 0.562 | 0.067 | 0.114 | -115 | 0.850 | +0.003/-0.000 | 0.130 | |
| RSS-00562/2 | 0.562 | | 0.562 | 0.100 | 0.153 | -210 | 0.983 | +0.004/-0.000 | 0.169 | |
| RSS-00562/0 | 0.562 | | 0.562 | 0.039 | 0.079 | -016 | 0.755 | +0.003/-0.000 | 0.090 | |
| RSS-00625/1 | 0.625 | | 0.625 | 0.067 | 0.114 | -116 | 0.912 | +0.003/-0.000 | 0.130 | |
| RSS-00625/2 | 0.625 | | 0.625 | 0.100 | 0.153 | -211 | 1.046 | +0.004/-0.000 | 0.169 | |
| RSS-00625/0 | 0.625 | | 0.625 | 0.039 | 0.079 | -017 | 0.818 | +0.003/-0.000 | 0.090 | |
| RSS-00687/1 | 0.687 | | 0.687 | 0.067 | 0.114 | -117 | 0.975 | +0.003/-0.000 | 0.130 | |
| RSS-00687/2 | 0.687 | | 0.687 | 0.100 | 0.153 | -212 | 1.108 | +0.004/-0.000 | 0.169 | |
| RSS-00687/0 | 0.687 | | 0.687 | 0.039 | 0.079 | -018 | 0.880 | +0.003/-0.000 | 0.090 | |
| RSS-00750/2 | 0.750 | | 0.750 | 0.100 | 0.153 | -213 | 1.171 | +0.004/-0.000 | 0.169 | |
| RSS-00750/3 | 0.750 | | 0.750 | 0.136 | 0.232 | -318 | 1.344 | +0.005/-0.000 | 0.252 | |
| RSS-00750/1 | 0.750 | | 0.750 | 0.067 | 0.114 | -118 | 1.037 | +0.003/-0.000 | 0.130 | |
| RSS-00812/2 | 0.812 | | 0.812 | 0.100 | 0.153 | -214 | 1.234 | +0.004/-0.000 | 0.169 | |
| RSS-00812/3 | 0.812 | | 0.812 | 0.136 | 0.232 | -319 | 1.406 | +0.005/-0.000 | 0.252 | |
| RSS-00812/1 | 0.812 | | 0.812 | 0.067 | 0.114 | -119 | 1.099 | +0.003/-0.000 | 0.130 | |
| RSS-00875/2 | 0.875 | | 0.875 | 0.100 | 0.153 | -215 | 1.296 | +0.004/-0.000 | 0.169 | |
| RSS-00875/3 | 0.875 | | 0.875 | 0.136 | 0.232 | -320 | 1.469 | +0.005/-0.000 | 0.252 | |
| RSS-00875/1 | 0.875 | | 0.875 | 0.067 | 0.114 | -120 | 1.162 | +0.003/-0.000 | 0.130 | |
| RSS-00937/2 | 0.937 | | 0.937 | 0.100 | 0.153 | -216 | 1.359 | +0.004/-0.000 | 0.169 | |
| RSS-00937/3 | 0.937 | | 0.937 | 0.136 | 0.232 | -321 | 1.531 | +0.005/-0.000 | 0.252 | |
| RSS-00937/1 | 0.937 | | 0.937 | 0.067 | 0.114 | -121 | 1.224 | +0.003/-0.000 | 0.130 | |
| RSS-01000/2 | 1.000 | | 1.000 | 0.100 | 0.153 | -217 | 1.421 | +0.004/-0.000 | 0.169 | |
| RSS-01000/3 | 1.000 | | 1.000 | 0.136 | 0.232 | -322 | 1.594 | +0.005/-0.000 | 0.252 | |
| RSS-01000/1 | 1.000 | | 1.000 | 0.067 | 0.114 | -122 | 1.287 | +0.003/-0.000 | 0.130 | |
| RSS-01062/2 | 1.062 | | 1.062 | 0.100 | 0.153 | -218 | 1.484 | +0.004/-0.000 | 0.169 | |
| RSS-01062/3 | 1.062 | | 1.062 | 0.136 | 0.232 | -323 | 1.656 | +0.005/-0.000 | 0.252 | |
| RSS-01062/1 | 1.062 | | 1.062 | 0.067 | 0.114 | -123 | 1.349 | +0.003/-0.000 | 0.130 | |
| RSS-01125/2 | 1.125 | | 1.125 | 0.100 | 0.153 | -219 | 1.546 | +0.004/-0.000 | 0.169 | |
| RSS-01125/3 | 1.125 | | 1.125 | 0.136 | 0.232 | -324 | 1.719 | +0.005/-0.000 | 0.252 | |
| RSS-01125/1 | 1.125 | | 1.125 | 0.067 | 0.114 | -124 | 1.412 | +0.003/-0.000 | 0.130 | |
| RSS-01187/2 | 1.187 | | 1.187 | 0.100 | 0.153 | -220 | 1.609 | +0.004/-0.000 | 0.169 | |
| RSS-01187/3 | 1.187 | | 1.187 | 0.136 | 0.232 | -324 | 1.781 | +0.005/-0.000 | 0.252 | |
| RSS-01187/1 | 1.187 | | 1.187 | 0.067 | 0.114 | -125 | 1.474 | +0.003/-0.000 | 0.130 | |
| RSS-01250/2 | 1.250 | | 1.250 | 0.100 | 0.153 | -221 | 1.671 | +0.004/-0.000 | 0.169 | |
| RSS-01250/3 | 1.250 | | 1.250 | 0.136 | 0.232 | -325 | 1.844 | +0.005/-0.000 | 0.252 | |
| RSS-01250/1 | 1.250 | ▼ | 1.250 | 0.067 | 0.114 | -126 | 1.537 | +0.003/-0.000 | 0.130 | ▼ |

RSS series - BR.PTFE/NBR

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|--------------|------------------|-------------------------|-------|-------|------|--------------------|---------------|-------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| RSS-01312/2 | 1.312 | +0.000 -0.001 | 1.312 | 0.100 | 0.153 | -222 | 1.734 | +0.004/-0.000 | 0.169 | +0.004 -0.004 |
| RSS-01312/3 | 1.312 | | 1.312 | 0.136 | 0.232 | -325 | 1.906 | +0.005/-0.000 | 0.252 | |
| RSS-01312/1 | 1.312 | | 1.312 | 0.067 | 0.114 | -127 | 1.599 | +0.003/-0.000 | 0.130 | |
| RSS-01375/2 | 1.375 | | 1.375 | 0.100 | 0.153 | -222 | 1.796 | +0.004/-0.000 | 0.169 | |
| RSS-01375/3 | 1.375 | | 1.375 | 0.136 | 0.232 | -326 | 1.969 | +0.005/-0.000 | 0.252 | |
| RSS-01375/1 | 1.375 | | 1.375 | 0.067 | 0.114 | -128 | 1.662 | +0.003/-0.000 | 0.130 | |
| RSS-01437/2 | 1.437 | | 1.437 | 0.100 | 0.153 | -223 | 1.859 | +0.004/-0.000 | 0.169 | |
| RSS-01437/3 | 1.437 | | 1.437 | 0.136 | 0.232 | -326 | 2.031 | +0.005/-0.000 | 0.252 | |
| RSS-01437/1 | 1.437 | ▼ | 1.437 | 0.067 | 0.114 | -129 | 1.724 | +0.003/-0.000 | 0.130 | |
| RSS-01500/3 | 1.500 | +0.000 -0.002 | 1.500 | 0.136 | 0.232 | -327 | 2.094 | +0.005/-0.000 | 0.252 | |
| RSS-01500/4 | 1.500 | | 1.500 | 0.187 | 0.299 | -404 | 2.307 | +0.006/-0.000 | 0.323 | |
| RSS-01500/2 | 1.500 | | 1.500 | 0.100 | 0.153 | -223 | 1.921 | +0.004/-0.000 | 0.169 | |
| RSS-01562/3 | 1.562 | | 1.562 | 0.136 | 0.232 | -327 | 2.157 | +0.005/-0.000 | 0.252 | |
| RSS-01562/4 | 1.562 | | 1.562 | 0.187 | 0.299 | -404 | 2.369 | +0.006/-0.000 | 0.323 | |
| RSS-01562/2 | 1.562 | | 1.562 | 0.100 | 0.153 | -224 | 1.983 | +0.004/-0.000 | 0.169 | |
| RSS-01625/3 | 1.625 | | 1.625 | 0.136 | 0.232 | -328 | 2.219 | +0.005/-0.000 | 0.252 | |
| RSS-01625/4 | 1.625 | | 1.625 | 0.187 | 0.299 | -405 | 2.432 | +0.006/-0.000 | 0.323 | |
| RSS-01625/2 | 1.625 | | 1.625 | 0.100 | 0.153 | -224 | 2.046 | +0.004/-0.000 | 0.169 | |
| RSS-01687/3 | 1.687 | | 1.687 | 0.136 | 0.232 | -328 | 2.282 | +0.005/-0.000 | 0.252 | |
| RSS-01687/4 | 1.687 | | 1.687 | 0.187 | 0.299 | -405 | 2.494 | +0.006/-0.000 | 0.323 | |
| RSS-01687/2 | 1.687 | | 1.687 | 0.100 | 0.153 | -225 | 2.108 | +0.004/-0.000 | 0.169 | |
| RSS-01750/3 | 1.750 | | 1.750 | 0.136 | 0.232 | -329 | 2.344 | +0.005/-0.000 | 0.252 | |
| RSS-01750/4 | 1.750 | | 1.750 | 0.187 | 0.299 | -406 | 2.557 | +0.006/-0.000 | 0.323 | |
| RSS-01750/2 | 1.750 | | 1.750 | 0.100 | 0.153 | -225 | 2.171 | +0.004/-0.000 | 0.169 | |
| RSS-01812/3 | 1.812 | | 1.812 | 0.136 | 0.232 | -329 | 2.407 | +0.005/-0.000 | 0.252 | |
| RSS-01812/4 | 1.812 | | 1.812 | 0.187 | 0.299 | -406 | 2.619 | +0.006/-0.000 | 0.323 | |
| RSS-01812/2 | 1.812 | | 1.812 | 0.100 | 0.153 | -226 | 2.233 | +0.004/-0.000 | 0.169 | |
| RSS-01875/3 | 1.875 | | 1.875 | 0.136 | 0.232 | -330 | 2.469 | +0.005/-0.000 | 0.252 | |
| RSS-01875/4 | 1.875 | | 1.875 | 0.187 | 0.299 | -407 | 2.682 | +0.006/-0.000 | 0.323 | |
| RSS-01875/2 | 1.875 | | 1.875 | 0.100 | 0.153 | -226 | 2.296 | +0.004/-0.000 | 0.169 | |
| RSS-01937/3 | 1.937 | | 1.937 | 0.136 | 0.232 | -330 | 2.532 | +0.005/-0.000 | 0.252 | |
| RSS-01937/4 | 1.937 | | 1.937 | 0.187 | 0.299 | -407 | 2.744 | +0.006/-0.000 | 0.323 | |
| RSS-01937/2 | 1.937 | | 1.937 | 0.100 | 0.153 | -227 | 2.358 | +0.004/-0.000 | 0.169 | |
| RSS-02000/3 | 2.000 | | 2.000 | 0.136 | 0.232 | -331 | 2.594 | +0.005/-0.000 | 0.252 | |
| RSS-02000/4 | 2.000 | | 2.000 | 0.187 | 0.299 | -408 | 2.807 | +0.006/-0.000 | 0.323 | |
| RSS-02000/2 | 2.000 | | 2.000 | 0.100 | 0.153 | -227 | 2.421 | +0.004/-0.000 | 0.169 | |
| RSS-02125/3 | 2.125 | | 2.125 | 0.136 | 0.232 | -332 | 2.719 | +0.005/-0.000 | 0.252 | |
| RSS-02125/4 | 2.125 | | 2.125 | 0.187 | 0.299 | -409 | 2.932 | +0.006/-0.000 | 0.323 | |
| RSS-02125/2 | 2.125 | | 2.125 | 0.100 | 0.153 | -228 | 2.546 | +0.004/-0.000 | 0.169 | |
| RSS-02250/3 | 2.250 | | 2.250 | 0.136 | 0.232 | -333 | 2.844 | +0.005/-0.000 | 0.252 | |
| RSS-02250/4 | 2.250 | | 2.250 | 0.187 | 0.299 | -410 | 3.057 | +0.006/-0.000 | 0.323 | |
| RSS-02250/2 | 2.250 | | 2.250 | 0.100 | 0.153 | -229 | 2.671 | +0.004/-0.000 | 0.169 | |
| RSS-02375/3 | 2.375 | | 2.375 | 0.136 | 0.232 | -334 | 2.969 | +0.005/-0.000 | 0.252 | |
| RSS-02375/4 | 2.375 | | 2.375 | 0.187 | 0.299 | -411 | 3.182 | +0.006/-0.000 | 0.323 | |
| RSS-02375/2 | 2.375 | | 2.375 | 0.100 | 0.153 | -230 | 2.796 | +0.004/-0.000 | 0.169 | |
| RSS-02500/3 | 2.500 | ▼ | 2.500 | 0.136 | 0.232 | -335 | 3.094 | +0.005/-0.000 | 0.252 | ▼ |

RSS series - BR.PTFE/NBR

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|--------------|------------------|-------------------------|-------|-------|------|--------------------|---------------|-------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| RSS-02500/4 | 2.500 | +0.000 -0.002 | 2.500 | 0.187 | 0.299 | -412 | 3.307 | +0.006/-0.000 | 0.323 | +0.004 -0.004 |
| RSS-02500/2 | 2.500 | | 2.500 | 0.100 | 0.153 | -231 | 2.921 | +0.004/-0.000 | 0.169 | |
| RSS-02625/3 | 2.625 | | 2.625 | 0.136 | 0.232 | -336 | 3.219 | +0.005/-0.000 | 0.252 | |
| RSS-02625/4 | 2.625 | | 2.625 | 0.187 | 0.299 | -413 | 3.432 | +0.006/-0.000 | 0.323 | |
| RSS-02625/2 | 2.625 | | 2.625 | 0.100 | 0.153 | -232 | 3.046 | +0.004/-0.000 | 0.169 | |
| RSS-02750/3 | 2.750 | | 2.750 | 0.136 | 0.232 | -337 | 3.344 | +0.005/-0.000 | 0.252 | |
| RSS-02750/4 | 2.750 | | 2.750 | 0.187 | 0.299 | -414 | 3.557 | +0.006/-0.000 | 0.323 | |
| RSS-02750/2 | 2.750 | | 2.750 | 0.100 | 0.153 | -233 | 3.171 | +0.004/-0.000 | 0.169 | |
| RSS-02875/3 | 2.875 | | 2.875 | 0.136 | 0.232 | -338 | 3.469 | +0.005/-0.000 | 0.252 | |
| RSS-02875/4 | 2.875 | | 2.875 | 0.187 | 0.299 | -415 | 3.682 | +0.006/-0.000 | 0.323 | |
| RSS-02875/2 | 2.875 | ▼ | 2.875 | 0.100 | 0.153 | -234 | 3.296 | +0.004/-0.000 | 0.169 | |
| RSS-03000/3 | 3.000 | +0.000 -0.003 | 3.000 | 0.136 | 0.232 | -339 | 3.594 | +0.005/-0.000 | 0.252 | |
| RSS-03000/4 | 3.000 | | 3.000 | 0.187 | 0.299 | -416 | 3.807 | +0.006/-0.000 | 0.323 | |
| RSS-03000/2 | 3.000 | | 3.000 | 0.100 | 0.153 | -235 | 3.421 | +0.004/-0.000 | 0.169 | |
| RSS-03125/3 | 3.125 | | 3.125 | 0.136 | 0.232 | -340 | 3.719 | +0.005/-0.000 | 0.252 | |
| RSS-03125/4 | 3.125 | | 3.125 | 0.187 | 0.299 | -417 | 3.932 | +0.006/-0.000 | 0.323 | |
| RSS-03125/2 | 3.125 | | 3.125 | 0.100 | 0.153 | -236 | 3.546 | +0.004/-0.000 | 0.169 | |
| RSS-03250/3 | 3.250 | | 3.250 | 0.136 | 0.232 | -341 | 3.844 | +0.005/-0.000 | 0.252 | |
| RSS-03250/4 | 3.250 | | 3.250 | 0.187 | 0.299 | -418 | 4.057 | +0.006/-0.000 | 0.323 | |
| RSS-03250/2 | 3.250 | | 3.250 | 0.100 | 0.153 | -237 | 3.671 | +0.004/-0.000 | 0.169 | |
| RSS-03375/3 | 3.375 | | 3.375 | 0.136 | 0.232 | -342 | 3.969 | +0.005/-0.000 | 0.252 | |
| RSS-03375/4 | 3.375 | | 3.375 | 0.187 | 0.299 | -419 | 4.182 | +0.006/-0.000 | 0.323 | |
| RSS-03375/2 | 3.375 | | 3.375 | 0.100 | 0.153 | -238 | 3.796 | +0.004/-0.000 | 0.169 | |
| RSS-03500/3 | 3.500 | | 3.500 | 0.136 | 0.232 | -343 | 4.094 | +0.005/-0.000 | 0.252 | |
| RSS-03500/4 | 3.500 | | 3.500 | 0.187 | 0.299 | -420 | 4.307 | +0.006/-0.000 | 0.323 | |
| RSS-03500/2 | 3.500 | | 3.500 | 0.100 | 0.153 | -239 | 3.921 | +0.004/-0.000 | 0.169 | |
| RSS-03625/3 | 3.625 | | 3.625 | 0.136 | 0.232 | -344 | 4.219 | +0.005/-0.000 | 0.252 | |
| RSS-03625/4 | 3.625 | | 3.625 | 0.187 | 0.299 | -421 | 4.432 | +0.004/-0.000 | 0.323 | |
| RSS-03625/2 | 3.625 | | 3.625 | 0.100 | 0.153 | -240 | 4.046 | +0.004/-0.000 | 0.169 | |
| RSS-03750/3 | 3.750 | | 3.750 | 0.136 | 0.232 | -345 | 4.344 | +0.005/-0.000 | 0.252 | |
| RSS-03750/4 | 3.750 | | 3.750 | 0.187 | 0.299 | -422 | 4.557 | +0.006/-0.000 | 0.323 | |
| RSS-03750/2 | 3.750 | | 3.750 | 0.100 | 0.153 | -241 | 4.171 | +0.006/-0.000 | 0.169 | |
| RSS-03875/3 | 3.875 | | 3.875 | 0.136 | 0.232 | -346 | 4.469 | +0.005/-0.000 | 0.252 | |
| RSS-03875/4 | 3.875 | | 3.875 | 0.187 | 0.299 | -423 | 4.682 | +0.006/-0.000 | 0.323 | |
| RSS-03875/2 | 3.875 | ▼ | 3.875 | 0.100 | 0.153 | -242 | 4.296 | +0.004/-0.000 | 0.169 | |
| RSS-04000/3 | 4.000 | +0.000 -0.005 | 4.000 | 0.136 | 0.232 | -347 | 4.594 | +0.005/-0.000 | 0.252 | |
| RSS-04000/4 | 4.000 | | 4.000 | 0.187 | 0.299 | -424 | 4.807 | +0.006/-0.000 | 0.323 | |
| RSS-04000/2 | 4.000 | +0.000/-0.003 | 4.000 | 0.100 | 0.153 | -243 | 4.421 | +0.004/-0.000 | 0.169 | |
| RSS-04125/3 | 4.125 | +0.000 -0.005 | 4.125 | 0.136 | 0.232 | -348 | 4.719 | +0.005/-0.000 | 0.252 | |
| RSS-04125/4 | 4.125 | | 4.125 | 0.187 | 0.299 | -245 | 4.932 | +0.006/-0.000 | 0.323 | |
| RSS-04125/2 | 4.125 | | 4.125 | 0.100 | 0.153 | -244 | 4.546 | +0.004/-0.000 | 0.169 | |
| RSS-04250/3 | 4.250 | | 4.250 | 0.136 | 0.232 | -349 | 4.844 | +0.005/-0.000 | 0.252 | |
| RSS-04250/4 | 4.250 | | 4.250 | 0.187 | 0.299 | -426 | 5.057 | +0.006/-0.000 | 0.323 | |
| RSS-04250/2 | 4.250 | | 4.250 | 0.100 | 0.153 | -245 | 4.671 | +0.004/-0.000 | 0.169 | |
| RSS-04375/3 | 4.375 | | 4.375 | 0.136 | 0.232 | -350 | 4.969 | +0.005/-0.000 | 0.252 | |
| RSS-04375/4 | 4.375 | ▼ | 4.375 | 0.187 | 0.299 | -427 | 5.182 | +0.006/-0.000 | 0.323 | ▼ |

RSS series - BR.PTFE/NBR

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|--------------|------------------|-------------------------|-------|-------|------|--------------------|---------------|-------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| RSS-04375/2 | 4.375 | +0.000 -0.005 | 4.375 | 0.100 | 0.153 | -246 | 4.796 | +0.004/-0.000 | 0.169 | +0.004 -0.004 |
| RSS-04500/3 | 4.500 | | 4.500 | 0.136 | 0.232 | -351 | 5.094 | +0.005-0.000 | 0.252 | |
| RSS-04500/4 | 4.500 | | 4.500 | 0.187 | 0.299 | -428 | 5.307 | +0.006-0.000 | 0.323 | |
| RSS-04500/2 | 4.500 | | 4.500 | 0.100 | 0.153 | -247 | 4.921 | +0.004-0.000 | 0.169 | |
| RSS-04625/3 | 4.625 | | 4.625 | 0.136 | 0.232 | -352 | 5.219 | +0.005-0.000 | 0.252 | |
| RSS-04625/4 | 4.625 | | 4.625 | 0.187 | 0.299 | -429 | 5.432 | +0.006-0.000 | 0.323 | |
| RSS-04625/2 | 4.625 | | 4.625 | 0.100 | 0.153 | -248 | 5.046 | +0.004-0.000 | 0.169 | |
| RSS-04750/3 | 4.750 | | 4.750 | 0.136 | 0.232 | -353 | 5.344 | +0.005-0.000 | 0.252 | |
| RSS-04750/4 | 4.750 | | 4.750 | 0.187 | 0.299 | -430 | 5.557 | +0.006-0.000 | 0.323 | |
| RSS-04750/2 | 4.750 | | 4.750 | 0.100 | 0.153 | -249 | 5.171 | +0.004-0.000 | 0.169 | |
| RSS-04875/3 | 4.875 | | 4.875 | 0.136 | 0.232 | -354 | 5.469 | +0.005-0.000 | 0.252 | |
| RSS-04875/4 | 4.875 | | 4.875 | 0.187 | 0.299 | -431 | 5.682 | +0.006-0.000 | 0.323 | |
| RSS-04875/2 | 4.875 | | 4.875 | 0.100 | 0.153 | -250 | 5.296 | +0.004-0.000 | 0.169 | |
| RSS-05000/3 | 5.000 | | 5.000 | 0.136 | 0.232 | -355 | 5.594 | +0.005-0.000 | 0.252 | |
| RSS-05000/4 | 5.000 | | 5.000 | 0.187 | 0.299 | -432 | 5.807 | +0.006-0.000 | 0.323 | |
| RSS-05000/2 | 5.000 | | 5.000 | 0.100 | 0.153 | -251 | 5.421 | +0.004-0.000 | 0.169 | |
| RSS-05125/3 | 5.125 | | 5.125 | 0.136 | 0.232 | -356 | 5.719 | +0.005-0.000 | 0.252 | |
| RSS-05125/4 | 5.125 | | 5.125 | 0.187 | 0.299 | -433 | 5.932 | +0.006-0.000 | 0.323 | |
| RSS-05125/2 | 5.125 | | 5.125 | 0.100 | 0.153 | -252 | 5.546 | +0.004-0.000 | 0.169 | |
| RSS-05250/3 | 5.250 | | 5.250 | 0.136 | 0.232 | -357 | 5.844 | +0.005-0.000 | 0.252 | |
| RSS-05250/4 | 5.250 | | 5.250 | 0.187 | 0.299 | -434 | 6.057 | +0.006-0.000 | 0.323 | |
| RSS-05250/2 | 5.250 | | 5.250 | 0.100 | 0.153 | -253 | 5.671 | +0.004-0.000 | 0.169 | |
| RSS-05375/3 | 5.375 | | 5.375 | 0.136 | 0.232 | -358 | 5.969 | +0.005-0.000 | 0.252 | |
| RSS-05375/4 | 5.375 | | 5.375 | 0.187 | 0.299 | -435 | 6.182 | +0.006-0.000 | 0.323 | |
| RSS-05375/2 | 5.375 | | 5.375 | 0.100 | 0.153 | -254 | 5.796 | +0.004-0.000 | 0.169 | |
| RSS-05500/3 | 5.500 | | 5.500 | 0.136 | 0.232 | -359 | 6.094 | +0.005-0.000 | 0.252 | |
| RSS-05500/4 | 5.500 | | 5.500 | 0.187 | 0.299 | -436 | 6.307 | +0.006-0.000 | 0.323 | |
| RSS-05500/2 | 5.500 | | 5.500 | 0.100 | 0.153 | -255 | 5.921 | +0.004-0.000 | 0.169 | |
| RSS-05625/3 | 5.625 | | 5.625 | 0.136 | 0.232 | -360 | 6.219 | +0.005-0.000 | 0.252 | |
| RSS-05625/4 | 5.625 | | 5.625 | 0.187 | 0.299 | -437 | 6.432 | +0.006-0.000 | 0.323 | |
| RSS-05625/2 | 5.625 | | 5.625 | 0.100 | 0.153 | -256 | 6.046 | +0.004-0.000 | 0.169 | |
| RSS-05750/3 | 5.750 | | 5.750 | 0.136 | 0.232 | -361 | 6.344 | +0.005-0.000 | 0.252 | |
| RSS-05750/4 | 5.750 | | 5.750 | 0.187 | 0.299 | -437 | 6.557 | +0.006-0.000 | 0.323 | |
| RSS-05750/2 | 5.750 | | 5.750 | 0.100 | 0.153 | -257 | 6.171 | +0.004-0.000 | 0.169 | |
| RSS-06000/3 | 6.000 | | 6.000 | 0.136 | 0.232 | -362 | 6.594 | +0.005-0.000 | 0.252 | |
| RSS-06000/4 | 6.000 | | 6.000 | 0.187 | 0.299 | -438 | 6.807 | +0.006-0.000 | 0.323 | |
| RSS-06000/2 | 6.000 | | 6.000 | 0.100 | 0.153 | -258 | 6.421 | +0.004-0.000 | 0.169 | |
| RSS-06250/3 | 6.250 | | 6.250 | 0.136 | 0.232 | -363 | 6.844 | +0.005-0.000 | 0.252 | |
| RSS-06250/4 | 6.250 | | 6.250 | 0.187 | 0.299 | -439 | 7.057 | +0.006-0.000 | 0.323 | |
| RSS-06250/2 | 6.250 | | 6.250 | 0.100 | 0.153 | -259 | 6.671 | +0.004-0.000 | 0.169 | |
| RSS-06500/3 | 6.500 | | 6.500 | 0.136 | 0.232 | -364 | 7.094 | +0.005-0.000 | 0.252 | |
| RSS-06500/4 | 6.500 | | 6.500 | 0.187 | 0.299 | -440 | 7.307 | +0.006-0.000 | 0.323 | |
| RSS-06500/2 | 6.500 | | 6.500 | 0.100 | 0.153 | -260 | 6.921 | +0.004-0.000 | 0.169 | |
| RSS-06750/3 | 6.750 | | 6.750 | 0.136 | 0.232 | -365 | 7.344 | +0.005-0.000 | 0.252 | |
| RSS-06750/4 | 6.750 | | 6.750 | 0.187 | 0.299 | -441 | 7.557 | +0.006-0.000 | 0.323 | |
| RSS-06750/2 | 6.750 | ▼ | 6.750 | 0.100 | 0.153 | -261 | 7.171 | +0.004-0.000 | 0.169 | ▼ |

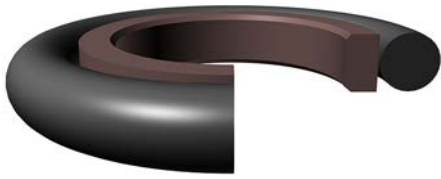
RSS series - BR.PTFE/NBR

ROD SEALS

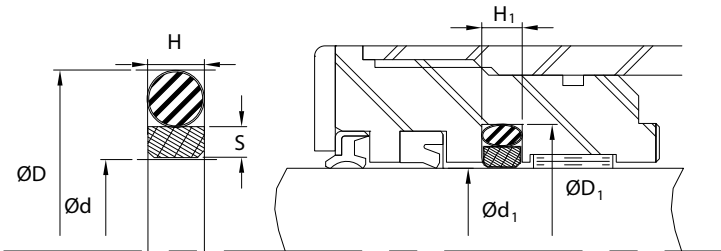


| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|--------------|------------------|-------------------------|-------|-------|------|--------------------|---------------|-------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| RSS-07000/3 | 7.000 | +0.000 -0.005 | 7.000 | 0.136 | 0.232 | -366 | 7.594 | +0.005 -0.000 | 0.252 | +0.004 -0.004 |
| RSS-07000/4 | 7.000 | | 7.000 | 0.187 | 0.299 | -442 | 7.807 | +0.006 -0.000 | 0.323 | |
| RSS-07000/2 | 7.000 | | 7.000 | 0.100 | 0.153 | -262 | 7.421 | +0.004 -0.000 | 0.169 | |
| RSS-07250/3 | 7.250 | | 7.250 | 0.136 | 0.232 | -367 | 7.844 | +0.005 -0.000 | 0.252 | |
| RSS-07250/4 | 7.250 | | 7.250 | 0.187 | 0.299 | -443 | 8.057 | +0.006 -0.000 | 0.323 | |
| RSS-07250/2 | 7.250 | | 7.250 | 0.100 | 0.153 | -263 | 7.671 | +0.004 -0.000 | 0.169 | |
| RSS-07500/3 | 7.500 | | 7.500 | 0.136 | 0.232 | -368 | 8.094 | +0.005 -0.000 | 0.252 | |
| RSS-07500/4 | 7.500 | | 7.500 | 0.187 | 0.299 | -444 | 8.307 | +0.006 -0.000 | 0.323 | |
| RSS-07500/2 | 7.500 | | 7.500 | 0.100 | 0.153 | -264 | 7.921 | +0.004 -0.000 | 0.169 | |
| RSS-07750/3 | 7.750 | | 7.750 | 0.136 | 0.232 | -369 | 8.344 | +0.005 -0.000 | 0.252 | |
| RSS-07750/4 | 7.750 | | 7.750 | 0.187 | 0.299 | -445 | 8.557 | +0.006 -0.000 | 0.323 | |
| RSS-07750/2 | 7.750 | | 7.750 | 0.100 | 0.153 | -265 | 8.171 | +0.004 -0.000 | 0.169 | |
| RSS-08000/4 | 8.000 | | 8.000 | 0.187 | 0.299 | -445 | 8.807 | +0.006 -0.000 | 0.323 | |
| RSS-08000/4-1 | 8.000 | | 8.000 | 0.250 | 0.299 | -446 | 8.945 | +0.006 -0.000 | 0.323 | |
| RSS-08000/3 | 8.000 | | 8.000 | 0.136 | 0.232 | -370 | 8.594 | +0.005 -0.000 | 0.252 | |
| RSS-08250/4 | 8.250 | | 8.250 | 0.187 | 0.299 | -446 | 9.057 | +0.006 -0.000 | 0.323 | |
| RSS-08250/4-1 | 8.250 | | 8.250 | 0.250 | 0.299 | -446 | 9.195 | +0.006 -0.000 | 0.323 | |
| RSS-08250-2 | 8.250 | | 8.250 | 0.136 | 0.232 | -371 | 8.844 | +0.005 -0.000 | 0.252 | |
| RSS-08500/4 | 8.500 | | 8.500 | 0.187 | 0.299 | -446 | 9.307 | +0.006 -0.000 | 0.323 | |
| RSS-08500/4-1 | 8.500 | | 8.500 | 0.250 | 0.299 | -447 | 9.445 | +0.006 -0.000 | 0.323 | |
| RSS-08500/3 | 8.500 | | 8.500 | 0.136 | 0.232 | -372 | 9.094 | +0.005 -0.000 | 0.252 | |
| RSS-08750/4 | 8.750 | | 8.750 | 0.187 | 0.299 | -447 | 9.557 | +0.006 -0.000 | 0.323 | |
| RSS-08750/4-1 | 8.750 | | 8.750 | 0.250 | 0.299 | -447 | 9.695 | +0.006 -0.000 | 0.323 | |
| RSS-08750/2 | 8.750 | | 8.750 | 0.136 | 0.232 | -373 | 9.344 | +0.005 -0.000 | 0.252 | |
| RSS-09000/4 | 9.000 | | 9.000 | 0.187 | 0.299 | -447 | 9.807 | +0.006 -0.000 | 0.323 | |
| RSS-09000/4-1 | 9.000 | | 9.000 | 0.250 | 0.299 | -448 | 9.945 | +0.006 -0.000 | 0.323 | |
| RSS-09000-2 | 9.000 | | 9.000 | 0.136 | 0.232 | -374 | 9.594 | +0.005 -0.000 | 0.252 | |
| RSS-09250/3 | 9.250 | | 9.250 | 0.187 | 0.299 | -448 | 10.057 | +0.006 -0.000 | 0.323 | |
| RSS-09250/4 | 9.250 | | 9.250 | 0.250 | 0.299 | -448 | 10.195 | +0.006 -0.000 | 0.323 | |
| RSS-09250/2 | 9.250 | | 9.250 | 0.136 | 0.232 | -375 | 9.844 | +0.005 -0.000 | 0.252 | |
| RSS-09500/4 | 9.500 | | 9.500 | 0.187 | 0.299 | -448 | 10.307 | +0.006 -0.000 | 0.323 | |
| RSS-09500/4-1 | 9.500 | | 9.500 | 0.250 | 0.299 | -449 | 10.445 | +0.006 -0.000 | 0.323 | |
| RSS-09500/2 | 9.500 | | 9.500 | 0.136 | 0.232 | -376 | 10.094 | +0.005 -0.000 | 0.252 | |
| RSS-09750/3 | 9.750 | | 9.750 | 0.187 | 0.299 | -449 | 10.557 | +0.006 -0.000 | 0.323 | |
| RSS-09750/4 | 9.750 | | 9.750 | 0.250 | 0.299 | -449 | 10.695 | +0.006 -0.000 | 0.323 | |
| RSS-09750/2 | 9.750 | | 9.750 | 0.136 | 0.232 | -377 | 10.344 | +0.005 -0.000 | 0.252 | |
| RSS-10000/4 | 10.000 | | 10.000 | 0.187 | 0.299 | -450 | 10.945 | +0.006 -0.000 | 0.323 | |
| RSS-10000/4-1 | 10.000 | | 10.000 | 0.250 | 0.299 | -450 | 11.075 | +0.006 -0.000 | 0.323 | |
| RSS-10000/3 | 10.000 | ▼ | 10.000 | 0.187 | 0.299 | -450 | 10.807 | +0.006 -0.000 | 0.323 | ▼ |

R2B - Buffer seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|----------------------|---------------------------------------|-------------------------|-------------------|
| BR, PTFE/ Nitrile | -40°F to +250°F (-40°C to +121 °C) | ≤5000 psi (≤345 bar) | < 13 ft/s (4 m/s) |



This design can be used either as a low-to-medium duty rod seal on hydraulic actuators or as a secondary seal used alongside of a **RSS-type** seal. The PTFE-based cap and standard-sized O'Ring loader insure good wear resistance and long cycle life.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|--------------|------------------|-------------------------|-------|-------|------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| R2B-00312/0 | 0.312 | +0.000 -0.001 | 0.312 | 0.041 | 0.079 | -012 | 0.505 | +0.002 -0.000 | 0.090 | +0.004 -0.004 |
| R2B-00375/0 | 0.375 | | 0.375 | 0.041 | 0.079 | -013 | 0.568 | | 0.090 | |
| R2B-00437/0 | 0.437 | | 0.437 | 0.041 | 0.079 | -014 | 0.630 | | 0.090 | |
| R2B-00500/0 | 0.500 | | 0.500 | 0.041 | 0.079 | -015 | 0.693 | | 0.090 | |
| R2B-00562/0 | 0.562 | | 0.562 | 0.041 | 0.079 | -016 | 0.755 | | 0.090 | |
| R2B-00625/1 | 0.625 | | 0.625 | 0.065 | 0.116 | -116 | 0.912 | | 0.130 | |
| R2B-00687/1 | 0.687 | | 0.687 | 0.065 | 0.116 | -117 | 0.974 | | 0.130 | |
| R2B-00750/1 | 0.750 | | 0.750 | 0.065 | 0.116 | -118 | 1.037 | | 0.130 | |
| R2B-00812/1 | 0.812 | | 0.812 | 0.065 | 0.116 | -119 | 1.099 | | 0.130 | |
| R2B-00875/1 | 0.875 | | 0.875 | 0.065 | 0.116 | -120 | 1.162 | | 0.130 | |
| R2B-00937/1 | 0.937 | | 0.937 | 0.065 | 0.116 | -121 | 1.224 | | 0.130 | |
| R2B-01000/1 | 1.000 | | 1.000 | 0.065 | 0.116 | -122 | 1.287 | | 0.130 | |
| R2B-01062/1 | 1.062 | | 1.062 | 0.065 | 0.116 | -123 | 1.349 | | 0.130 | |
| R2B-01125/1 | 1.125 | | 1.125 | 0.065 | 0.116 | -124 | 1.412 | | 0.130 | |
| R2B-01187/1 | 1.187 | | 1.187 | 0.065 | 0.116 | -125 | 1.474 | | 0.130 | |
| R2B-01250/1 | 1.250 | | 1.250 | 0.065 | 0.116 | -126 | 1.537 | | 0.130 | |
| R2B-01312/1 | 1.312 | | 1.312 | 0.065 | 0.116 | -127 | 1.599 | | 0.130 | |
| R2B-01375/1 | 1.375 | | 1.375 | 0.065 | 0.116 | -128 | 1.662 | | 0.130 | |
| R2B-01437/1 | 1.437 | ▼ | 1.437 | 0.065 | 0.116 | -129 | 1.724 | | 0.130 | |
| R2B-01500/1 | 1.500 | +0.000 -0.002 | 1.500 | 0.065 | 0.116 | -130 | 1.787 | | 0.130 | |
| R2B-01562/1 | 1.562 | | 1.562 | 0.065 | 0.116 | -131 | 1.849 | ▼ | 0.130 | |
| R2B-01625/2 | 1.625 | ▼ | 1.625 | 0.104 | 0.156 | -224 | 2.046 | +0.003/-0.000 | 0.169 | ▼ |



R2B series - BR.PTFE/NBR

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|--------------|------------------|-------------------------|-------|-------|------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| R2B-01687/2 | 1.687 | +0.000 -0.002 | 1.687 | 0.104 | 0.156 | -225 | 2.108 | +0.003 -0.000 | 0.169 | +0.004 -0.004 |
| R2B-01750/2 | 1.750 | | 1.750 | 0.104 | 0.156 | -225 | 2.171 | | 0.169 | |
| R2B-01812/2 | 1.812 | | 1.812 | 0.104 | 0.156 | -226 | 2.233 | | 0.169 | |
| R2B-01875/2 | 1.875 | | 1.875 | 0.104 | 0.156 | -226 | 2.296 | | 0.169 | |
| R2B-01937/2 | 1.937 | | 1.937 | 0.104 | 0.156 | -227 | 2.358 | | 0.169 | |
| R2B-02000/2 | 2.000 | | 2.000 | 0.104 | 0.156 | -227 | 2.421 | | 0.169 | |
| R2B-02125/2 | 2.125 | | 2.125 | 0.104 | 0.156 | -228 | 2.546 | | 0.169 | |
| R2B-02250/2 | 2.250 | | 2.250 | 0.104 | 0.156 | -229 | 2.671 | | 0.169 | |
| R2B-02375/2 | 2.375 | | 2.375 | 0.104 | 0.156 | -230 | 2.796 | | 0.169 | |
| R2B-02500/2 | 2.500 | | 2.500 | 0.104 | 0.156 | -231 | 2.921 | | 0.169 | |
| R2B-02625/2 | 2.625 | | 2.625 | 0.104 | 0.156 | -232 | 3.046 | | 0.169 | |
| R2B-02750/2 | 2.750 | | 2.750 | 0.104 | 0.156 | -233 | 3.171 | | 0.169 | |
| R2B-02875/2 | 2.875 | ▼ | 2.875 | 0.104 | 0.156 | -234 | 3.296 | | 0.169 | |
| R2B-03000/2 | 3.000 | +0.000 -0.003 | 3.000 | 0.104 | 0.156 | -235 | 3.421 | | 0.169 | |
| R2B-03125/2 | 3.125 | | 3.125 | 0.104 | 0.156 | -236 | 3.546 | | 0.169 | |
| R2B-03250/3 | 3.250 | | 3.250 | 0.138 | 0.238 | -341 | 3.844 | | 0.252 | |
| R2B-03375/3 | 3.375 | | 3.375 | 0.138 | 0.238 | -342 | 3.969 | | 0.252 | |
| R2B-03500/3 | 3.500 | | 3.500 | 0.138 | 0.238 | -343 | 4.094 | | 0.252 | |
| R2B-03625/3 | 3.625 | | 3.625 | 0.138 | 0.238 | -344 | 4.219 | | 0.252 | |
| R2B-03750/3 | 3.750 | | 3.750 | 0.138 | 0.238 | -345 | 4.344 | | 0.252 | |
| R2B-03875/3 | 3.875 | ▼ | 3.875 | 0.138 | 0.238 | -346 | 4.469 | | 0.252 | |
| R2B-04000/3 | 4.000 | +0.000 -0.005 | 4.000 | 0.138 | 0.238 | -347 | 4.594 | | 0.252 | |
| R2B-04125/3 | 4.125 | | 4.125 | 0.138 | 0.238 | -348 | 4.719 | ▼ | 0.252 | |
| R2B-04250/3 | 4.250 | | 4.250 | 0.138 | 0.238 | -349 | 4.844 | +0.004 -0.000 | 0.252 | |
| R2B-04375/3 | 4.375 | | 4.375 | 0.138 | 0.238 | -350 | 4.969 | | 0.252 | |
| R2B-04500/3 | 4.500 | | 4.500 | 0.138 | 0.238 | -351 | 5.094 | | 0.252 | |
| R2B-04625/3 | 4.625 | | 4.625 | 0.138 | 0.238 | -352 | 5.219 | | 0.252 | |
| R2B-04750/3 | 4.750 | | 4.750 | 0.138 | 0.238 | -353 | 5.344 | | 0.252 | |
| R2B-04875/3 | 4.875 | | 4.875 | 0.138 | 0.238 | -354 | 5.469 | | 0.252 | |
| R2B-05000/3 | 5.000 | | 5.000 | 0.138 | 0.238 | -355 | 5.594 | | 0.252 | |
| R2B-05125/3 | 5.125 | | 5.125 | 0.138 | 0.238 | -356 | 5.719 | | 0.252 | |
| R2B-05250/3 | 5.250 | | 5.250 | 0.138 | 0.238 | -357 | 5.844 | | 0.252 | |
| R2B-05375/4 | 5.375 | | 5.375 | 0.193 | 0.305 | -434 | 6.182 | | 0.323 | |
| R2B-05500/4 | 5.500 | | 5.500 | 0.193 | 0.305 | -435 | 6.307 | | 0.323 | |
| R2B-05625/4 | 5.625 | | 5.625 | 0.193 | 0.305 | -436 | 6.432 | | 0.323 | |
| R2B-05750/4 | 5.750 | | 5.750 | 0.193 | 0.305 | -437 | 6.557 | | 0.323 | |
| R2B-06000/4 | 6.000 | | 6.000 | 0.193 | 0.305 | -438 | 6.807 | | 0.323 | |
| R2B-06250/4 | 6.250 | | 6.250 | 0.193 | 0.305 | -439 | 7.057 | | 0.323 | |
| R2B-06500/4 | 6.500 | | 6.500 | 0.193 | 0.305 | -440 | 7.307 | | 0.323 | |
| R2B-06750/4 | 6.750 | | 6.750 | 0.193 | 0.305 | -441 | 7.557 | | 0.323 | |
| R2B-07000/4 | 7.000 | | 7.000 | 0.193 | 0.305 | -442 | 7.807 | | 0.323 | |
| R2B-07250/4 | 7.250 | | 7.250 | 0.193 | 0.305 | -443 | 8.057 | | 0.323 | |
| R2B-07500/4 | 7.500 | | 7.500 | 0.193 | 0.305 | -444 | 8.307 | | 0.323 | |
| R2B-07750/4 | 7.750 | | 7.750 | 0.193 | 0.305 | -445 | 8.557 | | 0.323 | |
| R2B-08000/4 | 8.000 | | 8.000 | 0.193 | 0.305 | -445 | 8.807 | | 0.323 | |
| R2B-08250/4 | 8.250 | ▼ | 8.250 | 0.193 | 0.305 | -446 | 9.057 | ▼ | 0.323 | ▼ |

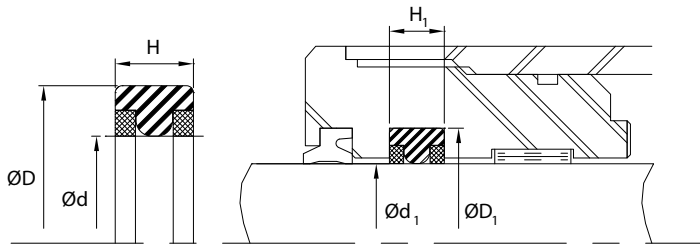
R2B series - BR.PTFE/NBR

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|--------------|------------------|-------------------------|-------|-------|------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| R2B-08500/4 | 8.500 | +0.000 -0.005 | 8.500 | 0.193 | 0.305 | -446 | 9.307 | +0.005 -0.000 | 0.323 | +0.004 -0.004 |
| R2B-08750/4 | 8.750 | | 8.750 | 0.193 | 0.305 | -447 | 9.557 | | 0.323 | |
| R2B-09000/4 | 9.000 | | 9.000 | 0.193 | 0.305 | -447 | 9.807 | | 0.323 | |
| R2B-09250/4 | 9.250 | | 9.250 | 0.193 | 0.305 | -448 | 10.057 | | 0.323 | |
| R2B-09500/4 | 9.500 | | 9.500 | 0.193 | 0.305 | -448 | 10.307 | | 0.323 | |
| R2B-09750/4 | 9.750 | | 9.750 | 0.193 | 0.305 | -449 | 10.557 | | 0.323 | |
| R2B-10000/4 | 10.000 | ▼ | 10.000 | 0.193 | 0.305 | -449 | 10.807 | ▼ | 0.323 | ▼ |

TR - Rod seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|----------------------|
| Nitrile/Nylon | -40°F to +225°F (-40°C to +107°C) | ≤5000 psi (≤345 bar) | < 1.6 ft/s (0.5 m/s) |



TR-style rod seals are designed to retrofit O'Rings in no-backup type grooves. T-Seals offer a tight sealing assembly with a stable cross-sectional shape and added extrusion resistance with the help of the back-up rings.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|------------|--------------|------------------|-------------------------|-------|---|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| TR-106 | 0.186 | +0.000 -0.002 | 0.187 | 0.375 | | 0.362 | +0.002 -0.000 | 0.140 | +0.005 -0.000 |
| TR-108 | 0.249 | | 0.250 | 0.437 | | 0.425 | | 0.140 | |
| TR-109 | 0.311 | | 0.312 | 0.500 | | 0.487 | | 0.140 | |
| TR-204 | 0.373 | | 0.375 | 0.625 | | 0.615 | | 0.187 | |
| TR-205 | 0.435 | | 0.437 | 0.687 | | 0.677 | | 0.187 | |
| TR-206 | 0.498 | ▼ | 0.500 | 0.750 | | 0.740 | ▼ | 0.187 | ▼ |

TR series - NBR/NYLON

ROD SEALS



| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-------------|--------------|------------------|-------------------------|-------|---|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| TR-207 | 0.560 | +0.000 -0.002 | 0.562 | 0.812 | | 0.802 | +0.002 -0.000 | 0.187 | +0.005 -0.000 |
| TR-208 | 0.623 | | 0.625 | 0.875 | | 0.865 | | 0.187 | |
| TR-209 | 0.685 | | 0.687 | 0.937 | | 0.927 | | 0.187 | |
| TR-210 | 0.748 | | 0.750 | 1.000 | | 0.990 | | 0.187 | |
| TR-211 | 0.810 | | 0.812 | 1.062 | | 1.052 | | 0.187 | |
| TR-212 | 0.873 | | 0.875 | 1.125 | | 1.065 | | 0.187 | |
| TR-213 | 0.937 | | 0.937 | 1.187 | | 1.177 | | 0.187 | |
| TR-214 | 0.998 | | 1.000 | 1.250 | | 1.240 | | 0.187 | |
| TR-215 | 1.060 | | 1.062 | 1.312 | | 1.302 | | 0.187 | |
| TR-216 | 1.123 | | 1.125 | 1.375 | | 1.365 | | 0.187 | |
| TR-217 | 1.185 | | 1.187 | 1.437 | | 1.427 | | 0.187 | |
| TR-218 | 1.248 | | 1.250 | 1.500 | | 1.490 | | 0.187 | |
| TR-219 | 1.310 | | 1.312 | 1.562 | | 1.552 | | 0.187 | |
| TR-220 | 1.373 | | 1.375 | 1.625 | | 1.615 | | 0.187 | |
| TR-221 | 1.435 | | 1.437 | 1.687 | | 1.677 | | 0.187 | |
| TR-222 | 1.498 | | 1.500 | 1.750 | | 1.740 | | 0.187 | |
| TR-325 | 1.498 | | 1.500 | 1.875 | | 1.868 | | 0.281 | |
| TR-326 | 1.623 | | 1.625 | 2.000 | | 1.993 | | 0.281 | |
| TR-327 | 1.748 | | 1.750 | 2.125 | | 2.118 | | 0.281 | |
| TR-328 | 1.873 | | 1.875 | 2.250 | | 2.243 | | 0.281 | |
| TR-329 | 1.998 | | 2.000 | 2.375 | | 2.368 | | 0.281 | |
| TR-330 | 2.123 | | 2.125 | 2.500 | | 2.493 | | 0.281 | |
| TR-331 | 2.248 | | 2.250 | 2.625 | | 2.618 | | 0.281 | |
| TR-332 | 2.373 | | 2.375 | 2.750 | | 2.743 | | 0.281 | |
| TR-333 | 2.498 | | 2.500 | 2.875 | | 2.868 | | 0.281 | |
| TR-334 | 2.623 | | 2.625 | 3.000 | | 2.993 | | 0.281 | |
| TR-335 | 2.748 | | 2.750 | 3.125 | | 3.118 | | 0.281 | |
| TR-336 | 2.873 | | 2.875 | 3.250 | | 3.243 | | 0.281 | |
| TR-337 | 2.998 | | 3.000 | 3.375 | | 3.368 | | 0.281 | |
| TR-338 | 3.123 | | 3.125 | 3.500 | | 3.493 | | 0.281 | |
| TR-339 | 3.248 | | 3.250 | 3.625 | | 3.618 | | 0.281 | |
| TR-340 | 3.373 | | 3.375 | 3.750 | | 3.743 | | 0.281 | |
| TR-341 | 3.498 | | 3.500 | 3.875 | | 3.868 | | 0.281 | |
| TR-342 | 3.623 | | 3.625 | 4.000 | | 3.993 | | 0.281 | |
| TR-343 | 3.748 | | 3.750 | 4.125 | | 4.118 | | 0.281 | |
| TR-344 | 3.873 | | 3.875 | 4.250 | | 4.243 | | 0.281 | |
| TR-345 | 3.998 | | 4.000 | 4.375 | | 4.368 | | 0.281 | |
| TR-346 | 4.123 | | 4.125 | 4.500 | | 4.493 | | 0.281 | |
| TR-347 | 4.248 | | 4.250 | 4.625 | | 4.618 | | 0.281 | |
| TR-348 | 4.373 | | 4.375 | 4.750 | | 4.743 | | 0.281 | |
| TR-349 | 4.498 | | 4.500 | 4.875 | | 4.868 | | 0.281 | |
| TR-429 | 4.997 | | 5.000 | 5.500 | | 5.471 | | 0.375 | |
| TR-431 | 5.247 | | 5.250 | 5.750 | | 5.721 | | 0.375 | |
| TR-433 | 5.497 | | 5.500 | 6.000 | | 5.971 | | 0.375 | |
| TR-434 | 5.622 | | 5.625 | 6.125 | | 6.096 | | 0.375 | |
| TR-437 | 5.997 | ▼ | 6.000 | 6.500 | | 6.471 | ▼ | 0.375 | ▼ |

TR series - NBR/NYLON

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|------------|---------------|------------------|-------------------------|--------|---|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| TR-438 | 6.247 | +0.000 -0.002 | 6.250 | 6.750 | | 6.721 | +0.002 -0.000 | 0.375 | +0.005 -0.000 |
| TR-439 | 6.497 | | 6.500 | 7.000 | | 6.971 | | 0.375 | |
| TR-440 | 6.747 | | 6.750 | 7.250 | | 7.221 | | 0.375 | |
| TR-441 | 6.997 | | 7.000 | 7.500 | | 7.471 | | 0.375 | |
| TR-442 | 7.247 | | 7.250 | 7.750 | | 7.721 | | 0.375 | |
| TR-443 | 7.497 | | 7.500 | 8.000 | | 7.971 | | 0.375 | |
| TR-445 | 7.997 | | 8.000 | 8.500 | | 8.471 | | 0.375 | |
| TR-447 | 8.997 | | 9.000 | 9.500 | | 9.471 | | 0.375 | |
| TR-448 | 9.497 | | 9.500 | 10.000 | | 9.971 | | 0.375 | |
| TR-449 | 9.997 | | 10.000 | 10.500 | | 10.471 | | 0.375 | |
| TR-451 | 10.997 | ▼ | 11.000 | 11.500 | | 11.471 | ▼ | 0.375 | ▼ |

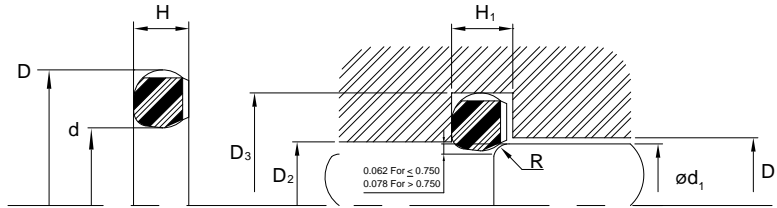
ROD SEALS



V6 Cushion seals - Inch



| Standard Materials | Temperature Range | Surface Speed |
|--------------------|--------------------------------------|-------------------|
| Polyurethane | -65°F to +225°F (-54°C to +107°C) | <3.3 ft/s (1 m/s) |
| Nitrile | -40°F to +250°F (-40°C to +121°C) | <3.3 ft/s (1 m/s) |
| Fluorocarbon | -20°F to +400°F (-29°C to +204°C) | <3.3 ft/s (1 m/s) |



The **V6-style** provides a check-valve action used in the cushioning of pneumatic cylinders. It seals positively on the cylinder end stroke and allows a quick release in the opposite direction through a series of slots and pedestals, allowing the pressure to blow past the seal.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | |
|-------------|--------------|------------------|-------------------------|-------|-------|--------------------|-------------|-------------|-------------|-------|
| | d1 | Tol. | d | D | H | D1 | D2 | D3 | H1 | R |
| V615700375 | 0.375 | +0.000 -0.002 | 0.375 | 0.687 | 0.157 | 0.449/0.453 | 0.390/0.393 | 0.685/0.689 | 0.181/0.197 | 0.118 |
| V615700625 | 0.625 | | 0.625 | 0.937 | 0.157 | 0.699/0.703 | 0.640/0.644 | 0.935/0.940 | 0.181/0.197 | 0.118 |
| V615700750 | 0.750 | | 0.750 | 1.062 | 0.157 | 0.824/0.828 | 0.765/0.769 | 1.060/1.065 | 0.181/0.197 | 0.118 |
| V615700875 | 0.875 | | 0.875 | 1.187 | 0.157 | 0.959/0.964 | 0.900/0.905 | 1.195/1.201 | 0.181/0.197 | 0.118 |
| V619701187 | 1.187 | | 1.187 | 1.562 | 0.197 | 1.263/1.270 | 1.208/1.215 | 1.578/1.585 | 0.228/0.244 | 0.157 |
| V615701250 | 1.250 | | 1.250 | 1.562 | 0.157 | 1.332/1.338 | 1.273/1.279 | 1.568/1.574 | 0.181/0.197 | 0.118 |
| V615701625 | 1.625 | | 1.625 | 1.937 | 0.157 | 1.703/1.709 | 1.644/1.650 | 1.939/1.945 | 0.181/0.197 | 0.118 |
| V619701625 | 1.625 | | 1.625 | 2.000 | 0.197 | 1.701/1.709 | 1.646/1.653 | 2.016/2.023 | 0.228/0.244 | 0.157 |
| V619702000 | 2.000 | | 2.000 | 2.375 | 0.197 | 2.076/2.083 | 2.021/2.028 | 2.391/2.398 | 0.228/0.244 | 0.157 |
| V615702250 | 2.250 | | 2.250 | 2.562 | 0.157 | 2.326/2.333 | 2.267/2.274 | 2.562/2.569 | 0.181/0.197 | 0.118 |
| V627602750 | 2.750 | +0.000 -0.003 | 2.750 | 3.312 | 0.276 | 2.858/2.865 | 2.764/2.771 | 3.291/3.300 | 0.323/0.339 | 0.197 |
| V627604250 | 4.250 | | 4.250 | 4.812 | 0.276 | 4.343/4.352 | 4.249/4.258 | 4.776/4.786 | 0.323/0.339 | 0.197 |

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ROD SEALS



ROD SEALS





| | | | |
|---|------------------------|---|----|
|  | STANDARD POLYPAK® | C | 2 |
|  | DEEP POLYPAK® | C | 13 |
|  | TYPE B POLYPAK® | C | 20 |
|  | SPRING LOADED POLYPAK® | C | 29 |
|  | MODULAR BACKUP | C | 31 |
|  | ZA | C | 34 |
|  | DZ | C | 35 |
|  | US | C | 37 |
|  | AN6226 | C | 43 |
|  | 8400 | C | 45 |
|  | HU | C | 48 |

Standard PolyPak[®] - Rod design table

Rod Gland Dimensions - SPP Profile. Standard PolyPak[®]

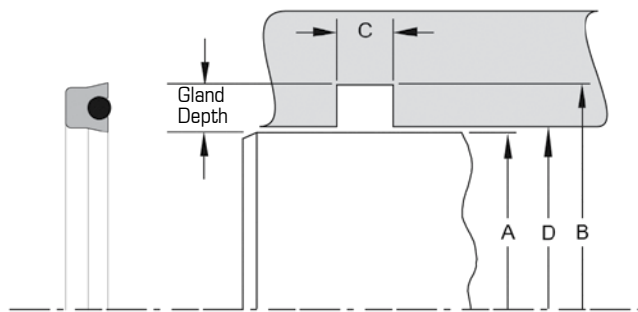


Table 6-5 SPP Profile - Rod Gland Calculation. Rubber and Polyurethane (90A)

| A Rod Diameter | | Seal | | B Groove Diameter | | C Groove Width | D Throat Diameter* | |
|-------------------|---------------|---------------|-------------|----------------------|---------------|-------------------|-----------------------|---------------|
| Range | Tol. | Cross Section | Axial Width | Calculation | Tol. | + .015/ -.000 | Calculation | Tol. |
| 0.062 - 0.624 | + .000/- .001 | 1/8 (.125) | 1/8 (.125) | Dia. A + .250 | + .002/- .000 | 0.138 | Dia. A + .001 | + .002/- .000 |
| 0.625 - 0.999 | + .000/- .001 | 1/8 (.125) | 1/8 (.125) | Dia. A + .250 | + .002/- .000 | 0.138 | Dia. A + .001 | + .002/- .000 |
| 1.000 - 1.499 | + .000/- .002 | 3/16 (.187) | 3/16 (.187) | Dia. A + .375 | + .002/- .000 | 0.206 | Dia. A + .001 | + .002/- .000 |
| 1.500 - 1.999 | + .000/- .002 | 3/16 (.187) | 3/16 (.187) | Dia. A + .375 | + .002/- .000 | 0.206 | Dia. A + .001 | + .002/- .000 |
| 2.000 - 3.499 | + .000/- .002 | 1/4 (.250) | 1/4 (.250) | Dia. A + .500 | + .003/- .000 | 0.275 | Dia. A + .001 | + .003/- .000 |
| 3.500 - 4.999 | + .000/- .002 | 5/16 (.312) | 5/16 (.312) | Dia. A + .625 | + .004/- .000 | 0.343 | Dia. A + .002 | + .003/- .000 |
| 5.000 - 9.999 | + .000/- .002 | 3/8 (.375) | 3/8 (.375) | Dia. A + .750 | + .005/- .000 | 0.413 | Dia. A + .002 | + .004/- .000 |
| 10.000 - 19.999 | + .000/- .003 | 1/2 (.500) | 1/2 (.500) | Dia. A + 1.000 | + .007/- .000 | 0.550 | Dia. A + .002 | + .005/- .000 |
| 20.000 - 29.999 | + .000/- .003 | 5/8 (.625) | 5/8 (.625) | Dia. A + 1.250 | + .009/- .000 | 0.688 | Dia. A + .002 | + .006/- .000 |
| 30.000 - 39.999 | + .000/- .004 | 3/4 (.750) | 3/4 (.750) | Dia. A + 1.500 | + .011/- .000 | 0.825 | Dia. A + .002 | + .007/- .000 |
| 40.000 + | + .000/- .005 | 1 (1.000) | 1 (1.000) | Dia. A + 2.000 | + .015/- .000 | 1.100 | Dia. A + .002 | + .009/- .000 |

Table 6-6 SPP Profile - Rod Gland Calculation. Polymyte (60D)

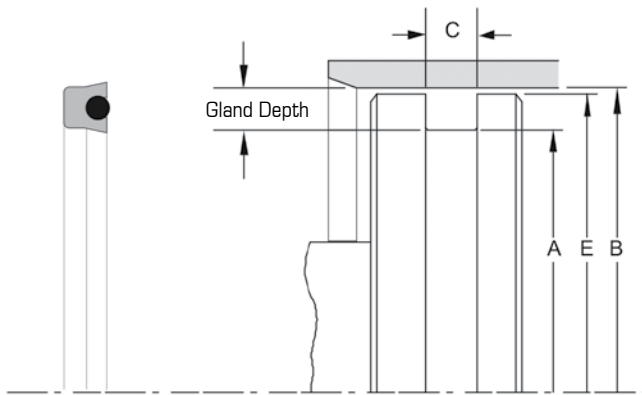
| A Rod Diameter | | Seal | | B Groove Diameter | | C Groove Width | D Throat Diameter* | |
|-------------------|---------------|---------------|-------------|----------------------|---------------|-------------------|-----------------------|---------------|
| Range | Tol. | Cross Section | Axial Width | Calculation | Tol. | + .015/ -.000 | Calculation | Tol. |
| 0.062 - 0.999 | + .000/- .001 | 1/8 (.125) | 1/8 (.125) | Dia. A + .250 | + .002/- .000 | 0.138 | Dia. A + .001 | + .002/- .000 |
| 1.000 - 1.749 | + .000/- .001 | 1/8 (.125) | 1/8 (.125) | Dia. A + .250 | + .002/- .000 | 0.138 | Dia. A + .001 | + .002/- .000 |
| 1.750 - 2.249 | + .000/- .002 | 3/16 (.187) | 3/16 (.187) | Dia. A + .375 | + .002/- .000 | 0.206 | Dia. A + .001 | + .002/- .000 |
| 2.250 - 2.749 | + .000/- .002 | 3/16 (.187) | 3/16 (.187) | Dia. A + .375 | + .002/- .000 | 0.206 | Dia. A + .001 | + .002/- .000 |
| 2.750 - 3.499 | + .000/- .002 | 1/4 (.250) | 1/4 (.250) | Dia. A + .500 | + .003/- .000 | 0.275 | Dia. A + .001 | + .003/- .000 |
| 3.500 - 4.999 | + .000/- .002 | 5/16 (.312) | 5/16 (.312) | Dia. A + .625 | + .004/- .000 | 0.343 | Dia. A + .002 | + .003/- .000 |
| 5.000 - 9.999 | + .000/- .002 | 3/8 (.375) | 3/8 (.375) | Dia. A + .750 | + .005/- .000 | 0.413 | Dia. A + .002 | + .004/- .000 |
| 10.000 - 19.999 | + .000/- .003 | 1/2 (.500) | 1/2 (.500) | Dia. A + 1.000 | + .007/- .000 | 0.550 | Dia. A + .002 | + .005/- .000 |
| 20.000 - 29.999 | + .000/- .003 | 5/8 (.625) | 5/8 (.625) | Dia. A + 1.250 | + .009/- .000 | 0.688 | Dia. A + .002 | + .006/- .000 |
| 30.000 - 39.999 | + .000/- .004 | 3/4 (.750) | 3/4 (.750) | Dia. A + 1.500 | + .011/- .000 | 0.825 | Dia. A + .002 | + .007/- .000 |
| 40.000 + | + .000/- .005 | 1 (1.000) | 1 (1.000) | Dia. A + 2.000 | + .015/- .000 | 1.100 | Dia. A + .002 | + .009/- .000 |

* If used with wear rings, refer to wear ring throat diameter, see Section 9 of Parker Catalog EPS 5370



Standard PolyPak[®] - Piston design table

Piston Gland Dimensions - SPP Profile. Standard PolyPak[®]



SYMMETRICAL SEALS

Table 6-7 SPP Profile - Piston Gland Calculation. Rubber and Polyurethane (90A)

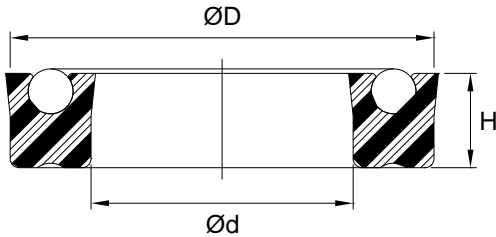
| B Bore Diameter | | Seal | | A Groove Diameter | | C Groove Width | E Piston Diameter* | |
|--------------------|---------------|---------------|-------------|----------------------|---------------|-------------------|-----------------------|---------------|
| Range | Tol. | Cross Section | Axial Width | Calculation | Tol. | + .015/ -.000 | Calculation | Tol. |
| 0.312 - 1.499 | + .002/- .000 | 1/8 (.125) | 1/8 (.125) | Dia. B - .250 | + .000/- .002 | 0.138 | Dia. B - .001 | + .000/- .001 |
| 1.500 - 2.999 | + .002/- .000 | 3/16 (.187) | 3/16 (.187) | Dia. B - .375 | + .000/- .002 | 0.206 | Dia. B - .001 | + .000/- .002 |
| 3.000 - 5.499 | + .003/- .000 | 1/4 (.250) | 1/4 (.250) | Dia. B - .625 | + .000/- .003 | 0.275 | Dia. B - .002 | + .000/- .002 |
| 6.000 - 9.999 | + .003/- .000 | 5/16 (.312) | 5/16 (.312) | Dia. B - .750 | + .000/- .004 | 0.343 | Dia. B - .002 | + .000/- .002 |
| 10.000 - 19.999 | + .004/- .000 | 3/8 (.375) | 3/8 (.375) | Dia. B - 1.000 | + .000/- .005 | 0.413 | Dia. B - .002 | + .000/- .002 |
| 20.000 - 29.999 | + .005/- .000 | 1/2 (.500) | 1/2 (.500) | Dia. B - 1.250 | + .000/- .007 | 0.550 | Dia. B - .002 | + .000/- .003 |
| 30.000 - 39.999 | + .006/- .000 | 5/8 (.625) | 5/8 (.625) | Dia. B - 1.500 | + .000/- .009 | 0.688 | Dia. B - .002 | + .000/- .003 |
| 40.000 - 49.999 | + .007/- .000 | 3/4 (.750) | 3/4 (.750) | Dia. B - 1.500 | + .000/- .010 | 0.825 | Dia. B - .002 | + .000/- .004 |
| 50.000 + | + .009/- .000 | 1 (1.000) | 1 (1.000) | Dia. B - 2.000 | + .000/- .012 | 1.100 | Dia. B - .002 | + .000/- .005 |

Table 6-8 SPP Profile - Piston Gland Calculation. Polymyte (60D)

| B Bore Diameter | | Seal | | A Groove Diameter | | C Groove Width | E Piston Diameter* | |
|--------------------|---------------|---------------|-------------|----------------------|---------------|-------------------|-----------------------|---------------|
| Range | Tol. | Cross Section | Axial Width | Calculation | Tol. | + .015/ -.000 | Calculation | Tol. |
| 0.312 - 2.749 | + .002/- .000 | 1/8 (.125) | 1/8 (.125) | Dia. B - .250 | + .000/- .002 | 0.138 | Dia. B - .001 | + .000/- .001 |
| 2.750 - 4.499 | + .002/- .000 | 3/16 (.187) | 3/16 (.187) | Dia. B - .375 | + .000/- .002 | 0.206 | Dia. B - .001 | + .000/- .002 |
| 4.500 - 5.999 | + .003/- .000 | 1/4 (.250) | 1/4 (.250) | Dia. B - .500 | + .000/- .003 | 0.275 | Dia. B - .001 | + .000/- .002 |
| 6.000 - 9.999 | + .003/- .000 | 5/16 (.312) | 5/16 (.312) | Dia. B - .625 | + .000/- .004 | 0.343 | Dia. B - .002 | + .000/- .002 |
| 10.000 - 19.999 | + .004/- .000 | 3/8 (.375) | 3/8 (.375) | Dia. B - .750 | + .000/- .005 | 0.413 | Dia. B - .002 | + .000/- .002 |
| 20.000 - 29.999 | + .005/- .000 | 1/2 (.500) | 1/2 (.500) | Dia. B - 1.000 | + .000/- .007 | 0.550 | Dia. B - .002 | + .000/- .003 |
| 30.000 - 39.999 | + .006/- .000 | 5/8 (.625) | 5/8 (.625) | Dia. B - 1.250 | + .000/- .009 | 0.688 | Dia. B - .002 | + .000/- .003 |
| 40.000 - 49.999 | + .007/- .000 | 3/4 (.750) | 3/4 (.750) | Dia. B - 1.500 | + .000/- .010 | 0.825 | Dia. B - .002 | + .000/- .004 |
| 50.000 + | + .009/- .000 | 1 (1.000) | 1 (1.000) | Dia. B - 2.000 | + .000/- .012 | 1.100 | Dia. B - .002 | + .000/- .005 |

* If used with wear rings, refer to wear ring throat diameter, see Section 9 of Parker Catalog EPS 5370

Standard PolyPak[®] - Symmetrical seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|--------------------------|-------------------------------------|-------------------------|----------------------|
| Polyurethane/ Nitrile | -65°F to +200°F (-54°C to +93°C) | ≤5000 psi (≤345 bar) | < 1.6 ft/s (0.5 m/s) |

SYMMETRICAL SEALS



The **Standard PolyPak[®]** is squeeze seal with a symmetrical profile for use in either rod or piston applications. The **Standard PolyPak[®]** is an economical choice as a stand alone rod or piston seal. With less squeeze force than the **Deep** or **Type B-style**, the **Standard PolyPak[®]** can be installed back-to-back in separate glands for bi-directional sealing.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/8" Cross Section - 0.125" | | | |
| 12500062 | 0.062 | 0.312 | 0.125 |
| 12500093 | 0.093 | 0.343 | 0.125 |
| 12500125 | 0.125 | 0.375 | 0.125 |
| 12500140 | 0.140 | 0.390 | 0.125 |
| 12500187 | 0.187 | 0.437 | 0.125 |
| 12500250 | 0.250 | 0.500 | 0.125 |
| 12500312 | 0.312 | 0.562 | 0.125 |
| 12500359 | 0.359 | 0.609 | 0.125 |
| 12500375 | 0.375 | 0.625 | 0.125 |
| 12500437 | 0.437 | 0.687 | 0.125 |
| 12500500 | 0.500 | 0.750 | 0.125 |
| 12500531 | 0.531 | 0.781 | 0.125 |
| 12500562 | 0.562 | 0.812 | 0.125 |
| 12500625 | 0.625 | 0.875 | 0.125 |
| 12500687 | 0.687 | 0.937 | 0.125 |
| 12500750 | 0.750 | 1.000 | 0.125 |
| 12500812 | 0.812 | 1.062 | 0.125 |
| 12500875 | 0.875 | 1.125 | 0.125 |
| 12500906 | 0.906 | 1.156 | 0.125 |
| 12500937 | 0.937 | 1.187 | 0.125 |
| 12501000 | 1.000 | 1.250 | 0.125 |
| 12501062 | 1.062 | 1.312 | 0.125 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/8" Cross Section - 0.125" | | | |
| 12501125 | 1.125 | 1.375 | 0.125 |
| 12501187 | 1.187 | 1.437 | 0.125 |
| 12501250 | 1.250 | 1.500 | 0.125 |
| 12501312 | 1.312 | 1.562 | 0.125 |
| 12501375 | 1.375 | 1.625 | 0.125 |
| 12501437 | 1.437 | 1.687 | 0.125 |
| 12501500 | 1.500 | 1.750 | 0.125 |
| 12501562 | 1.562 | 1.812 | 0.125 |
| 12501625 | 1.625 | 1.875 | 0.125 |
| 12501625 | 1.625 | 1.875 | 0.125 |
| 12501687 | 1.687 | 1.937 | 0.125 |
| 12501687 | 1.687 | 1.937 | 0.125 |
| 12501750 | 1.750 | 2.000 | 0.125 |
| 12501750 | 1.750 | 2.000 | 0.125 |
| 12501875 | 1.875 | 2.125 | 0.125 |
| 12502000 | 2.000 | 2.250 | 0.125 |
| 12502125 | 2.125 | 2.375 | 0.125 |
| 12502250 | 2.250 | 2.500 | 0.125 |
| 12502375 | 2.375 | 2.625 | 0.125 |
| 12502500 | 2.500 | 2.750 | 0.125 |
| 12502625 | 2.625 | 2.875 | 0.125 |
| 12502750 | 2.750 | 3.000 | 0.125 |

Standard PolyPak® series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/8" Cross Section - 0.125" | | | |
| 12502875 | 2.875 | 3.125 | 0.125 |
| 12503000 | 3.000 | 3.250 | 0.125 |
| 12503250 | 3.250 | 3.500 | 0.125 |
| 12503500 | 3.500 | 3.750 | 0.125 |
| 12504000 | 4.000 | 4.250 | 0.125 |
| 12504250 | 4.250 | 4.500 | 0.125 |
| 12504375 | 4.375 | 4.625 | 0.125 |
| 12504500 | 4.500 | 4.750 | 0.125 |
| 12504750 | 4.750 | 5.000 | 0.125 |
| 12505000 | 5.000 | 5.250 | 0.125 |
| 12505750 | 5.750 | 6.000 | 0.125 |
| 5/32" Cross Section - 0.156" | | | |
| 15600437 | 0.437 | 0.750 | 0.156 |
| 15600750 | 0.750 | 1.062 | 0.156 |
| 15600937 | 0.937 | 1.250 | 0.156 |
| 15601000 | 1.000 | 1.312 | 0.156 |
| 15601062 | 1.062 | 1.375 | 0.156 |
| 15601187 | 1.187 | 1.500 | 0.156 |
| 15601250 | 1.250 | 1.562 | 0.156 |
| 15601375 | 1.375 | 1.687 | 0.156 |
| 15601500 | 1.500 | 1.812 | 0.156 |
| 15602062 | 2.062 | 2.375 | 0.156 |
| 11/64" Cross Section - 0.171" | | | |
| 17100562 | 0.562 | 0.906 | 0.172 |
| 3/16" Cross Section - 0.187" | | | |
| 18700187 | 0.187 | 0.562 | 0.187 |
| 18700250 | 0.250 | 0.625 | 0.187 |
| 18700312 | 0.312 | 0.687 | 0.187 |
| 18700375 | 0.375 | 0.750 | 0.187 |
| 18700437 | 0.437 | 0.812 | 0.187 |
| 18700500 | 0.500 | 0.875 | 0.187 |
| 18700562 | 0.562 | 0.937 | 0.187 |
| 18700625 | 0.625 | 1.000 | 0.187 |
| 18700656 | 0.656 | 1.032 | 0.187 |
| 18700687 | 0.687 | 1.062 | 0.187 |
| 18700750 | 0.750 | 1.125 | 0.187 |
| 18700812 | 0.812 | 1.187 | 0.187 |
| 18700875 | 0.875 | 1.250 | 0.187 |
| 18700937 | 0.937 | 1.312 | 0.187 |
| 18701000 | 1.000 | 1.375 | 0.187 |
| 18701062 | 1.062 | 1.437 | 0.187 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 3/16" Cross Section - 0.187" | | | |
| 18701125 | 1.125 | 1.500 | 0.187 |
| 18701187 | 1.187 | 1.562 | 0.187 |
| 18701250 | 1.250 | 1.625 | 0.187 |
| 18701312 | 1.312 | 1.687 | 0.187 |
| 18701375 | 1.375 | 1.750 | 0.187 |
| 18701437 | 1.437 | 1.812 | 0.187 |
| 18701500 | 1.500 | 1.875 | 0.187 |
| 18701562 | 1.562 | 1.937 | 0.187 |
| 18701625 | 1.625 | 2.000 | 0.187 |
| 18701687 | 1.687 | 2.062 | 0.187 |
| 18701750 | 1.750 | 2.125 | 0.187 |
| 18701812 | 1.812 | 2.187 | 0.187 |
| 18701875 | 1.875 | 2.250 | 0.187 |
| 18701937 | 1.937 | 2.312 | 0.187 |
| 18702000 | 2.000 | 2.375 | 0.187 |
| 18702062 | 2.062 | 2.437 | 0.187 |
| 18702125 | 2.125 | 2.500 | 0.187 |
| 18702250 | 2.250 | 2.625 | 0.187 |
| 18702375 | 2.375 | 2.750 | 0.187 |
| 18702500 | 2.500 | 2.875 | 0.187 |
| 18702625 | 2.625 | 3.000 | 0.187 |
| 18702750 | 2.750 | 3.125 | 0.187 |
| 18702875 | 2.875 | 3.250 | 0.187 |
| 18703000 | 3.000 | 3.375 | 0.187 |
| 18703125 | 3.125 | 3.500 | 0.187 |
| 18703250 | 3.250 | 3.625 | 0.187 |
| 18703375 | 3.375 | 3.750 | 0.187 |
| 18703500 | 3.500 | 3.875 | 0.187 |
| 18703625 | 3.625 | 4.000 | 0.187 |
| 18703750 | 3.750 | 4.125 | 0.187 |
| 18703875 | 3.875 | 4.250 | 0.187 |
| 18704000 | 4.000 | 4.375 | 0.187 |
| 18704125 | 4.125 | 4.500 | 0.187 |
| 18704250 | 4.250 | 4.625 | 0.187 |
| 18704375 | 4.375 | 4.750 | 0.187 |
| 18704500 | 4.500 | 4.875 | 0.187 |
| 18704750 | 4.750 | 5.125 | 0.187 |
| 18705250 | 5.250 | 5.625 | 0.187 |
| 18705687 | 5.687 | 6.062 | 0.187 |
| 18705875 | 5.875 | 6.250 | 0.187 |
| 18706000 | 6.000 | 6.375 | 0.187 |
| 18706312 | 6.312 | 6.687 | 0.187 |

Standard PolyPak[®] series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 7/32" Cross Section - 0.218" | | | |
| 21800312 | 0.312 | 0.750 | 0.219 |
| 21800437 | 0.437 | 0.875 | 0.219 |
| 21800562 | 0.562 | 1.000 | 0.219 |
| 21800750 | 0.750 | 1.187 | 0.219 |
| 21800937 | 0.937 | 1.375 | 0.219 |
| 21801750 | 1.750 | 2.187 | 0.219 |
| 21802062 | 2.062 | 2.500 | 0.219 |
| 21802500 | 2.500 | 2.937 | 0.219 |
| 21802562 | 2.562 | 3.000 | 0.219 |
| 21802812 | 2.812 | 3.250 | 0.219 |
| 21803000 | 3.000 | 3.437 | 0.219 |
| 21803062 | 3.062 | 3.500 | 0.219 |
| 21803437 | 3.437 | 3.875 | 0.219 |
| 1/4" Cross Section - 0.250" | | | |
| 25000250 | 0.250 | 0.750 | 0.250 |
| 25000312 | 0.312 | 0.812 | 0.250 |
| 25000375 | 0.375 | 0.875 | 0.250 |
| 25000437 | 0.437 | 0.937 | 0.250 |
| 25000500 | 0.500 | 1.000 | 0.250 |
| 25000562 | 0.562 | 1.062 | 0.250 |
| 25000625 | 0.625 | 1.125 | 0.250 |
| 25000687 | 0.687 | 1.187 | 0.250 |
| 25000750 | 0.750 | 1.250 | 0.250 |
| 25000812 | 0.812 | 1.312 | 0.250 |
| 25000875 | 0.875 | 1.375 | 0.250 |
| 25000937 | 0.937 | 1.437 | 0.250 |
| 25001000 | 1.000 | 1.500 | 0.250 |
| 25001062 | 1.062 | 1.562 | 0.250 |
| 25001093 | 1.093 | 1.593 | 0.250 |
| 25001125 | 1.125 | 1.625 | 0.250 |
| 25001187 | 1.187 | 1.687 | 0.250 |
| 25001250 | 1.250 | 1.750 | 0.250 |
| 25001312 | 1.312 | 1.812 | 0.250 |
| 25001375 | 1.375 | 1.875 | 0.250 |
| 25001437 | 1.437 | 1.937 | 0.250 |
| 25001500 | 1.500 | 2.000 | 0.250 |
| 25001625 | 1.625 | 2.125 | 0.250 |
| 25001750 | 1.750 | 2.250 | 0.250 |
| 25001875 | 1.875 | 2.375 | 0.250 |
| 25002000 | 2.000 | 2.500 | 0.250 |
| 25002125 | 2.125 | 2.625 | 0.250 |
| 25002250 | 2.250 | 2.750 | 0.250 |
| 25002375 | 2.375 | 2.875 | 0.250 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/4" Cross Section - 0.250" | | | |
| 25002500 | 2.500 | 3.000 | 0.250 |
| 25002625 | 2.625 | 3.125 | 0.250 |
| 25002750 | 2.750 | 3.250 | 0.250 |
| 25002875 | 2.875 | 3.375 | 0.250 |
| 25003000 | 3.000 | 3.500 | 0.250 |
| 25003125 | 3.125 | 3.625 | 0.250 |
| 25003250 | 3.250 | 3.750 | 0.250 |
| 25003375 | 3.375 | 3.875 | 0.250 |
| 25003500 | 3.500 | 4.000 | 0.250 |
| 25003625 | 3.625 | 4.125 | 0.250 |
| 25003750 | 3.750 | 4.250 | 0.250 |
| 25003850 | 3.850 | 4.350 | 0.250 |
| 25003875 | 3.875 | 4.375 | 0.250 |
| 25004000 | 4.000 | 4.500 | 0.250 |
| 25004125 | 4.125 | 4.625 | 0.250 |
| 25004250 | 4.250 | 4.750 | 0.250 |
| 25004375 | 4.375 | 4.875 | 0.250 |
| 25004500 | 4.500 | 5.000 | 0.250 |
| 25004625 | 4.625 | 5.125 | 0.250 |
| 25004750 | 4.750 | 5.250 | 0.250 |
| 25004875 | 4.875 | 5.375 | 0.250 |
| 25005000 | 5.000 | 5.500 | 0.250 |
| 25005125 | 5.125 | 5.625 | 0.250 |
| 25005250 | 5.250 | 5.750 | 0.250 |
| 25005375 | 5.375 | 5.875 | 0.250 |
| 25005500 | 5.500 | 6.000 | 0.250 |
| 25005625 | 5.625 | 6.125 | 0.250 |
| 25005750 | 5.750 | 6.250 | 0.250 |
| 25005875 | 5.875 | 6.375 | 0.250 |
| 25006000 | 6.000 | 6.500 | 0.250 |
| 25006250 | 6.250 | 6.750 | 0.250 |
| 25006500 | 6.500 | 7.000 | 0.250 |
| 25006750 | 6.750 | 7.250 | 0.250 |
| 25007000 | 7.000 | 7.500 | 0.250 |
| 25007125 | 7.125 | 7.625 | 0.250 |
| 25007250 | 7.250 | 7.750 | 0.250 |
| 25007500 | 7.500 | 8.000 | 0.250 |
| 25007750 | 7.750 | 8.250 | 0.250 |
| 25007812 | 7.812 | 8.312 | 0.250 |
| 25008000 | 8.000 | 8.500 | 0.250 |
| 25008250 | 8.250 | 8.750 | 0.250 |
| 25008500 | 8.500 | 9.000 | 0.250 |
| 25008750 | 8.750 | 9.250 | 0.250 |
| 25009000 | 9.000 | 9.500 | 0.250 |

Standard PolyPak® series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 1/4" Cross Section - 0.250" | | | |
| 25009250 | 9.250 | 9.750 | 0.250 |
| 25009500 | 9.500 | 10.000 | 0.250 |
| 25009750 | 9.750 | 10.250 | 0.250 |
| 25010000 | 10.000 | 10.500 | 0.250 |
| 25010500 | 10.500 | 11.000 | 0.250 |
| 25010750 | 10.750 | 11.250 | 0.250 |
| 25010875 | 10.875 | 11.375 | 0.250 |
| 25011000 | 11.000 | 11.500 | 0.250 |
| 25011250 | 11.250 | 11.750 | 0.250 |
| 25011500 | 11.500 | 12.000 | 0.250 |
| 25011750 | 11.750 | 12.250 | 0.250 |
| 25012000 | 12.000 | 12.500 | 0.250 |
| 25012500 | 12.500 | 13.000 | 0.250 |
| 25013000 | 13.000 | 13.500 | 0.250 |
| 25013500 | 13.500 | 14.000 | 0.250 |
| 25014000 | 14.000 | 14.500 | 0.250 |
| 25014125 | 14.125 | 14.625 | 0.250 |
| 25014250 | 14.250 | 14.750 | 0.250 |
| 25019000 | 19.000 | 19.500 | 0.250 |
| 25023500 | 23.500 | 24.000 | 0.250 |
| 25024500 | 24.500 | 25.000 | 0.250 |
| 9/32" Cross Section - 0.281" | | | |
| 28100187 | 0.187 | 0.750 | 0.281 |
| 28100687 | 0.687 | 1.250 | 0.281 |
| 28102312 | 2.312 | 2.875 | 0.281 |
| 28102562 | 2.562 | 3.125 | 0.281 |
| 28104437 | 4.437 | 5.000 | 0.281 |
| 28105000 | 5.000 | 5.562 | 0.281 |
| 28105437 | 5.437 | 6.000 | 0.281 |
| 28106437 | 6.437 | 7.000 | 0.281 |
| 28108500 | 8.500 | 9.062 | 0.281 |
| 5/16" Cross Section - 0.312" | | | |
| 31200250 | 0.250 | 0.875 | 0.312 |
| 31200375 | 0.375 | 1.000 | 0.312 |
| 31200437 | 0.437 | 1.062 | 0.312 |
| 31200500 | 0.500 | 1.125 | 0.312 |
| 31200625 | 0.625 | 1.250 | 0.312 |
| 31200687 | 0.687 | 1.312 | 0.312 |
| 31200750 | 0.750 | 1.375 | 0.312 |
| 31200812 | 0.812 | 1.437 | 0.312 |
| 31200875 | 0.875 | 1.500 | 0.312 |
| 31201000 | 1.000 | 1.625 | 0.312 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 5/16" Cross Section - 0.312" | | | |
| 31201062 | 1.062 | 1.687 | 0.312 |
| 31201125 | 1.125 | 1.750 | 0.312 |
| 31201187 | 1.187 | 1.812 | 0.312 |
| 31201250 | 1.250 | 1.875 | 0.312 |
| 31201312 | 1.312 | 1.937 | 0.312 |
| 31201375 | 1.375 | 2.000 | 0.312 |
| 31201500 | 1.500 | 2.125 | 0.312 |
| 31201625 | 1.625 | 2.250 | 0.312 |
| 31201687 | 1.687 | 2.312 | 0.312 |
| 31201750 | 1.750 | 2.375 | 0.312 |
| 31201875 | 1.875 | 2.500 | 0.312 |
| 31201937 | 1.937 | 2.562 | 0.312 |
| 31202000 | 2.000 | 2.625 | 0.312 |
| 31202125 | 2.125 | 2.750 | 0.312 |
| 31202250 | 2.250 | 2.875 | 0.312 |
| 31202312 | 2.312 | 2.937 | 0.312 |
| 31202375 | 2.375 | 3.000 | 0.312 |
| 31202500 | 2.500 | 3.125 | 0.312 |
| 31202562 | 2.562 | 3.187 | 0.312 |
| 31202625 | 2.625 | 3.250 | 0.312 |
| 31202750 | 2.750 | 3.375 | 0.312 |
| 31202875 | 2.875 | 3.500 | 0.312 |
| 31203000 | 3.000 | 3.625 | 0.312 |
| 31203125 | 3.125 | 3.750 | 0.312 |
| 31203250 | 3.250 | 3.875 | 0.312 |
| 31203375 | 3.375 | 4.000 | 0.312 |
| 31203500 | 3.500 | 4.125 | 0.312 |
| 31203625 | 3.625 | 4.250 | 0.312 |
| 31203750 | 3.750 | 4.375 | 0.312 |
| 31203875 | 3.875 | 4.500 | 0.312 |
| 31204000 | 4.000 | 4.625 | 0.312 |
| 31204125 | 4.125 | 4.750 | 0.312 |
| 31204250 | 4.250 | 4.875 | 0.312 |
| 31204375 | 4.375 | 5.000 | 0.312 |
| 31204500 | 4.500 | 5.125 | 0.312 |
| 31204750 | 4.750 | 5.375 | 0.312 |
| 31204875 | 4.875 | 5.500 | 0.312 |
| 31205000 | 5.000 | 5.625 | 0.312 |
| 31205125 | 5.125 | 5.750 | 0.312 |
| 31205250 | 5.250 | 5.875 | 0.312 |
| 31205375 | 5.375 | 6.000 | 0.312 |
| 31205500 | 5.500 | 6.125 | 0.312 |
| 31205875 | 5.875 | 6.500 | 0.312 |
| 31206000 | 6.000 | 6.625 | 0.312 |

Standard PolyPak[®] series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 5/16" Cross Section - 0.312" | | | |
| 31206125 | 6.125 | 6.750 | 0.312 |
| 31206250 | 6.250 | 6.875 | 0.312 |
| 31206375 | 6.375 | 7.000 | 0.312 |
| 31206500 | 6.500 | 7.125 | 0.312 |
| 31206625 | 6.625 | 7.250 | 0.312 |
| 31206750 | 6.750 | 7.375 | 0.312 |
| 31207000 | 7.000 | 7.625 | 0.312 |
| 31207250 | 7.250 | 7.875 | 0.312 |
| 31207375 | 7.375 | 8.000 | 0.312 |
| 31207500 | 7.500 | 8.125 | 0.312 |
| 31208000 | 8.000 | 8.625 | 0.312 |
| 31208875 | 8.875 | 9.500 | 0.312 |
| 31209625 | 9.625 | 10.250 | 0.312 |
| 31210125 | 10.125 | 10.750 | 0.312 |
| 31212000 | 12.000 | 12.625 | 0.312 |
| 31212750 | 12.750 | 13.375 | 0.312 |
| 31213375 | 13.375 | 14.000 | 0.312 |
| 31214250 | 14.250 | 14.875 | 0.312 |
| 31214875 | 14.875 | 15.500 | 0.312 |
| 31215875 | 15.875 | 16.500 | 0.312 |
| 31221812 | 21.812 | 22.437 | 0.312 |
| 11/32" Cross Section - 0.343" | | | |
| 34300750 | 0.750 | 1.375 | 0.312 |
| 34301062 | 1.062 | 1.687 | 0.312 |
| 34301312 | 1.312 | 1.937 | 0.312 |
| 34302312 | 2.312 | 2.937 | 0.312 |
| 34302500 | 2.500 | 3.125 | 0.312 |
| 34302687 | 2.687 | 3.312 | 0.312 |
| 34309312 | 9.312 | 9.937 | 0.312 |
| 3/8" Cross Section - 0.375" | | | |
| 37500500 | 0.500 | 1.250 | 0.375 |
| 37500625 | 0.625 | 1.375 | 0.375 |
| 37500750 | 0.750 | 1.500 | 0.375 |
| 37500875 | 0.875 | 1.625 | 0.375 |
| 37500937 | 0.937 | 1.687 | 0.375 |
| 37501000 | 1.000 | 1.750 | 0.375 |
| 37501125 | 1.125 | 1.875 | 0.375 |
| 37501250 | 1.250 | 2.000 | 0.375 |
| 37501312 | 1.312 | 2.062 | 0.375 |
| 37501375 | 1.375 | 2.125 | 0.375 |
| 37501437 | 1.437 | 2.187 | 0.375 |
| 37501500 | 1.500 | 2.250 | 0.375 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 3/8" Cross Section - 0.375" | | | |
| 37501562 | 1.562 | 2.312 | 0.375 |
| 37501625 | 1.625 | 2.375 | 0.375 |
| 37501750 | 1.750 | 2.500 | 0.375 |
| 37501875 | 1.875 | 2.625 | 0.375 |
| 37502000 | 2.000 | 2.750 | 0.375 |
| 37502062 | 2.062 | 2.812 | 0.375 |
| 37502125 | 2.125 | 2.875 | 0.375 |
| 37502250 | 2.250 | 3.000 | 0.375 |
| 37502375 | 2.375 | 3.125 | 0.375 |
| 37502437 | 2.437 | 3.187 | 0.375 |
| 37502500 | 2.500 | 3.250 | 0.375 |
| 37502625 | 2.625 | 3.375 | 0.375 |
| 37502687 | 2.687 | 3.437 | 0.375 |
| 37502750 | 2.750 | 3.500 | 0.375 |
| 37502875 | 2.875 | 3.625 | 0.375 |
| 37502937 | 2.937 | 3.687 | 0.375 |
| 37503000 | 3.000 | 3.750 | 0.375 |
| 37503125 | 3.125 | 3.875 | 0.375 |
| 37503250 | 3.250 | 4.000 | 0.375 |
| 37503375 | 3.375 | 4.125 | 0.375 |
| 37503500 | 3.500 | 4.250 | 0.375 |
| 37503625 | 3.625 | 4.375 | 0.375 |
| 37503750 | 3.750 | 4.500 | 0.375 |
| 37503843 | 3.843 | 4.593 | 0.375 |
| 37503875 | 3.875 | 4.625 | 0.375 |
| 37504000 | 4.000 | 4.750 | 0.375 |
| 37504062 | 4.062 | 4.812 | 0.375 |
| 37504125 | 4.125 | 4.875 | 0.375 |
| 37504250 | 4.250 | 5.000 | 0.375 |
| 37504375 | 4.375 | 5.125 | 0.375 |
| 37504500 | 4.500 | 5.250 | 0.375 |
| 37504625 | 4.625 | 5.375 | 0.375 |
| 37504750 | 4.750 | 5.500 | 0.375 |
| 37504875 | 4.875 | 5.625 | 0.375 |
| 37505000 | 5.000 | 5.750 | 0.375 |
| 37505125 | 5.125 | 5.875 | 0.375 |
| 37505250 | 5.250 | 6.000 | 0.375 |
| 37505375 | 5.375 | 6.125 | 0.375 |
| 37505500 | 5.500 | 6.250 | 0.375 |
| 37505625 | 5.625 | 6.375 | 0.375 |
| 37505750 | 5.750 | 6.500 | 0.375 |
| 37505875 | 5.875 | 6.625 | 0.375 |
| 37506000 | 6.000 | 6.750 | 0.375 |
| 37506250 | 6.250 | 7.000 | 0.375 |

Standard PolyPak® series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 3/8" Cross Section - 0.375" | | | |
| 37506500 | 6.500 | 7.250 | 0.375 |
| 37506750 | 6.750 | 7.500 | 0.375 |
| 37507000 | 7.000 | 7.750 | 0.375 |
| 37507250 | 7.250 | 8.000 | 0.375 |
| 37507500 | 7.500 | 8.250 | 0.375 |
| 37507625 | 7.625 | 8.375 | 0.375 |
| 37507750 | 7.750 | 8.500 | 0.375 |
| 37508000 | 8.000 | 8.750 | 0.375 |
| 37508250 | 8.250 | 9.000 | 0.375 |
| 37508500 | 8.500 | 9.250 | 0.375 |
| 37508625 | 8.625 | 9.375 | 0.375 |
| 37508687 | 8.687 | 9.437 | 0.375 |
| 37508750 | 8.750 | 9.500 | 0.375 |
| 37509000 | 9.000 | 9.750 | 0.375 |
| 37509250 | 9.250 | 10.000 | 0.375 |
| 37509500 | 9.500 | 10.250 | 0.375 |
| 37509750 | 9.750 | 10.500 | 0.375 |
| 37509875 | 9.875 | 10.625 | 0.375 |
| 37510000 | 10.000 | 10.750 | 0.375 |
| 37510250 | 10.250 | 11.000 | 0.375 |
| 37510500 | 10.500 | 11.250 | 0.375 |
| 37510750 | 10.750 | 11.500 | 0.375 |
| 37511000 | 11.000 | 11.750 | 0.375 |
| 37511250 | 11.250 | 12.000 | 0.375 |
| 37511500 | 11.500 | 12.250 | 0.375 |
| 37511750 | 11.750 | 12.500 | 0.375 |
| 37512000 | 12.000 | 12.750 | 0.375 |
| 37512250 | 12.250 | 13.000 | 0.375 |
| 37512500 | 12.500 | 13.250 | 0.375 |
| 37512750 | 12.750 | 13.500 | 0.375 |
| 37513000 | 13.000 | 13.750 | 0.375 |
| 37513250 | 13.250 | 14.000 | 0.375 |
| 37513500 | 13.500 | 14.250 | 0.375 |
| 37513750 | 13.750 | 14.500 | 0.375 |
| 37514000 | 14.000 | 14.750 | 0.375 |
| 37514500 | 14.500 | 15.250 | 0.375 |
| 37515000 | 15.000 | 15.750 | 0.375 |
| 37515500 | 15.500 | 16.250 | 0.375 |
| 37515750 | 15.750 | 16.500 | 0.375 |
| 37516250 | 16.250 | 17.000 | 0.375 |
| 37516500 | 16.500 | 17.250 | 0.375 |
| 37517250 | 17.250 | 18.000 | 0.375 |
| 37523000 | 23.000 | 23.750 | 0.375 |
| 37527250 | 27.250 | 28.000 | 0.375 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 3/8" Cross Section - 0.375" | | | |
| 37531750 | 31.750 | 32.500 | 0.375 |
| 37538500 | 38.500 | 39.250 | 0.375 |
| 13/32" Cross Section - 0.406" | | | |
| 40601750 | 1.750 | 2.563 | 0.406 |
| 40607187 | 7.187 | 8.000 | 0.406 |
| 40613187 | 13.187 | 14.000 | 0.406 |
| 7/16" Cross Section - 0.437" | | | |
| 43701437 | 1.437 | 2.312 | 0.437 |
| 43701500 | 1.500 | 2.375 | 0.437 |
| 43701750 | 1.750 | 2.625 | 0.437 |
| 43701875 | 1.875 | 2.750 | 0.437 |
| 43702000 | 2.000 | 2.875 | 0.437 |
| 43702125 | 2.125 | 3.000 | 0.437 |
| 43702500 | 2.500 | 3.375 | 0.437 |
| 43702875 | 2.875 | 3.750 | 0.437 |
| 43703000 | 3.000 | 3.875 | 0.437 |
| 43703125 | 3.125 | 4.000 | 0.437 |
| 43703250 | 3.250 | 4.125 | 0.437 |
| 43703625 | 3.625 | 4.500 | 0.437 |
| 43704000 | 4.000 | 4.875 | 0.437 |
| 43704500 | 4.500 | 5.375 | 0.437 |
| 43704750 | 4.750 | 5.625 | 0.437 |
| 43705125 | 5.125 | 6.000 | 0.437 |
| 43705500 | 5.500 | 6.375 | 0.437 |
| 1/2" Cross Section - 0.500" | | | |
| 50000625 | 0.625 | 1.625 | 0.500 |
| 50000750 | 0.750 | 1.750 | 0.500 |
| 50001000 | 1.000 | 2.000 | 0.500 |
| 50001125 | 1.125 | 2.125 | 0.500 |
| 50001250 | 1.250 | 2.250 | 0.500 |
| 50001312 | 1.312 | 2.312 | 0.500 |
| 50001375 | 1.375 | 2.375 | 0.500 |
| 50001500 | 1.500 | 2.500 | 0.500 |
| 50001750 | 1.750 | 2.750 | 0.500 |
| 50001875 | 1.875 | 2.875 | 0.500 |
| 50002000 | 2.000 | 3.000 | 0.500 |
| 50002250 | 2.250 | 3.250 | 0.500 |
| 50002375 | 2.375 | 3.375 | 0.500 |
| 50002500 | 2.500 | 3.500 | 0.500 |
| 50002750 | 2.750 | 3.750 | 0.500 |
| 50003000 | 3.000 | 4.000 | 0.500 |

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| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 1/2" Cross Section - 0.500" | | | |
| 50003250 | 3.250 | 4.250 | 0.500 |
| 50003500 | 3.500 | 4.500 | 0.500 |
| 50003625 | 3.625 | 4.625 | 0.500 |
| 50003750 | 3.750 | 4.750 | 0.500 |
| 50004000 | 4.000 | 5.000 | 0.500 |
| 50004125 | 4.125 | 5.125 | 0.500 |
| 50004250 | 4.250 | 5.250 | 0.500 |
| 50004312 | 4.312 | 5.312 | 0.500 |
| 50004375 | 4.375 | 5.375 | 0.500 |
| 50004500 | 4.500 | 5.500 | 0.500 |
| 50004750 | 4.750 | 5.750 | 0.500 |
| 50005000 | 5.000 | 6.000 | 0.500 |
| 50005125 | 5.125 | 6.125 | 0.500 |
| 50005250 | 5.250 | 6.250 | 0.500 |
| 50005375 | 5.375 | 6.375 | 0.500 |
| 50005437 | 5.437 | 6.437 | 0.500 |
| 50005500 | 5.500 | 6.500 | 0.500 |
| 50005750 | 5.750 | 6.750 | 0.500 |
| 50006000 | 6.000 | 7.000 | 0.500 |
| 50006250 | 6.250 | 7.250 | 0.500 |
| 50006375 | 6.375 | 7.375 | 0.500 |
| 50006500 | 6.500 | 7.500 | 0.500 |
| 50006750 | 6.750 | 7.750 | 0.500 |
| 50007000 | 7.000 | 8.000 | 0.500 |
| 50007250 | 7.250 | 8.250 | 0.500 |
| 50007500 | 7.500 | 8.500 | 0.500 |
| 50007750 | 7.750 | 8.750 | 0.500 |
| 50008000 | 8.000 | 9.000 | 0.500 |
| 50008125 | 8.125 | 9.125 | 0.500 |
| 50008250 | 8.250 | 9.250 | 0.500 |
| 50008500 | 8.500 | 9.500 | 0.500 |
| 50008750 | 8.750 | 9.750 | 0.500 |
| 50009000 | 9.000 | 10.000 | 0.500 |
| 50009500 | 9.500 | 10.500 | 0.500 |
| 50009750 | 9.750 | 10.750 | 0.500 |
| 50010000 | 10.000 | 11.000 | 0.500 |
| 50010500 | 10.500 | 11.500 | 0.500 |
| 50010750 | 10.750 | 11.750 | 0.500 |
| 50010875 | 10.875 | 11.875 | 0.500 |
| 50011000 | 11.000 | 12.000 | 0.500 |
| 50011250 | 11.250 | 12.250 | 0.500 |
| 50011375 | 11.375 | 12.375 | 0.500 |
| 50011500 | 11.500 | 12.500 | 0.500 |
| 50011750 | 11.750 | 12.750 | 0.500 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 1/2" Cross Section - 0.500" | | | |
| 50012000 | 12.000 | 13.000 | 0.500 |
| 50012750 | 12.750 | 13.750 | 0.500 |
| 50013000 | 13.000 | 14.000 | 0.500 |
| 50013250 | 13.250 | 14.250 | 0.500 |
| 50014000 | 14.000 | 15.000 | 0.500 |
| 50014500 | 14.500 | 15.500 | 0.500 |
| 50015000 | 15.000 | 16.000 | 0.500 |
| 50015750 | 15.750 | 16.750 | 0.500 |
| 50017000 | 17.000 | 18.000 | 0.500 |
| 50017500 | 17.500 | 18.500 | 0.500 |
| 50019000 | 19.000 | 20.000 | 0.500 |
| 50019500 | 19.500 | 20.500 | 0.500 |
| 50020000 | 20.000 | 21.000 | 0.500 |
| 50021000 | 21.000 | 22.000 | 0.500 |
| 50023000 | 23.000 | 24.000 | 0.500 |
| 50026000 | 26.000 | 27.000 | 0.500 |
| 50026500 | 26.500 | 27.500 | 0.500 |
| 50028000 | 28.000 | 29.000 | 0.500 |
| 50031000 | 31.000 | 32.000 | 0.500 |
| 50032000 | 32.000 | 33.000 | 0.500 |
| 9/16" Cross Section - 0.562" | | | |
| 56202500 | 2.500 | 3.625 | 0.562 |
| 56202625 | 2.625 | 3.750 | 0.562 |
| 56204125 | 4.125 | 5.250 | 0.562 |
| 56205500 | 5.500 | 6.625 | 0.562 |
| 56206750 | 6.750 | 7.875 | 0.562 |
| 5/8" Cross Section - 0.625" | | | |
| 62501250 | 1.250 | 2.500 | 0.625 |
| 62501750 | 1.750 | 3.000 | 0.625 |
| 62501812 | 1.812 | 3.062 | 0.625 |
| 62502000 | 2.000 | 3.250 | 0.625 |
| 62502250 | 2.250 | 3.500 | 0.625 |
| 62502375 | 2.375 | 3.625 | 0.625 |
| 62502500 | 2.500 | 3.750 | 0.625 |
| 62502750 | 2.750 | 4.000 | 0.625 |
| 62502812 | 2.812 | 4.062 | 0.625 |
| 62503000 | 3.000 | 4.250 | 0.625 |
| 62503250 | 3.250 | 4.500 | 0.625 |
| 62503375 | 3.375 | 4.625 | 0.625 |
| 62503500 | 3.500 | 4.750 | 0.625 |
| 62503750 | 3.750 | 5.000 | 0.625 |
| 62503875 | 3.875 | 5.125 | 0.625 |

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| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 5/8" Cross Section - 0.625" | | | |
| 62504000 | 4.000 | 5.250 | 0.625 |
| 62504250 | 4.250 | 5.500 | 0.625 |
| 62504500 | 4.500 | 5.750 | 0.625 |
| 62504625 | 4.625 | 5.875 | 0.625 |
| 62504750 | 4.750 | 6.000 | 0.625 |
| 62505000 | 5.000 | 6.250 | 0.625 |
| 62505500 | 5.500 | 6.750 | 0.625 |
| 62505750 | 5.750 | 7.000 | 0.625 |
| 62506000 | 6.000 | 7.250 | 0.625 |
| 62506250 | 6.250 | 7.500 | 0.625 |
| 62506500 | 6.500 | 7.750 | 0.625 |
| 62506625 | 6.625 | 7.875 | 0.625 |
| 62506750 | 6.750 | 8.000 | 0.625 |
| 62506875 | 6.875 | 8.125 | 0.625 |
| 62507000 | 7.000 | 8.250 | 0.625 |
| 62507750 | 7.750 | 9.000 | 0.625 |
| 62508000 | 8.000 | 9.250 | 0.625 |
| 62508187 | 8.187 | 9.437 | 0.625 |
| 62508250 | 8.250 | 9.500 | 0.625 |
| 62508500 | 8.500 | 9.750 | 0.625 |
| 62508625 | 8.625 | 9.875 | 0.625 |
| 62508750 | 8.750 | 10.000 | 0.625 |
| 62509000 | 9.000 | 10.250 | 0.625 |
| 62509250 | 9.250 | 10.500 | 0.625 |
| 62509750 | 9.750 | 11.000 | 0.625 |
| 62510000 | 10.000 | 11.250 | 0.625 |
| 62510250 | 10.250 | 11.500 | 0.625 |
| 62510500 | 10.500 | 11.750 | 0.625 |
| 62511000 | 11.000 | 12.250 | 0.625 |
| 62512000 | 12.000 | 13.250 | 0.625 |
| 62512250 | 12.250 | 13.500 | 0.625 |
| 62512750 | 12.750 | 14.000 | 0.625 |
| 62513000 | 13.000 | 14.250 | 0.625 |
| 62514750 | 14.750 | 16.000 | 0.625 |
| 62515000 | 15.000 | 16.250 | 0.625 |
| 62516750 | 16.750 | 18.000 | 0.625 |
| 62518750 | 18.750 | 20.000 | 0.625 |
| 62519250 | 19.250 | 20.500 | 0.625 |
| 62520000 | 20.000 | 21.250 | 0.625 |
| 62524750 | 24.750 | 26.000 | 0.625 |
| 3/4" Cross Section - 0.750" | | | |
| 75003000 | 3.000 | 4.500 | 0.750 |
| 75003125 | 3.125 | 4.625 | 0.750 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 3/4" Cross Section - 0.750" | | | |
| 75003500 | 3.500 | 5.000 | 0.750 |
| 75003750 | 3.750 | 5.250 | 0.750 |
| 75004000 | 4.000 | 5.500 | 0.750 |
| 75004250 | 4.250 | 5.750 | 0.750 |
| 75004500 | 4.500 | 6.000 | 0.750 |
| 75005000 | 5.000 | 6.500 | 0.750 |
| 75005500 | 5.500 | 7.000 | 0.750 |
| 75006000 | 6.000 | 7.500 | 0.750 |
| 75006500 | 6.500 | 8.000 | 0.750 |
| 75007000 | 7.000 | 8.500 | 0.750 |
| 75007500 | 7.500 | 9.000 | 0.750 |
| 75008000 | 8.000 | 9.500 | 0.750 |
| 75008250 | 8.250 | 9.750 | 0.750 |
| 75008375 | 8.375 | 9.875 | 0.750 |
| 75008500 | 8.500 | 10.000 | 0.750 |
| 75009000 | 9.000 | 10.500 | 0.750 |
| 75009500 | 9.500 | 11.000 | 0.750 |
| 75010000 | 10.000 | 11.500 | 0.750 |
| 75010500 | 10.500 | 12.000 | 0.750 |
| 75010750 | 10.750 | 12.250 | 0.750 |
| 75011000 | 11.000 | 12.500 | 0.750 |
| 75012000 | 12.000 | 13.500 | 0.750 |
| 75012500 | 12.500 | 14.000 | 0.750 |
| 75013000 | 13.000 | 14.500 | 0.750 |
| 75013500 | 13.500 | 15.000 | 0.750 |
| 75013750 | 13.750 | 15.250 | 0.750 |
| 75014000 | 14.000 | 15.500 | 0.750 |
| 75014250 | 14.250 | 15.750 | 0.750 |
| 75014500 | 14.500 | 16.000 | 0.750 |
| 75016000 | 16.000 | 17.500 | 0.750 |
| 75018000 | 18.000 | 19.500 | 0.750 |
| 75019000 | 19.000 | 20.500 | 0.750 |
| 75020500 | 20.500 | 22.000 | 0.750 |
| 75022000 | 22.000 | 23.500 | 0.750 |
| 75022500 | 22.500 | 24.000 | 0.750 |
| 75026000 | 26.000 | 27.500 | 0.750 |
| 7/8" Cross Section - 0.875" | | | |
| 87508500 | 8.500 | 10.250 | 0.875 |
| 87520000 | 20.000 | 21.750 | 0.875 |
| 1" Cross Section - 1.000" | | | |
| 100004000 | 4.000 | 6.000 | 1.000 |
| 100007000 | 7.000 | 9.000 | 1.000 |

Standard PolyPak[®] series - AU/NBR

SYMMETRICAL SEALS



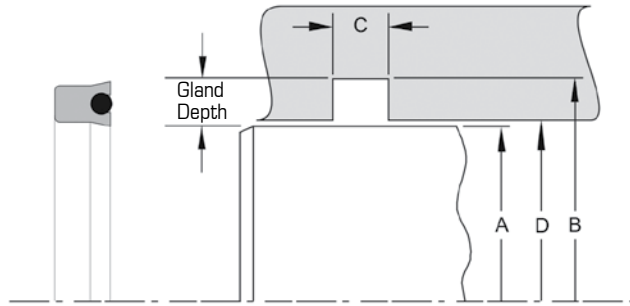
| Ref.Number | Nominal Seal Dimensions | | |
|----------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 1" Cross Section - 1.000" | | | |
| 100007500 | 7.500 | 9.500 | 1.000 |
| 100008000 | 8.000 | 10.000 | 1.000 |
| 100010000 | 10.000 | 12.000 | 1.000 |
| 100012000 | 12.000 | 14.000 | 1.000 |
| 100012500 | 12.500 | 14.500 | 1.000 |
| 100014000 | 14.000 | 16.000 | 1.000 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 1" Cross Section - 1.000" | | | |
| 100016000 | 16.000 | 18.000 | 1.000 |
| 100018500 | 18.500 | 20.500 | 1.000 |
| 100028000 | 28.000 | 30.000 | 1.000 |
| 1 1/8" Cross Section - 1.125" | | | |
| 112512000 | 12.000 | 14.250 | 1.125 |



Deep PolyPak[®] - Rod design table

Rod Gland Dimensions - DPP Profile. Deep PolyPak[®]



SYMMETRICAL SEALS

Table 6-10. DPP Profile - Rod Gland Calculation. Rubber and Polyurethane (90A)

| A Rod Diameter | | Seal | | B Groove Diameter | | C Groove Width | D Throat Diameter* | |
|-------------------|---------------|---------------|---------------|----------------------|---------------|-------------------|-----------------------|---------------|
| Range | Tol. | Cross Section | Axial Width | Calculation | Tol. | +0.015/ -.000 | Calculation | Tol. |
| 0.062 - 0.624 | +0.000/-0.001 | 1/8 (.125) | 3/16 (.187) | Dia. A + .250 | +0.002/-0.000 | 0.206 | Dia. A + .001 | +0.002/-0.000 |
| 0.625 - 0.999 | +0.000/-0.001 | 1/8 (.125) | 1/4 (.250) | Dia. A + .250 | +0.002/-0.000 | 0.275 | Dia. A + .001 | +0.002/-0.000 |
| 1.000 - 1.499 | +0.000/-0.002 | 3/16 (.187) | 5/16 (.312) | Dia. A + .375 | +0.002/-0.000 | 0.343 | Dia. A + .001 | +0.002/-0.000 |
| 1.500 - 1.999 | +0.000/-0.002 | 3/16 (.187) | 3/8 (.375) | Dia. A + .375 | +0.002/-0.000 | 0.413 | Dia. A + .001 | +0.002/-0.000 |
| 2.000 - 3.499 | +0.000/-0.002 | 3/16 (.187) | 3/8 (.375) | Dia. A + .500 | +0.003/-0.000 | 0.413 | Dia. A + .001 | +0.003/-0.000 |
| 3.500 - 4.999 | +0.000/-0.002 | 1/4 (.250) | 1/2 (.500) | Dia. A + .625 | +0.004/-0.000 | 0.550 | Dia. A + .002 | +0.003/-0.000 |
| 5.000 - 9.999 | +0.000/-0.002 | 5/16 (.312) | 5/8 (.625) | Dia. A + .750 | +0.005/-0.000 | 0.688 | Dia. A + .002 | +0.004/-0.000 |
| 10.000 - 19.999 | +0.000/-0.003 | 3/8 (.625) | 3/4 (.750) | Dia. A + 1.000 | +0.007/-0.000 | 0.825 | Dia. A + .002 | +0.005/-0.000 |
| 20.000 - 29.999 | +0.000/-0.003 | 1/2 (.500) | 1 (1.000) | Dia. A + 1.250 | +0.009/-0.000 | 1.100 | Dia. A + .002 | +0.006/-0.000 |
| 30.000 - 39.999 | +0.000/-0.004 | 5/8 (.625) | 1 1/4 (1.000) | Dia. A + 1.500 | +0.011/-0.000 | 1.375 | Dia. A + .002 | +0.007/-0.000 |
| 40.000 + | +0.000/-0.005 | 1 (1.000) | 1 1/2 (1.000) | Dia. A + 2.000 | +0.015/-0.000 | 1.650 | Dia. A + .002 | +0.009/-0.000 |

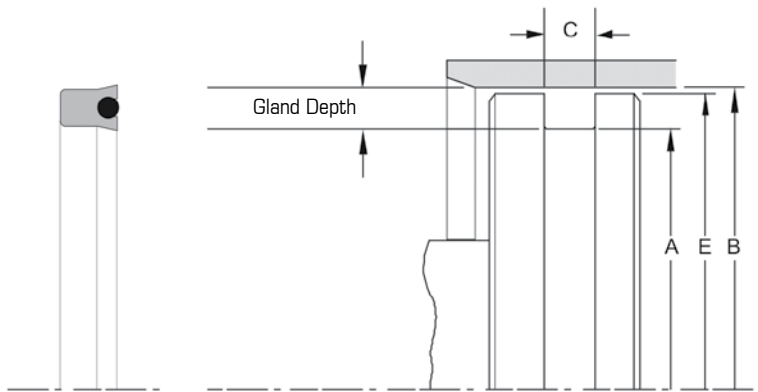
Table 6-11. DPP Profile - Rod Gland Calculation. Polymyte (60D)

| A Rod Diameter | | Seal | | B Groove Diameter | | C Groove Width | D Throat Diameter* | |
|-------------------|---------------|---------------|---------------|----------------------|---------------|-------------------|-----------------------|---------------|
| Range | Tol. | Cross Section | Axial Width | Calculation | Tol. | +0.015/ -.000 | Calculation | Tol. |
| 0.062 - 0.999 | +0.000/-0.001 | 1/8 (.125) | 3/16 (.187) | Dia. A + .250 | +0.002/-0.000 | 0.206 | Dia. A + .001 | +0.002/-0.000 |
| 1.000 - 1.749 | +0.000/-0.001 | 1/8 (.125) | 1/4 (.250) | Dia. A + .250 | +0.002/-0.000 | 0.275 | Dia. A + .001 | +0.002/-0.000 |
| 1.750 - 2.249 | +0.000/-0.002 | 3/16 (.187) | 5/16 (.312) | Dia. A + .375 | +0.002/-0.000 | 0.343 | Dia. A + .001 | +0.002/-0.000 |
| 2.250 - 2.749 | +0.000/-0.002 | 3/16 (.187) | 3/8 (.375) | Dia. A + .375 | +0.002/-0.000 | 0.413 | Dia. A + .001 | +0.002/-0.000 |
| 2.750 - 3.499 | +0.000/-0.002 | 1/4 (.250) | 3/8 (.375) | Dia. A + .500 | +0.003/-0.000 | 0.413 | Dia. A + .001 | +0.003/-0.000 |
| 3.500 - 4.999 | +0.000/-0.002 | 5/16 (.312) | 1/2 (.500) | Dia. A + .625 | +0.004/-0.000 | 0.550 | Dia. A + .002 | +0.003/-0.000 |
| 5.000 - 9.999 | +0.000/-0.002 | 3/8 (.625) | 5/8 (.625) | Dia. A + .750 | +0.005/-0.000 | 0.688 | Dia. A + .002 | +0.004/-0.000 |
| 10.000 - 19.999 | +0.000/-0.003 | 1/2 (.500) | 3/4 (.750) | Dia. A + 1.000 | +0.007/-0.000 | 0.825 | Dia. A + .002 | +0.005/-0.000 |
| 20.000 - 29.999 | +0.000/-0.003 | 5/8 (.625) | 1 (1.000) | Dia. A + 1.250 | +0.009/-0.000 | 1.100 | Dia. A + .002 | +0.006/-0.000 |
| 30.000 - 39.999 | +0.000/-0.004 | 3/4 (.750) | 1 1/4 (1.000) | Dia. A + 1.500 | +0.011/-0.000 | 1.375 | Dia. A + .002 | +0.007/-0.000 |
| 40.000 + | +0.000/-0.005 | 1 (1.000) | 1 1/2 (1.000) | Dia. A + 2.000 | +0.015/-0.000 | 1.650 | Dia. A + .002 | +0.009/-0.000 |

* If used with wear rings, refer to wear ring throat diameter, see Section 9 of Parker Catalog EPS 5370

Deep PolyPak[®] - Piston design table

Piston Gland Dimensions - DPP Profile. Deep PolyPak[®]



SYMMETRICAL SEALS



Table 6-12. DPP Profile - Piston Gland Calculation. Rubber and Polyurethane (90A)

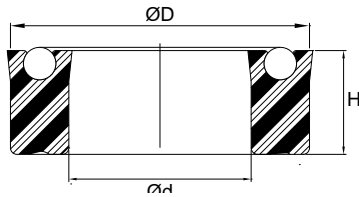
| B Bore Diameter | | Seal | | A Groove Diameter | | C Groove Width | E Piston Diameter* | |
|--------------------|---------------|------------------|----------------|----------------------|---------------|----------------------|-----------------------|---------------|
| Range | Tol. | Cross Section | Axial Width | Calculation | Tol. | + .015/ -.000 | Calculation | Tol. |
| 0.312 - 1.499 | + .002/- .000 | 1/8 (.125) | 1/4 (.250) | Dia. B - .250 | + .000/- .002 | 0.275 | Dia. B - .001 | + .000/- .001 |
| 1.500 - 2.999 | + .002/- .000 | 3/16 (.187) | 5/16 (.312) | Dia. B - .375 | + .000/- .002 | 0.343 | Dia. B - .001 | + .000/- .002 |
| 3.000 - 5.499 | + .003/- .000 | 1/4 (.250) | 3/8 (.375) | Dia. B - .500 | + .000/- .003 | 0.413 | Dia. B - .001 | + .000/- .002 |
| 6.000 - 9.999 | + .003/- .000 | 5/16 (.312) | 1/2 (.500) | Dia. B - .625 | + .000/- .004 | 0.550 | Dia. B - .002 | + .000/- .002 |
| 10.000 - 19.999 | + .004/- .000 | 3/8 (.375) | 5/8 (.625) | Dia. B - .750 | + .000/- .005 | 0.688 | Dia. B - .002 | + .000/- .002 |
| 20.000 - 29.999 | + .005/- .000 | 1/2 (.500) | 3/4 (.750) | Dia. B - 1.000 | + .000/- .007 | 0.825 | Dia. B - .002 | + .000/- .003 |
| 30.000 - 39.999 | + .006/- .000 | 5/8 (.625) | 1 (1.000) | Dia. B - 1.250 | + .000/- .009 | 1.100 | Dia. B - .002 | + .000/- .003 |
| 40.000 - 49.999 | + .007/- .000 | 3/4 (.750) | 1-1/4 (1.250) | Dia. B - 1.500 | + .000/- .010 | 1.375 | Dia. B - .002 | + .000/- .004 |
| 50.000 + | + .009/- .000 | 1 (1.000) | 1-1/2 (1.500) | Dia. B - 2.000 | + .000/- .012 | 1.650 | Dia. B - .002 | + .000/- .005 |

Table 6-13. DPP Profile - Piston Gland Calculation. Polymyte (60D)

| B Bore Diameter | | Seal | | A Groove Diameter | | C Groove Width | E Piston Diameter* | |
|--------------------|---------------|------------------|----------------|----------------------|---------------|----------------------|-----------------------|---------------|
| Range | Tol. | Cross Section | Axial Width | Calculation | Tol. | + .015/ -.000 | Calculation | Tol. |
| 0.312 - 2.749 | + .002/- .000 | 1/8 (.125) | 1/4 (.250) | Dia. B - .250 | + .000/- .002 | 0.275 | Dia. B - .001 | + .000/- .001 |
| 2.750 - 4.499 | + .002/- .000 | 3/16 (.187) | 5/16 (.312) | Dia. B - .375 | + .000/- .002 | 0.343 | Dia. B - .001 | + .000/- .002 |
| 4.500 - 5.999 | + .003/- .000 | 1/4 (.250) | 3/8 (.375) | Dia. B - .500 | + .000/- .003 | 0.413 | Dia. B - .001 | + .000/- .002 |
| 6.000 - 9.999 | + .003/- .000 | 5/16 (.312) | 1/2 (.500) | Dia. B - .625 | + .000/- .004 | 0.550 | Dia. B - .002 | + .000/- .002 |
| 10.000 - 19.999 | + .004/- .000 | 3/8 (.375) | 5/8 (.625) | Dia. B - .750 | + .000/- .005 | 0.688 | Dia. B - .002 | + .000/- .002 |
| 20.000 - 29.999 | + .005/- .000 | 1/2 (.500) | 3/4 (.750) | Dia. B - 1.000 | + .000/- .007 | 0.825 | Dia. B - .002 | + .000/- .003 |
| 30.000 - 39.999 | + .006/- .000 | 5/8 (.625) | 1 (1.000) | Dia. B - 1.250 | + .000/- .009 | 1.100 | Dia. B - .002 | + .000/- .003 |
| 40.000 - 49.999 | + .007/- .000 | 3/4 (.750) | 1-1/4 (1.250) | Dia. B - 1.500 | + .000/- .010 | 1.375 | Dia. B - .002 | + .000/- .004 |
| 50.000 + | + .009/- .000 | 1 (1.000) | 1-1/2 (1.500) | Dia. B - 2.000 | + .000/- .012 | 1.650 | Dia. B - .002 | + .000/- .005 |

* If used with wear rings, refer to wear ring throat diameter, see Section 9 of Parker Catalog EPS 5370

Deep PolyPak® - Symmetrical seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|----------------------|-------------------------------------|-------------------------|----------------------|
| Polyurethane/Nitrile | -65°F to +200°F (-54°C to +93°C) | ≤5000 psi (≤345 bar) | < 1.6 ft/s (0.5 m/s) |

Deep PolyPak® is a squeeze seal with a symmetrical profile for use in either rod or piston applications. Its rectangular shape ensures stability in the gland. The **Deep PolyPak®** straight cut scraper lip design cuts fluid film and moves contamination away from the seal.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/8" Cross Section - 0.125" | | | |
| 12500250-250 | 0.250 | 0.500 | 0.250 |
| 12500312-250 | 0.312 | 0.562 | 0.250 |
| 12500437-250 | 0.437 | 0.687 | 0.250 |
| 12500500-250 | 0.500 | 0.750 | 0.250 |
| 12500625-187 | 0.625 | 0.875 | 0.187 |
| 12500625-250 | 0.625 | 0.875 | 0.250 |
| 12500687-250 | 0.687 | 0.937 | 0.250 |
| 12500750-250 | 0.750 | 1.000 | 0.250 |
| 12500875-187 | 0.875 | 1.125 | 0.187 |
| 12500875-250 | 0.875 | 1.125 | 0.250 |
| 12501000-172 | 1.000 | 1.250 | 0.172 |
| 12501000-250 | 1.000 | 1.250 | 0.250 |
| 12501125-250 | 1.125 | 1.375 | 0.250 |
| 12501187-187 | 1.187 | 1.437 | 0.187 |
| 12501250-250 | 1.250 | 1.500 | 0.250 |
| 12501375-250 | 1.375 | 1.625 | 0.250 |
| 12501437-250 | 1.437 | 1.687 | 0.250 |
| 12501500-250 | 1.500 | 1.750 | 0.250 |
| 12501500-312 | 1.500 | 1.750 | 0.312 |
| 12501625-250 | 1.625 | 1.875 | 0.250 |
| 12501750-250 | 1.750 | 2.000 | 0.250 |
| 12502000-250 | 2.000 | 2.250 | 0.250 |
| 12502375-250 | 2.375 | 2.625 | 0.250 |
| 12502500-250 | 2.500 | 2.750 | 0.250 |
| 12503000-250 | 3.000 | 3.250 | 0.250 |
| 12503500-250 | 3.500 | 3.750 | 0.250 |

| Ref. Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 3/16" Cross Section - 0.187" | | | |
| 18700250-312 | 0.250 | 0.625 | 0.312 |
| 18700375-312 | 0.375 | 0.750 | 0.312 |
| 18700437-312 | 0.437 | 0.812 | 0.312 |
| 18700625-312 | 0.625 | 1.000 | 0.312 |
| 18700750-250 | 0.750 | 1.125 | 0.250 |
| 18700750-312 | 0.750 | 1.125 | 0.312 |
| 18700812-312 | 0.812 | 1.187 | 0.312 |
| 18700875-312 | 0.875 | 1.250 | 0.312 |
| 18700875-375 | 0.875 | 1.250 | 0.375 |
| 18701000-250 | 1.000 | 1.375 | 0.250 |
| 18701000-312 | 1.000 | 1.375 | 0.312 |
| 18701062-312 | 1.062 | 1.437 | 0.312 |
| 18701125-312 | 1.125 | 1.500 | 0.312 |
| 18701250-312 | 1.250 | 1.625 | 0.312 |
| 18701375-312 | 1.375 | 1.750 | 0.312 |
| 18701437-312 | 1.437 | 1.812 | 0.312 |
| 18701500-281 | 1.500 | 1.875 | 0.281 |
| 18701500-375 | 1.500 | 1.875 | 0.375 |
| 18701562-250 | 1.562 | 1.937 | 0.250 |
| 18701625-250 | 1.625 | 2.000 | 0.250 |
| 18701625-312 | 1.625 | 2.000 | 0.312 |
| 18701625-375 | 1.625 | 2.000 | 0.375 |
| 18701687-375 | 1.687 | 2.062 | 0.375 |
| 18701750-250 | 1.750 | 2.125 | 0.250 |
| 18701750-375 | 1.750 | 2.125 | 0.375 |
| 18701875-375 | 1.875 | 2.250 | 0.375 |



Deep PolyPak[®] series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 3/16" Cross Section - 0.187" | | | |
| 18701937-375 | 1.937 | 2.312 | 0.375 |
| 18702000-375 | 2.000 | 2.375 | 0.375 |
| 18702125-250 | 2.125 | 2.500 | 0.250 |
| 18702125-375 | 2.125 | 2.500 | 0.375 |
| 18702187-375 | 2.187 | 2.562 | 0.375 |
| 18702250-375 | 2.250 | 2.625 | 0.375 |
| 18702375-375 | 2.375 | 2.750 | 0.375 |
| 18702500-375 | 2.500 | 2.875 | 0.375 |
| 18702625-375 | 2.625 | 3.000 | 0.375 |
| 18702750-375 | 2.750 | 3.125 | 0.375 |
| 18703000-375 | 3.000 | 3.375 | 0.375 |
| 18703125-375 | 3.125 | 3.500 | 0.375 |
| 18703250-375 | 3.250 | 3.625 | 0.375 |
| 18703375-375 | 3.375 | 3.750 | 0.375 |
| 18703500-375 | 3.500 | 3.875 | 0.375 |
| 18703625-375 | 3.625 | 4.000 | 0.375 |
| 18703750-375 | 3.750 | 4.125 | 0.375 |
| 18704000-375 | 4.000 | 4.375 | 0.375 |
| 18704125-375 | 4.125 | 4.500 | 0.375 |
| 18704250-375 | 4.250 | 4.625 | 0.375 |
| 18704375-375 | 4.375 | 4.750 | 0.375 |
| 18704500-375 | 4.500 | 4.875 | 0.375 |
| 18704625-375 | 4.625 | 5.000 | 0.375 |
| 18704875-562 | 4.875 | 5.250 | 0.562 |
| 18705000-375 | 5.000 | 5.375 | 0.375 |
| 18706000-375 | 6.000 | 6.375 | 0.375 |
| 18707500-250 | 7.500 | 7.875 | 0.250 |
| 7/32" Cross Section - 0.218" | | | |
| 21802000-375 | 2.000 | 2.437 | 0.375 |
| 1/4" Cross Section - 0.250" | | | |
| 25000437-375 | 0.437 | 0.937 | 0.375 |
| 25000500-375 | 0.500 | 1.000 | 0.375 |
| 25000625-375 | 0.625 | 1.125 | 0.375 |
| 25000750-375 | 0.750 | 1.250 | 0.375 |
| 25000875-375 | 0.875 | 1.375 | 0.375 |
| 25001000-375 | 1.000 | 1.500 | 0.375 |
| 25001125-375 | 1.125 | 1.625 | 0.375 |
| 25001250-375 | 1.250 | 1.750 | 0.375 |
| 25001375-375 | 1.375 | 1.875 | 0.375 |
| 25001500-375 | 1.500 | 2.000 | 0.375 |
| 25001750-375 | 1.750 | 2.250 | 0.375 |
| 25002000-375 | 2.000 | 2.500 | 0.375 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/4" Cross Section - 0.250" | | | |
| 25002125-375 | 2.125 | 2.625 | 0.375 |
| 25002250-375 | 2.250 | 2.750 | 0.375 |
| 25002500-375 | 2.500 | 3.000 | 0.375 |
| 25002625-375 | 2.625 | 3.125 | 0.375 |
| 25002750-375 | 2.750 | 3.250 | 0.375 |
| 25003000-375 | 3.000 | 3.500 | 0.375 |
| 25003125-375 | 3.125 | 3.625 | 0.375 |
| 25003250-375 | 3.250 | 3.750 | 0.375 |
| 25003375-375 | 3.375 | 3.875 | 0.375 |
| 25003500-375 | 3.500 | 4.000 | 0.375 |
| 25003625-375 | 3.625 | 4.125 | 0.375 |
| 25003750-375 | 3.750 | 4.250 | 0.375 |
| 25003875-375 | 3.875 | 4.375 | 0.375 |
| 25004000-375 | 4.000 | 4.500 | 0.375 |
| 25004000-562 | 4.000 | 4.500 | 0.562 |
| 25004250-562 | 4.250 | 4.750 | 0.562 |
| 25004375-562 | 4.375 | 4.875 | 0.562 |
| 25004500-375 | 4.500 | 5.000 | 0.375 |
| 25004500-562 | 4.500 | 5.000 | 0.562 |
| 25004750-562 | 4.750 | 5.250 | 0.562 |
| 25004875-562 | 4.875 | 5.375 | 0.562 |
| 25005000-375 | 5.000 | 5.500 | 0.375 |
| 25005000-562 | 5.000 | 5.500 | 0.562 |
| 25005250-375 | 5.250 | 5.750 | 0.375 |
| 25005250-562 | 5.250 | 5.750 | 0.562 |
| 25005375-375 | 5.375 | 5.875 | 0.375 |
| 25005500-375 | 5.500 | 6.000 | 0.375 |
| 25005500-562 | 5.500 | 6.000 | 0.562 |
| 25005750-562 | 5.750 | 6.250 | 0.562 |
| 25005875-562 | 5.875 | 6.375 | 0.562 |
| 25006000-562 | 6.000 | 6.500 | 0.562 |
| 25006250-562 | 6.250 | 6.750 | 0.562 |
| 25006500-375 | 6.500 | 7.000 | 0.375 |
| 25006500-562 | 6.500 | 7.000 | 0.562 |
| 25006625-375 | 6.625 | 7.125 | 0.375 |
| 25006750-562 | 6.750 | 7.250 | 0.562 |
| 25007000-375 | 7.000 | 7.500 | 0.375 |
| 25007000-562 | 7.000 | 7.500 | 0.562 |
| 25007500-562 | 7.500 | 8.000 | 0.562 |
| 25007750-375 | 7.750 | 8.250 | 0.375 |
| 25007750-562 | 7.750 | 8.250 | 0.562 |
| 25008500-562 | 8.500 | 9.000 | 0.562 |
| 25008750-562 | 8.750 | 9.250 | 0.562 |
| 25009000-375 | 9.000 | 9.500 | 0.375 |

Deep PolyPak® series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 1/4" Cross Section - 0.250" | | | |
| 25009250-562 | 9.250 | 9.750 | 0.562 |
| 25009500-375 | 9.500 | 10.000 | 0.375 |
| 25009500-562 | 9.500 | 10.000 | 0.562 |
| 25010500-500 | 10.500 | 11.000 | 0.500 |
| 25013000-562 | 13.000 | 13.500 | 0.562 |
| 25014000-375 | 14.000 | 14.500 | 0.375 |
| 25014500-375 | 14.500 | 15.000 | 0.375 |
| 25015750-562 | 15.750 | 16.250 | 0.562 |
| 25016000-250 | 16.000 | 16.500 | 0.250 |
| 25016000-375 | 16.000 | 16.500 | 0.375 |
| 25019500-312 | 19.500 | 20.000 | 0.312 |
| 25021000-312 | 21.000 | 21.500 | 0.312 |
| 25022500-312 | 22.500 | 23.000 | 0.312 |
| 9/32" Cross Section - 0.281" | | | |
| 28103687-375 | 3.687 | 4.250 | 0.375 |
| 28103875-500 | 3.875 | 4.438 | 0.500 |
| 5/16" Cross Section - 0.312" | | | |
| 31200750-500 | 0.750 | 1.375 | 0.500 |
| 31201000-500 | 1.000 | 1.625 | 0.500 |
| 31201125-500 | 1.125 | 1.750 | 0.500 |
| 31201187-500 | 1.187 | 1.812 | 0.500 |
| 31201250-500 | 1.250 | 1.875 | 0.500 |
| 31201375-500 | 1.375 | 2.000 | 0.500 |
| 31201500-500 | 1.500 | 2.125 | 0.500 |
| 31201750-500 | 1.750 | 2.375 | 0.500 |
| 31201875-500 | 1.875 | 2.500 | 0.500 |
| 31202000-500 | 2.000 | 2.625 | 0.500 |
| 31202125-500 | 2.125 | 2.750 | 0.500 |
| 31202375-500 | 2.375 | 3.000 | 0.500 |
| 31202500-500 | 2.500 | 3.125 | 0.500 |
| 31202625-500 | 2.625 | 3.250 | 0.500 |
| 31203000-500 | 3.000 | 3.625 | 0.500 |
| 31203000-562 | 3.000 | 3.625 | 0.562 |
| 31203250-500 | 3.250 | 3.875 | 0.500 |
| 31203375-500 | 3.375 | 4.000 | 0.500 |
| 31203500-500 | 3.500 | 4.125 | 0.500 |
| 31203875-500 | 3.875 | 4.500 | 0.500 |
| 31204000-500 | 4.000 | 4.625 | 0.500 |
| 31204000-562 | 4.000 | 4.625 | 0.562 |
| 31204125-562 | 4.125 | 4.750 | 0.562 |
| 31204250-562 | 4.250 | 4.875 | 0.562 |
| 31204375-500 | 4.375 | 5.000 | 0.500 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 5/16" Cross Section - 0.312" | | | |
| 31204375-562 | 4.375 | 5.000 | 0.562 |
| 31204625-625 | 4.625 | 5.250 | 0.625 |
| 31205000-625 | 5.000 | 5.625 | 0.625 |
| 31205125-625 | 5.125 | 5.750 | 0.625 |
| 31205250-625 | 5.250 | 5.875 | 0.625 |
| 31205375-625 | 5.375 | 6.000 | 0.625 |
| 31205500-625 | 5.500 | 6.125 | 0.625 |
| 31206375-625 | 6.375 | 7.000 | 0.625 |
| 31206500-625 | 6.500 | 7.125 | 0.625 |
| 31207500-625 | 7.500 | 8.125 | 0.625 |
| 31207625-500 | 7.625 | 8.250 | 0.500 |
| 31208375-625 | 8.375 | 9.000 | 0.625 |
| 31209000-500 | 9.000 | 9.625 | 0.500 |
| 31210500-500 | 10.500 | 11.125 | 0.500 |
| 31215375-625 | 15.375 | 16.000 | 0.625 |
| 3/8" Cross Section - 0.375" | | | |
| 37500750-625 | 0.750 | 1.500 | 0.625 |
| 37501000-625 | 1.000 | 1.750 | 0.625 |
| 37501250-625 | 1.250 | 2.000 | 0.625 |
| 37501312-437 | 1.312 | 2.062 | 0.437 |
| 37501875-625 | 1.875 | 2.625 | 0.625 |
| 37502000-500 | 2.000 | 2.750 | 0.500 |
| 37502000-625 | 2.000 | 2.750 | 0.625 |
| 37502125-625 | 2.125 | 2.875 | 0.625 |
| 37502250-625 | 2.250 | 3.000 | 0.625 |
| 37502500-625 | 2.500 | 3.250 | 0.625 |
| 37502750-625 | 2.750 | 3.500 | 0.625 |
| 37503000-625 | 3.000 | 3.750 | 0.625 |
| 37503250-625 | 3.250 | 4.000 | 0.625 |
| 37503500-625 | 3.500 | 4.250 | 0.625 |
| 37503750-625 | 3.750 | 4.500 | 0.625 |
| 37504000-625 | 4.000 | 4.750 | 0.625 |
| 37504250-500 | 4.250 | 5.000 | 0.500 |
| 37504250-625 | 4.250 | 5.000 | 0.625 |
| 37504375-625 | 4.375 | 5.125 | 0.625 |
| 37504500-625 | 4.500 | 5.250 | 0.625 |
| 37504625-625 | 4.625 | 5.375 | 0.625 |
| 37504750-500 | 4.750 | 5.500 | 0.500 |
| 37504750-625 | 4.750 | 5.500 | 0.625 |
| 37505000-625 | 5.000 | 5.750 | 0.625 |
| 37505250-500 | 5.250 | 6.000 | 0.500 |
| 37505250-625 | 5.250 | 6.000 | 0.625 |
| 37505500-625 | 5.500 | 6.250 | 0.625 |

Deep PolyPak[®] series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 3/8" Cross Section - 0.375" | | | |
| 37505625-625 | 5.625 | 6.375 | 0.625 |
| 37505750-500 | 5.750 | 6.500 | 0.500 |
| 37505750-625 | 5.750 | 6.500 | 0.625 |
| 37506000-625 | 6.000 | 6.750 | 0.625 |
| 37506250-500 | 6.250 | 7.000 | 0.500 |
| 37506250-625 | 6.250 | 7.000 | 0.625 |
| 37506500-500 | 6.500 | 7.250 | 0.500 |
| 37506500-625 | 6.500 | 7.250 | 0.625 |
| 37506750-562 | 6.750 | 7.500 | 0.562 |
| 37507000-625 | 7.000 | 7.750 | 0.625 |
| 37507250-625 | 7.250 | 8.000 | 0.625 |
| 37507500-500 | 7.500 | 8.250 | 0.500 |
| 37507500-625 | 7.500 | 8.250 | 0.625 |
| 37507750-500 | 7.750 | 8.500 | 0.500 |
| 37507750-625 | 7.750 | 8.500 | 0.625 |
| 37508000-500 | 8.000 | 8.750 | 0.500 |
| 37508000-625 | 8.000 | 8.750 | 0.625 |
| 37508250-625 | 8.250 | 9.000 | 0.625 |
| 37508750-625 | 8.750 | 9.500 | 0.625 |
| 37508750-750 | 8.750 | 9.500 | 0.750 |
| 37509000-625 | 9.000 | 9.750 | 0.625 |
| 37509250-500 | 9.250 | 10.000 | 0.500 |
| 37509250-625 | 9.250 | 10.000 | 0.625 |
| 37509625-625 | 9.625 | 10.375 | 0.625 |
| 37509750-500 | 9.750 | 10.500 | 0.500 |
| 37509750-625 | 9.750 | 10.500 | 0.625 |
| 37510250-625 | 10.250 | 11.000 | 0.625 |
| 37510500-625 | 10.500 | 11.250 | 0.625 |
| 37510750-625 | 10.750 | 11.500 | 0.625 |
| 37511250-625 | 11.250 | 12.000 | 0.625 |
| 37511500-625 | 11.500 | 12.250 | 0.625 |
| 37512250-625 | 12.250 | 13.000 | 0.625 |
| 37512500-625 | 12.500 | 13.250 | 0.625 |
| 37513500-625 | 13.500 | 14.250 | 0.625 |
| 37514750-625 | 14.750 | 15.500 | 0.625 |
| 37515250-625 | 15.250 | 16.000 | 0.625 |
| 37523250-625 | 23.250 | 24.000 | 0.625 |
| 37524000-625 | 24.000 | 24.750 | 0.625 |
| 37525500-625 | 25.500 | 26.250 | 0.625 |
| 37528750-625 | 28.750 | 29.500 | 0.625 |
| 37529000-625 | 29.000 | 29.750 | 0.625 |
| 37531500-625 | 31.500 | 32.250 | 0.625 |
| 37534000-625 | 34.000 | 34.750 | 0.625 |
| 37536000-625 | 36.000 | 36.750 | 0.625 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 7/16" Cross Section - 0.437" | | | |
| 43701000-562 | 1.000 | 1.875 | 0.562 |
| 43702250-375 | 2.250 | 3.125 | 0.375 |
| 43703000-687 | 3.000 | 3.875 | 0.687 |
| 43704000-625 | 4.000 | 4.875 | 0.625 |
| 43704750-625 | 4.750 | 5.625 | 0.625 |
| 43705125-500 | 5.125 | 6.000 | 0.500 |
| 43706750-750 | 6.750 | 7.625 | 0.750 |
| 1/2" Cross Section - 0.500" | | | |
| 50001000-750 | 1.000 | 2.000 | 0.750 |
| 50001750-750 | 1.750 | 2.750 | 0.750 |
| 50002500-750 | 2.500 | 3.500 | 0.750 |
| 50003000-750 | 3.000 | 4.000 | 0.750 |
| 50003375-625 | 3.375 | 4.375 | 0.625 |
| 50003500-750 | 3.500 | 4.500 | 0.750 |
| 50003750-687 | 3.750 | 4.750 | 0.687 |
| 50004000-750 | 4.000 | 5.000 | 0.750 |
| 50004375-750 | 4.375 | 5.375 | 0.750 |
| 50004500-750 | 4.500 | 5.500 | 0.750 |
| 50004750-687 | 4.750 | 5.750 | 0.687 |
| 50004875-562 | 4.875 | 5.875 | 0.562 |
| 50005000-750 | 5.000 | 6.000 | 0.750 |
| 50005125-750 | 5.125 | 6.125 | 0.750 |
| 50005500-750 | 5.500 | 6.500 | 0.750 |
| 50006000-750 | 6.000 | 7.000 | 0.750 |
| 50006500-750 | 6.500 | 7.500 | 0.750 |
| 50007000-750 | 7.000 | 8.000 | 0.750 |
| 50007500-750 | 7.500 | 8.500 | 0.750 |
| 50008000-750 | 8.000 | 9.000 | 0.750 |
| 50008250-750 | 8.250 | 9.250 | 0.750 |
| 50008500-750 | 8.500 | 9.500 | 0.750 |
| 50008875-750 | 8.875 | 9.875 | 0.750 |
| 50009000-750 | 9.000 | 10.000 | 0.750 |
| 50009500-750 | 9.500 | 10.500 | 0.750 |
| 50010000-750 | 10.000 | 11.000 | 0.750 |
| 50010500-750 | 10.500 | 11.500 | 0.750 |
| 50010625-750 | 10.625 | 11.625 | 0.750 |
| 50010750-750 | 10.750 | 11.750 | 0.750 |
| 50011000-750 | 11.000 | 12.000 | 0.750 |
| 50011500-750 | 11.500 | 12.500 | 0.750 |
| 50012500-750 | 12.500 | 13.500 | 0.750 |
| 50013000-750 | 13.000 | 14.000 | 0.750 |
| 50013250-750 | 13.250 | 14.250 | 0.750 |
| 50013500-750 | 13.500 | 14.500 | 0.750 |

Deep PolyPak® series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 1/2" Cross Section - 0.500" | | | |
| 50014000-750 | 14.000 | 15.000 | 0.750 |
| 50015000-750 | 15.000 | 16.000 | 0.750 |
| 50015500-750 | 15.500 | 16.500 | 0.750 |
| 50016000-750 | 16.000 | 17.000 | 0.750 |
| 50016500-750 | 16.500 | 17.500 | 0.750 |
| 50017000-750 | 17.000 | 18.000 | 0.750 |
| 50018000-750 | 18.000 | 19.000 | 0.750 |
| 50018500-750 | 18.500 | 19.500 | 0.750 |
| 50019000-750 | 19.000 | 20.000 | 0.750 |
| 50020000-750 | 20.000 | 21.000 | 0.750 |
| 50020500-750 | 20.500 | 21.500 | 0.750 |
| 50021000-750 | 21.000 | 22.000 | 0.750 |
| 50021500-750 | 21.500 | 22.500 | 0.750 |
| 50025250-750 | 25.250 | 26.250 | 0.750 |
| 50027000-750 | 27.000 | 28.000 | 0.750 |
| 50027500-750 | 27.500 | 28.500 | 0.750 |
| 50028500-750 | 28.500 | 29.500 | 0.750 |
| 50029000-750 | 29.000 | 30.000 | 0.750 |
| 50030000-625 | 30.000 | 31.000 | 0.625 |
| 50033000-750 | 33.000 | 34.000 | 0.750 |
| 50037000-750 | 37.000 | 38.000 | 0.750 |
| 9/16" Cross Section - 0.562" | | | |
| 56201875-875 | 1.875 | 3.000 | 0.875 |
| 56202875-875 | 2.875 | 4.000 | 0.875 |
| 5/8" Cross Section - 0.625" | | | |
| 62501875-1000 | 1.875 | 3.125 | 1.000 |
| 62502750-1000 | 2.750 | 4.000 | 1.000 |
| 62502875-1000 | 2.875 | 4.125 | 1.000 |
| 62504750-1000 | 4.750 | 6.000 | 1.000 |
| 62505500-1000 | 5.500 | 6.750 | 1.000 |
| 62506500-1000 | 6.500 | 7.750 | 1.000 |
| 62506750-1000 | 6.750 | 8.000 | 1.000 |
| 62508750-1000 | 8.750 | 10.000 | 1.000 |
| 62510000-1000 | 10.000 | 11.250 | 1.000 |
| 62511000-1000 | 11.000 | 12.250 | 1.000 |
| 62512000-1000 | 12.000 | 13.250 | 1.000 |
| 62512500-1000 | 12.500 | 13.750 | 1.000 |
| 62512750-1000 | 12.750 | 14.000 | 1.000 |
| 62517500-1000 | 17.500 | 18.750 | 1.000 |
| 62518000-1250 | 18.000 | 19.250 | 1.250 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 3/4" Cross Section - 0.750" | | | |
| 75004750-1250 | 4.750 | 6.250 | 1.250 |
| 75005500-1250 | 5.500 | 7.000 | 1.250 |
| 75006250-1250 | 6.250 | 7.750 | 1.250 |
| 75006500-1250 | 6.500 | 8.000 | 1.250 |
| 75007000-1250 | 7.000 | 8.500 | 1.250 |
| 75007500-1250 | 7.500 | 9.000 | 1.250 |
| 75008500-1250 | 8.500 | 10.000 | 1.250 |
| 75009000-1250 | 9.000 | 10.500 | 1.250 |
| 75010500-1250 | 10.500 | 12.000 | 1.250 |
| 75011000-1250 | 11.000 | 12.500 | 1.250 |
| 75015000-1250 | 15.000 | 16.500 | 1.250 |
| 75016500-1250 | 16.500 | 18.000 | 1.250 |
| 75016500-750 | 16.500 | 18.000 | 0.750 |
| 75018000-1250 | 18.000 | 19.500 | 1.250 |
| 75020000-1250 | 20.000 | 21.500 | 1.250 |
| 75021000-1250 | 21.000 | 22.500 | 1.250 |
| 75021500-1250 | 21.500 | 23.000 | 1.250 |
| 75022000-1250 | 22.000 | 23.500 | 1.250 |
| 75022500-1250 | 22.500 | 24.000 | 1.250 |
| 75024000-1250 | 24.000 | 25.500 | 1.250 |
| 7/8" Cross Section - 0.875" | | | |
| 87514000-1500 | 14.000 | 15.750 | 1.500 |
| 87516000-1250 | 16.000 | 17.750 | 1.250 |
| 87516000-1375 | 16.000 | 17.750 | 1.375 |
| 87518000-1250 | 18.000 | 19.750 | 1.250 |
| 87524000-1250 | 24.000 | 25.750 | 1.250 |
| 15/16" Cross Section - 0.937" | | | |
| 93709625-1500 | 9.625 | 11.500 | 1.500 |
| 1" Cross Section - 1.000" | | | |
| 100005000-1500 | 5.000 | 7.000 | 1.500 |
| 100016000-1250 | 16.000 | 18.000 | 1.250 |
| 100017000-1250 | 17.000 | 19.000 | 1.250 |
| 100020000-1500 | 20.000 | 22.000 | 1.500 |
| 100022000-1375 | 22.000 | 24.000 | 1.375 |
| 100025000-1343 | 25.000 | 27.000 | 1.343 |
| 100026000-1500 | 26.000 | 28.000 | 1.500 |

Type B PolyPak[®] - Rod design table

Rod Gland Dimensions - BPP Profile. PolyPak[®] Type B

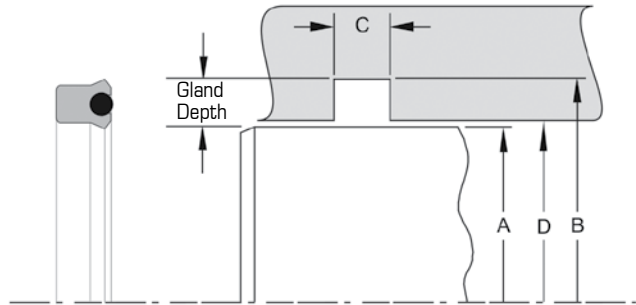


Table 6-15. BPP Profile - Rod Gland Calculation. Rubber and Polyurethane (90A)

| A Rod Diameter | | Seal | | B Groove Diameter | | C Groove Width | D Throat Diameter* | |
|-------------------|---------------|---------------|---------------|----------------------|---------------|-------------------|-----------------------|---------------|
| Range | Tol. | Cross Section | Axial Width | Calculation | Tol. | + .015/ -.000 | Calculation | Tol. |
| 0.062 - 0.624 | + .000/- .001 | 1/8 (.125) | 3/16 (.187) | Dia. A + .250 | + .002/- .000 | 0.206 | Dia. A + .001 | + .002/- .000 |
| 0.625 - 0.999 | + .000/- .001 | 1/8 (.125) | 1/4 (.250) | Dia. A + .250 | + .002/- .000 | 0.275 | Dia. A + .001 | + .002/- .000 |
| 1.000 - 1.499 | + .000/- .002 | 3/16 (.187) | 5/16 (.312) | Dia. A + .375 | + .002/- .000 | 0.343 | Dia. A + .001 | + .002/- .000 |
| 1.500 - 1.999 | + .000/- .002 | 3/16 (.187) | 3/8 (.375) | Dia. A + .375 | + .002/- .000 | 0.413 | Dia. A + .001 | + .002/- .000 |
| 2.000 - 3.499 | + .000/- .002 | 1/4 (.250) | 3/8 (.375) | Dia. A + .500 | + .003/- .000 | 0.413 | Dia. A + .001 | + .003/- .000 |
| 3.500 - 4.999 | + .000/- .002 | 5/16 (.312) | 1/2 (.500) | Dia. A + .625 | + .004/- .000 | 0.550 | Dia. A + .002 | + .003/- .000 |
| 5.000 - 9.999 | + .000/- .002 | 3/8 (.375) | 5/8 (.625) | Dia. A + .750 | + .005/- .000 | 0.688 | Dia. A + .002 | + .004/- .000 |
| 10.000 - 19.999 | + .000/- .003 | 1/2 (.500) | 3/4 (.750) | Dia. A + 1.000 | + .007/- .000 | 0.825 | Dia. A + .002 | + .005/- .000 |
| 20.000 - 29.999 | + .000/- .003 | 5/8 (.625) | 1 (1.000) | Dia. A + 1.250 | + .009/- .000 | 1.100 | Dia. A + .002 | + .006/- .000 |
| 30.000 - 39.999 | + .000/- .004 | 3/4 (.750) | 1 1/4 (1.250) | Dia. A + 1.500 | + .011/- .000 | 1.375 | Dia. A + .002 | + .007/- .000 |
| 40.000 + | + .000/- .005 | 1 (1.000) | 1 1/2 (1.500) | Dia. A + 2.000 | + .015/- .000 | 1.650 | Dia. A + .002 | + .009/- .000 |

Table 6-16. BPP Profile - Rod Gland Calculation. Polymyte (60D)

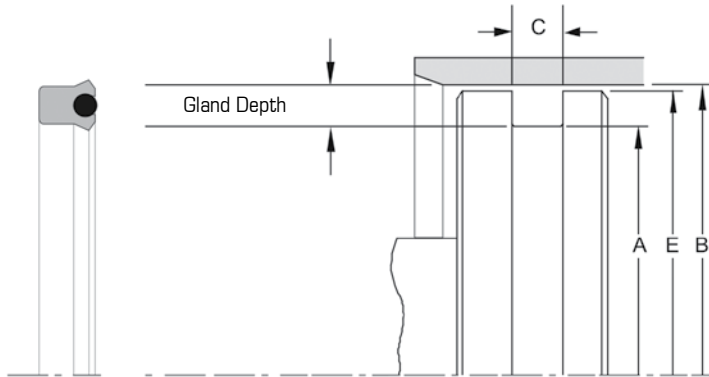
| A Rod Diameter | | Seal | | B Groove Diameter | | C Groove Width | D Throat Diameter* | |
|-------------------|---------------|---------------|---------------|----------------------|---------------|-------------------|-----------------------|---------------|
| Range | Tol. | Cross Section | Axial Width | Calculation | Tol. | + .015/ -.000 | Calculation | Tol. |
| 0.062 - 0.624 | + .000/- .001 | 1/8 (.125) | 3/16 (.187) | Dia. A + .250 | + .002/- .000 | 0.206 | Dia. A + .001 | + .002/- .000 |
| 1.000 - 1.749 | + .000/- .001 | 1/8 (.125) | 1/4 (.250) | Dia. A + .250 | + .002/- .000 | 0.275 | Dia. A + .001 | + .002/- .000 |
| 1.750 - 2.249 | + .000/- .002 | 3/16 (.187) | 5/16 (.312) | Dia. A + .375 | + .002/- .000 | 0.343 | Dia. A + .001 | + .002/- .000 |
| 2.250 - 2.749 | + .000/- .002 | 3/16 (.187) | 3/8 (.375) | Dia. A + .375 | + .002/- .000 | 0.413 | Dia. A + .001 | + .002/- .000 |
| 2.750 - 3.499 | + .000/- .002 | 1/4 (.250) | 3/8 (.375) | Dia. A + .500 | + .003/- .000 | 0.413 | Dia. A + .001 | + .003/- .000 |
| 3.500 - 4.999 | + .000/- .002 | 5/16 (.312) | 1/2 (.500) | Dia. A + .625 | + .004/- .000 | 0.550 | Dia. A + .002 | + .003/- .000 |
| 5.000 - 9.999 | + .000/- .002 | 3/8 (.375) | 5/8 (.625) | Dia. A + .750 | + .005/- .000 | 0.688 | Dia. A + .002 | + .004/- .000 |
| 10.000 - 19.999 | + .000/- .003 | 1/2 (.500) | 3/4 (.750) | Dia. A + 1.000 | + .007/- .000 | 0.825 | Dia. A + .002 | + .005/- .000 |
| 20.000 - 29.999 | + .000/- .003 | 5/8 (.625) | 1 (1.000) | Dia. A + 1.250 | + .009/- .000 | 1.100 | Dia. A + .002 | + .006/- .000 |
| 30.000 - 39.999 | + .000/- .004 | 3/4 (.750) | 1 1/4 (1.250) | Dia. A + 1.500 | + .011/- .000 | 1.375 | Dia. A + .002 | + .007/- .000 |
| 40.000 + | + .000/- .005 | 1 (1.000) | 1 1/2 (1.500) | Dia. A + 2.000 | + .015/- .000 | 1.650 | Dia. A + .002 | + .009/- .000 |

* If used with wear rings, refer to wear ring throat diameter, see Section 9 of Parker Catalog EPS 5370



Type PolyPak[®] - Piston design table

Piston Gland Dimensions - BPP Profile. PolyPak[®] Type B



SYMMETRICAL SEALS

Table 6-17. BPP Profile - Piston Gland Calculation. Rubber and Polyurethane (90A)

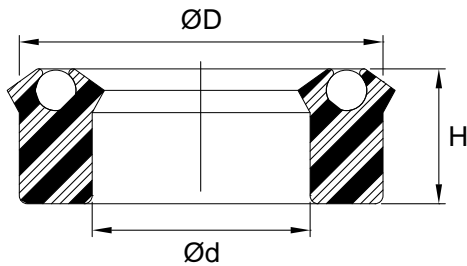
| B Bore Diameter | | Seal | | A Groove Diameter | | C Groove Width | E Piston Diameter* | |
|--------------------|---------------|---------------|---------------|----------------------|---------------|-------------------|-----------------------|---------------|
| Range | Tol. | Cross Section | Axial Width | Calculation | Tol. | +015/ -000 | Calculation | Tol. |
| 0.312 - 1.499 | +0.002/-0.000 | 1/8 (.125) | 1/4 (.250) | Dia. B - .250 | +0.000/-0.002 | 0.275 | Dia. B - .001 | +0.000/-0.001 |
| 1.500 - 2.999 | +0.002/-0.000 | 3/16 (.187) | 5/16 (.312) | Dia. B - .375 | +0.000/-0.002 | 0.343 | Dia. B - .001 | +0.000/-0.002 |
| 3.000 - 5.999 | +0.003/-0.000 | 1/4 (.250) | 3/8 (.375) | Dia. B - .625 | +0.000/-0.003 | 0.413 | Dia. B - .001 | +0.000/-0.002 |
| 6.000 - 9.999 | +0.003/-0.000 | 5/16 (.312) | 1/2 (.500) | Dia. B - .750 | +0.000/-0.004 | 0.550 | Dia. B - .002 | +0.000/-0.002 |
| 10.000 - 19.999 | +0.004/-0.000 | 3/8 (.375) | 5/8 (.625) | Dia. B - 1.000 | +0.000/-0.005 | 0.688 | Dia. B - .002 | +0.000/-0.003 |
| 20.000 - 29.999 | +0.005/-0.000 | 1/2 (.500) | 3/4 (.750) | Dia. B - 1.250 | +0.000/-0.007 | 0.825 | Dia. B - .002 | +0.000/-0.003 |
| 30.000 - 39.999 | +0.006/-0.000 | 5/8 (.625) | 1 (1.000) | Dia. B - 1.500 | +0.000/-0.009 | 1.100 | Dia. B - .002 | +0.000/-0.003 |
| 40.000 - 49.999 | +0.007/-0.000 | 3/4 (.750) | 1 1/4 (1.250) | Dia. B - 1.500 | +0.000/-0.010 | 1.375 | Dia. B - .002 | +0.000/-0.004 |
| 50.000 + | +0.009/-0.000 | 1 (1.000) | 1 1/2 (1.500) | Dia. B - 2.000 | +0.000/-0.012 | 1.650 | Dia. B - .002 | +0.000/-0.005 |

Table 6-18. BPP Profile - Piston Gland Calculation. Polymyte (60D)

| B Bore Diameter | | Seal | | A Groove Diameter | | C Groove Width | E Piston Diameter* | |
|--------------------|---------------|---------------|---------------|----------------------|---------------|-------------------|-----------------------|---------------|
| Range | Tol. | Cross Section | Axial Width | Calculation | Tol. | +015/ -000 | Calculation | Tol. |
| 0.312 - 2.749 | +0.002/-0.000 | 1/8 (.125) | 1/4 (.250) | Dia. B - .250 | +0.000/-0.002 | 0.275 | Dia. B - .001 | +0.000/-0.001 |
| 2.750 - 4.499 | +0.002/-0.000 | 3/16 (.187) | 5/16 (.312) | Dia. B - .375 | +0.000/-0.002 | 0.343 | Dia. B - .001 | +0.000/-0.002 |
| 4.500 - 5.999 | +0.003/-0.000 | 1/4 (.250) | 3/8 (.375) | Dia. B - .500 | +0.000/-0.003 | 0.413 | Dia. B - .001 | +0.000/-0.002 |
| 6.000 - 9.999 | +0.003/-0.000 | 5/16 (.312) | 1/2 (.500) | Dia. B - .625 | +0.000/-0.004 | 0.550 | Dia. B - .002 | +0.000/-0.002 |
| 10.000 - 19.999 | +0.004/-0.000 | 3/8 (.375) | 5/8 (.625) | Dia. B - .750 | +0.000/-0.005 | 0.688 | Dia. B - .002 | +0.000/-0.002 |
| 20.000 - 29.999 | +0.005/-0.000 | 1/2 (.500) | 3/4 (.750) | Dia. B - 1.000 | +0.000/-0.007 | 0.825 | Dia. B - .002 | +0.000/-0.003 |
| 30.000 - 39.999 | +0.006/-0.000 | 5/8 (.625) | 1 (1.000) | Dia. B - 1.250 | +0.000/-0.009 | 1.100 | Dia. B - .002 | +0.000/-0.003 |
| 40.000 - 49.999 | +0.007/-0.000 | 3/4 (.750) | 1 1/4 (1.250) | Dia. B - 1.500 | +0.000/-0.010 | 1.375 | Dia. B - .002 | +0.000/-0.004 |
| 50.000 + | +0.009/-0.000 | 1 (1.000) | 1 1/2 (1.500) | Dia. B - 2.000 | +0.000/-0.012 | 1.650 | Dia. B - .002 | +0.000/-0.005 |

* If used with wear rings, refer to wear ring throat diameter, see Section 9 of Parker Catalog EPS 5370

Type B PolyPak[®] - Symmetrical seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|----------------------|-------------------------------------|-------------------------|----------------------|
| Polyurethane/Nitrile | -65°F to +200°F (-54°C to +93°C) | ≤5000 psi (≤345 bar) | < 1.6 ft/s (0.5 m/s) |

SYMMETRICAL SEALS

Type B PolyPak[®] is a squeeze seal with a symmetrical profile for use in either rod or piston applications. The beveled lip design of the seal is excellent for cutting fluid film and is formed by a precision knife trimming process. The **Type B PolyPak[®]** is an economical choice as a stand-alone seal or can be used in tandem with a buffer seal. In piston applications, this seal should not be installed back-to-back in bidirectional pressure applications, as a pressure trap between the seals may occur.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.



| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/8" Cross Section - 0.125" | | | |
| 12500125-250B | 0.125 | 0.375 | 0.250 |
| 12500187-250B | 0.187 | 0.437 | 0.250 |
| 12500250-250B | 0.250 | 0.500 | 0.250 |
| 12500312-250B | 0.312 | 0.562 | 0.250 |
| 12500375-187B | 0.375 | 0.625 | 0.187 |
| 12500375-250B | 0.375 | 0.625 | 0.250 |
| 12500437-250B | 0.437 | 0.687 | 0.250 |
| 12500500-125B | 0.500 | 0.750 | 0.125 |
| 12500500-250B | 0.500 | 0.750 | 0.250 |
| 12500562-250B | 0.562 | 0.812 | 0.250 |
| 12500625-125B | 0.625 | 0.875 | 0.125 |
| 12500625-187B | 0.625 | 0.875 | 0.187 |
| 12500625-250B | 0.625 | 0.875 | 0.250 |
| 12500687-250B | 0.687 | 0.937 | 0.250 |
| 12500750-125B | 0.750 | 1.000 | 0.125 |
| 12500750-187B | 0.750 | 1.000 | 0.187 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/8" Cross Section - 0.125" | | | |
| 12500750-250B | 0.750 | 1.000 | 0.250 |
| 12500800-250B | 0.800 | 1.050 | 0.250 |
| 12500812-125B | 0.812 | 1.062 | 0.125 |
| 12500812-250B | 0.812 | 1.062 | 0.250 |
| 12500875-125B | 0.875 | 1.125 | 0.125 |
| 12500875-187B | 0.875 | 1.125 | 0.187 |
| 12500875-250B | 0.875 | 1.125 | 0.250 |
| 12500937-250B | 0.937 | 1.187 | 0.250 |
| 12501000-125B | 1.000 | 1.250 | 0.125 |
| 12501000-156B | 1.000 | 1.250 | 0.156 |
| 12501000-187B | 1.000 | 1.250 | 0.187 |
| 12501000-250B | 1.000 | 1.250 | 0.250 |
| 12501062-250B | 1.062 | 1.312 | 0.250 |
| 12501125-250B | 1.125 | 1.375 | 0.250 |
| 12501187-178B | 1.187 | 1.437 | 0.178 |
| 12501187-187B | 1.187 | 1.437 | 0.187 |

Type B PolyPak® series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/8" Cross Section - 0.125" | | | |
| 12501187-250B | 1.187 | 1.437 | 0.250 |
| 12501250-187B | 1.250 | 1.500 | 0.187 |
| 12501250-250B | 1.250 | 1.500 | 0.250 |
| 12501312-187B | 1.312 | 1.562 | 0.187 |
| 12501375-125B | 1.375 | 1.625 | 0.125 |
| 12501375-178B | 1.375 | 1.625 | 0.178 |
| 12501375-250B | 1.375 | 1.625 | 0.250 |
| 12501437-250B | 1.437 | 1.687 | 0.250 |
| 12501500-125B | 1.500 | 1.750 | 0.125 |
| 12501500-250B | 1.500 | 1.750 | 0.250 |
| 12501750-125B | 1.750 | 2.000 | 0.125 |
| 12501875-125B | 1.875 | 2.125 | 0.125 |
| 12502000-187B | 2.000 | 2.250 | 0.187 |
| 12502125-250B | 2.125 | 2.375 | 0.250 |
| 12502500-250B | 2.500 | 2.750 | 0.250 |
| 12503625-187B | 3.625 | 3.875 | 0.187 |
| 12504500-187B | 4.500 | 4.750 | 0.187 |
| 5/32" Cross Section - 0.156" | | | |
| 15601500-312B | 1.500 | 1.812 | 0.312 |
| 3/16" Cross Section - 0.187" | | | |
| 18700250-312B | 0.255 | 0.625 | 0.312 |
| 18700312-312B | 0.312 | 0.687 | 0.312 |
| 18700375-312B | 0.375 | 0.750 | 0.312 |
| 18700437-312B | 0.437 | 0.812 | 0.312 |
| 18700500-312B | 0.500 | 0.875 | 0.312 |
| 18700562-312B | 0.562 | 0.937 | 0.312 |
| 18700625-312B | 0.625 | 1.000 | 0.312 |
| 18700687-312B | 0.687 | 1.062 | 0.312 |
| 18700750-312B | 0.750 | 1.125 | 0.312 |
| 18700812-312B | 0.812 | 1.187 | 0.312 |
| 18700875-312B | 0.875 | 1.250 | 0.312 |
| 18700937-312B | 0.937 | 1.312 | 0.312 |
| 18701000-312B | 1.000 | 1.375 | 0.312 |
| 18701062-312B | 1.062 | 1.437 | 0.312 |
| 18701125-187B | 1.125 | 1.500 | 0.187 |
| 18701125-312B | 1.125 | 1.500 | 0.312 |
| 18701187-312B | 1.187 | 1.562 | 0.312 |
| 18701250-250B | 1.250 | 1.625 | 0.250 |
| 18701250-312B | 1.250 | 1.625 | 0.312 |
| 18701250-375B | 1.250 | 1.625 | 0.375 |
| 18701312-187B | 1.312 | 1.687 | 0.187 |
| 18701312-312B | 1.312 | 1.687 | 0.312 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 3/16" Cross Section - 0.187" | | | |
| 18701375-312B | 1.375 | 1.750 | 0.312 |
| 18701437-312B | 1.437 | 1.812 | 0.312 |
| 18701500-187B | 1.500 | 1.875 | 0.187 |
| 18701500-250B | 1.500 | 1.875 | 0.250 |
| 18701500-312B | 1.500 | 1.875 | 0.312 |
| 18701500-375B | 1.500 | 1.875 | 0.375 |
| 18701625-266B | 1.625 | 2.000 | 0.266 |
| 18701625-312B | 1.625 | 2.000 | 0.312 |
| 18701625-375B | 1.625 | 2.000 | 0.375 |
| 18701750-230B | 1.750 | 2.125 | 0.230 |
| 18701750-250B | 1.750 | 2.125 | 0.250 |
| 18701750-266B | 1.750 | 2.125 | 0.266 |
| 18701750-312B | 1.750 | 2.125 | 0.312 |
| 18701750-375B | 1.750 | 2.125 | 0.375 |
| 18701875-375B | 1.875 | 2.250 | 0.375 |
| 18701937-281B | 1.937 | 2.312 | 0.281 |
| 18702000-187B | 2.000 | 2.375 | 0.187 |
| 18702000-230B | 2.000 | 2.375 | 0.230 |
| 18702000-312B | 2.000 | 2.375 | 0.312 |
| 18702000-375B | 2.000 | 2.375 | 0.375 |
| 18702125-187B | 2.125 | 2.500 | 0.187 |
| 18702125-250B | 2.125 | 2.500 | 0.250 |
| 18702125-375B | 2.125 | 2.500 | 0.375 |
| 18702250-375B | 2.250 | 2.625 | 0.375 |
| 18702375-375B | 2.375 | 2.750 | 0.375 |
| 18702375-437B | 2.375 | 2.750 | 0.437 |
| 18702500-250B | 2.500 | 2.875 | 0.250 |
| 18702500-375B | 2.500 | 2.875 | 0.375 |
| 18702625-281B | 2.625 | 3.000 | 0.281 |
| 18702625-375B | 2.625 | 3.000 | 0.375 |
| 18702750-187B | 2.750 | 3.125 | 0.187 |
| 18702750-281B | 2.750 | 3.125 | 0.281 |
| 18702750-375B | 2.750 | 3.125 | 0.375 |
| 18702875-281B | 2.875 | 3.250 | 0.281 |
| 18702875-375B | 2.875 | 3.250 | 0.375 |
| 18703000-250B | 3.000 | 3.375 | 0.250 |
| 18703000-375B | 3.000 | 3.375 | 0.375 |
| 18703125-187B | 3.125 | 3.500 | 0.187 |
| 18703125-312B | 3.125 | 3.500 | 0.312 |
| 18703125-375B | 3.125 | 3.500 | 0.375 |
| 18703250-375B | 3.250 | 3.625 | 0.375 |
| 18703375-187B | 3.375 | 3.750 | 0.187 |
| 18703375-250B | 3.375 | 3.750 | 0.250 |
| 18703375-375B | 3.375 | 3.750 | 0.375 |

Type B PolyPak® series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 3/16" Cross Section - 0.187" | | | |
| 18703500-281B | 3.500 | 3.875 | 0.281 |
| 18703500-375B | 3.500 | 3.875 | 0.375 |
| 18703625-375B | 3.625 | 4.000 | 0.375 |
| 18703750-375B | 3.750 | 4.125 | 0.375 |
| 18703875-375B | 3.875 | 4.250 | 0.375 |
| 18704000-187B | 4.000 | 4.375 | 0.187 |
| 18704000-375B | 4.000 | 4.375 | 0.375 |
| 18704125-375B | 4.125 | 4.500 | 0.375 |
| 18704250-281B | 4.250 | 4.625 | 0.281 |
| 18704250-375B | 4.250 | 4.625 | 0.375 |
| 18704375-375B | 4.375 | 4.750 | 0.375 |
| 18704500-187B | 4.500 | 4.875 | 0.187 |
| 18704500-375B | 4.500 | 4.875 | 0.375 |
| 18705000-281B | 5.000 | 5.375 | 0.281 |
| 18705500-375B | 5.500 | 5.875 | 0.375 |
| 18707000-375B | 7.000 | 7.375 | 0.375 |
| 1/4" Cross Section - 0.250" | | | |
| 25000250-375B | 0.250 | 0.750 | 0.375 |
| 25000353-375B | 0.353 | 0.853 | 0.375 |
| 25000437-375B | 0.437 | 0.937 | 0.375 |
| 25000478-375B | 0.478 | 0.978 | 0.375 |
| 25000500-375B | 0.500 | 1.000 | 0.375 |
| 25000562-375B | 0.562 | 1.062 | 0.375 |
| 25000625-375B | 0.625 | 1.125 | 0.375 |
| 25000687-375B | 0.687 | 1.187 | 0.375 |
| 25000750-375B | 0.750 | 1.250 | 0.375 |
| 25000875-375B | 0.875 | 1.375 | 0.375 |
| 25001000-375B | 1.000 | 1.500 | 0.375 |
| 25001125-375B | 1.125 | 1.625 | 0.375 |
| 25001250-250B | 1.250 | 1.750 | 0.250 |
| 25001250-375B | 1.250 | 1.750 | 0.375 |
| 25001312-375B | 1.312 | 1.812 | 0.375 |
| 25001375-375B | 1.375 | 1.875 | 0.375 |
| 25001500-250B | 1.500 | 2.000 | 0.250 |
| 25001500-375B | 1.500 | 2.000 | 0.375 |
| 25001625-375B | 1.625 | 2.125 | 0.375 |
| 25001750-375B | 1.750 | 2.250 | 0.375 |
| 25001875-375B | 1.875 | 2.375 | 0.375 |
| 25001937-375B | 1.937 | 2.437 | 0.375 |
| 25002000-250B | 2.000 | 2.500 | 0.250 |
| 25002000-375B | 2.000 | 2.500 | 0.375 |
| 25002125-250B | 2.125 | 2.625 | 0.250 |
| 25002125-375B | 2.125 | 2.625 | 0.375 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/4" Cross Section - 0.250" | | | |
| 25002250-375B | 2.250 | 2.750 | 0.375 |
| 25002375-375B | 2.375 | 2.875 | 0.375 |
| 25002500-250B | 2.500 | 3.000 | 0.250 |
| 25002500-375B | 2.500 | 3.000 | 0.375 |
| 25002562-375B | 2.562 | 3.062 | 0.375 |
| 25002625-375B | 2.625 | 3.125 | 0.375 |
| 25002750-375B | 2.750 | 3.250 | 0.375 |
| 25002875-375B | 2.875 | 3.375 | 0.375 |
| 25003000-375B | 3.000 | 3.500 | 0.375 |
| 25003125-375B | 3.125 | 3.625 | 0.375 |
| 25003250-375B | 3.250 | 3.750 | 0.375 |
| 25003375-375B | 3.375 | 3.875 | 0.375 |
| 25003500-375B | 3.500 | 4.000 | 0.375 |
| 25003625-375B | 3.625 | 4.125 | 0.375 |
| 25003750-375B | 3.750 | 4.250 | 0.375 |
| 25003750-562B | 3.750 | 4.250 | 0.562 |
| 25004000-375B | 4.000 | 4.500 | 0.375 |
| 25004000-562B | 4.000 | 4.500 | 0.562 |
| 25004062-375B | 4.062 | 4.562 | 0.375 |
| 25004125-562B | 4.125 | 4.625 | 0.562 |
| 25004250-375B | 4.250 | 4.750 | 0.375 |
| 25004250-562B | 4.250 | 4.750 | 0.562 |
| 25004437-375B | 4.437 | 4.937 | 0.375 |
| 25004500-375B | 4.500 | 5.000 | 0.375 |
| 25004500-500B | 4.500 | 5.000 | 0.500 |
| 25004500-562B | 4.500 | 5.000 | 0.562 |
| 25004625-250B | 4.625 | 5.125 | 0.250 |
| 25004625-562B | 4.625 | 5.125 | 0.562 |
| 25004750-375B | 4.750 | 5.250 | 0.375 |
| 25004750-562B | 4.750 | 5.250 | 0.562 |
| 25004875-375B | 4.875 | 5.375 | 0.375 |
| 25004875-562B | 4.875 | 5.375 | 0.562 |
| 25005000-375B | 5.000 | 5.500 | 0.375 |
| 25005000-562B | 5.000 | 5.500 | 0.562 |
| 25005250-375B | 5.250 | 5.750 | 0.375 |
| 25005250-562B | 5.250 | 5.750 | 0.562 |
| 25005375-562B | 5.375 | 5.875 | 0.562 |
| 25005437-375B | 5.437 | 5.937 | 0.375 |
| 25005500-375B | 5.500 | 6.000 | 0.375 |
| 25005500-562B | 5.500 | 6.000 | 0.562 |
| 25005625-562B | 5.625 | 6.125 | 0.562 |
| 25005750-562B | 5.750 | 6.250 | 0.562 |
| 25006000-375B | 6.000 | 6.500 | 0.375 |
| 25006000-437B | 6.000 | 6.500 | 0.437 |

Type B PolyPak® series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 1/4" Cross Section - 0.250" | | | |
| 25006000-562B | 6.000 | 6.500 | 0.562 |
| 25006250-562B | 6.250 | 6.750 | 0.562 |
| 25006500-375B | 6.500 | 7.000 | 0.375 |
| 25006500-562B | 6.500 | 7.000 | 0.562 |
| 25006750-375B | 6.750 | 7.250 | 0.375 |
| 25006750-562B | 6.750 | 7.250 | 0.562 |
| 25007000-375B | 7.000 | 7.500 | 0.375 |
| 25007000-562B | 7.000 | 7.500 | 0.562 |
| 25007250-562B | 7.250 | 7.750 | 0.562 |
| 25007500-562B | 7.500 | 8.000 | 0.562 |
| 25007750-562B | 7.750 | 8.250 | 0.562 |
| 25008000-562B | 8.000 | 8.500 | 0.562 |
| 25008125-562B | 8.125 | 8.625 | 0.562 |
| 25008250-375B | 8.250 | 8.750 | 0.375 |
| 25008250-437B | 8.250 | 8.750 | 0.437 |
| 25008250-562B | 8.250 | 8.750 | 0.562 |
| 25008500-562B | 8.500 | 9.000 | 0.562 |
| 25009000-375B | 9.000 | 9.500 | 0.375 |
| 25009500-562B | 9.500 | 10.000 | 0.562 |
| 25009750-375B | 9.750 | 10.250 | 0.375 |
| 25009750-562B | 9.750 | 10.250 | 0.562 |
| 25010000-562B | 10.000 | 10.500 | 0.562 |
| 25010250-562B | 10.250 | 10.750 | 0.562 |
| 25010500-562B | 10.500 | 11.000 | 0.562 |
| 25011000-562B | 11.000 | 11.500 | 0.562 |
| 25011250-375B | 11.250 | 11.750 | 0.375 |
| 25011250-562B | 11.250 | 11.750 | 0.562 |
| 25012750-562B | 12.750 | 13.250 | 0.562 |
| 25013000-562B | 13.000 | 13.500 | 0.562 |
| 25015000-562B | 15.000 | 15.500 | 0.562 |
| 25019125-562B | 19.125 | 19.625 | 0.562 |
| 25021750-375B | 21.750 | 22.250 | 0.375 |
| 25022062-375B | 22.062 | 22.562 | 0.375 |
| 25023000-375B | 23.000 | 23.500 | 0.375 |
| 25023750-375B | 23.750 | 24.250 | 0.375 |
| 25024000-375B | 24.000 | 24.500 | 0.375 |
| 25025250-375B | 25.250 | 25.750 | 0.375 |
| 9/32" Cross Section - 0.281" | | | |
| 28102250-375B | 2.250 | 2.812 | 0.375 |
| 28102937-500B | 2.937 | 3.500 | 0.500 |
| 28103437-500B | 3.437 | 4.000 | 0.500 |
| 28103937-500B | 3.937 | 4.500 | 0.500 |
| 28104437-500B | 4.437 | 5.000 | 0.500 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 9/32" Cross Section - 0.281" | | | |
| 28104687-625B | 4.687 | 5.250 | 0.625 |
| 28104937-343B | 4.937 | 5.500 | 0.343 |
| 28104937-500B | 4.937 | 5.500 | 0.500 |
| 28105937-500B | 5.937 | 6.500 | 0.500 |
| 28106937-500B | 6.937 | 7.500 | 0.500 |
| 28108937-500B | 8.937 | 9.500 | 0.500 |
| 5/16" Cross Section - 0.312" | | | |
| 31200353-375B | 0.353 | 0.978 | 0.375 |
| 31200750-500B | 0.750 | 1.375 | 0.500 |
| 31200812-500B | 0.812 | 1.437 | 0.500 |
| 31201000-500B | 1.000 | 1.625 | 0.500 |
| 31201125-500B | 1.125 | 1.750 | 0.500 |
| 31201250-500B | 1.250 | 1.875 | 0.500 |
| 31201375-500B | 1.375 | 2.000 | 0.500 |
| 31201437-500B | 1.437 | 2.062 | 0.500 |
| 31201500-500B | 1.500 | 2.125 | 0.500 |
| 31201625-500B | 1.625 | 2.250 | 0.500 |
| 31201687-500B | 1.687 | 2.312 | 0.500 |
| 31201750-500B | 1.750 | 2.375 | 0.500 |
| 31201875-500B | 1.875 | 2.500 | 0.500 |
| 31202000-500B | 2.000 | 2.625 | 0.500 |
| 31202125-500B | 2.125 | 2.750 | 0.500 |
| 31202250-500B | 2.250 | 2.875 | 0.500 |
| 31202375-500B | 2.375 | 3.000 | 0.500 |
| 31202500-500B | 2.500 | 3.125 | 0.500 |
| 31202625-500B | 2.625 | 3.250 | 0.500 |
| 31202750-500B | 2.750 | 3.375 | 0.500 |
| 31202875-500B | 2.875 | 3.500 | 0.500 |
| 31203000-500B | 3.000 | 3.625 | 0.500 |
| 31203250-500B | 3.250 | 3.875 | 0.500 |
| 31203375-500B | 3.375 | 4.000 | 0.500 |
| 31203500-500B | 3.500 | 4.125 | 0.500 |
| 31203625-500B | 3.625 | 4.250 | 0.500 |
| 31203750-375B | 3.750 | 4.375 | 0.375 |
| 31203750-500B | 3.750 | 4.375 | 0.500 |
| 31203750-625B | 3.750 | 4.375 | 0.625 |
| 31204000-562B | 4.000 | 4.625 | 0.562 |
| 31204125-562B | 4.125 | 4.750 | 0.562 |
| 31204250-562B | 4.250 | 4.875 | 0.562 |
| 31204375-312B | 4.375 | 5.000 | 0.312 |
| 31204375-562B | 4.375 | 5.000 | 0.562 |
| 31204500-625B | 4.500 | 5.125 | 0.625 |
| 31204625-625B | 4.625 | 5.250 | 0.625 |

Type B PolyPak® series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 5/16" Cross Section - 0.312" | | | |
| 31204750-625B | 4.750 | 5.375 | 0.625 |
| 31205000-625B | 5.000 | 5.625 | 0.625 |
| 31205125-625B | 5.125 | 5.750 | 0.625 |
| 31205250-625B | 5.250 | 5.875 | 0.625 |
| 31205500-625B | 5.500 | 6.125 | 0.625 |
| 31205625-625B | 5.625 | 6.250 | 0.625 |
| 31205750-625B | 5.750 | 6.375 | 0.625 |
| 31206000-625B | 6.000 | 6.625 | 0.625 |
| 31206375-625B | 6.375 | 7.000 | 0.625 |
| 31206500-625B | 6.500 | 7.125 | 0.625 |
| 31206625-625B | 6.625 | 7.250 | 0.625 |
| 31206750-625B | 6.750 | 7.375 | 0.625 |
| 31207000-625B | 7.000 | 7.625 | 0.625 |
| 31207250-625B | 7.250 | 7.875 | 0.625 |
| 31207875-625B | 7.875 | 8.500 | 0.625 |
| 31208000-625B | 8.000 | 8.625 | 0.625 |
| 31209125-625B | 9.125 | 9.750 | 0.625 |
| 31209250-625B | 9.250 | 9.875 | 0.625 |
| 31209375-625B | 9.375 | 10.000 | 0.625 |
| 31209625-625B | 9.625 | 10.250 | 0.625 |
| 31209750-625B | 9.750 | 10.375 | 0.625 |
| 31210375-625B | 10.375 | 11.000 | 0.625 |
| 31212250-625B | 12.250 | 12.875 | 0.625 |
| 31212500-625B | 12.500 | 13.125 | 0.625 |
| 31215625-625B | 15.625 | 16.250 | 0.625 |
| 3/8" Cross Section - 0.375" | | | |
| 37501250-625B | 1.250 | 2.000 | 0.625 |
| 37501375-625B | 1.375 | 2.125 | 0.625 |
| 37501500-625B | 1.500 | 2.250 | 0.625 |
| 37501625-375B | 1.625 | 2.375 | 0.375 |
| 37501625-625B | 1.625 | 2.375 | 0.625 |
| 37501750-625B | 1.750 | 2.500 | 0.625 |
| 37502000-625B | 2.000 | 2.750 | 0.625 |
| 37502250-625B | 2.250 | 3.000 | 0.625 |
| 37502375-625B | 2.375 | 3.125 | 0.625 |
| 37502500-625B | 2.500 | 3.250 | 0.625 |
| 37502625-625B | 2.625 | 3.375 | 0.625 |
| 37502750-625B | 2.750 | 3.500 | 0.625 |
| 37502875-625B | 2.875 | 3.625 | 0.625 |
| 37503000-500B | 3.000 | 3.750 | 0.500 |
| 37503000-625B | 3.000 | 3.750 | 0.625 |
| 37503125-625B | 3.125 | 3.875 | 0.625 |
| 37503250-625B | 3.250 | 4.000 | 0.625 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 3/8" Cross Section - 0.375" | | | |
| 37503375-625B | 3.375 | 4.125 | 0.625 |
| 37503500-625B | 3.500 | 4.250 | 0.625 |
| 37503625-625B | 3.625 | 4.375 | 0.625 |
| 37503750-625B | 3.750 | 4.500 | 0.625 |
| 37503875-625B | 3.875 | 4.625 | 0.625 |
| 37504000-625B | 4.000 | 4.750 | 0.625 |
| 37504125-625B | 4.125 | 4.875 | 0.625 |
| 37504250-375B | 4.250 | 5.000 | 0.375 |
| 37504250-625B | 4.250 | 5.000 | 0.625 |
| 37504375-625B | 4.375 | 5.125 | 0.625 |
| 37504500-625B | 4.500 | 5.250 | 0.625 |
| 37504625-625B | 4.625 | 5.375 | 0.625 |
| 37504750-625B | 4.750 | 5.500 | 0.625 |
| 37504875-625B | 4.875 | 5.625 | 0.625 |
| 37505000-500B | 5.000 | 5.750 | 0.500 |
| 37505000-625B | 5.000 | 5.750 | 0.625 |
| 37505125-625B | 5.125 | 5.875 | 0.625 |
| 37505250-375B | 5.250 | 6.000 | 0.375 |
| 37505250-500B | 5.250 | 6.000 | 0.500 |
| 37505250-625B | 5.250 | 6.000 | 0.625 |
| 37505375-625B | 5.375 | 6.125 | 0.625 |
| 37505500-625B | 5.500 | 6.250 | 0.625 |
| 37505625-625B | 5.625 | 6.375 | 0.625 |
| 37505750-625B | 5.750 | 6.500 | 0.625 |
| 37505875-625B | 5.875 | 6.625 | 0.625 |
| 37506000-500B | 6.000 | 6.750 | 0.500 |
| 37506000-625B | 6.000 | 6.750 | 0.625 |
| 37506250-500B | 6.250 | 7.000 | 0.500 |
| 37506250-625B | 6.250 | 7.000 | 0.625 |
| 37506500-500B | 6.500 | 7.250 | 0.500 |
| 37506500-625B | 6.500 | 7.250 | 0.625 |
| 37506750-375B | 6.750 | 7.500 | 0.375 |
| 37506750-500B | 6.750 | 7.500 | 0.500 |
| 37506750-625B | 6.750 | 7.500 | 0.625 |
| 37506875-625B | 6.875 | 7.625 | 0.625 |
| 37507000-500B | 7.000 | 7.750 | 0.500 |
| 37507000-625B | 7.000 | 7.750 | 0.625 |
| 37507250-625B | 7.250 | 8.000 | 0.625 |
| 37507375-500B | 7.375 | 8.125 | 0.500 |
| 37507500-500B | 7.500 | 8.250 | 0.500 |
| 37507500-625B | 7.500 | 8.250 | 0.625 |
| 37507750-625B | 7.750 | 8.500 | 0.625 |
| 37507790-375B | 7.790 | 8.540 | 0.375 |
| 37508000-625B | 8.000 | 8.750 | 0.625 |

Type B PolyPak® series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 3/8" Cross Section - 0.375" | | | |
| 37508250-625B | 8.250 | 9.000 | 0.625 |
| 37508500-625B | 8.500 | 9.250 | 0.625 |
| 37508750-500B | 8.750 | 9.500 | 0.500 |
| 37508750-750B | 8.750 | 9.500 | 0.750 |
| 37508795-375B | 8.795 | 9.545 | 0.375 |
| 37508875-625B | 8.875 | 9.625 | 0.625 |
| 37509000-625B | 9.000 | 9.750 | 0.625 |
| 37509250-625B | 9.250 | 10.000 | 0.625 |
| 37509500-625B | 9.500 | 10.250 | 0.625 |
| 37510000-625B | 10.000 | 10.750 | 0.625 |
| 37510250-500B | 10.250 | 11.000 | 0.500 |
| 37510250-750B | 10.250 | 11.000 | 0.750 |
| 37510500-375B | 10.500 | 11.250 | 0.375 |
| 37510500-625B | 10.500 | 11.250 | 0.625 |
| 37510750-625B | 10.750 | 11.500 | 0.625 |
| 37511250-625B | 11.250 | 12.000 | 0.625 |
| 37511500-625B | 11.500 | 12.250 | 0.625 |
| 37511750-625B | 11.750 | 12.500 | 0.625 |
| 37511750-750B | 11.750 | 12.500 | 0.750 |
| 37512000-625B | 12.000 | 12.750 | 0.625 |
| 37512250-625B | 12.250 | 13.000 | 0.625 |
| 37512750-625B | 12.750 | 13.500 | 0.625 |
| 37513000-375B | 13.000 | 13.750 | 0.375 |
| 37513000-625B | 13.000 | 13.750 | 0.625 |
| 37513500-625B | 13.500 | 14.250 | 0.625 |
| 37513750-625B | 13.750 | 14.500 | 0.625 |
| 37514250-625B | 14.250 | 15.000 | 0.625 |
| 37514750-625B | 14.750 | 15.500 | 0.625 |
| 37519250-625B | 19.250 | 20.000 | 0.625 |
| 37520750-500B | 20.750 | 21.500 | 0.500 |
| 7/16" Cross Section - 0.437" | | | |
| 43701125-500B | 1.125 | 2.000 | 0.500 |
| 43702250-625B | 2.250 | 3.125 | 0.625 |
| 43702500-625B | 2.500 | 3.375 | 0.625 |
| 43703125-687B | 3.125 | 4.000 | 0.687 |
| 43703375-500B | 3.375 | 4.250 | 0.500 |
| 43703875-750B | 3.875 | 4.750 | 0.750 |
| 43704000-625B | 4.000 | 4.875 | 0.625 |
| 43704500-750B | 4.500 | 5.375 | 0.750 |
| 43704750-750B | 4.750 | 5.625 | 0.750 |
| 43704875-562B | 4.875 | 5.750 | 0.562 |
| 43705000-750B | 5.000 | 5.875 | 0.750 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 1/2" Cross Section - 0.500" | | | |
| 50001500-750B | 1.500 | 2.500 | 0.750 |
| 50001750-750B | 1.750 | 2.750 | 0.750 |
| 50002000-750B | 2.000 | 3.000 | 0.750 |
| 50003000-750B | 3.000 | 4.000 | 0.750 |
| 50003250-750B | 3.250 | 4.250 | 0.750 |
| 50003375-625B | 3.375 | 4.375 | 0.625 |
| 50003500-750B | 3.500 | 4.500 | 0.750 |
| 50003750-690B | 3.750 | 4.750 | 0.690 |
| 50003875-750B | 3.875 | 4.875 | 0.750 |
| 50004000-750B | 4.000 | 5.000 | 0.750 |
| 50004250-750B | 4.250 | 5.250 | 0.750 |
| 50004375-625B | 4.375 | 5.375 | 0.625 |
| 50004375-750B | 4.375 | 5.375 | 0.750 |
| 50004500-750B | 4.500 | 5.500 | 0.750 |
| 50004750-750B | 4.750 | 5.750 | 0.750 |
| 50005000-750B | 5.000 | 6.000 | 0.750 |
| 50005250-500B | 5.250 | 6.250 | 0.500 |
| 50005250-750B | 5.250 | 6.250 | 0.750 |
| 50005500-750B | 5.500 | 6.500 | 0.750 |
| 50005750-750B | 5.750 | 6.750 | 0.750 |
| 50006000-750B | 6.000 | 7.000 | 0.750 |
| 50006250-750B | 6.250 | 7.250 | 0.750 |
| 50006500-750B | 6.500 | 7.500 | 0.750 |
| 50006750-750B | 6.750 | 7.750 | 0.750 |
| 50007000-750B | 7.000 | 8.000 | 0.750 |
| 50007250-750B | 7.250 | 8.250 | 0.750 |
| 50007500-750B | 7.500 | 8.500 | 0.750 |
| 50007750-750B | 7.750 | 8.750 | 0.750 |
| 50008000-750B | 8.000 | 9.000 | 0.750 |
| 50008250-750B | 8.250 | 9.250 | 0.750 |
| 50008500-750B | 8.500 | 9.500 | 0.750 |
| 50008750-750B | 8.750 | 9.750 | 0.750 |
| 50009000-750B | 9.000 | 10.000 | 0.750 |
| 50009250-750B | 9.250 | 10.250 | 0.750 |
| 50009500-750B | 9.500 | 10.500 | 0.750 |
| 50010000-750B | 10.000 | 11.000 | 0.750 |
| 50010250-750B | 10.250 | 11.250 | 0.750 |
| 50010500-750B | 10.500 | 11.500 | 0.750 |
| 50010750-750B | 10.750 | 11.750 | 0.750 |
| 50011000-750B | 11.000 | 12.000 | 0.750 |
| 50011375-750B | 11.375 | 12.375 | 0.750 |
| 50011500-750B | 11.500 | 12.500 | 0.750 |
| 50011750-750B | 11.750 | 12.750 | 0.750 |
| 50012000-750B | 12.000 | 13.000 | 0.750 |

Type B PolyPak[®] series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 1/2" Cross Section - 0.500" | | | |
| 50012125-750B | 12.125 | 13.125 | 0.750 |
| 50012250-750B | 12.250 | 13.250 | 0.750 |
| 50012500-750B | 12.500 | 13.500 | 0.750 |
| 50013000-750B | 13.000 | 14.000 | 0.750 |
| 50013250-750B | 13.250 | 14.250 | 0.750 |
| 50013500-750B | 13.500 | 14.500 | 0.750 |
| 50014000-750B | 14.000 | 15.000 | 0.750 |
| 50014420-500B | 14.420 | 15.420 | 0.500 |
| 50014750-750B | 14.750 | 15.750 | 0.750 |
| 50015000-750B | 15.000 | 16.000 | 0.750 |
| 50015250-750B | 15.250 | 16.250 | 0.750 |
| 50015500-750B | 15.500 | 16.500 | 0.750 |
| 50016500-750B | 16.500 | 17.500 | 0.750 |
| 50016750-750B | 16.750 | 17.750 | 0.750 |
| 50017000-750B | 17.000 | 18.000 | 0.750 |
| 50017500-750B | 17.500 | 18.500 | 0.750 |
| 50018000-750B | 18.000 | 19.000 | 0.750 |
| 50019000-750B | 19.000 | 20.000 | 0.750 |
| 50019625-750B | 19.625 | 20.625 | 0.750 |
| 50020000-750B | 20.000 | 21.000 | 0.750 |
| 50020250-750B | 20.250 | 21.250 | 0.750 |
| 50021000-750B | 21.000 | 22.000 | 0.750 |
| 50022000-750B | 22.000 | 23.000 | 0.750 |
| 50024000-750B | 24.000 | 25.000 | 0.750 |
| 50024875-750B | 24.875 | 25.875 | 0.750 |
| 50026125-750B | 26.125 | 27.125 | 0.750 |
| 50029000-750B | 29.000 | 30.000 | 0.750 |
| 50029750-750B | 29.750 | 30.750 | 0.750 |
| 50030750-750B | 30.750 | 31.750 | 0.750 |
| 50031500-750B | 31.500 | 32.500 | 0.750 |
| 50034500-750B | 34.500 | 35.500 | 0.750 |
| 50038000-750B | 38.000 | 39.000 | 0.750 |
| 50038250-750B | 38.250 | 39.250 | 0.750 |
| 50038750-750B | 38.750 | 39.750 | 0.750 |
| 50041000-750B | 41.000 | 42.000 | 0.750 |
| 50041750-750B | 41.750 | 42.750 | 0.750 |
| 50042000-750B | 42.000 | 43.000 | 0.750 |
| 50043500-750B | 43.500 | 44.500 | 0.750 |
| 50044125-750B | 44.125 | 45.125 | 0.750 |
| 50046250-750B | 46.250 | 47.250 | 0.750 |
| 50047500-750B | 47.500 | 48.500 | 0.750 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 9/16" Cross Section - 0.562" | | | |
| 56202375-875B | 2.375 | 3.500 | 0.875 |
| 56212562-875B | 12.562 | 13.687 | 0.875 |
| 5/8" Cross Section - 0.625" | | | |
| 62502750-1000B | 2.750 | 4.000 | 1.000 |
| 62502875-1000B | 2.875 | 4.125 | 1.000 |
| 62503250-1000B | 3.250 | 4.500 | 1.000 |
| 62503750-1000B | 3.750 | 5.000 | 1.000 |
| 62504250-1000B | 4.250 | 5.500 | 1.000 |
| 62505000-1000B | 5.000 | 6.250 | 1.000 |
| 62505250-1000B | 5.250 | 6.500 | 1.000 |
| 62505500-1000B | 5.500 | 6.750 | 1.000 |
| 62506000-1000B | 6.000 | 7.250 | 1.000 |
| 62506750-1000B | 6.750 | 8.000 | 1.000 |
| 62507000-1000B | 7.000 | 8.250 | 1.000 |
| 62507250-1000B | 7.250 | 8.500 | 1.000 |
| 62507500-1000B | 7.500 | 8.750 | 1.000 |
| 62507750-1000B | 7.750 | 9.000 | 1.000 |
| 62508250-1000B | 8.250 | 9.500 | 1.000 |
| 62508500-1000B | 8.500 | 9.750 | 1.000 |
| 62509000-1000B | 9.000 | 10.250 | 1.000 |
| 62509750-1000B | 9.750 | 11.000 | 1.000 |
| 62510500-750B | 10.500 | 11.750 | 0.750 |
| 62511000-1000B | 11.000 | 12.250 | 1.000 |
| 62511250-1000B | 11.250 | 12.500 | 1.000 |
| 62511500-1000B | 11.500 | 12.750 | 1.000 |
| 62511750-1000B | 11.750 | 13.000 | 1.000 |
| 62512000-1000B | 12.000 | 13.250 | 1.000 |
| 62512250-1000B | 12.250 | 13.500 | 1.000 |
| 62513500-875B | 13.500 | 14.750 | 0.875 |
| 62514000-1000B | 14.000 | 15.250 | 1.000 |
| 62515500-1000B | 15.500 | 16.750 | 1.000 |
| 62517750-1000B | 17.750 | 19.000 | 1.000 |
| 62518750-1000B | 18.750 | 20.000 | 1.000 |
| 62519000-1250B | 19.000 | 20.250 | 1.250 |
| 62519750-1000B | 19.750 | 21.000 | 1.000 |
| 3/4" Cross Section - 0.750" | | | |
| 75008000-1125B | 8.000 | 9.500 | 1.125 |
| 75008000-1250B | 8.000 | 9.500 | 1.250 |
| 75008500-1125B | 8.500 | 10.000 | 1.125 |
| 75010000-1250B | 10.000 | 11.500 | 1.250 |
| 75010500-1000B | 10.500 | 12.000 | 1.000 |
| 75011500-1250B | 11.500 | 13.000 | 1.250 |

Type B PolyPak® series - AU/NBR

| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 3/4" Cross Section - 0.750" | | | |
| 75012000-1250B | 12.000 | 13.500 | 1.250 |
| 75012500-1250B | 12.500 | 14.000 | 1.250 |
| 75013000-1000B | 13.000 | 14.500 | 1.000 |
| 75014000-1250B | 14.000 | 15.500 | 1.250 |
| 75015625-1250B | 15.625 | 17.125 | 1.250 |
| 75017625-1250B | 17.625 | 19.125 | 1.250 |
| 75019000-1250B | 19.000 | 20.500 | 1.250 |
| 75020000-1000B | 20.000 | 21.500 | 1.000 |
| 75020000-1250B | 20.000 | 21.500 | 1.250 |
| 75020500-1000B | 20.500 | 22.000 | 1.000 |
| 75023500-1250B | 23.500 | 25.000 | 1.250 |
| 7/8" Cross Section - 0.875" | | | |
| 87519937-1375B | 19.937 | 21.687 | 1.375 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 1" Cross Section - 1.000" | | | |
| 100012000-1500B | 12.000 | 14.000 | 1.500 |
| 100015000-1500B | 15.000 | 17.000 | 1.500 |
| 100016000-1250B | 16.000 | 18.000 | 1.250 |
| 100017500-1500B | 17.500 | 19.500 | 1.500 |
| 100021250-1500B | 21.250 | 23.250 | 1.500 |
| 100024000-1500B | 24.000 | 26.000 | 1.500 |
| 100026000-1500B | 26.000 | 28.000 | 1.500 |
| 100029000-1500B | 29.000 | 31.000 | 1.500 |
| 100030000-1500B | 30.000 | 32.000 | 1.500 |
| 100033375-1500B | 33.375 | 35.375 | 1.500 |

SYMMETRICAL SEALS

Spring Loaded PolyPak® - Symmetrical seals - Inch

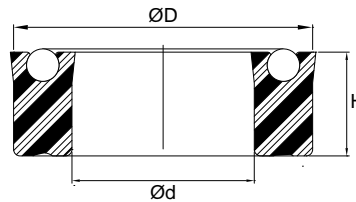
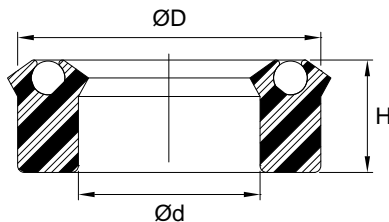


"Type B" Style



"Deep" Style

| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|----------------------------------|-------------------------------------|-------------------------|----------------------|
| Polyurethane/ Stainless steel | -65°F to +200°F (-54°C to +93°C) | ≤5000 psi (≤345 bar) | < 1.6 ft/s (0.5 m/s) |



Spring Loaded PolyPaks® use a special metal spring to replace the traditional elastomeric O-Ring expander normally used to provide the requisite seal lip contact. This metal spring provides a lower force to activate the seal lips while eliminating the problem of compression set and loss of force due to fatigue over time.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

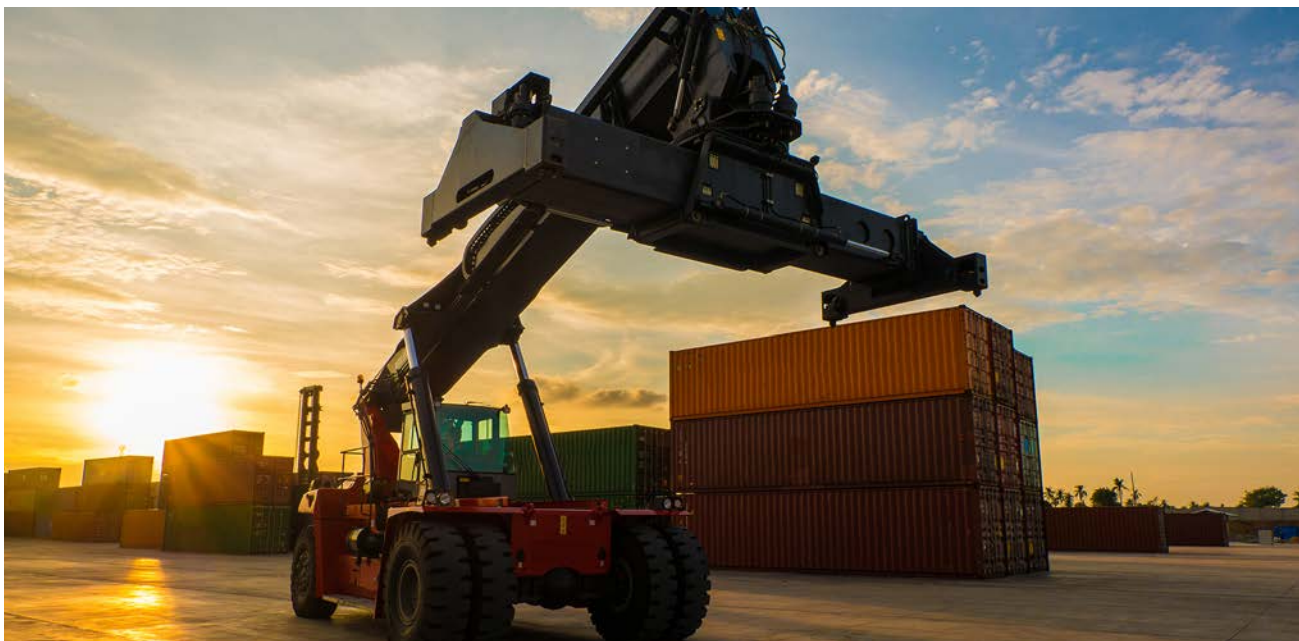
PolyPak[®] Spring Loaded series - AU/SS

SYMMETRICAL SEALS

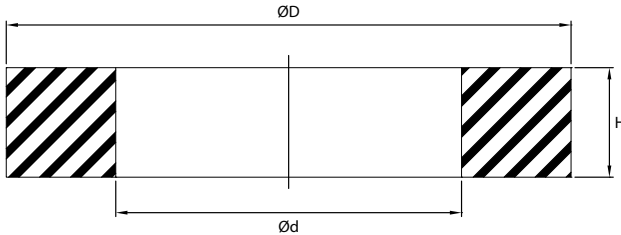


| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/8" Cross Section - 0.125" | | | |
| 12501250S250B | 1.250 | 1.500 | 0.250 |
| 3/16" Cross Section - 0.187" | | | |
| 18701125S312B | 1.125 | 1.500 | 0.312 |
| 1/4" Cross Section - 0.250" | | | |
| 25000750S375 | 0.750 | 1.250 | 0.375 |
| 25000750S375B | 0.750 | 1.250 | 0.375 |
| 25001000S375 | 1.000 | 1.500 | 0.375 |
| 25001000S375B | 1.000 | 1.500 | 0.375 |
| 25002750S375 | 2.750 | 3.250 | 0.375 |
| 25003500S375B | 3.500 | 4.000 | 0.375 |
| 25004500S375B | 4.500 | 5.000 | 0.375 |
| 25006000S375B | 6.000 | 6.500 | 0.375 |
| 5/16" Cross Section - 0.312" | | | |
| 31201125S500 | 1.125 | 1.750 | 0.500 |
| 31201125S500B | 1.125 | 1.750 | 0.500 |
| 31201375S500 | 1.375 | 2.000 | 0.500 |
| 31201375S500B | 1.375 | 2.000 | 0.500 |
| 31201875S500 | 1.875 | 2.500 | 0.500 |
| 31201875S500B | 1.875 | 2.500 | 0.500 |
| 31202125S500 | 2.125 | 2.750 | 0.500 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 5/16" Cross Section - 0.312" | | | |
| 31202125S500B | 2.125 | 2.750 | 0.500 |
| 3/8" Cross Section - 0.375" | | | |
| 37502500S625 | 2.500 | 3.250 | 0.625 |
| 37502500S625B | 2.500 | 3.250 | 0.625 |
| 37502750S625 | 2.750 | 3.500 | 0.625 |
| 37502750S625B | 2.750 | 3.500 | 0.625 |
| 37503250S625 | 3.250 | 4.000 | 0.625 |
| 37503250S625B | 3.250 | 4.000 | 0.625 |
| 37503750S625 | 3.750 | 4.500 | 0.625 |
| 37503750S625B | 3.750 | 4.500 | 0.625 |
| 37504250S625 | 4.250 | 5.000 | 0.625 |
| 37504250S625B | 4.250 | 5.000 | 0.625 |
| 37504750S625 | 4.750 | 5.500 | 0.625 |
| 37504750S625B | 4.750 | 5.500 | 0.625 |
| 37505250S625 | 5.250 | 6.000 | 0.625 |
| 37505250S625B | 5.250 | 6.000 | 0.625 |
| 37505750S625 | 5.750 | 6.500 | 0.625 |
| 37505750S625B | 5.750 | 6.500 | 0.625 |
| 37506250S625 | 6.250 | 7.000 | 0.625 |
| 37506250S625B | 6.250 | 7.000 | 0.625 |
| 37506750S625B | 6.750 | 7.500 | 0.625 |



Modular Back-up - Symmetrical seals - Inch



| Standard Material | Temperature Range | Pressure Range |
|-------------------|--|-------------------------|
| Polyurethane | -65 °F to +250 °F (-54 °C to +121 °C) | ≤7000 psi (≤483 bar) |



MB-style Modular Back-ups are specifically designed to complement single-acting type piston and rod seals. Used as an anti-extrusion device, the high-modulus material insures that the primary seal element remains protected from high loads and pressure spikes.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department.

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/8" Cross Section - 0.125" | | | |
| 12500125MB | 0.125 | 0.375 | 0.125 |
| 12500250MB | 0.250 | 0.500 | 0.125 |
| 12500312MB | 0.312 | 0.562 | 0.125 |
| 12500375MB | 0.375 | 0.625 | 0.125 |
| 12500500MB | 0.500 | 0.750 | 0.125 |
| 12500625MB | 0.625 | 0.875 | 0.125 |
| 12500687MB | 0.687 | 0.937 | 0.125 |
| 12500812MB | 0.812 | 1.062 | 0.125 |
| 12500937MB | 0.937 | 1.187 | 0.125 |
| 12501000MB | 1.000 | 1.250 | 0.125 |
| 12501062MB | 1.062 | 1.312 | 0.125 |
| 12501250MB | 1.250 | 1.500 | 0.125 |
| 12501375MB | 1.375 | 1.625 | 0.125 |
| 12501500MB | 1.500 | 1.750 | 0.125 |
| 3/16" Cross Section - 0.187" | | | |
| 18700500MB | 0.500 | 0.875 | 0.187 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 3/16" Cross Section - 0.187" | | | |
| 18700625MB | 0.625 | 1.000 | 0.187 |
| 18701000MB | 1.000 | 1.375 | 0.187 |
| 18701250MB | 1.250 | 1.625 | 0.187 |
| 18701312MB | 1.312 | 1.687 | 0.187 |
| 18701500MB | 1.500 | 1.875 | 0.187 |
| 18701625MB | 1.625 | 2.000 | 0.187 |
| 18701875MB | 1.875 | 2.250 | 0.187 |
| 18701937MB | 1.937 | 2.312 | 0.187 |
| 18702000MB | 2.000 | 2.375 | 0.187 |
| 18702625MB | 2.625 | 3.000 | 0.187 |
| 18702750MB | 2.750 | 3.125 | 0.187 |
| 18703000MB | 3.000 | 3.375 | 0.187 |
| 18703125MB | 3.125 | 3.500 | 0.187 |
| 18703250MB | 3.250 | 3.625 | 0.187 |
| 18703500MB | 3.500 | 3.875 | 0.187 |
| 18703625MB | 3.625 | 4.000 | 0.187 |
| 18703875MB | 3.875 | 4.250 | 0.187 |

Modular Back-up - AU 65D

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 7/32" Cross Section - 0.218" | | | |
| 21800750MB | 0.750 | 1.187 | 0.218 |
| 1/4" Cross Section - 0.250" | | | |
| 25000353MB | 0.353 | 0.853 | 0.250 |
| 25000500MB | 0.500 | 1.000 | 0.250 |
| 25000625MB | 0.625 | 1.125 | 0.250 |
| 25000750MB | 0.750 | 1.250 | 0.250 |
| 25000875MB | 0.875 | 1.375 | 0.250 |
| 25001000MB | 1.000 | 1.500 | 0.250 |
| 25001062MB | 1.062 | 1.562 | 0.250 |
| 25001250MB | 1.250 | 1.750 | 0.250 |
| 25001375MB | 1.375 | 1.875 | 0.250 |
| 25001500MB | 1.500 | 2.000 | 0.250 |
| 25001750MB | 1.750 | 2.250 | 0.250 |
| 25001875MB | 1.875 | 2.375 | 0.250 |
| 25002000MB | 2.000 | 2.500 | 0.250 |
| 25002250MB | 2.250 | 2.750 | 0.250 |
| 25002500MB | 2.500 | 3.000 | 0.250 |
| 25002625MB | 2.625 | 3.125 | 0.250 |
| 25002750MB | 2.750 | 3.250 | 0.250 |
| 25002875MB | 2.875 | 3.375 | 0.250 |
| 25003000MB | 3.000 | 3.500 | 0.250 |
| 25003250MB | 3.250 | 3.750 | 0.250 |
| 25003375MB | 3.375 | 3.875 | 0.250 |
| 25003500MB | 3.500 | 4.000 | 0.250 |
| 25003750MB | 3.750 | 4.250 | 0.250 |
| 25004000MB | 4.000 | 4.500 | 0.250 |
| 25004125MB | 4.125 | 4.625 | 0.250 |
| 25004250MB | 4.250 | 4.750 | 0.250 |
| 25004500MB | 4.500 | 5.000 | 0.250 |
| 25005000MB | 5.000 | 5.500 | 0.250 |
| 25005250MB | 5.250 | 5.750 | 0.250 |
| 25005500MB | 5.500 | 6.000 | 0.250 |
| 25006000MB | 6.000 | 6.500 | 0.250 |
| 25007250MB | 7.250 | 7.750 | 0.250 |
| 25007500MB | 7.500 | 8.000 | 0.250 |
| 25007750MB | 7.750 | 8.250 | 0.250 |
| 25010000MB | 10.000 | 10.500 | 0.250 |
| 25010750MB | 10.750 | 11.250 | 0.250 |
| 25013000MB | 13.000 | 13.500 | 0.250 |
| 9/32" Cross Section - 0.281" | | | |
| 28102250MB | 2.250 | 2.812 | 0.281 |
| 28108000MB | 8.000 | 8.562 | 0.281 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 5/16" Cross Section - 0.312" | | | |
| 31200353MB | 0.353 | 0.978 | 0.312 |
| 31200812MB | 0.812 | 1.437 | 0.312 |
| 31201250MB | 1.250 | 1.875 | 0.312 |
| 31201500MB | 1.500 | 2.125 | 0.312 |
| 31201625MB | 1.625 | 2.250 | 0.312 |
| 31201750MB | 1.750 | 2.375 | 0.312 |
| 31201875MB | 1.875 | 2.500 | 0.312 |
| 31202000MB | 2.000 | 2.625 | 0.312 |
| 31202250MB | 2.250 | 2.875 | 0.312 |
| 31202312MB | 2.312 | 2.937 | 0.312 |
| 31202375MB | 2.375 | 3.000 | 0.312 |
| 31202500MB | 2.500 | 3.125 | 0.312 |
| 31203000MB | 3.000 | 3.625 | 0.312 |
| 31203125MB | 3.125 | 3.750 | 0.312 |
| 31203500MB | 3.500 | 4.125 | 0.312 |
| 31203750MB | 3.750 | 4.375 | 0.312 |
| 31204125MB | 4.125 | 4.750 | 0.312 |
| 31204250MB | 4.250 | 4.875 | 0.312 |
| 31204375MB | 4.375 | 5.000 | 0.312 |
| 31204500MB | 4.500 | 5.125 | 0.312 |
| 31205375MB | 5.375 | 6.000 | 0.312 |
| 31208000MB | 8.000 | 8.625 | 0.312 |
| 11/32" Cross Section - 0.343" | | | |
| 34301312MB | 1.312 | 2.000 | 0.343 |
| 3/8" Cross Section - 0.375" | | | |
| 37500875MB | 0.875 | 1.625 | 0.375 |
| 37501000MB | 1.000 | 1.750 | 0.375 |
| 37501250MB | 1.250 | 2.000 | 0.375 |
| 37501375MB | 1.375 | 2.125 | 0.375 |
| 37501500MB | 1.500 | 2.250 | 0.375 |
| 37501625MB | 1.625 | 2.375 | 0.375 |
| 37501750MB | 1.750 | 2.500 | 0.375 |
| 37501875MB | 1.875 | 2.625 | 0.375 |
| 37502000MB | 2.000 | 2.750 | 0.375 |
| 37502250MB | 2.250 | 3.000 | 0.375 |
| 37502375MB | 2.375 | 3.125 | 0.375 |
| 37502500MB | 2.500 | 3.250 | 0.375 |
| 37502625MB | 2.625 | 3.375 | 0.375 |
| 37502750MB | 2.750 | 3.500 | 0.375 |
| 37503000MB | 3.000 | 3.750 | 0.375 |
| 37503125MB | 3.125 | 3.875 | 0.375 |
| 37503250MB | 3.250 | 4.000 | 0.375 |

Modular Back-up - AU 65D

SYMMETRICAL SEALS



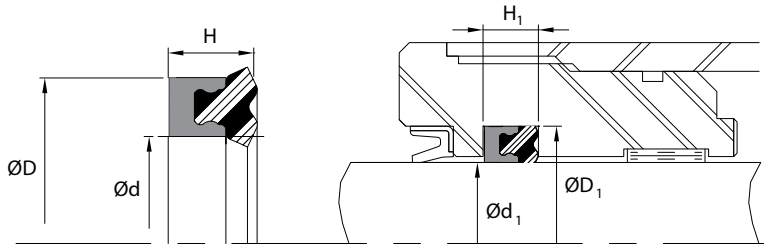
| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 3/8" Cross Section - 0.375" | | | |
| 37503375MB | 3.375 | 4.125 | 0.375 |
| 37503500MB | 3.500 | 4.250 | 0.375 |
| 37503750MB | 3.750 | 4.500 | 0.375 |
| 37504000MB | 4.000 | 4.750 | 0.375 |
| 37504125MB | 4.125 | 4.875 | 0.375 |
| 37504250MB | 4.250 | 5.000 | 0.375 |
| 37504375MB | 4.375 | 5.125 | 0.375 |
| 37504500MB | 4.500 | 5.250 | 0.375 |
| 37504750MB | 4.750 | 5.500 | 0.375 |
| 37504875MB | 4.875 | 5.625 | 0.375 |
| 37505000MB | 5.000 | 5.750 | 0.375 |
| 37505250MB | 5.250 | 6.000 | 0.375 |
| 37505375MB | 5.375 | 6.125 | 0.375 |
| 37505875MB | 5.875 | 6.625 | 0.375 |
| 37506000MB | 6.000 | 6.750 | 0.375 |
| 37506250MB | 6.250 | 7.000 | 0.375 |
| 37506500MB | 6.500 | 7.250 | 0.375 |
| 37507000MB | 7.000 | 7.750 | 0.375 |
| 37507250MB | 7.250 | 8.000 | 0.375 |
| 37507500MB | 7.500 | 8.250 | 0.375 |
| 37507750MB | 7.750 | 8.500 | 0.375 |
| 37509000MB | 9.000 | 9.750 | 0.375 |
| 37509250MB | 9.250 | 10.000 | 0.375 |
| 37509750MB | 9.750 | 10.500 | 0.375 |
| 37510000MB | 10.000 | 10.750 | 0.375 |
| 37510500MB | 10.500 | 11.250 | 0.375 |
| 37511000MB | 11.000 | 11.750 | 0.375 |
| 37511250MB | 11.250 | 12.000 | 0.375 |
| 7/16" Cross Section - 0.437" | | | |
| 43701000MB | 1.000 | 1.875 | 0.437 |
| 43702125MB | 2.125 | 3.000 | 0.437 |
| 43705000MB | 5.000 | 5.875 | 0.437 |
| 1/2" Cross Section - 0.500" | | | |
| 50002000MB | 2.000 | 3.000 | 0.500 |
| 50002250MB | 2.250 | 3.250 | 0.500 |
| 50002375MB | 2.375 | 3.375 | 0.500 |
| 50002500MB | 2.500 | 3.500 | 0.500 |
| 50002750MB | 2.750 | 3.750 | 0.500 |
| 50003000MB | 3.000 | 4.000 | 0.500 |
| 50003500MB | 3.500 | 4.500 | 0.500 |
| 50003750MB | 3.750 | 4.750 | 0.500 |
| 50004000MB | 4.000 | 5.000 | 0.500 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 1/2" Cross Section - 0.500" | | | |
| 50004250MB | 4.250 | 5.250 | 0.500 |
| 50004500MB | 4.500 | 5.500 | 0.500 |
| 50005000MB | 5.000 | 6.000 | 0.500 |
| 50005250MB | 5.250 | 6.250 | 0.500 |
| 50005500MB | 5.500 | 6.500 | 0.500 |
| 50006000MB | 6.000 | 7.000 | 0.500 |
| 50006500MB | 6.500 | 7.500 | 0.500 |
| 50006750MB | 6.750 | 7.750 | 0.500 |
| 50007000MB | 7.000 | 8.000 | 0.500 |
| 50007250MB | 7.250 | 8.250 | 0.500 |
| 50008000MB | 8.000 | 9.000 | 0.500 |
| 50008500MB | 8.500 | 9.500 | 0.500 |
| 50009000MB | 9.000 | 10.000 | 0.500 |
| 50009500MB | 9.500 | 10.500 | 0.500 |
| 50010000MB | 10.000 | 11.000 | 0.500 |
| 50010500MB | 10.500 | 11.500 | 0.500 |
| 50011500MB | 11.500 | 12.500 | 0.500 |
| 50012000MB | 12.000 | 13.000 | 0.500 |
| 50013500MB | 13.500 | 14.500 | 0.500 |
| 50015000MB | 15.000 | 16.000 | 0.500 |
| 50017000MB | 17.000 | 18.000 | 0.500 |
| 50019000MB | 19.000 | 20.000 | 0.500 |
| 50021000MB | 21.000 | 22.000 | 0.500 |
| 50029000MB | 29.000 | 30.000 | 0.500 |
| 5/8" Cross Section - 0.625" | | | |
| 62502000MB | 2.000 | 3.250 | 0.625 |
| 62502500MB | 2.500 | 3.750 | 0.625 |
| 62502750MB | 2.750 | 4.000 | 0.625 |
| 62503000MB | 3.000 | 4.250 | 0.625 |
| 62503250MB | 3.250 | 4.500 | 0.625 |
| 62504750MB | 4.750 | 6.000 | 0.625 |
| 62506750MB | 6.750 | 8.000 | 0.625 |
| 62507000MB | 7.000 | 8.250 | 0.625 |
| 62512750MB | 12.750 | 14.000 | 0.625 |
| 62530000MB | 30.000 | 31.250 | 0.625 |
| 3/4" Cross Section - 0.750" | | | |
| 75006500MB | 6.500 | 8.000 | 0.750 |
| 75007500MB | 7.500 | 9.000 | 0.750 |
| 75008000MB | 8.000 | 9.500 | 0.750 |
| 75008500MB | 8.500 | 10.000 | 0.750 |
| 75009812MB | 9.812 | 11.312 | 0.750 |

ZA - Symmetrical seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|--------------------------|-------------------------------------|-------------------------|-------------------------|
| Polyurethane/ Nitrile | -60°F to +210°F (-51°C to +99°C) | ≤5800 psi (≤400 bar) | <3.2 ft/s (0.98 m/s) |



ZA-style is a tandem-material, compression-type seal combines the low-pressure sealing ability of the rubber lip with the extrusion resistant heel portion. The lip and heel portions are mechanically held together and offer the benefits of both rubber and polyurethane materials in a compact design.

These seals are typically used on rod applications as shown on the chart below. For piston seal application, please contact us for the proper groove dimensions.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

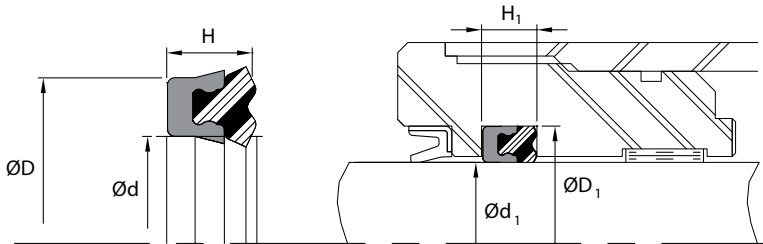
| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| ZA25001500-375 | 1.500 | + .000 - .002 | 1.500 | 2.000 | 0.375 | 2.000 | + .003 - .000 | 0.413 | + .010 - .000 |
| ZA25002000-375 | 2.000 | | 2.000 | 2.500 | 0.375 | 2.500 | | 0.413 | |
| ZA25003000-375 | 3.000 | | 3.000 | 3.500 | 0.375 | 3.500 | | 0.413 | |
| ZA37503000-625 | 3.000 | | 3.000 | 3.750 | 0.625 | 3.750 | + .005/- .000 | 0.688 | |
| ZA25003500-375 | 3.500 | | 3.500 | 4.000 | 0.375 | 4.000 | + .003 - .000 | 0.413 | |
| ZA25004000-562 | 4.000 | | 4.000 | 4.500 | 0.562 | 4.500 | | 0.619 | |
| ZA37504000-625 | 4.000 | | 4.000 | 4.750 | 0.625 | 4.750 | + .005/- .000 | 0.688 | |
| ZA25004500-562 | 4.500 | | 4.500 | 5.000 | 0.562 | 5.000 | + .003/- .000 | 0.619 | |
| ZA37504500-625 | 4.500 | | 4.500 | 5.250 | 0.625 | 5.250 | + .005/- .000 | 0.688 | |
| ZA25004625-562 | 4.625 | | 4.625 | 5.125 | 0.562 | 5.125 | + .003/- .000 | 0.619 | |
| ZA37504750-625 | 4.750 | | 4.750 | 5.500 | 0.625 | 5.500 | + .005/- .000 | 0.688 | |
| ZA25005000-562 | 5.000 | | 5.000 | 5.500 | 0.562 | 5.500 | + .003/- .000 | 0.619 | |
| ZA37505000-625 | 5.000 | | 5.000 | 5.750 | 0.625 | 5.750 | | 0.688 | |
| ZA37506000-625 | 6.000 | | 6.000 | 6.750 | 0.625 | 6.750 | + .005 - .000 | 0.688 | |
| ZA37506250-500 | 6.250 | | 6.250 | 7.000 | 0.500 | 7.000 | | 0.550 | |
| ZA25007000-562 | 7.000 | | 7.000 | 7.500 | 0.562 | 7.500 | + .003/- .000 | 0.619 | |
| ZA37507000-625 | 7.000 | | 7.000 | 7.750 | 0.625 | 7.750 | + .005/- .000 | 0.688 | |
| ZA25008000-562 | 8.000 | | 8.000 | 8.500 | 0.562 | 8.500 | + .003/- .000 | 0.619 | |
| ZA37512000-625 | 12.000 | | 12.000 | 12.750 | 0.625 | 12.750 | + .005/- .000 | 0.688 | |



DZ - Symmetrical seals - Inch



| Standard Materials | Temperature Range | Pressure Range | Surface Speed |
|--------------------------|-------------------------------------|-------------------------|-------------------------|
| Polyurethane/ Nitrile | -60°F to +210°F (-51°C to +99°C) | ≤5800 psi (≤400 bar) | <3.2 ft/s (0.98 m/s) |



DZ-style is considered a multiple lip seal. The primary knife-trimmed lip made of rubber offering excellent sealability and wiping action. It is snapped into a hard polyurethane base that offers both extrusion and wear resistance. This profile can be used as a stand alone rod seal, in tandem with a buffer seal, or as a unidirectional piston seal.

These seals are typically used on rod applications as shown on the chart below. For piston seal application, please contact us for the proper groove dimensions.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| DZ18701250-312 | 1.250 | +0.000 -0.002 | 1.250 | 1.625 | 0.312 | 1.625 | +0.003 -0.000 | 0.344 | +0.015 -0.000 |
| DZ25001500-375 | 1.500 | | 1.500 | 2.000 | 0.375 | 2.000 | | 0.413 | |
| DZ25002000-375 | 2.000 | | 2.000 | 2.500 | 0.375 | 2.500 | | 0.413 | |
| DZ25002500-375 | 2.500 | | 2.500 | 3.000 | 0.375 | 3.000 | | 0.413 | |
| DZ25002500-375 | 2.500 | | 2.500 | 3.000 | 0.375 | 3.000 | | 0.413 | |
| DZ37502625-625 | 2.625 | | 2.625 | 3.375 | 0.625 | 3.375 | | 0.688 | |
| DZ25002750-375 | 2.750 | | 2.750 | 3.250 | 0.375 | 3.250 | | 0.413 | |
| DZ25003000-375 | 3.000 | | 3.000 | 3.500 | 0.375 | 3.500 | | 0.413 | |
| DZ25003000-375 | 3.000 | | 3.000 | 3.500 | 0.375 | 3.500 | | 0.413 | |
| DZ25003000-375 | 3.000 | | 3.000 | 3.500 | 0.375 | 3.500 | | 0.413 | |
| DZ31203000-500 | 3.000 | | 3.000 | 3.625 | 0.500 | 3.625 | | 0.550 | |
| DZ37503000-625 | 3.000 | ▼ | 3.000 | 3.750 | 0.625 | 3.750 | | 0.688 | |
| DZ37503500-625 | 3.500 | +0.000 -0.003 | 3.500 | 4.000 | 0.625 | 4.000 | | 0.688 | |
| DZ37503625-625 | 3.625 | | 3.625 | 4.375 | 0.625 | 4.375 | | 0.688 | |
| DZ25003750-562 | 3.750 | ▼ | 3.750 | 4.250 | 0.562 | 4.250 | ▼ | 0.619 | |
| DZ25004500-562 | 4.500 | +0.000 -0.004 | 4.500 | 5.000 | 0.562 | 5.000 | +0.004 -0.000 | 0.619 | |
| DZ25005000-562 | 5.000 | | 5.000 | 5.500 | 0.562 | 5.500 | | 0.619 | |
| DZ25005250-562 | 5.250 | | 5.250 | 5.750 | 0.562 | 5.750 | | 0.619 | |
| DZ25006000-562 | 6.000 | | 6.000 | 6.500 | 0.562 | 6.500 | | 0.619 | |
| DZ37506000-625 | 6.000 | | 6.000 | 6.750 | 0.625 | 6.750 | | 0.688 | |
| DZ25006250-562 | 6.250 | | 6.250 | 6.750 | 0.562 | 6.750 | | 0.619 | |
| DZ50006500-750 | 6.500 | ▼ | 6.500 | 7.500 | 0.750 | 7.500 | ▼ | 0.825 | ▼ |



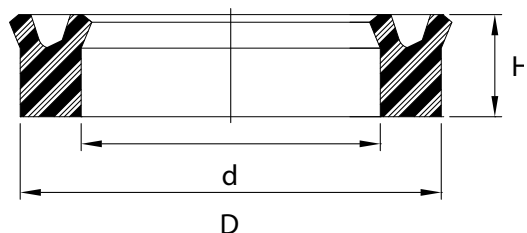
DZ series - AU/NBR



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|---------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| DZ25006750-562 | 6.750 | +0.000 -0.004 | 6.750 | 7.250 | 0.562 | 7.250 | +0.004 -0.000 | 0.619 | +0.015 -0.000 |
| DZ25007000-562 | 7.000 | | 7.000 | 7.500 | 0.562 | 7.500 | | 0.619 | |
| DZ50007000-750 | 7.000 | +0.000 -0.005 | 7.000 | 8.000 | 0.750 | 8.000 | +0.005 -0.000 | 0.825 | |
| DZ25008000-562 | 8.000 | | 8.000 | 8.500 | 0.562 | 8.500 | | 0.619 | |
| DZ25008125-562 | 8.125 | | 8.125 | 8.625 | 0.562 | 8.625 | | 0.619 | |
| DZ37509000-625 | 9.000 | | 9.000 | 9.750 | 0.625 | 9.750 | | 0.688 | |
| DZ50009000-750 | 9.000 | | 9.000 | 10.000 | 0.750 | 10.000 | | 0.825 | |
| DZ25009750-562 | 9.750 | | 9.750 | 10.250 | 0.562 | 10.250 | | 0.619 | |
| DZ25010000-562 | 10.000 | | 10.000 | 10.500 | 0.562 | 10.500 | | 0.619 | |
| DZ50010000-750 | 10.000 | | 10.000 | 11.000 | 0.750 | 11.000 | | 0.825 | |
| DZ50012000-750 | 12.000 | | 12.000 | 13.000 | 0.750 | 13.000 | | 0.825 | |
| DZ50013000-750 | 13.000 | | 13.000 | 14.000 | 0.750 | 14.000 | | 0.825 | |
| DZ37514000-625 | 14.000 | ▼ | 14.000 | 14.750 | 0.625 | 14.750 | ▼ | 0.688 | ▼ |



US - Symmetrical seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|---------------------|
| Polyurethane | -40°F to +230°F (-40°C to +110°C) | ≤6000 psi (≤414 bar) | <1.6 ft/s (0.5 m/s) |



The **US** profile is a U-Cup type single-acting seal. It can be used separately for single acting cylinder designs, or in back-to-back usage in separate grooves for double-acting cylinders. Both the static and dynamic sides of the lip area are knife-trimmed, offering maximum sealing force and thus preventing drift.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department.

| Ref. Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/8" Cross Section - 0.125" | | | |
| US12500125 | 0.125 | 0.375 | 0.125 |
| US12500125-187 | 0.125 | 0.375 | 0.187 |
| US12500125-250 | 0.125 | 0.375 | 0.250 |
| US12500187 | 0.187 | 0.437 | 0.125 |
| US12500187-187 | 0.187 | 0.437 | 0.187 |
| US12500187-250 | 0.187 | 0.437 | 0.250 |
| US12500250 | 0.250 | 0.500 | 0.125 |
| US12500250-187 | 0.250 | 0.500 | 0.187 |
| US12500250-250 | 0.250 | 0.500 | 0.250 |
| US12500312 | 0.312 | 0.562 | 0.125 |
| US12500312-187 | 0.312 | 0.562 | 0.187 |
| US12500312-250 | 0.312 | 0.562 | 0.250 |
| US12500375 | 0.375 | 0.625 | 0.125 |
| US12500375-187 | 0.375 | 0.625 | 0.187 |
| US12500375-250 | 0.375 | 0.625 | 0.250 |
| US12500437 | 0.437 | 0.687 | 0.125 |
| US12500437-187 | 0.437 | 0.687 | 0.187 |
| US12500437-250 | 0.437 | 0.687 | 0.250 |
| US12500500 | 0.500 | 0.750 | 0.125 |
| US12500500-187 | 0.500 | 0.750 | 0.187 |
| US12500500-250 | 0.500 | 0.750 | 0.250 |
| US12500562 | 0.562 | 0.812 | 0.125 |

| Ref. Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/8" Cross Section - 0.125" | | | |
| US12500562-187 | 0.562 | 0.812 | 0.187 |
| US12500562-250 | 0.562 | 0.812 | 0.250 |
| US12500625 | 0.625 | 0.875 | 0.125 |
| US12500625-187 | 0.625 | 0.875 | 0.187 |
| US12500625-250 | 0.625 | 0.875 | 0.250 |
| US12500687 | 0.687 | 0.937 | 0.125 |
| US12500750 | 0.750 | 1.000 | 0.125 |
| US12500750-160 | 0.750 | 1.000 | 0.160 |
| US12500750-187 | 0.750 | 1.000 | 0.187 |
| US12500750-250 | 0.750 | 1.000 | 0.250 |
| US12500812 | 0.812 | 1.062 | 0.125 |
| US12500812-250 | 0.812 | 1.062 | 0.250 |
| US12500875 | 0.875 | 1.125 | 0.125 |
| US12500875-172 | 0.875 | 1.125 | 0.172 |
| US12500875-187 | 0.875 | 1.125 | 0.187 |
| US12500875-250 | 0.875 | 1.125 | 0.250 |
| US12500937 | 0.937 | 1.187 | 0.125 |
| US12500937-160 | 0.937 | 1.187 | 0.160 |
| US12500937-187 | 0.937 | 1.187 | 0.187 |
| US12500937-250 | 0.937 | 1.187 | 0.250 |
| US12501000 | 1.000 | 1.250 | 0.125 |
| US12501000-156 | 1.000 | 1.250 | 0.156 |

US series - AU 92A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/8" Cross Section - 0.125" | | | |
| US12501000-187 | 1.000 | 1.250 | 0.187 |
| US12501000-250 | 1.000 | 1.250 | 0.250 |
| US12501125-250 | 1.125 | 1.375 | 0.250 |
| US12501250-250 | 1.250 | 1.500 | 0.250 |
| US12501312-250 | 1.312 | 1.562 | 0.250 |
| US12501375-250 | 1.375 | 1.625 | 0.250 |
| US12501500-250 | 1.500 | 1.750 | 0.250 |
| 5/32" Cross Section - 0.156" | | | |
| US15600187-187 | 0.187 | 0.500 | 0.187 |
| 3/16" Cross Section - 0.187" | | | |
| US18700250 | 0.250 | 0.625 | 0.187 |
| US18700250-250 | 0.250 | 0.625 | 0.250 |
| US18700250-312 | 0.250 | 0.625 | 0.312 |
| US18700375 | 0.375 | 0.750 | 0.187 |
| US18700375-250 | 0.375 | 0.750 | 0.250 |
| US18700375-312 | 0.375 | 0.750 | 0.312 |
| US18700437-250 | 0.437 | 0.812 | 0.250 |
| US18700500 | 0.500 | 0.875 | 0.187 |
| US18700500-250 | 0.500 | 0.875 | 0.250 |
| US18700500-312 | 0.500 | 0.875 | 0.312 |
| US18700562 | 0.562 | 0.937 | 0.187 |
| US18700562-312 | 0.562 | 0.937 | 0.312 |
| US18700625 | 0.625 | 1.000 | 0.187 |
| US18700625-250 | 0.625 | 1.000 | 0.250 |
| US18700625-312 | 0.625 | 1.000 | 0.312 |
| US18700687-312 | 0.687 | 1.062 | 0.312 |
| US18700750 | 0.750 | 1.125 | 0.187 |
| US18700750-250 | 0.750 | 1.125 | 0.250 |
| US18700750-312 | 0.750 | 1.125 | 0.312 |
| US18700812-250 | 0.812 | 1.187 | 0.250 |
| US18700875 | 0.875 | 1.250 | 0.187 |
| US18700875-250 | 0.875 | 1.250 | 0.250 |
| US18700875-312 | 0.875 | 1.250 | 0.312 |
| US18700875-375 | 0.875 | 1.250 | 0.375 |
| US18700937 | 0.937 | 1.312 | 0.187 |
| US18700937-312 | 0.937 | 1.312 | 0.312 |
| US18701000 | 1.000 | 1.375 | 0.187 |
| US18701000-250 | 1.000 | 1.375 | 0.250 |
| US18701000-312 | 1.000 | 1.375 | 0.312 |
| US18701062-250 | 1.062 | 1.437 | 0.250 |
| US18701062-312 | 1.062 | 1.437 | 0.312 |
| US18701125-250 | 1.125 | 1.500 | 0.250 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 3/16" Cross Section - 0.187" | | | |
| US18701125-312 | 1.125 | 1.500 | 0.312 |
| US18701187-312 | 1.187 | 1.562 | 0.312 |
| US18701250-187 | 1.250 | 1.625 | 0.187 |
| US18701250-250 | 1.250 | 1.625 | 0.250 |
| US18701250-312 | 1.250 | 1.625 | 0.312 |
| US18701312-312 | 1.312 | 1.687 | 0.312 |
| US18701375-250 | 1.375 | 1.750 | 0.250 |
| US18701375-312 | 1.375 | 1.750 | 0.312 |
| US18701437-250 | 1.437 | 1.812 | 0.250 |
| US18701437-312 | 1.437 | 1.812 | 0.312 |
| US18701500-250 | 1.500 | 1.875 | 0.250 |
| US18701500-312 | 1.500 | 1.875 | 0.312 |
| US18701500-375 | 1.500 | 1.875 | 0.375 |
| US18701625-312 | 1.625 | 2.000 | 0.312 |
| US18701625-375 | 1.625 | 2.000 | 0.375 |
| US18701750-312 | 1.750 | 2.125 | 0.312 |
| US18701750-375 | 1.750 | 2.125 | 0.375 |
| US18701875-312 | 1.875 | 2.250 | 0.312 |
| US18701875-375 | 1.875 | 2.250 | 0.375 |
| US18702000-281 | 2.000 | 2.375 | 0.281 |
| US18702000-312 | 2.000 | 2.375 | 0.312 |
| US18702000-375 | 2.000 | 2.375 | 0.375 |
| US18702125-250 | 2.125 | 2.500 | 0.250 |
| US18702125-312 | 2.125 | 2.500 | 0.312 |
| US18702125-375 | 2.125 | 2.500 | 0.375 |
| US18702250 | 2.250 | 2.625 | 0.187 |
| US18702250-312 | 2.250 | 2.625 | 0.312 |
| US18702250-375 | 2.250 | 2.625 | 0.375 |
| US18702375-375 | 2.375 | 2.750 | 0.375 |
| US18702500-250 | 2.500 | 2.875 | 0.250 |
| US18702500-375 | 2.500 | 2.875 | 0.375 |
| US18702625-250 | 2.625 | 3.000 | 0.250 |
| US18702625-281 | 2.625 | 3.000 | 0.281 |
| US18702625-312 | 2.625 | 3.000 | 0.312 |
| US18702625-375 | 2.625 | 3.000 | 0.375 |
| US18702875 | 2.875 | 3.250 | 0.187 |
| US18702875-250 | 2.875 | 3.250 | 0.250 |
| US18702875-375 | 2.875 | 3.250 | 0.375 |
| US18703000-375 | 3.000 | 3.375 | 0.375 |
| US18703125-375 | 3.125 | 3.500 | 0.375 |
| US18703250-375 | 3.250 | 3.625 | 0.375 |
| US18703375-375 | 3.375 | 3.750 | 0.375 |
| US18703500-375 | 3.500 | 3.875 | 0.375 |
| US18703625-375 | 3.625 | 4.000 | 0.375 |

US series - AU 92A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 3/16" Cross Section - 0.187" | | | |
| US18703750-375 | 3.750 | 4.125 | 0.375 |
| US18703875-375 | 3.875 | 4.250 | 0.375 |
| US18704375-375 | 4.375 | 4.750 | 0.375 |
| US18704500-375 | 4.500 | 4.875 | 0.375 |
| US18705375-375 | 5.375 | 5.750 | 0.375 |
| 7/32" Cross Section - 0.218" | | | |
| US21803000-375 | 3.000 | 3.437 | 0.375 |
| 1/4" Cross Section - 0.250" | | | |
| US25000250 | 0.250 | 0.750 | 0.250 |
| US25000250-312 | 0.250 | 0.750 | 0.312 |
| US25000250-375 | 0.250 | 0.750 | 0.375 |
| US25000312 | 0.312 | 0.812 | 0.250 |
| US25000375 | 0.375 | 0.875 | 0.250 |
| US25000375-312 | 0.375 | 0.875 | 0.312 |
| US25000375-375 | 0.375 | 0.875 | 0.375 |
| US25000500 | 0.500 | 1.000 | 0.250 |
| US25000500-312 | 0.500 | 1.000 | 0.312 |
| US25000500-375 | 0.500 | 1.000 | 0.375 |
| US25000625 | 0.625 | 1.125 | 0.250 |
| US25000625-375 | 0.625 | 1.125 | 0.375 |
| US25000687 | 0.687 | 1.187 | 0.250 |
| US25000687-375 | 0.687 | 1.187 | 0.375 |
| US25000750 | 0.750 | 1.250 | 0.250 |
| US25000750-375 | 0.750 | 1.250 | 0.375 |
| US25000812 | 0.812 | 1.312 | 0.250 |
| US25000812-375 | 0.812 | 1.312 | 0.375 |
| US25000875 | 0.875 | 1.375 | 0.250 |
| US25000875-312 | 0.875 | 1.375 | 0.312 |
| US25000875-375 | 0.875 | 1.375 | 0.375 |
| US25000937 | 0.937 | 1.437 | 0.250 |
| US25001000 | 1.000 | 1.500 | 0.250 |
| US25001000-312 | 1.000 | 1.500 | 0.312 |
| US25001000-375 | 1.000 | 1.500 | 0.375 |
| US25001125 | 1.125 | 1.625 | 0.250 |
| US25001125-281 | 1.125 | 1.625 | 0.281 |
| US25001125-312 | 1.125 | 1.625 | 0.312 |
| US25001125-375 | 1.125 | 1.625 | 0.375 |
| US25001187 | 1.187 | 1.687 | 0.250 |
| US25001187-312 | 1.187 | 1.687 | 0.312 |
| US25001187-375 | 1.187 | 1.687 | 0.375 |
| US25001250 | 1.250 | 1.750 | 0.250 |
| US25001250-312 | 1.250 | 1.750 | 0.312 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/4" Cross Section - 0.250" | | | |
| US25001250-375 | 1.250 | 1.750 | 0.375 |
| US25001312-375 | 1.312 | 1.812 | 0.375 |
| US25001375-312 | 1.375 | 1.875 | 0.312 |
| US25001375-375 | 1.375 | 1.875 | 0.375 |
| US25001500 | 1.500 | 2.000 | 0.250 |
| US25001500-312 | 1.500 | 2.000 | 0.312 |
| US25001500-375 | 1.500 | 2.000 | 0.375 |
| US25001625-375 | 1.625 | 2.125 | 0.375 |
| US25001750 | 1.750 | 2.250 | 0.250 |
| US25001750-312 | 1.750 | 2.250 | 0.312 |
| US25001750-375 | 1.750 | 2.250 | 0.375 |
| US25002000 | 2.000 | 2.500 | 0.250 |
| US25002000-375 | 2.000 | 2.500 | 0.375 |
| US25002125-312 | 2.125 | 2.625 | 0.312 |
| US25002125-375 | 2.125 | 2.625 | 0.375 |
| US25002250-312 | 2.250 | 2.750 | 0.312 |
| US25002250-375 | 2.250 | 2.750 | 0.375 |
| US25002375-375 | 2.375 | 2.875 | 0.375 |
| US25002500 | 2.500 | 3.000 | 0.250 |
| US25002500-312 | 2.500 | 3.000 | 0.312 |
| US25002500-375 | 2.500 | 3.000 | 0.375 |
| US25002625 | 2.625 | 3.125 | 0.250 |
| US25002625-375 | 2.625 | 3.125 | 0.375 |
| US25002750-375 | 2.750 | 3.250 | 0.375 |
| US25002875-375 | 2.875 | 3.375 | 0.375 |
| US25003000 | 3.000 | 3.500 | 0.250 |
| US25003000-375 | 3.000 | 3.500 | 0.375 |
| US25003250-375 | 3.250 | 3.750 | 0.375 |
| US25003375-375 | 3.375 | 3.875 | 0.375 |
| US25003500 | 3.500 | 4.000 | 0.250 |
| US25003500-312 | 3.500 | 4.000 | 0.312 |
| US25003500-375 | 3.500 | 4.000 | 0.375 |
| US25003625-375 | 3.625 | 4.125 | 0.375 |
| US25003750-375 | 3.750 | 4.250 | 0.375 |
| US25004000-312 | 4.000 | 4.500 | 0.312 |
| US25004000-500 | 4.000 | 4.500 | 0.500 |
| US25004000-562 | 4.000 | 4.500 | 0.562 |
| US25004125-562 | 4.125 | 4.625 | 0.562 |
| US25004250-562 | 4.250 | 4.750 | 0.562 |
| US25004500-500 | 4.500 | 5.000 | 0.500 |
| US25004500-562 | 4.500 | 5.000 | 0.562 |
| US25004750-375 | 4.750 | 5.250 | 0.375 |
| US25004750-562 | 4.750 | 5.250 | 0.562 |
| US25005250-562 | 5.250 | 5.750 | 0.562 |

US series - AU 92A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/4" Cross Section - 0.250" | | | |
| US25005625-375 | 5.625 | 6.125 | 0.375 |
| US25005750-625 | 5.750 | 6.250 | 0.625 |
| US25005875-562 | 5.875 | 6.375 | 0.562 |
| US25006000-375 | 6.000 | 6.500 | 0.375 |
| US25006000-562 | 6.000 | 6.500 | 0.562 |
| US25006250-500 | 6.250 | 6.750 | 0.500 |
| US25006250-562 | 6.250 | 6.750 | 0.562 |
| US25006500-375 | 6.500 | 7.000 | 0.375 |
| US25006500-500 | 6.500 | 7.000 | 0.500 |
| US25006500-562 | 6.500 | 7.000 | 0.562 |
| US25006750-562 | 6.750 | 7.250 | 0.562 |
| US25007000-562 | 7.000 | 7.500 | 0.562 |
| US25007250-562 | 7.250 | 7.750 | 0.562 |
| US25007500-562 | 7.500 | 8.000 | 0.562 |
| US25007750-562 | 7.750 | 8.250 | 0.562 |
| US25008000-562 | 8.000 | 8.500 | 0.562 |
| US25008500-375 | 8.500 | 9.000 | 0.375 |
| US25008500-562 | 8.500 | 9.000 | 0.562 |
| 5/16" Cross Section - 0.312" | | | |
| US31201250 | 1.250 | 1.875 | 0.312 |
| US31201250-375 | 1.250 | 1.875 | 0.375 |
| US31201375 | 1.375 | 2.000 | 0.312 |
| US31201375-375 | 1.375 | 2.000 | 0.375 |
| US31201500-375 | 1.500 | 2.125 | 0.375 |
| US31201500-437 | 1.500 | 2.125 | 0.437 |
| US31201500-500 | 1.500 | 2.125 | 0.500 |
| US31201625 | 1.625 | 2.250 | 0.312 |
| US31201625-375 | 1.625 | 2.250 | 0.375 |
| US31201750-375 | 1.750 | 2.375 | 0.375 |
| US31201750-437 | 1.750 | 2.375 | 0.437 |
| US31201750-500 | 1.750 | 2.375 | 0.500 |
| US31201875-375 | 1.875 | 2.500 | 0.375 |
| US31201875-437 | 1.875 | 2.500 | 0.437 |
| US31201875-500 | 1.875 | 2.500 | 0.500 |
| US31201875-625 | 1.875 | 2.500 | 0.625 |
| US31202000 | 2.000 | 2.625 | 0.312 |
| US31202000-375 | 2.000 | 2.625 | 0.375 |
| US31202000-500 | 2.000 | 2.625 | 0.500 |
| US31202125-312 | 2.125 | 2.750 | 0.312 |
| US31202125-375 | 2.125 | 2.750 | 0.375 |
| US31202250 | 2.250 | 2.875 | 0.312 |
| US31202250-375 | 2.250 | 2.875 | 0.375 |
| US31202250-500 | 2.250 | 2.875 | 0.500 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 5/16" Cross Section - 0.312" | | | |
| US31202375 | 2.375 | 3.000 | 0.312 |
| US31202375-375 | 2.375 | 3.000 | 0.375 |
| US31202375-437 | 2.375 | 3.000 | 0.437 |
| US31202375-500 | 2.375 | 3.000 | 0.500 |
| US31202500 | 2.500 | 3.125 | 0.312 |
| US31202500-375 | 2.500 | 3.125 | 0.375 |
| US31202500-500 | 2.500 | 3.125 | 0.500 |
| US31202625-375 | 2.625 | 3.250 | 0.375 |
| US31202625-500 | 2.625 | 3.250 | 0.500 |
| US31202750-375 | 2.750 | 3.375 | 0.375 |
| US31202875-375 | 2.875 | 3.500 | 0.375 |
| US31202875-500 | 2.875 | 3.500 | 0.500 |
| US31203000-375 | 3.000 | 3.625 | 0.375 |
| US31203000-500 | 3.000 | 3.625 | 0.500 |
| US31203125 | 3.125 | 3.750 | 0.312 |
| US31203125-375 | 3.125 | 3.750 | 0.375 |
| US31203125-500 | 3.125 | 3.750 | 0.500 |
| US31203500-375 | 3.500 | 4.125 | 0.375 |
| US31203500-500 | 3.500 | 4.125 | 0.500 |
| US31203625-375 | 3.625 | 4.250 | 0.375 |
| US31203625-500 | 3.625 | 4.250 | 0.500 |
| US31203875-375 | 3.875 | 4.500 | 0.375 |
| US31203875-500 | 3.875 | 4.500 | 0.500 |
| US31204000-375 | 4.000 | 4.625 | 0.375 |
| US31204000-562 | 4.000 | 4.625 | 0.562 |
| US31204125-500 | 4.125 | 4.750 | 0.500 |
| US31204125-562 | 4.125 | 4.750 | 0.562 |
| US31204375-375 | 4.375 | 5.000 | 0.375 |
| US31204375-500 | 4.375 | 5.000 | 0.500 |
| US31204375-562 | 4.375 | 5.000 | 0.562 |
| US31204500-375 | 4.500 | 5.125 | 0.375 |
| US31204500-625 | 4.500 | 5.125 | 0.625 |
| US31204750-500 | 4.750 | 5.375 | 0.500 |
| US31204750-625 | 4.750 | 5.375 | 0.625 |
| US31204875-375 | 4.875 | 5.500 | 0.375 |
| US31204875-500 | 4.875 | 5.500 | 0.500 |
| US31205125-625 | 5.125 | 5.750 | 0.625 |
| US31205250-375 | 5.250 | 5.875 | 0.375 |
| US31205250-500 | 5.250 | 5.875 | 0.500 |
| US31205375-375 | 5.375 | 6.000 | 0.375 |
| US31205375-500 | 5.375 | 6.000 | 0.500 |
| US31205375-625 | 5.375 | 6.000 | 0.625 |
| US31205500-375 | 5.500 | 6.125 | 0.375 |
| US31205500-625 | 5.500 | 6.125 | 0.625 |

US series - AU 92A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 5/16" Cross Section - 0.312" | | | |
| US31205625-625 | 5.625 | 6.250 | 0.625 |
| US31205875-375 | 5.875 | 6.500 | 0.375 |
| US31205875-562 | 5.875 | 6.500 | 0.562 |
| 11/32" Cross Section - 0.343" | | | |
| US34302000-500 | 2.000 | 2.687 | 0.500 |
| 3/8" Cross Section - 0.375" | | | |
| US37501250-500 | 1.250 | 2.000 | 0.500 |
| US37501500 | 1.500 | 2.250 | 0.375 |
| US37501500-500 | 1.500 | 2.250 | 0.500 |
| US37501625 | 1.625 | 2.375 | 0.375 |
| US37501625-500 | 1.625 | 2.375 | 0.500 |
| US37501625-625 | 1.625 | 2.375 | 0.625 |
| US37501750 | 1.750 | 2.500 | 0.375 |
| US37501750-500 | 1.750 | 2.500 | 0.500 |
| US37501750-594 | 1.750 | 2.500 | 0.594 |
| US37501750-625 | 1.750 | 2.500 | 0.625 |
| US37502000 | 2.000 | 2.750 | 0.375 |
| US37502000-500 | 2.000 | 2.750 | 0.500 |
| US37502000-625 | 2.000 | 2.750 | 0.625 |
| US37502250 | 2.250 | 3.000 | 0.375 |
| US37502250-326 | 2.250 | 3.000 | 0.326 |
| US37502250-437 | 2.250 | 3.000 | 0.437 |
| US37502250-500 | 2.250 | 3.000 | 0.500 |
| US37502250-625 | 2.250 | 3.000 | 0.625 |
| US37502500 | 2.500 | 3.250 | 0.375 |
| US37502500-500 | 2.500 | 3.250 | 0.500 |
| US37502500-625 | 2.500 | 3.250 | 0.625 |
| US37502625 | 2.625 | 3.375 | 0.375 |
| US37502625-500 | 2.625 | 3.375 | 0.500 |
| US37502625-625 | 2.625 | 3.375 | 0.625 |
| US37502750 | 2.750 | 3.500 | 0.375 |
| US37502750-440 | 2.750 | 3.500 | 0.440 |
| US37502750-500 | 2.750 | 3.500 | 0.500 |
| US37502750-625 | 2.750 | 3.500 | 0.625 |
| US37503000 | 3.000 | 3.750 | 0.375 |
| US37503000-500 | 3.000 | 3.750 | 0.500 |
| US37503000-625 | 3.000 | 3.750 | 0.625 |
| US37503250 | 3.250 | 4.000 | 0.375 |
| US37503250-500 | 3.250 | 4.000 | 0.500 |
| US37503250-625 | 3.250 | 4.000 | 0.625 |
| US37503500 | 3.500 | 4.250 | 0.375 |
| US37503500-437 | 3.500 | 4.250 | 0.437 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 3/8" Cross Section - 0.375" | | | |
| US37503500-500 | 3.500 | 4.250 | 0.500 |
| US37503500-625 | 3.500 | 4.250 | 0.625 |
| US37503750 | 3.750 | 4.500 | 0.375 |
| US37503750-500 | 3.750 | 4.500 | 0.500 |
| US37503750-625 | 3.750 | 4.500 | 0.625 |
| US37503875 | 3.875 | 4.625 | 0.375 |
| US37504000 | 4.000 | 4.750 | 0.375 |
| US37504000-437 | 4.000 | 4.750 | 0.437 |
| US37504000-500 | 4.000 | 4.750 | 0.500 |
| US37504000-625 | 4.000 | 4.750 | 0.625 |
| US37504125-500 | 4.125 | 4.875 | 0.500 |
| US37504125-625 | 4.125 | 4.875 | 0.625 |
| US37504250-500 | 4.250 | 5.000 | 0.500 |
| US37504250-625 | 4.250 | 5.000 | 0.625 |
| US37504500-500 | 4.500 | 5.250 | 0.500 |
| US37504500-625 | 4.500 | 5.250 | 0.625 |
| US37504625-500 | 4.625 | 5.375 | 0.500 |
| US37504750-500 | 4.750 | 5.500 | 0.500 |
| US37504750-625 | 4.750 | 5.500 | 0.625 |
| US37504875-500 | 4.875 | 5.625 | 0.500 |
| US37504875-625 | 4.875 | 5.625 | 0.625 |
| US37505250 | 5.250 | 6.000 | 0.375 |
| US37505250-500 | 5.250 | 6.000 | 0.500 |
| US37505250-625 | 5.250 | 6.000 | 0.625 |
| US37505375-500 | 5.375 | 6.125 | 0.500 |
| US37505375-625 | 5.375 | 6.125 | 0.625 |
| US37505500 | 5.500 | 6.250 | 0.375 |
| US37505500-500 | 5.500 | 6.250 | 0.500 |
| US37505625-625 | 5.625 | 6.375 | 0.625 |
| US37505750-500 | 5.750 | 6.500 | 0.500 |
| US37505750-625 | 5.750 | 6.500 | 0.625 |
| US37506250-500 | 6.250 | 7.000 | 0.500 |
| US37506250-625 | 6.250 | 7.000 | 0.625 |
| US37506375-625 | 6.375 | 7.125 | 0.625 |
| US37506500-500 | 6.500 | 7.250 | 0.500 |
| US37506500-625 | 6.500 | 7.250 | 0.625 |
| US37506750-500 | 6.750 | 7.500 | 0.500 |
| US37507000-500 | 7.000 | 7.750 | 0.500 |
| US37507000-625 | 7.000 | 7.750 | 0.625 |
| US37507250-500 | 7.250 | 8.000 | 0.500 |
| US37507250-625 | 7.250 | 8.000 | 0.625 |
| US37507500-500 | 7.500 | 8.250 | 0.500 |
| US37507500-625 | 7.500 | 8.250 | 0.625 |
| US37507750-500 | 7.750 | 8.500 | 0.500 |

US series - AU 92A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 3/8" Cross Section - 0.375" | | | |
| US37507750-625 | 7.750 | 8.500 | 0.625 |
| US37508000-500 | 8.000 | 8.750 | 0.500 |
| US37508250-500 | 8.250 | 9.000 | 0.500 |
| US37509000-625 | 9.000 | 9.750 | 0.625 |
| US37509750-500 | 9.750 | 10.500 | 0.500 |
| US37514250-500 | 14.250 | 15.000 | 0.500 |
| US37514250-625 | 14.250 | 15.000 | 0.625 |
| 1/2" Cross Section - 0.500" | | | |
| US50002500-687 | 2.500 | 3.500 | 0.687 |
| US50003000-656 | 3.000 | 4.000 | 0.656 |
| US50003500 | 3.500 | 4.500 | 0.500 |
| US50003500-625 | 3.500 | 4.500 | 0.625 |
| US50003500-656 | 3.500 | 4.500 | 0.656 |
| US50004000-656 | 3.000 | 4.000 | 0.656 |
| US50004000-750 | 4.000 | 5.000 | 0.750 |
| US50004500 | 4.500 | 5.500 | 0.500 |
| US50006000-625 | 6.000 | 7.000 | 0.625 |
| US50006000-750 | 6.000 | 7.000 | 0.750 |
| US50006500 | 6.500 | 7.500 | 0.500 |
| US50006500-750 | 6.500 | 7.500 | 0.750 |
| US50007000-625 | 7.000 | 8.000 | 0.625 |

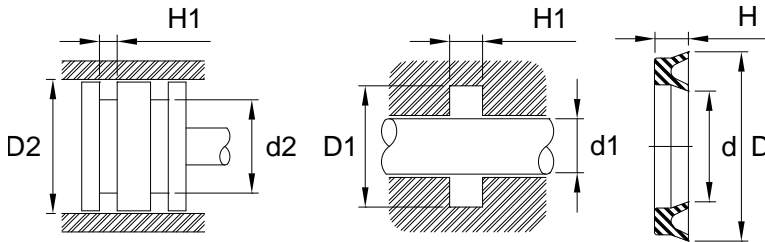
| Ref.Number | Nominal Seal Dimensions | | |
|------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 1/2" Cross Section - 0.500" | | | |
| US50007500-750 | 7.500 | 8.500 | 0.750 |
| US50007750-750 | 7.750 | 8.750 | 0.750 |
| US50008000-625 | 8.000 | 9.000 | 0.625 |
| US50008000-750 | 8.000 | 9.000 | 0.750 |
| US50008500-594 | 8.500 | 9.500 | 0.594 |
| US50009000-625 | 9.000 | 10.000 | 0.625 |
| US50009000-750 | 9.000 | 10.000 | 0.750 |
| US50010000-625 | 10.000 | 11.000 | 0.625 |
| US50010000-750 | 10.000 | 11.000 | 0.750 |
| US50011000-594 | 11.000 | 12.000 | 0.594 |
| US50011000-750 | 11.000 | 12.000 | 0.750 |
| US50012000-750 | 12.000 | 13.000 | 0.750 |
| US50015000-562 | 15.000 | 16.000 | 0.562 |
| US50015000-625 | 15.000 | 16.000 | 0.625 |
| US50015000-750 | 15.000 | 16.000 | 0.750 |
| US50017000-750 | 17.000 | 18.000 | 0.750 |
| 5/8" Cross Section - 0.625" | | | |
| US62503750 | 3.750 | 5.000 | 0.625 |
| 3/4" Cross Section - 0.750" | | | |
| US75012500-1000 | 12.500 | 14.000 | 1.000 |



AN6226 - Symmetrical seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-----------------------|----------------------|
| Nitrile | -40°F to +250°F (-40°C to +121°C) | ≤500 psi (≤34 bar) | < 1.6 ft/s (0.5 m/s) |



AN6226 Style u-cup has a square format where the nominal cross section is equal to the height. Although widely used in the fluid power industry for low friction pneumatics, this profile was originally designed for early aircraft and ordnance service. Many units still use this type u-cup. The **AN6226** profile is available in the most popular sizes per Army/Navy (AN) specifications and is made of a standard 70 Shore A nitrile compound.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department.

| Ref. Number | Nominal Seal Dimensions | | | Housing Dimensions | | | | | | | |
|-------------|-------------------------|-------|-------|----------------------------|------------------|------------------|------------------------------|------------------|------------------|--------------|------------------|
| | | | | Rod Diameter/Piston Groove | | | Gland Diameter/Cylinder Bore | | | Groove width | |
| | d | D | h | DIM | Rod | Groove | DIM | Gland | Cyl. Bore | H1 | Tol. |
| | | | | | d1 - Tol. | d2 - Tol. | | D1 - Tol. | D2 - Tol. | | |
| AN6226-41 | 0.125 | 0.375 | 0.125 | 0.125 | +0.000 -0.001 | +0.000/-0.001 | 0.375 | +0.002 -0.000 | +0.003 -0.000 | 0.156 | +0.010 -0.010 |
| AN6226-01 | 0.125 | 0.500 | 0.187 | 0.125 | +0.000 -0.001 | +0.000/-0.002 | 0.500 | +0.002 -0.000 | +0.003 -0.000 | 0.218 | +0.010 -0.010 |
| AN6226-42 | 0.187 | 0.437 | 0.125 | 0.187 | | +0.000/-0.001 | 0.437 | | | 0.156 | |
| AN6226-02 | 0.187 | 0.562 | 0.187 | 0.187 | | +0.000/-0.002 | 0.562 | | | 0.218 | |
| AN6226-43 | 0.250 | 0.500 | 0.125 | 0.250 | | +0.000/-0.001 | 0.500 | | | 0.156 | |
| AN6226-03 | 0.250 | 0.625 | 0.187 | 0.250 | | +0.000/-0.002 | 0.625 | | | 0.218 | |
| AN6226-08 | 0.250 | 0.750 | 0.250 | 0.250 | +0.000/-0.002 | +0.000/-0.003 | 0.750 | +0.003/-0.000 | | 0.281 | |
| AN6226-44 | 0.312 | 0.562 | 0.125 | 0.312 | +0.000 -0.001 | +0.000/-0.001 | 0.562 | +0.002 -0.000 | | 0.156 | |
| AN6226-04 | 0.312 | 0.687 | 0.187 | 0.315 | +0.000 -0.001 | +0.000/-0.002 | 0.687 | +0.002 -0.000 | | 0.218 | |
| AN6226-09 | 0.312 | 0.812 | 0.250 | 0.312 | +0.000/-0.002 | +0.000/-0.003 | 0.812 | +0.003/-0.000 | | 0.281 | |
| AN6226-45 | 0.375 | 0.625 | 0.125 | 0.375 | +0.000 -0.001 | +0.000/-0.001 | 0.625 | +0.002 -0.000 | | 0.156 | |
| AN6226-05 | 0.375 | 0.750 | 0.187 | 0.375 | +0.000 -0.001 | +0.000/-0.002 | 0.750 | +0.002 -0.000 | | 0.218 | |
| AN6226-10 | 0.375 | 0.875 | 0.250 | 0.375 | +0.000/-0.002 | +0.000/-0.003 | 0.875 | +0.003/-0.000 | | 0.281 | |
| AN6226-46 | 0.437 | 0.687 | 0.125 | 0.437 | +0.000 -0.001 | +0.000/-0.001 | 0.687 | +0.002 -0.000 | | 0.156 | |
| AN6226-06 | 0.437 | 0.812 | 0.187 | 0.437 | +0.000 -0.001 | +0.000/-0.002 | 0.812 | +0.002 -0.000 | | 0.218 | |
| AN6226-11 | 0.437 | 0.937 | 0.250 | 0.437 | +0.000/-0.002 | +0.000/-0.003 | 0.937 | +0.003/-0.000 | | 0.281 | |
| AN6226-47 | 0.500 | 0.750 | 0.125 | 0.500 | +0.000 -0.001 | +0.000/-0.001 | 0.750 | +0.002 -0.000 | | 0.156 | |
| AN6226-07 | 0.500 | 0.875 | 0.187 | 0.500 | +0.000 -0.001 | +0.000/-0.002 | 0.875 | +0.002 -0.000 | | 0.218 | |
| AN6226-12 | 0.500 | 1.000 | 0.250 | 0.500 | +0.000 -0.002 | +0.000 -0.003 | 1.000 | +0.003 -0.000 | | 0.281 | |
| AN6226-13 | 0.562 | 1.062 | 0.250 | 0.562 | +0.000 -0.002 | +0.000 -0.003 | 1.062 | +0.003 -0.000 | | 0.281 | |
| AN6226-48 | 0.625 | 1.000 | 0.187 | 0.625 | +0.000/-0.001 | +0.000/-0.002 | 1.000 | +0.000/-0.002 | | 0.218 | |



AN6226 series - NBR 70A

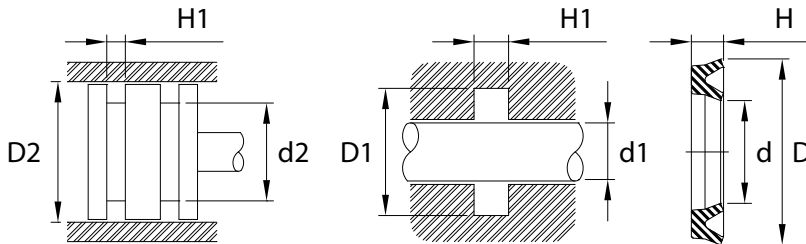


| Ref.Number | Nominal Seal Dimensions | | | Housing Dimensions | | | | | | | |
|------------|-------------------------|--------|-------|----------------------------|------------------|------------------|------------------------------|------------------|------------------|--------------------|------------------|
| | | | | Rod Diameter/Piston Groove | | | Gland Diameter/Cylinder Bore | | | Largeur de rainure | |
| | d | D | h | DIM | Rod | Groove | DIM | Gland | Cyl.Bore | H1 | Tol. |
| | | | | | d1 - Tol. | d2 - Tol. | | D1 - Tol. | D2 - Tol. | | |
| AN6226-14 | 0.625 | 1.125 | 0.250 | 0.625 | +0.000 -0.002 | +0.000 -0.003 | 1.125 | +0.003 -0.000 | +0.003 -0.000 | 0.281 | +0.010 -0.010 |
| AN6226-15 | 0.687 | 1.187 | 0.250 | 0.687 | | | 1.187 | | | 0.281 | |
| AN6226-49 | 0.750 | 1.125 | 0.187 | 0.750 | +0.000/-0.001 | +0.000/-0.002 | 1.125 | +0.002/-0.000 | | 0.218 | |
| AN6226-16 | 0.750 | 1.250 | 0.250 | 0.750 | +0.000 -0.002 | +0.000 -0.003 | 1.250 | +0.003 -0.000 | | 0.281 | |
| AN6226-17 | 0.812 | 1.312 | 0.250 | 0.812 | | | 1.312 | | | 0.281 | |
| AN6226-50 | 0.875 | 1.250 | 0.187 | 0.875 | +0.000/-0.001 | +0.000/-0.002 | 1.250 | +0.002/-0.000 | | 0.218 | |
| AN6226-18 | 0.875 | 1.375 | 0.250 | 0.875 | +0.000 -0.002 | +0.000 -0.003 | 1.375 | +0.003 -0.000 | | 0.281 | |
| AN6226-19 | 0.937 | 1.437 | 0.250 | 0.937 | | | 1.437 | | | 0.281 | |
| AN6226-51 | 1.000 | 1.375 | 0.187 | 1.000 | +0.000/-0.001 | +0.000/-0.002 | 1.375 | +0.002/-0.000 | | 0.218 | |
| AN6226-20 | 1.000 | 1.500 | 0.250 | 1.000 | +0.000 -0.002 | +0.000 -0.003 | 1.500 | +0.003 -0.000 | | 0.281 | |
| AN6226-21 | 1.062 | 1.562 | 0.250 | 1.062 | | | 1.562 | | | 0.281 | |
| AN6226-52 | 1.125 | 1.500 | 0.187 | 1.125 | +0.000/-0.001 | +0.000/-0.002 | 1.500 | +0.002/-0.000 | | 0.218 | |
| AN6226-22 | 1.125 | 1.625 | 0.250 | 1.125 | +0.000 -0.002 | +0.000 -0.003 | 1.625 | +0.003 -0.000 | | 0.281 | |
| AN6226-23 | 1.187 | 1.687 | 0.250 | 1.187 | | | 1.687 | | | 0.281 | |
| AN6226-53 | 1.250 | 1.625 | 0.187 | 1.250 | +0.000/-0.001 | +0.000/-0.002 | 1.625 | +0.002/-0.000 | | 0.218 | |
| AN6226-24 | 1.250 | 1.750 | 0.250 | 1.250 | +0.000 -0.002 | +0.000/-0.003 | 1.750 | +0.003/-0.000 | | 0.281 | |
| AN6226-25 | 1.250 | 1.875 | 0.312 | 1.250 | | +0.000 -0.004 | 1.875 | +0.004 -0.000 | | 0.343 | |
| AN6226-26 | 1.375 | 2.000 | 0.312 | 1.375 | | | 2.000 | | | 0.343 | |
| AN6226-27 | 1.500 | 2.125 | 0.312 | 1.500 | | | 2.125 | | | 0.343 | |
| AN6226-28 | 1.625 | 2.250 | 0.312 | 1.625 | | | 2.250 | | | 0.343 | |
| AN6226-29 | 1.750 | 2.375 | 0.312 | 1.750 | | | 2.375 | | | 0.343 | |
| AN6226-30 | 1.875 | 2.500 | 0.312 | 1.875 | | | 2.500 | | | 0.343 | |
| AN6226-31 | 2.000 | 2.625 | 0.312 | 2.000 | | | 2.625 | | | 0.343 | |
| AN6226-32 | 2.125 | 2.750 | 0.312 | 2.125 | | | 2.750 | | | 0.343 | |
| AN6226-33 | 2.250 | 2.875 | 0.312 | 2.250 | | | 2.875 | | | 0.343 | |
| AN6226-34 | 2.375 | 3.000 | 0.312 | 2.375 | | | 3.000 | | | 0.343 | |
| AN6226-35 | 2.500 | 3.125 | 0.312 | 2.500 | | | 3.125 | | | 0.343 | |
| AN6226-36 | 2.500 | 3.250 | 0.375 | 2.500 | | +0.000 -0.005 | 3.250 | +0.005 -0.000 | +0.004 -0.000 | 0.406 | |
| AN6226-37 | 2.625 | 3.375 | 0.375 | 2.625 | | | 3.375 | | | 0.406 | |
| AN6226-38 | 2.750 | 3.500 | 0.375 | 2.750 | | | 3.500 | | | 0.406 | |
| AN6226-39 | 2.875 | 3.625 | 0.375 | 2.875 | | | 3.625 | | | 0.406 | |
| AN6226-40 | 3.000 | 3.750 | 0.375 | 3.000 | | | 3.750 | | | 0.406 | |
| AN6226-60 | 3.250 | 4.000 | 0.375 | 3.250 | | | 4.000 | | | 0.406 | |
| AN6226-63 | 3.750 | 4.500 | 0.375 | 2.750 | | | 4.500 | | | 0.406 | |
| AN6226-65 | 4.250 | 5.000 | 0.375 | 4.250 | | | 5.000 | | | 0.406 | |
| AN6226-70 | 5.125 | 6.000 | 0.437 | 5.125 | +0.000 -0.003 | +0.000 -0.006 | 6.000 | +0.006 -0.000 | +0.005 -0.000 | 0.468 | |
| AN6226-75 | 6.125 | 7.000 | 0.437 | 6.125 | | | 7.000 | | | 0.468 | |
| AN6226-80 | 7.000 | 8.000 | 0.500 | 7.000 | | +0.000/-0.007 | 8.000 | +0.007/-0.000 | | 0.531 | |
| AN6226-81 | 7.500 | 8.250 | 0.375 | 7.500 | +0.000/-0.002 | +0.000/-0.005 | 8.250 | +0.005/-0.000 | +0.004/-0.000 | 0.406 | |
| AN6226-82 | 8.000 | 9.000 | 0.500 | 8.000 | +0.000 -0.003 | +0.000 -0.007 | 9.000 | +0.007 -0.000 | +0.005 -0.000 | 0.531 | |
| AN6226-85 | 9.000 | 10.000 | 0.500 | 9.000 | | | 10.000 | | | 0.531 | |
| AN6226-90 | 11.000 | 12.000 | 0.500 | 11.000 | | | 12.000 | | | 0.531 | |
| AN6226-95 | 13.000 | 14.000 | 0.500 | 13.000 | | | 14.000 | | | 0.531 | |

8400 - Symmetrical seals - Inch



| Standard Material | Temperature Range | Pressure Range | | Surface Speed | |
|-------------------|--------------------------------------|-----------------------|---------------------|------------------------|----------------------|
| | | Hydr. | Pneu. | Hydr. | Pneu. |
| Nitrile | -40°F to +250°F (-54°C to +135°C) | 1250 psi (86 bar) | 250 psi (17 bar) | <1.6 ft/s (0.5 m/s) | <3.3 ft/s (1 m/s) |
| | | 2000 psi (138 bar) | 250 psi (17 bar) | <1.6 ft/s (0.5 m/s) | <3.3 ft/s (1 m/s) |



8400-style u-cups are symmetrical lip seals for use in either rod or piston sealing applications. The thin flexible lip design reacts to low pressure and provides an extremely smooth, steady movement with less break away force required because of the inherent low friction. 8400 u-cups are produced from the same molds. This profile is primarily designed for pneumatic application, it can also be used in low pressure hydraulic applications.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department.

| Ref.Number | Nominal Seal Dimensions | | | Housing Dimensions | | | | | | | |
|-------------------------------------|-------------------------|-------|-------|----------------------------|------------------|------------------|------------------------------|------------------|------------------|--------------|------------------|
| | | | | Rod Diameter/Piston Groove | | | Gland Diameter/Cylinder Bore | | | Groove width | |
| | | | | DIM | d1 - Tol. | d2 - Tol. | DIM | D1 - Tol. | D2 - Tol. | H1 | Tol. |
| 1/16" Cross Section - 0.062" | | | | | | | | | | | |
| 840200125 | 0.125 | 0.250 | 0.062 | 0.125 | +0.000 -0.001 | +0.000 -0.001 | 0.250 | +0.002 -0.000 | +0.002 -0.000 | 0.093 | +0.010 -0.010 |
| 840200187 | 0.187 | 0.312 | 0.062 | 0.187 | +0.000 -0.001 | +0.000 -0.001 | 0.312 | +0.002 -0.000 | +0.002 -0.000 | 0.093 | +0.010 -0.010 |
| 3/32" Cross Section - 0.093" | | | | | | | | | | | |
| 840300187 | 0.187 | 0.375 | 0.093 | 0.187 | +0.000 -0.001 | +0.000 -0.001 | 0.375 | +0.002 -0.000 | +0.002 -0.000 | 0.125 | +0.010 -0.010 |
| 840300250 | 0.250 | 0.437 | 0.093 | 0.250 | +0.000 -0.001 | +0.000 -0.001 | 0.437 | +0.002 -0.000 | +0.002 -0.000 | 0.125 | +0.010 -0.010 |
| 840300312 | 0.312 | 0.500 | 0.093 | 0.312 | ↓ | ↓ | 0.500 | ↓ | ↓ | 0.125 | ↓ |
| 840300625 | 0.625 | 0.812 | 0.093 | 0.625 | ↓ | ↓ | 0.812 | ↓ | ↓ | 0.125 | ↓ |
| 1/8" Cross Section - 0.125" | | | | | | | | | | | |
| 840400312 | 0.312 | 0.562 | 0.125 | 0.312 | +0.000 -0.001 | +0.000 -0.002 | 0.562 | +0.002 -0.000 | +0.002 -0.000 | 0.156 | +0.010 -0.010 |
| 840400375 | 0.375 | 0.625 | 0.125 | 0.375 | +0.000 -0.001 | +0.000 -0.002 | 0.625 | +0.002 -0.000 | +0.002 -0.000 | 0.156 | +0.010 -0.010 |
| 840400437 | 0.437 | 0.687 | 0.125 | 0.437 | ↓ | ↓ | 0.687 | ↓ | ↓ | 0.156 | ↓ |
| 840400500 | 0.500 | 0.750 | 0.125 | 0.500 | ↓ | ↓ | 0.750 | ↓ | ↓ | 0.156 | ↓ |
| 840400562 | 0.562 | 0.812 | 0.125 | 0.562 | ↓ | ↓ | 0.812 | ↓ | ↓ | 0.156 | ↓ |
| 840400625 | 0.625 | 0.875 | 0.125 | 0.625 | ↓ | ↓ | 0.875 | ↓ | ↓ | 0.156 | ↓ |
| 840400687 | 0.687 | 0.937 | 0.125 | 0.687 | ↓ | ↓ | 0.937 | ↓ | ↓ | 0.156 | ↓ |



8400 series - NBR 80A & FPM 90A



| Ref.Number | Nominal Seal Dimensions | | | Housing Dimensions | | | | | | | |
|-------------------------------------|-------------------------|-------|-------|----------------------------|------------------|------------------|------------------------------|------------------|------------------|--------------|------------------|
| | | | | Rod Diameter/Piston Groove | | | Gland Diameter/Cylinder Bore | | | Groove width | |
| | d | D | h | | Rod | Groove | | Gland | Cyl.Bore | | |
| | | | | DIM | d1 - Tol. | d2 - Tol. | DIM | D1 - Tol. | D2 - Tol. | H1 | Tol. |
| 1/8" Cross Section - 0.125" | | | | | | | | | | | |
| 840400750 | 0.750 | 1.000 | 0.125 | 0.750 | +0.000 -0.001 | +0.000 -0.002 | 1.000 | +0.002 -0.000 | +0.002 -0.000 | 0.156 | +0.010 -0.010 |
| 840400812 | 0.812 | 1.062 | 0.125 | 0.812 | | | 1.062 | | | 0.156 | |
| 840400875 | 0.875 | 1.125 | 0.125 | 0.875 | | | 1.125 | | | 0.156 | |
| 840400937 | 0.937 | 1.187 | 0.125 | 0.937 | | | 1.187 | | | 0.156 | |
| 840401000 | 1.000 | 1.250 | 0.125 | 1.000 | | | 1.250 | | | 0.156 | |
| 840401125 | 1.125 | 1.375 | 0.125 | 1.125 | | | 1.375 | | | 0.156 | |
| 840404000 | 4.000 | 4.250 | 0.125 | 4.000 | ↓ | ↓ | 4.250 | ↓ | ↓ | 0.156 | ↓ |
| 5/32" Cross Section - 0.156" | | | | | | | | | | | |
| 840501000 | 1.000 | 1.312 | 0.156 | 1.000 | +0.000 -0.001 | +0.000 -0.002 | 1.312 | +0.002 -0.000 | +0.002 -0.000 | 0.187 | +0.010 -0.010 |
| 840501062 | 1.062 | 1.375 | 0.156 | 1.062 | | | 1.375 | | | 0.187 | |
| 840501125 | 1.125 | 1.437 | 0.156 | 1.125 | | | 1.437 | | | 0.187 | |
| 840501187 | 1.187 | 1.500 | 0.156 | 1.187 | | | 1.500 | | | 0.187 | |
| 840501250 | 1.250 | 1.562 | 0.156 | 1.250 | | | 1.562 | | | 0.187 | |
| 840501312 | 1.312 | 1.625 | 0.156 | 1.312 | | | 1.625 | | | 0.187 | |
| 840501375 | 1.375 | 1.687 | 0.156 | 1.375 | | | 1.687 | | | 0.187 | |
| 840501437 | 1.437 | 1.750 | 0.156 | 1.437 | | | 1.750 | | | 0.187 | |
| 840501500 | 1.500 | 1.812 | 0.156 | 1.500 | ↓ | ↓ | 1.812 | ↓ | ↓ | 0.187 | ↓ |
| 3/16" Cross Section - 0.187" | | | | | | | | | | | |
| 840600750 | 0.750 | 1.125 | 0.187 | 0.750 | +0.000 -0.001 | +0.000 -0.002 | 1.125 | +0.002 -0.000 | +0.002 -0.000 | 0.218 | +0.010 -0.010 |
| 840600875 | 0.875 | 1.250 | 0.187 | 0.875 | | | 1.250 | | | 0.218 | |
| 840601375 | 1.375 | 1.750 | 0.187 | 1.375 | | | 1.750 | | | 0.218 | |
| 840601500 | 1.500 | 1.875 | 0.187 | 1.500 | | | 1.875 | | | 0.218 | |
| 840601625 | 1.625 | 2.000 | 0.187 | 1.625 | | | 2.000 | | | 0.218 | |
| 840601750 | 1.750 | 2.125 | 0.187 | 1.750 | | | 2.125 | | | 0.218 | |
| 840601875 | 1.875 | 2.250 | 0.187 | 1.875 | | | 2.250 | | | 0.218 | |
| 840602000 | 2.000 | 2.375 | 0.187 | 2.000 | | | 2.375 | | | 0.218 | |
| 840602125 | 2.125 | 2.500 | 0.187 | 2.125 | | | 2.500 | | | 0.218 | |
| 840602250 | 2.250 | 2.625 | 0.187 | 2.250 | | | 2.625 | | | 0.218 | |
| 840602375 | 2.375 | 2.750 | 0.187 | 2.375 | | | 2.750 | | | 0.218 | |
| 840602500 | 2.500 | 2.875 | 0.187 | 2.500 | | | 2.875 | | | 0.218 | |
| 840602625 | 2.625 | 3.000 | 0.187 | 2.625 | | | 3.000 | | | 0.218 | |
| 840602750 | 2.750 | 3.125 | 0.187 | 2.750 | | | 3.125 | | | 0.218 | |
| 840603000 | 3.000 | 3.375 | 0.187 | 3.000 | ↓ | ↓ | 3.375 | ↓ | ↓ | 0.218 | ↓ |
| 7/32" Cross Section - 0.218" | | | | | | | | | | | |
| 840701937 | 1.937 | 2.375 | 0.218 | 1.937 | +0.000 -0.001 | +0.000 -0.002 | 2.375 | +0.002 -0.000 | +0.002 -0.000 | 0.250 | +0.010 -0.010 |
| 840702500 | 2.500 | 2.937 | 0.218 | 2.500 | | | 2.937 | | | 0.250 | |
| 840702562 | 2.562 | 3.000 | 0.218 | 2.562 | | | 3.000 | | | 0.250 | |
| 840702687 | 2.687 | 3.125 | 0.218 | 2.687 | | | 3.125 | | | 0.250 | |
| 840702750 | 2.750 | 3.187 | 0.218 | 2.750 | | | 3.187 | | | 0.250 | |
| 840702812 | 2.812 | 3.250 | 0.218 | 2.812 | ↓ | ↓ | 3.250 | ↓ | ↓ | 0.250 | ↓ |

8400 series - NBR 80A & FPM 90A

SYMMETRICAL SEALS



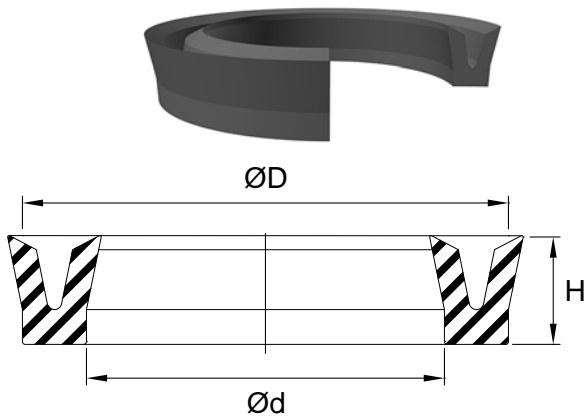
| Ref. Number | Nominal Seal Dimensions | | | Housing Dimensions | | | | | | | |
|--------------------------------------|-------------------------|--------|-------|----------------------------|------------------|------------------|------------------------------|------------------|------------------|--------------|------------------|
| | | | | Rod Diameter/Piston Groove | | | Gland Diameter/Cylinder Bore | | | Groove width | |
| | d | D | h | DIM | d1 - Tol. | d2 - Tol. | DIM | D1 - Tol. | D2 - Tol. | H1 | Tol. |
| 7/32" Cross Section - 0.218" | | | | | | | | | | | |
| 840703000 | 3.000 | 3.437 | 0.218 | 3.000 | +0.000 -0.002 | +0.000 -0.002 | 3.437 | +0.002 -0.000 | +0.002 -0.000 | 0.250 | +0.010 -0.010 |
| 840703062 | 3.062 | 3.500 | 0.218 | 3.062 | | | 3.500 | | | 0.250 | |
| 1/4" Cross Section - 0.250" | | | | | | | | | | | |
| 840801000 | 1.000 | 1.500 | 0.250 | 1.000 | +0.000 -0.002 | +0.000 -0.003 | 1.500 | +0.003 -0.000 | +0.003 -0.000 | 0.281 | +0.010 -0.010 |
| 840802500 | 2.500 | 3.000 | 0.250 | 2.500 | | | 3.000 | | | 0.281 | |
| 840802750 | 2.750 | 3.250 | 0.250 | 2.750 | | | 3.250 | | | 0.281 | |
| 840803375 | 3.375 | 3.875 | 0.250 | 3.375 | | | 3.875 | | | 0.281 | |
| 840803500 | 3.500 | 4.000 | 0.250 | 3.500 | | | 4.000 | | | 0.281 | |
| 840803750 | 3.750 | 4.250 | 0.250 | 3.750 | | | 4.250 | | | 0.281 | |
| 840804000 | 4.000 | 4.500 | 0.250 | 4.000 | | | 4.500 | | | 0.281 | |
| 840804250 | 4.250 | 4.750 | 0.250 | 4.250 | | | 4.750 | | | 0.281 | |
| 840804500 | 4.500 | 5.000 | 0.250 | 4.500 | | | 5.000 | | | 0.281 | |
| 840804750 | 4.750 | 5.250 | 0.250 | 4.750 | ↓ | ↓ | 5.250 | ↓ | ↓ | 0.281 | ↓ |
| 9/32" Cross Section - 0.281" | | | | | | | | | | | |
| 840904437 | 4.437 | 5.000 | 0.281 | 4.437 | +0.000 -0.002 | +0.000 -0.003 | 5.000 | +0.003 -0.000 | +0.003 -0.000 | 0.312 | +0.010 -0.010 |
| 840905000 | 5.000 | 5.562 | 0.281 | 5.000 | | | 5.562 | | | 0.312 | |
| 840905437 | 5.437 | 6.000 | 0.281 | 5.437 | | | 6.000 | | | 0.312 | |
| 840905937 | 5.937 | 6.500 | 0.281 | 5.937 | | | 6.500 | | | 0.312 | |
| 840906437 | 6.437 | 7.000 | 0.281 | 6.437 | ↓ | ↓ | 7.000 | ↓ | ↓ | 0.312 | ↓ |
| 5/16" Cross Section - 0.312" | | | | | | | | | | | |
| 841002375 | 2.375 | 3.000 | 0.312 | 2.375 | +0.000 -0.002 | +0.000 -0.004 | 3.000 | +0.002/-0.000 | +0.002/-0.000 | 0.344 | +0.010 -0.010 |
| 841005125 | 5.125 | 5.750 | 0.312 | 5.125 | | | 5.750 | | | 0.344 | |
| 841005375 | 5.375 | 6.000 | 0.312 | 5.375 | | | 6.000 | | | 0.344 | |
| 841005500 | 5.500 | 6.125 | 0.312 | 5.500 | | | 6.125 | | | 0.344 | |
| 841006000 | 6.000 | 6.625 | 0.312 | 6.000 | | | 6.625 | | | 0.344 | |
| 841006375 | 6.375 | 7.000 | 0.312 | 6.375 | | | 7.000 | | | 0.344 | |
| 841006969 | 6.969 | 7.593 | 0.312 | 6.969 | | | 7.593 | | | 0.344 | |
| 841007000 | 7.000 | 7.625 | 0.312 | 7.000 | | | 7.625 | | | 0.344 | |
| 841007375 | 7.375 | 8.000 | 0.312 | 7.375 | | | 8.000 | | | 0.344 | |
| 841008500 | 8.500 | 9.125 | 0.312 | 8.500 | ↓ | ↓ | 9.125 | ↓ | ↓ | 0.344 | ↓ |
| 11/32" Cross Section - 0.343" | | | | | | | | | | | |
| 841109312 | 9.312 | 10.000 | 0.343 | 9.312 | +0.000/-0.002 | +0.000/-0.004 | 10.000 | +0.004/-0.000 | +0.003/-0.000 | 0.375 | +0.010/-0.010 |
| 3/8" Cross Section - 0.375" | | | | | | | | | | | |
| 841202250 | 2.250 | 3.000 | 0.375 | 2.250 | +0.000 -0.002 | +0.000 -0.005 | 3.000 | +0.004 -0.000 | +0.002/-0.000 | 0.406 | +0.010 -0.010 |
| 841211250 | 11.250 | 12.000 | 0.375 | 11.250 | | | 12.000 | | | 0.406 | |
| 13/32" Cross Section - 0.406" | | | | | | | | | | | |
| 841313187 | 13.187 | 14.000 | 0.406 | 13.187 | +0.000/-0.002 | +0.000/-0.005 | 14.000 | +0.005/-0.000 | +0.004/-0.000 | 0.437 | +0.010/-0.010 |

8400 series - NBR 80A & FPM 90A



| Ref.Number | Nominal Seal Dimensions | | | Housing Dimensions | | | | | | | |
|-------------------------------------|-------------------------|--------|-------|----------------------------|------------------|------------------|------------------------------|------------------|------------------|--------------|------------------|
| | | | | Rod Diameter/Piston Groove | | | Gland Diameter/Cylinder Bore | | | Groove width | |
| | d | D | h | DIM | d1 - Tol. | d2 - Tol. | DIM | D1 - Tol. | D2 - Tol. | H1 | Tol. |
| 7/16" Cross Section - 0.437" | | | | | | | | | | | |
| 841417125 | 17.125 | 18.000 | 0.437 | 17.125 | +0.000/-0.003 | +0.000/-0.006 | 18.000 | +0.006/-0.000 | +0.005/-0.000 | 0.469 | +0.010/-0.010 |
| 1/2" Cross Section - 0.500" | | | | | | | | | | | |
| 841611000 | 11.000 | 12.000 | 0.500 | 11.000 | +0.000 -0.003 | +0.000 -0.007 | 12.000 | +0.007 -0.000 | +0.005 -0.010 | 0.531 | +0.010 -0.010 |
| 841613000 | 13.000 | 14.000 | 0.500 | 13.000 | +0.000 -0.003 | +0.000 -0.007 | 14.000 | +0.007 -0.000 | +0.005 -0.010 | 0.531 | +0.010 -0.010 |

HU - Symmetrical seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|----------------------|
| Nitrile | -40°F to +250°F (-40°C to +121°C) | ≤2000 psi (≤138 bar) | < 1.6 ft/s (0.5 m/s) |

The **HU-style** seals are rectangular in shape for added stability in the groove. Typically made of rubber material, they are designed for general purpose low pressure air and hydraulic use.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/16" Cross Section - 0.062" | | | |
| HU06200250-070 | 0.250 | 0.375 | 0.070 |
| 4/57" Cross Section - 0.070" | | | |
| HU07000234-093 | 0.234 | 0.375 | 0.093 |
| 3/32" Cross Section - 0.093" | | | |
| HU09300187 | 0.187 | 0.375 | 0.093 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 3/32" Cross Section - 0.093" | | | |
| HU09300312 | 0.312 | 0.500 | 0.093 |
| 1/8" Cross Section - 0.125" | | | |
| HU12500312 | 0.312 | 0.562 | 0.125 |
| HU12500312-250 | 0.312 | 0.562 | 0.250 |
| HU12500375 | 0.375 | 0.625 | 0.125 |
| HU12500375-250 | 0.375 | 0.625 | 0.250 |

HU series - NBR 80



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 1/8" Cross Section - 0.125" | | | |
| HU12500437 | 0.437 | 0.687 | 0.125 |
| HU12500500-250 | 0.500 | 0.750 | 0.250 |
| HU12500625 | 0.625 | 0.875 | 0.125 |
| HU12500750 | 0.750 | 1.000 | 0.125 |
| HU12500750-250 | 0.750 | 1.000 | 0.250 |
| HU12500875 | 0.875 | 1.125 | 0.125 |
| HU12500937 | 0.937 | 1.187 | 0.125 |
| HU12501000 | 1.000 | 1.250 | 0.125 |
| HU12501000-250 | 1.000 | 1.250 | 0.250 |
| HU12501250 | 1.250 | 1.500 | 0.125 |
| HU12501250-250 | 1.250 | 1.500 | 0.250 |
| HU12501375 | 1.375 | 1.625 | 0.125 |
| HU12501500-240 | 1.500 | 1.750 | 0.240 |
| HU12501500-250 | 1.500 | 1.750 | 0.250 |
| HU12501625 | 1.625 | 1.875 | 0.125 |
| HU12501875 | 1.875 | 2.125 | 0.125 |
| HU12503250-187 | 3.250 | 3.500 | 0.187 |
| 5/32" Cross Section - 0.156" | | | |
| HU15600625-218 | 0.625 | 0.937 | 0.218 |
| HU15600687 | 0.687 | 1.000 | 0.156 |
| HU15600687-219 | 0.687 | 1.000 | 0.219 |
| HU15600750 | 0.750 | 1.062 | 0.156 |
| HU15601000 | 1.000 | 1.312 | 0.156 |
| HU15601187 | 1.187 | 1.500 | 0.156 |
| HU15601437 | 1.437 | 1.750 | 0.156 |
| HU15601500 | 1.500 | 1.812 | 0.156 |
| 3/16" Cross Section - 0.187" | | | |
| HU18700625-312 | 0.625 | 1.000 | 0.312 |
| HU18700750-312 | 0.750 | 1.125 | 0.312 |
| HU18700875-312 | 0.875 | 1.250 | 0.312 |
| HU18701000 | 1.000 | 1.375 | 0.187 |
| HU18701125-312 | 1.125 | 1.500 | 0.312 |
| HU18701375 | 1.375 | 1.750 | 0.187 |
| HU18701375-312 | 1.375 | 1.750 | 0.312 |
| HU18701500 | 1.500 | 1.875 | 0.187 |
| HU18701625 | 1.625 | 2.000 | 0.187 |
| HU18701625-375 | 1.625 | 2.000 | 0.375 |
| HU18701875 | 1.875 | 2.250 | 0.187 |
| HU18702000 | 2.000 | 2.375 | 0.187 |
| HU18702125 | 2.125 | 2.500 | 0.187 |
| HU18702125-375 | 2.125 | 2.500 | 0.375 |
| HU18702250 | 2.250 | 2.625 | 0.187 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------------------------|-------------------------|-------|-------|
| | d | D | H |
| 3/16" Cross Section - 0.187" | | | |
| HU18702750 | 2.750 | 3.125 | 0.187 |
| HU18702750-375 | 2.750 | 3.125 | 0.375 |
| HU18704125-375 | 4.125 | 4.500 | 0.375 |
| 7/32" Cross Section - 0.218" | | | |
| HU21800937-312 | 0.937 | 1.375 | 0.312 |
| HU21802562 | 2.562 | 3.000 | 0.218 |
| HU21802687-187 | 2.687 | 3.125 | 0.187 |
| HU21803062 | 3.062 | 3.500 | 0.218 |
| 1/4" Cross Section - 0.250" | | | |
| HU25001000-375 | 1.000 | 1.500 | 0.375 |
| HU25001187-375 | 1.187 | 1.687 | 0.375 |
| HU25001375 | 1.375 | 1.875 | 0.250 |
| HU25001500-375 | 1.500 | 2.000 | 0.375 |
| HU25001500-600 | 1.500 | 2.000 | 0.600 |
| HU25001750 | 1.750 | 2.250 | 0.250 |
| HU25001750-285 | 1.750 | 2.250 | 0.285 |
| HU25001750-375 | 1.750 | 2.250 | 0.375 |
| HU25001875 | 1.875 | 2.375 | 0.250 |
| HU25002000-375 | 2.000 | 2.500 | 0.375 |
| HU25002375-375 | 2.375 | 2.875 | 0.375 |
| HU25002500-375 | 2.500 | 3.000 | 0.375 |
| HU25002625 | 2.625 | 3.125 | 0.250 |
| HU25002750-375 | 2.750 | 3.250 | 0.375 |
| HU25003000-375 | 3.000 | 3.500 | 0.375 |
| HU25003125 | 3.125 | 3.625 | 0.250 |
| HU25003375 | 3.375 | 3.875 | 0.250 |
| HU25003500 | 3.500 | 4.000 | 0.250 |
| HU25003500-375 | 3.500 | 4.000 | 0.375 |
| HU25003625 | 3.625 | 4.125 | 0.250 |
| HU25004000 | 4.000 | 4.500 | 0.250 |
| HU25004000-312 | 4.000 | 4.500 | 0.312 |
| HU25004125 | 4.125 | 4.625 | 0.250 |
| HU25004500-375 | 4.500 | 5.000 | 0.375 |
| HU25004500-562 | 4.500 | 5.000 | 0.562 |
| HU25004625 | 4.625 | 5.125 | 0.250 |
| HU25005500-375 | 5.500 | 6.000 | 0.375 |
| HU25005750 | 5.750 | 6.250 | 0.250 |
| HU25006000-375 | 6.000 | 6.500 | 0.375 |
| HU25007500-375 | 7.500 | 8.000 | 0.375 |
| 9/32" Cross Section - 0.281" | | | |
| HU28100687-250 | 0.687 | 1.250 | 0.250 |

HU series - NBR 80

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 9/32" Cross Section - 0.281" | | | |
| HU28105937-281 | 5.937 | 6.500 | 0.281 |
| 5/16" Cross Section - 0.312" | | | |
| HU31200625-437 | 0.625 | 1.250 | 0.437 |
| HU31201187 | 1.187 | 1.812 | 0.312 |
| HU31202500-500 | 2.500 | 3.125 | 0.500 |
| HU31202875-500 | 2.875 | 3.500 | 0.500 |
| HU31203312 | 3.312 | 3.937 | 0.312 |
| HU31204000-562 | 4.000 | 4.625 | 0.562 |
| HU31204375 | 4.375 | 5.000 | 0.312 |
| HU31205375 | 5.375 | 6.000 | 0.312 |
| HU31205500 | 5.500 | 6.125 | 0.312 |
| HU31206375 | 6.375 | 7.000 | 0.312 |
| 11/32" Cross Section - 0.343" | | | |
| HU34300562-437 | 0.562 | 1.250 | 0.437 |
| HU34300937-312 | 0.937 | 1.625 | 0.312 |
| HU34302312-312 | 2.312 | 3.000 | 0.312 |
| HU34309312 | 9.312 | 10.000 | 0.343 |
| 3/8" Cross Section - 0.375" | | | |
| HU37501250-500 | 1.250 | 2.000 | 0.500 |
| HU37502812 | 2.812 | 3.562 | 0.375 |
| HU37503250-437 | 3.250 | 4.000 | 0.437 |
| HU37503250-500 | 3.250 | 4.000 | 0.500 |
| HU37504250-500 | 4.250 | 5.000 | 0.500 |
| HU37505250-500 | 5.250 | 6.000 | 0.500 |
| HU37505250-625 | 5.250 | 6.000 | 0.625 |
| HU37506250-500 | 6.250 | 7.000 | 0.500 |
| HU37507250-500 | 7.250 | 8.000 | 0.500 |
| HU37507250-625 | 7.250 | 8.000 | 0.625 |
| HU37508250-500 | 8.250 | 9.000 | 0.500 |
| HU37509250 | 9.250 | 10.000 | 0.375 |
| HU37509250-500 | 9.250 | 10.000 | 0.500 |
| HU37511250 | 11.250 | 12.000 | 0.375 |
| HU37511250-500 | 11.250 | 12.000 | 0.500 |
| HU37513250-500 | 13.250 | 14.000 | 0.500 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------------------------------|-------------------------|--------|-------|
| | d | D | H |
| 3/8" Cross Section - 0.375" | | | |
| HU37515250-500 | 15.250 | 16.000 | 0.500 |
| HU37516250-500 | 16.250 | 17.000 | 0.500 |
| HU37517250-500 | 17.250 | 18.000 | 0.500 |
| HU37520250-500 | 20.250 | 21.000 | 0.500 |
| 13/32" Cross Section - 0.406" | | | |
| HU40604187-500 | 4.187 | 5.000 | 0.500 |
| HU40607187-500 | 7.187 | 8.000 | 0.500 |
| 7/16" Cross Section - 0.437" | | | |
| HU43702125-375 | 2.125 | 3.000 | 0.375 |
| HU43703500-425 | 3.500 | 4.375 | 0.425 |
| HU43705000 | 5.000 | 5.875 | 0.437 |
| HU43705125-420 | 5.125 | 6.000 | 0.420 |
| HU43705500-875 | 5.500 | 6.375 | 0.875 |
| HU43715125 | 15.125 | 16.000 | 0.437 |
| HU43715125-500 | 15.125 | 16.000 | 0.500 |
| 1/2" Cross Section - 0.500" | | | |
| HU50003375 | 3.375 | 4.375 | 0.500 |
| HU50004125 | 4.125 | 5.125 | 0.500 |
| HU50005000-687 | 5.000 | 6.000 | 0.687 |
| HU50006000 | 6.000 | 7.000 | 0.500 |
| HU50006500-594 | 6.500 | 7.500 | 0.594 |
| HU50013000 | 13.000 | 14.000 | 0.500 |
| HU50017000 | 17.000 | 18.000 | 0.500 |
| HU50019000 | 19.000 | 20.000 | 0.500 |
| HU50019000-750 | 19.000 | 20.000 | 0.750 |
| 17/32" Cross Section - 0.531" | | | |
| HU53120937-750 | 20.937 | 22.000 | 0.750 |
| 9/16" Cross Section - 0.562" | | | |
| HU56201750 | 1.750 | 2.875 | 0.562 |
| 5/8" Cross Section - 0.625" | | | |
| HU62501750-600 | 1.750 | 3.000 | 0.600 |
| 1" Cross Section - 1.000" | | | |
| HU100028000-1250 | 28.000 | 30.000 | 1.250 |

OTHER PROFILES ARE ALSO AVAILABLE ON REQUEST

Though this product offering contains a wide selection of commonly used parts in the marketplace, it is possible that you haven't found the exact part you were looking for.

We have many other seal profiles available on request. please do not hesitate to contact us and we will do our best to help you locate the required part.













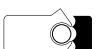





SYMMETRICAL SEALS
















SYMMETRICAL SEALS





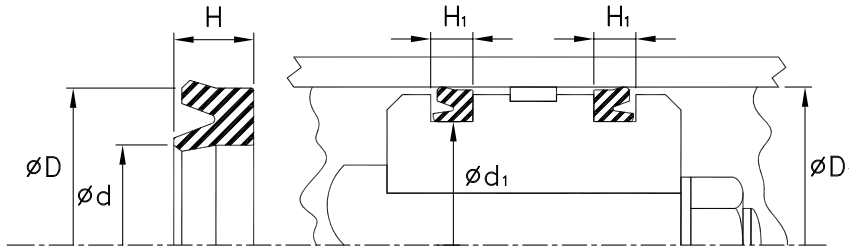
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|---|----------------|---|----|
|  | UP | D | 2 |
|  | E4 | D | 6 |
|  | CB | D | 7 |
|  | CF | D | 9 |
|  | CH | D | 12 |
|  | TP, TP-1, TP-2 | D | 15 |
|  | PSP | D | 19 |
|  | PSP-A-AT | D | 21 |
|  | BP | D | 23 |
|  | PIP SEAL | D | 25 |
|  | PIP RING | D | 29 |
|  | TFES | D | 31 |
|  | 160G | D | 33 |
|  | 169B | D | 34 |
|  | 169G | D | 36 |
|  | 169U | D | 37 |

| | | | |
|---|------------|---|----|
|  | CAT TYPE-1 | D | 39 |
|  | AQ | D | 41 |
|  | PS2470 | D | 43 |
|  | C914 | D | 45 |
|  | CAT TYPE-3 | D | 46 |
|  | HDP 330 | D | 50 |
|  | CTS | D | 51 |
|  | CAT TYPE-4 | D | 53 |
|  | P1000 | D | 54 |
|  | P1000 HYCO | D | 58 |
|  | P3C | D | 59 |
|  | P3D | D | 61 |
|  | P5B | D | 62 |

UP - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|----------------------|
| Polyurethane | -40°F to +230°F (-40°C to +110°C) | ≤6000 psi (≤414 bar) | < 1.6 ft/s (0.5 m/s) |



UP-style piston seals are non-symmetrical lip seals of single-acting design. The asymmetrical cross-sectional shape insures that the seal remains steady in the groove preventing tipping or twisting, resulting in excellent sealability and low-drift as well as low breakout force. Double acting cylinders require tandem seals in separate grooves.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| UP12500750-187 | 1.000 | +0.003 -0.000 | 1.000 | 0.750 | 0.187 | 0.750 | +0.000 -0.005 | 0.218 | +0.015 -0.000 |
| UP12500750-250 | 1.000 | | 1.000 | 0.750 | 0.250 | 0.750 | | 0.281 | |
| UP12500812-250 | 1.062 | | 1.062 | 0.812 | 0.250 | 0.812 | | 0.281 | |
| UP18700750-250 | 1.125 | | 1.125 | 0.750 | 0.250 | 0.750 | | 0.281 | |
| UP12500875-250 | 1.125 | | 1.125 | 0.875 | 0.250 | 0.875 | | 0.281 | |
| UP18700812 | 1.187 | | 1.187 | 0.812 | 0.187 | 0.812 | | 0.218 | |
| UP18700812-250 | 1.187 | | 1.187 | 0.812 | 0.250 | 0.812 | | 0.281 | |
| UP18700875-187 | 1.250 | | 1.250 | 0.875 | 0.187 | 0.875 | | 0.218 | |
| UP18700875-250 | 1.250 | | 1.250 | 0.875 | 0.250 | 0.875 | | 0.281 | |
| UP18700875-312 | 1.250 | | 1.250 | 0.875 | 0.312 | 0.875 | | 0.343 | |
| UP12501000 | 1.250 | | 1.250 | 1.000 | 0.125 | 1.000 | | 0.156 | |
| UP12501000-187 | 1.250 | | 1.250 | 1.000 | 0.187 | 1.000 | | 0.218 | |
| UP12501000-250 | 1.250 | | 1.250 | 1.000 | 0.250 | 1.000 | | 0.281 | |
| UP25001000 | 1.500 | | 1.500 | 1.000 | 0.250 | 1.000 | | 0.281 | |
| UP25001000-312 | 1.500 | | 1.500 | 1.000 | 0.312 | 1.000 | | 0.343 | |
| UP25001000-357 | 1.500 | | 1.500 | 1.000 | 0.357 | 1.000 | | 0.388 | |
| UP25001000-375 | 1.500 | | 1.500 | 1.000 | 0.375 | 1.000 | | 0.406 | |
| UP18701125-250 | 1.500 | | 1.500 | 1.125 | 0.250 | 1.125 | | 0.281 | |
| UP18701125-312 | 1.500 | | 1.500 | 1.125 | 0.312 | 1.125 | | 0.343 | |
| UP18701125-375 | 1.500 | | 1.500 | 1.125 | 0.375 | 1.125 | | 0.406 | |
| UP25001125 | 1.625 | | 1.625 | 1.125 | 0.250 | 1.125 | | 0.281 | |
| UP25001125-312 | 1.625 | ▼ | 1.625 | 1.125 | 0.312 | 1.125 | ▼ | 0.343 | ▼ |



UP series - AU 92A

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| UP18701250-250 | 1.625 | +0.003 -0.000 | 1.625 | 1.250 | 0.250 | 1.250 | +0.000 -0.005 | 0.281 | +0.015 -0.000 |
| UP18701250-312 | 1.625 | | 1.625 | 1.250 | 0.312 | 1.250 | | 0.343 | |
| UP31201125-437 | 1.750 | | 1.750 | 1.125 | 0.437 | 1.125 | | 0.468 | |
| UP31201125-500 | 1.750 | | 1.750 | 1.125 | 0.500 | 1.125 | ▼ | 0.531 | |
| UP25001250 | 1.750 | | 1.750 | 1.250 | 0.250 | 1.250 | +0.000 -0.007 | 0.281 | |
| UP25001250-375 | 1.750 | | 1.750 | 1.250 | 0.375 | 1.250 | | 0.406 | |
| UP18701375-312 | 1.750 | | 1.750 | 1.375 | 0.312 | 1.375 | | 0.343 | |
| UP18701375-375 | 1.750 | | 1.750 | 1.375 | 0.375 | 1.375 | | 0.406 | |
| UP31201250-469 | 1.875 | | 1.875 | 1.250 | 0.469 | 1.250 | | 0.500 | |
| UP31201250-500 | 1.875 | | 1.875 | 1.250 | 0.500 | 1.250 | | 0.531 | |
| UP25001375 | 1.875 | | 1.875 | 1.375 | 0.250 | 1.375 | | 0.281 | |
| UP31201375-437 | 2.000 | | 2.000 | 1.375 | 0.437 | 1.375 | | 0.468 | |
| UP31201375-500 | 2.000 | | 2.000 | 1.375 | 0.500 | 1.375 | | 0.531 | |
| UP25001500-312 | 2.000 | | 2.000 | 1.500 | 0.312 | 1.500 | | 0.343 | |
| UP25001500-375 | 2.000 | | 2.000 | 1.500 | 0.375 | 1.500 | | 0.406 | |
| UP18701625-312 | 2.000 | | 2.000 | 1.625 | 0.312 | 1.625 | | 0.343 | |
| UP18701625-375 | 2.000 | | 2.000 | 1.625 | 0.375 | 1.625 | | 0.406 | |
| UP31201500-500 | 2.125 | | 2.125 | 1.500 | 0.500 | 1.500 | | 0.531 | |
| UP18701750-312 | 2.125 | | 2.125 | 1.750 | 0.312 | 1.750 | | 0.343 | |
| UP18701750-375 | 2.125 | | 2.125 | 1.750 | 0.375 | 1.750 | | 0.406 | |
| UP31201625-500 | 2.250 | | 2.250 | 1.625 | 0.500 | 1.625 | | 0.531 | |
| UP25001750-312 | 2.250 | | 2.250 | 1.750 | 0.312 | 1.750 | | 0.343 | |
| UP25001750-375 | 2.250 | | 2.250 | 1.750 | 0.375 | 1.750 | | 0.406 | |
| UP31201750-500 | 2.375 | | 2.375 | 1.750 | 0.500 | 1.750 | | 0.531 | |
| UP18702000-312 | 2.375 | | 2.375 | 2.000 | 0.312 | 2.000 | | 0.343 | |
| UP18702000-375 | 2.375 | | 2.375 | 2.000 | 0.375 | 2.000 | | 0.406 | |
| UP31201875-375 | 2.500 | | 2.500 | 1.875 | 0.375 | 1.875 | | 0.406 | |
| UP31201875-437 | 2.500 | | 2.500 | 1.875 | 0.437 | 1.875 | | 0.468 | |
| UP31201875-500 | 2.500 | | 2.500 | 1.875 | 0.500 | 1.875 | ▼ | 0.531 | |
| UP25002000-312 | 2.500 | | 2.500 | 2.000 | 0.312 | 2.000 | +0.000 -0.008 | 0.343 | |
| UP25002000-375 | 2.500 | | 2.500 | 2.000 | 0.375 | 2.000 | | 0.406 | |
| UP18702125 | 2.500 | | 2.500 | 2.125 | 0.187 | 2.125 | | 0.218 | |
| UP18702125-312 | 2.500 | | 2.500 | 2.125 | 0.312 | 2.125 | | 0.343 | |
| UP18702125-375 | 2.500 | | 2.500 | 2.125 | 0.375 | 2.125 | | 0.406 | |
| UP25002125-375 | 2.625 | | 2.625 | 2.125 | 0.375 | 2.125 | | 0.406 | |
| UP37502000 | 2.750 | | 2.750 | 2.000 | 0.375 | 2.000 | | 0.406 | |
| UP37502000-500 | 2.750 | | 2.750 | 2.000 | 0.500 | 2.000 | | 0.531 | |
| UP31202125 | 2.750 | | 2.750 | 2.125 | 0.312 | 2.125 | | 0.343 | |
| UP25002250-312 | 2.750 | | 2.750 | 2.250 | 0.312 | 2.250 | | 0.343 | |
| UP25002250-375 | 2.750 | | 2.750 | 2.250 | 0.375 | 2.250 | | 0.406 | |
| UP37502125-160 | 2.875 | | 2.875 | 2.125 | 0.160 | 2.125 | | 0.191 | |
| UP25002375-312 | 2.875 | | 2.875 | 2.375 | 0.312 | 2.375 | | 0.343 | |
| UP25002375-375 | 2.875 | ▼ | 2.875 | 2.375 | 0.375 | 2.375 | | 0.406 | |
| UP37502250 | 3.000 | +0.004 -0.000 | 3.000 | 2.250 | 0.375 | 2.250 | | 0.406 | |
| UP37502250-500 | 3.000 | | 3.000 | 2.250 | 0.500 | 2.250 | | 0.531 | |
| UP37502250-625 | 3.000 | ▼ | 3.000 | 2.250 | 0.625 | 2.250 | ▼ | 0.656 | ▼ |

UP series - AU 92A

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| UP31202375-375 | 3.000 | +0.004 -0.000 | 3.000 | 2.375 | 0.375 | 2.375 | +0.000 -0.008 | 0.406 | +0.015 -0.000 |
| UP31202375-460 | 3.000 | | 3.000 | 2.375 | 0.460 | 2.375 | | 0.491 | |
| UP31202375-500 | 3.000 | | 3.000 | 2.375 | 0.500 | 2.375 | | 0.531 | |
| UP25002500-312 | 3.000 | | 3.000 | 2.500 | 0.312 | 2.500 | | 0.343 | |
| UP25002500-375 | 3.000 | | 3.000 | 2.500 | 0.375 | 2.500 | | 0.406 | |
| UP37502500 | 3.250 | | 3.250 | 2.500 | 0.375 | 2.500 | | 0.406 | |
| UP37502500-500 | 3.250 | | 3.250 | 2.500 | 0.500 | 2.500 | | 0.531 | |
| UP37502500-625 | 3.250 | | 3.250 | 2.500 | 0.625 | 2.500 | | 0.656 | |
| UP25002750-375 | 3.250 | | 3.250 | 2.750 | 0.375 | 2.750 | | 0.406 | |
| UP37502750 | 3.500 | | 3.500 | 2.750 | 0.375 | 2.750 | | 0.406 | |
| UP37502750-500 | 3.500 | | 3.500 | 2.750 | 0.500 | 2.750 | | 0.531 | |
| UP37502750-625 | 3.500 | | 3.500 | 2.750 | 0.625 | 2.750 | | 0.656 | |
| UP31202875-375 | 3.500 | | 3.500 | 2.875 | 0.375 | 2.875 | | 0.406 | |
| UP31202875-500 | 3.500 | | 3.500 | 2.875 | 0.500 | 2.875 | ▼ | 0.531 | |
| UP25003000-375 | 3.500 | | 3.500 | 3.000 | 0.375 | 3.000 | +0.000 -0.009 | 0.406 | |
| UP18703125-375 | 3.500 | | 3.500 | 3.125 | 0.375 | 3.125 | | 0.406 | |
| UP25003125-375 | 3.625 | | 3.625 | 3.125 | 0.375 | 3.125 | | 0.406 | |
| UP37503000 | 3.750 | | 3.750 | 3.000 | 0.375 | 3.000 | | 0.406 | |
| UP37503000-500 | 3.750 | | 3.750 | 3.000 | 0.500 | 3.000 | | 0.531 | |
| UP37503000-625 | 3.750 | | 3.750 | 3.000 | 0.625 | 3.000 | | 0.656 | |
| UP31203125-375 | 3.750 | | 3.750 | 3.125 | 0.375 | 3.125 | | 0.406 | |
| UP31203125-500 | 3.750 | | 3.750 | 3.125 | 0.500 | 3.125 | | 0.531 | |
| UP25003250-375 | 3.750 | | 3.750 | 3.250 | 0.375 | 3.250 | | 0.406 | |
| UP37503250 | 4.000 | | 4.000 | 3.250 | 0.375 | 3.250 | | 0.406 | |
| UP37503250-469 | 4.000 | | 4.000 | 3.250 | 0.469 | 3.250 | | 0.500 | |
| UP37503250-500 | 4.000 | | 4.000 | 3.250 | 0.500 | 3.250 | | 0.531 | |
| UP37503250-625 | 4.000 | | 4.000 | 3.250 | 0.625 | 3.250 | | 0.656 | |
| UP31203375-375 | 4.000 | | 4.000 | 3.375 | 0.375 | 3.375 | | 0.406 | |
| UP31203375-500 | 4.000 | | 4.000 | 3.375 | 0.500 | 3.375 | | 0.531 | |
| UP25003500-375 | 4.000 | | 4.000 | 3.500 | 0.375 | 3.500 | | 0.406 | |
| UP18703625-375 | 4.000 | | 4.000 | 3.625 | 0.375 | 3.625 | | 0.406 | |
| UP25003625-375 | 4.125 | | 4.125 | 3.625 | 0.375 | 3.625 | | 0.406 | |
| UP37503500 | 4.250 | | 4.250 | 3.500 | 0.375 | 3.500 | | 0.406 | |
| UP31203625-375 | 4.250 | | 4.250 | 3.625 | 0.375 | 3.625 | | 0.406 | |
| UP31203625-500 | 4.250 | | 4.250 | 3.625 | 0.500 | 3.625 | | 0.531 | |
| UP25003750-375 | 4.250 | | 4.250 | 3.750 | 0.375 | 3.750 | | 0.406 | |
| UP37503750 | 4.500 | | 4.500 | 3.750 | 0.375 | 3.750 | | 0.406 | |
| UP37503750-500 | 4.500 | | 4.500 | 3.750 | 0.500 | 3.750 | | 0.531 | |
| UP37503750-625 | 4.500 | | 4.500 | 3.750 | 0.625 | 3.750 | | 0.656 | |
| UP31203875-375 | 4.500 | | 4.500 | 3.875 | 0.375 | 3.875 | | 0.406 | |
| UP31203875-500 | 4.500 | | 4.500 | 3.875 | 0.500 | 3.875 | | 0.531 | |
| UP25004000-562 | 4.500 | | 4.500 | 4.000 | 0.562 | 4.000 | | 0.593 | |
| UP31204000-375 | 4.625 | | 4.625 | 4.000 | 0.375 | 4.000 | | 0.406 | |
| UP31204000-500 | 4.625 | | 4.625 | 4.000 | 0.500 | 4.000 | | 0.531 | |
| UP62503500-562 | 4.750 | | 4.750 | 3.500 | 0.562 | 3.500 | | 0.593 | |
| UP25004312-375 | 4.812 | ▼ | 4.812 | 4.312 | 0.375 | 4.312 | ▼ | 0.406 | ▼ |

UP series - AU 92A



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|---------------|-----------------|-------------------------|-------|-------|--------------------|-----------------|-------|-----------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| UP37504250-500 | 5.000 | +0.004 -.000 | 5.000 | 4.250 | 0.500 | 4.250 | +0.000 -.009 | 0.531 | +0.015 -.000 |
| UP37504250-625 | 5.000 | | 5.000 | 4.250 | 0.625 | 4.250 | | 0.656 | |
| UP25004500-437 | 5.000 | | 5.000 | 4.500 | 0.437 | 4.500 | | 0.468 | |
| UP25004500-562 | 5.000 | | 5.000 | 4.500 | 0.562 | 4.500 | | 0.593 | |
| UP37504375-500 | 5.125 | | 5.125 | 4.375 | 0.500 | 4.375 | | 0.531 | |
| UP37504500-375 | 5.250 | | 5.250 | 4.500 | 0.375 | 4.500 | | 0.406 | |
| UP37504500-500 | 5.250 | | 5.250 | 4.500 | 0.500 | 4.500 | | 0.531 | |
| UP37504500-625 | 5.250 | | 5.250 | 4.500 | 0.625 | 4.500 | | 0.656 | |
| UP37504750-500 | 5.500 | | 5.500 | 4.750 | 0.500 | 4.750 | | 0.531 | |
| UP37504750-625 | 5.500 | | 5.500 | 4.750 | 0.625 | 4.750 | | 0.656 | |
| UP25005000-562 | 5.500 | | 5.500 | 5.000 | 0.562 | 5.000 | ▼ | 0.593 | |
| UP37505000-500 | 5.750 | | 5.750 | 5.000 | 0.500 | 5.000 | +0.000 -.010 | 0.531 | |
| UP37505000-625 | 5.750 | | 5.750 | 5.000 | 0.625 | 5.000 | | 0.656 | |
| UP37505250 | 6.000 | | 6.000 | 5.250 | 0.375 | 5.250 | | 0.406 | |
| UP37505250-500 | 6.000 | | 6.000 | 5.250 | 0.500 | 5.250 | | 0.531 | |
| UP37505250-525 | 6.000 | | 6.000 | 5.250 | 0.525 | 5.250 | | 0.556 | |
| UP37505250-625 | 6.000 | | 6.000 | 5.250 | 0.625 | 5.250 | | 0.656 | |
| UP31205375-375 | 6.000 | | 6.000 | 5.375 | 0.375 | 5.375 | | 0.406 | |
| UP31205375-500 | 6.000 | | 6.000 | 5.375 | 0.500 | 5.375 | | 0.531 | |
| UP31205375-625 | 6.000 | | 6.000 | 5.375 | 0.625 | 5.375 | | 0.656 | |
| UP25005500-500 | 6.000 | | 6.000 | 5.500 | 0.500 | 5.500 | | 0.531 | |
| UP25005500-562 | 6.000 | | 6.000 | 5.500 | 0.562 | 5.500 | | 0.593 | |
| UP50005250-625 | 6.250 | | 6.250 | 5.250 | 0.625 | 5.250 | | 0.656 | |
| UP50005250-750 | 6.250 | | 6.250 | 5.250 | 0.750 | 5.250 | | 0.781 | |
| UP37505500 | 6.250 | | 6.250 | 5.500 | 0.375 | 5.500 | | 0.406 | |
| UP37505500-437 | 6.250 | | 6.250 | 5.500 | 0.437 | 5.500 | | 0.468 | |
| UP37505500-625 | 6.250 | | 6.250 | 5.500 | 0.625 | 5.500 | | 0.656 | |
| UP25005875-562 | 6.375 | | 6.375 | 5.875 | 0.562 | 5.875 | | 0.593 | |
| UP50005500-750 | 6.500 | | 6.500 | 5.500 | 0.750 | 5.500 | | 0.781 | |
| UP37505750-500 | 6.500 | | 6.500 | 5.750 | 0.500 | 5.750 | | 0.531 | |
| UP37505750-625 | 6.500 | | 6.500 | 5.750 | 0.625 | 5.750 | | 0.656 | |
| UP25006000-562 | 6.500 | ▼ | 6.500 | 6.000 | 0.562 | 6.000 | | 0.593 | |
| UP37506000-500 | 6.750 | +0.005 -.000 | 6.750 | 6.000 | 0.500 | 6.000 | | 0.531 | |
| UP37506000-625 | 6.750 | | 6.750 | 6.000 | 0.625 | 6.000 | | 0.656 | |
| UP50006000-750 | 7.000 | | 7.000 | 6.000 | 0.750 | 6.000 | | 0.781 | |
| UP37506250 | 7.000 | | 7.000 | 6.250 | 0.375 | 6.250 | | 0.406 | |
| UP37506250-500 | 7.000 | | 7.000 | 6.250 | 0.500 | 6.250 | | 0.531 | |
| UP37506250-625 | 7.000 | | 7.000 | 6.250 | 0.625 | 6.250 | | 0.656 | |
| UP37506500 | 7.250 | | 7.250 | 6.500 | 0.375 | 6.500 | | 0.406 | |
| UP37506500-500 | 7.250 | | 7.250 | 6.500 | 0.500 | 6.500 | | 0.531 | |
| UP37506500-625 | 7.250 | | 7.250 | 6.500 | 0.625 | 6.500 | | 0.656 | |
| UP50006500-590 | 7.500 | | 7.500 | 6.500 | 0.590 | 6.500 | | 0.621 | |
| UP50006500-625 | 7.500 | | 7.500 | 6.500 | 0.625 | 6.500 | | 0.656 | |
| UP50006500-750 | 7.500 | | 7.500 | 6.500 | 0.750 | 6.500 | | 0.781 | |
| UP37506750-500 | 7.500 | | 7.500 | 6.750 | 0.500 | 6.750 | | 0.531 | |
| UP37506750-625 | 7.500 | ▼ | 7.500 | 6.750 | 0.625 | 6.750 | ▼ | 0.656 | ▼ |

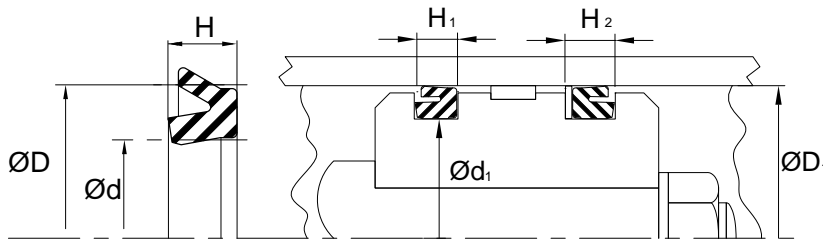
UP series - AU 92A

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-----------------|---------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| UP50007000 | 8.000 | +0.005 -0.000 | 8.000 | 7.000 | 0.500 | 7.000 | +0.000 -0.011 | 0.531 | +0.015 -0.000 |
| UP50007000-625 | 8.000 | | 8.000 | 7.000 | 0.625 | 7.000 | | 0.656 | |
| UP50007000-750 | 8.000 | | 8.000 | 7.000 | 0.750 | 7.000 | | 0.781 | |
| UP37507250-500 | 8.000 | | 8.000 | 7.250 | 0.500 | 7.250 | | 0.531 | |
| UP37507250-625 | 8.000 | | 8.000 | 7.250 | 0.625 | 7.250 | | 0.656 | |
| UP62507250 | 8.500 | | 8.500 | 7.250 | 0.625 | 7.250 | | 0.656 | |
| UP50007500-625 | 8.500 | | 8.500 | 7.500 | 0.625 | 7.500 | | 0.656 | |
| UP50007500-750 | 8.500 | | 8.500 | 7.500 | 0.750 | 7.500 | | 0.781 | |
| UP50008000-625 | 9.000 | | 9.000 | 8.000 | 0.625 | 8.000 | | 0.656 | |
| UP50008000-750 | 9.000 | | 9.000 | 8.000 | 0.750 | 8.000 | | 0.781 | |
| UP50009000-625 | 10.000 | | 10.000 | 9.000 | 0.625 | 9.000 | | 0.656 | |
| UP50009000-750 | 10.000 | | 10.000 | 9.000 | 0.750 | 9.000 | | 0.781 | |
| UP62509250-750 | 10.500 | | 10.500 | 9.250 | 0.750 | 9.250 | | 0.781 | |
| UP50010000-750 | 11.000 | +0.006 -0.000 | 11.000 | 10.000 | 0.750 | 10.000 | +0.000 -0.012 | 0.781 | |
| UP50011000-625 | 12.000 | | 12.000 | 11.000 | 0.625 | 11.000 | | 0.656 | |
| UP50011000-750 | 12.000 | | 12.000 | 11.000 | 0.750 | 11.000 | | 0.781 | |
| UP62514750-750 | 16.000 | | 16.000 | 14.750 | 0.750 | 14.750 | | 0.781 | |
| UP62514750-1000 | 16.000 | | 16.000 | 14.750 | 1.000 | 14.750 | | 1.031 | |

E4 - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|----------------------|--------------------------------------|-----------------------|-------------------|
| Carboxylated Nitrile | -10°F to +250°F (-23°C to +121°C) | ≤250 psi (≤17 bar) | <3 ft/s (0.9 m/s) |



N.B.: $H_2 = H_1 + 1/16$ B. UP RING

E4-style Piston Seals are non-symmetrical. designed to seal both lubricated and non-lubricated air. To insure that critical surfaces retain lubrication. the radius edge of the lip is designed to hydroplane over pre-lubricated surfaces in order to provide extreme low friction and excellent wear resistance.

Alternate Materials: For applications that may require an alternate material. please contact our customer service department. Other sizes available on request.

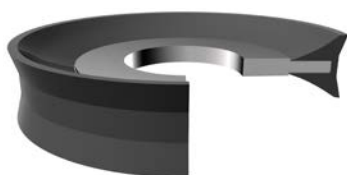


E4 series - XNBR 83A

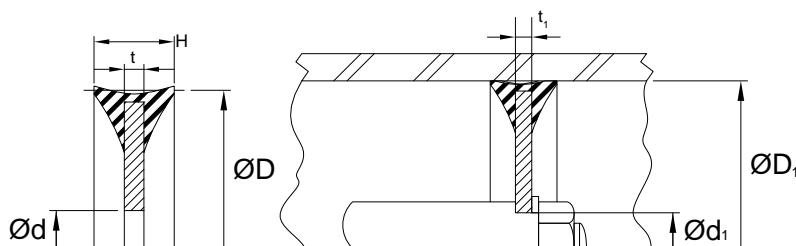


| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. | H2 | Tol. |
| E40400375 | 0.625 | +0.003 -0.000 | 0.625 | 0.375 | 0.125 | 0.375 | +0.000 -0.001 | 0.156 | +0.010 -0.010 | 0.218 | +0.010 -0.010 |
| E40400500 | 0.750 | | 0.750 | 0.500 | 0.125 | 0.500 | | 0.156 | | 0.218 | |
| E40400625 | 0.875 | | 0.875 | 0.625 | 0.125 | 0.625 | | 0.156 | | 0.218 | |
| E40400750 | 1.000 | | 1.000 | 0.750 | 0.125 | 0.750 | | 0.156 | | 0.218 | |
| E40400875 | 1.125 | | 1.125 | 0.875 | 0.125 | 0.875 | | 0.156 | | 0.218 | |
| E40501187 | 1.500 | | 1.500 | 1.187 | 0.156 | 1.187 | ▼ | 0.188 | | 0.250 | |
| E40801000 | 1.500 | | 1.500 | 1.000 | 0.250 | 1.000 | +0.000/-0.003 | 0.281 | | 0.343 | |
| E40501312 | 1.625 | | 1.625 | 1.312 | 0.156 | 1.312 | +0.000/-0.001 | 0.188 | | 0.250 | |
| E40601375 | 1.750 | | 1.750 | 1.375 | 0.187 | 1.375 | +0.000 -0.002 | 0.219 | | 0.281 | |
| E40601625 | 2.000 | | 2.000 | 1.625 | 0.187 | 1.625 | | 0.219 | | 0.281 | |
| E40602125 | 2.500 | ▼ | 2.500 | 2.125 | 0.187 | 2.125 | +0.000 -0.003 | 0.219 | | 0.281 | |
| E40702562 | 3.000 | +0.004 -0.000 | 3.000 | 2.562 | 0.218 | 2.562 | | 0.250 | | 0.312 | |
| E40702812 | 3.250 | | 3.250 | 2.812 | 0.218 | 2.812 | | 0.250 | | 0.312 | |
| E40803500 | 4.000 | | 4.000 | 3.500 | 0.250 | 3.500 | | 0.281 | | 0.343 | |
| E40804500 | 5.000 | | 5.000 | 4.500 | 0.250 | 4.500 | | 0.281 | | 0.343 | |
| E40805500 | 6.000 | | 6.000 | 5.500 | 0.250 | 5.500 | | 0.281 | | 0.343 | |
| E40904437 | 5.000 | | 5.000 | 4.437 | 0.281 | 4.437 | | 0.312 | | 0.374 | |
| E41005375 | 6.000 | ▼ | 6.000 | 5.375 | 0.312 | 5.375 | ▼ | 0.344 | | 0.406 | |
| E41007375 | 8.000 | +0.005 -0.000 | 8.000 | 7.375 | 0.312 | 7.375 | +0.004 -0.000 | 0.344 | | 0.406 | |
| E41109312 | 10.000 | | 10.000 | 9.312 | 0.343 | 9.312 | | 0.375 | ▼ | 0.437 | ▼ |

CB - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-----------------------|-------------------|
| Nitrile/Steel | -40°F to +220°F (-40°C to +104°C) | ≤800 psi (≤55 bar) | <3.3 ft/s (1 m/s) |



CB-style is a double acting piston cup is a single piece unit designed to be fastened directly to the rod. The existing center hole may be enlarged to fit larger diameters. The cup is made of 90 durometer nitrile vulcanized to the coated steel plate. It is suitable for use in pneumatic and low pressure, light duty hydraulic cylinders.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

CB series - NBR/STEEL

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | |
|------------|---------------|----------------|-------------------------|--------|-------|-------|
| | D1 | Tol. | D | d | H | t |
| CB-28100 | 1.000 | +.003 -.000 | 1.000 | 0.250 | 0.375 | 0.093 |
| CB-28118 | 1.125 | | 1.125 | 0.250 | 0.500 | 0.093 |
| CB-28114 | 1.250 | ↓ | 1.250 | 0.250 | 0.500 | 0.093 |
| CB-281516 | 1.312 | | 1.312 | 0.250 | 0.500 | 0.093 |
| CB-28138 | 1.375 | | 1.375 | 0.250 | 0.500 | 0.093 |
| CB-28112 | 1.500 | | 1.500 | 0.250 | 0.500 | 0.093 |
| CB-28200 | 2.000 | | 2.000 | 0.375 | 0.562 | 0.125 |
| CB-28218 | 2.125 | | 2.125 | 0.375 | 0.562 | 0.125 |
| CB-28214 | 2.250 | | 2.250 | 0.375 | 0.562 | 0.125 |
| CB-28238 | 2.375 | | 2.375 | 0.375 | 0.562 | 0.125 |
| CB-28212 | 2.500 | | 2.500 | 0.375 | 0.562 | 0.125 |
| CB-28258 | 2.625 | | 2.625 | 0.375 | 0.562 | 0.125 |
| CB-28234 | 2.750 | ↓ | 2.750 | 0.375 | 0.562 | 0.125 |
| CB-28300 | 3.000 | | +.004 -.000 | 3.000 | 0.500 | 0.562 |
| CB-28314 | 3.250 | 3.250 | | 0.500 | 0.625 | 0.125 |
| CB-28312 | 3.500 | ↓ | 3.500 | 0.500 | 0.750 | 0.187 |
| CB-28358 | 3.625 | | 3.625 | 0.500 | 0.750 | 0.187 |
| CB-28334 | 3.750 | | 3.750 | 0.500 | 0.750 | 0.187 |
| CB-28400 | 4.000 | | 4.000 | 0.500 | 0.750 | 0.187 |
| CB-28414 | 4.250 | | 4.250 | 0.500 | 0.750 | 0.187 |
| CB-28412 | 4.500 | | 4.500 | 0.750 | 0.750 | 0.187 |
| CB-28500 | 5.000 | | 5.000 | 0.750 | 0.937 | 0.250 |
| CB-28512 | 5.500 | | 5.500 | 0.750 | 0.937 | 0.250 |
| CB-28600 | 6.000 | | 6.000 | 0.750 | 0.937 | 0.250 |
| CB-28612 | 6.500 | | ↓ | 6.500 | 0.750 | 0.937 |
| CB-28700 | 7.000 | +.005 -.000 | | 7.000 | 1.250 | 1.000 |
| CB-28800 | 8.000 | | 8.000 | 1.250 | 1.000 | 0.250 |
| CB-28900 | 9.000 | ↓ | 9.000 | 1.250 | 1.000 | 0.250 |
| CB-281000 | 10.000 | | +.006 -.000 | 10.000 | 1.250 | 1.000 |
| CB-281200 | 12.000 | 12.000 | | 1.250 | 1.000 | 0.250 |

Markets segments we are servicing



Chemical



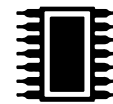
Commercial
Marine



Construction



Distribution



Electronics



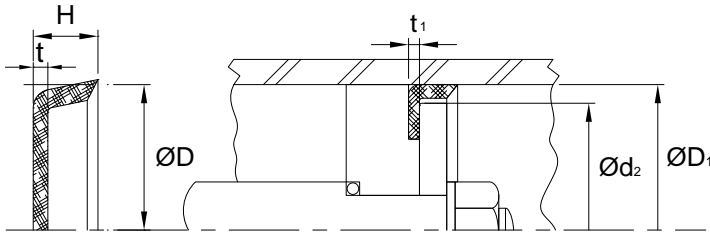
Energy

CF - Piston cups - Inch



optional center hole

| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|-----------------|
| Neo-Fabric | -40°F to +250°F (-40°C to +121°C) | ≤3000 psi (≤210 bar) | <3 ft/s (1 m/s) |



These fabric-reinforced cups are primarily used on hydraulic piston heads, plungers or rams. Easy to install with simple tooling. Low cost and good service life are reasons why these seals are still common in the industry.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|---|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | t | d1 | Tol. | t1 | Tol. |
| CF003750250 | 0.375 | +0.003 -0.000 | 0.375 | | 0.250 | 0.062 | 0.125 | +0.016 -0.016 | 0.054 | +0.003 -0.000 |
| CF004370250 | 0.437 | | 0.437 | | 0.250 | 0.062 | 0.187 | | 0.054 | |
| CF005000250 | 0.500 | | 0.500 | | 0.250 | 0.062 | 0.250 | | 0.054 | |
| CF005000500 | 0.500 | | 0.500 | | 0.500 | 0.125 | 0.125 | | 0.116 | |
| CF005620250 | 0.562 | | 0.562 | | 0.250 | 0.093 | 0.312 | | 0.085 | |
| CF006250281 | 0.625 | | 0.625 | | 0.281 | 0.093 | 0.375 | | 0.085 | |
| CF006870281 | 0.687 | | 0.687 | | 0.281 | 0.093 | 0.437 | | 0.085 | |
| CF007500250 | 0.750 | | 0.750 | | 0.250 | 0.093 | 0.500 | | 0.085 | |
| CF007500312 | 0.750 | | 0.750 | | 0.312 | 0.093 | 0.500 | | 0.085 | |
| CF007500500 | 0.750 | | 0.750 | | 0.500 | 0.125 | 0.375 | | 0.116 | |
| CF008750375 | 0.875 | | 0.875 | | 0.375 | 0.093 | 0.625 | | 0.085 | |
| CF009370500 | 0.937 | | 0.937 | | 0.500 | 0.125 | 0.562 | | 0.116 | |
| CF010000250 | 1.000 | | 1.000 | | 0.250 | 0.125 | 0.625 | | 0.116 | |
| CF010000437 | 1.000 | | 1.000 | | 0.437 | 0.093 | 0.750 | | 0.085 | |
| CF010000500 | 1.000 | | 1.000 | | 0.500 | 0.093 | 0.750 | | 0.085 | |
| CF010000500-1 | 1.000 | | 1.000 | | 0.500 | 0.125 | 0.625 | | 0.116 | |
| CF011250437 | 1.125 | | 1.125 | | 0.437 | 0.093 | 0.875 | | 0.085 | |
| CF011250500 | 1.125 | | 1.125 | | 0.500 | 0.125 | 0.750 | | 0.116 | |
| CF012500375 | 1.250 | | 1.250 | | 0.375 | 0.093 | 1.000 | | 0.085 | |
| CF012500437 | 1.250 | | 1.250 | | 0.437 | 0.093 | 1.000 | | 0.085 | |
| CF012500500 | 1.250 | | 1.250 | | 0.500 | 0.125 | 0.875 | | 0.116 | |
| CF013750500 | 1.375 | ▼ | 1.375 | | 0.500 | 0.125 | 1.000 | ▼ | 0.116 | ▼ |



CF series - NEOFAB

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|---|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | t | d1 | Tol. | t1 | Tol. |
| CF015000375 | 1.500 | +0.004 -0.000 | 1.500 | | 0.375 | 0.125 | 1.125 | +0.016 -0.016 | 0.116 | +0.003 -0.000 |
| CF015000500 | 1.500 | | 1.500 | | 0.500 | 0.125 | 1.125 | | 0.116 | |
| CF016250500 | 1.625 | | 1.625 | | 0.500 | 0.125 | 1.250 | | 0.116 | |
| CF017500375 | 1.750 | | 1.750 | | 0.375 | 0.093 | 1.500 | | 0.085 | |
| CF017500500 | 1.750 | | 1.750 | | 0.500 | 0.125 | 1.375 | | 0.116 | |
| CF018120375 | 1.812 | | 1.812 | | 0.375 | 0.125 | 1.437 | | 0.116 | |
| CF018750500 | 1.875 | | 1.875 | | 0.500 | 0.125 | 1.500 | | 0.116 | |
| CF020000500 | 2.000 | | 2.000 | | 0.500 | 0.125 | 1.625 | | 0.116 | |
| CF020000500-1 | 2.000 | | 2.000 | | 0.500 | 0.156 | 1.500 | | 0.146 | |
| CF020000500-2 | 2.000 | | 2.000 | | 0.500 | 0.187 | 1.500 | | 0.178 | |
| CF020000750 | 2.000 | | 2.000 | | 0.750 | 0.125 | 1.625 | | 0.116 | |
| CF021250375 | 2.125 | | 2.125 | | 0.375 | 0.125 | 1.750 | | 0.116 | |
| CF021250500 | 2.125 | | 2.125 | | 0.500 | 0.125 | 1.750 | | 0.116 | |
| CF022500500 | 2.250 | | 2.250 | | 0.500 | 0.125 | 1.875 | | 0.116 | |
| CF023750500 | 2.375 | | 2.375 | | 0.500 | 0.125 | 2.000 | | 0.116 | |
| CF025000500 | 2.500 | | 2.500 | | 0.500 | 0.125 | 2.125 | | 0.116 | |
| CF025000500-1 | 2.500 | | 2.500 | | 0.500 | 0.156 | 2.000 | | 0.146 | |
| CF025000562 | 2.500 | | 2.500 | | 0.562 | 0.125 | 2.125 | | 0.116 | |
| CF025000562-1 | 2.500 | | 2.500 | | 0.562 | 0.187 | 2.000 | | 0.178 | |
| CF025000625 | 2.500 | | 2.500 | | 0.625 | 0.125 | 2.125 | | 0.116 | |
| CF026250500 | 2.625 | | 2.625 | | 0.500 | 0.125 | 2.250 | | 0.116 | |
| CF026250750 | 2.625 | | 2.625 | | 0.750 | 0.125 | 2.250 | | 0.116 | |
| CF027500500 | 2.750 | | 2.750 | | 0.500 | 0.125 | 2.375 | | 0.116 | |
| CF028750500 | 2.875 | | 2.875 | | 0.500 | 0.125 | 2.500 | | 0.116 | |
| CF028750750 | 2.875 | ▼ | 2.875 | | 0.750 | 0.187 | 2.375 | | 0.178 | |
| CF030000500 | 3.000 | +0.004 -0.000 | 3.000 | | 0.500 | 0.125 | 2.625 | | 0.116 | |
| CF030000500-1 | 3.000 | | 3.000 | | 0.500 | 0.156 | 2.500 | | 0.146 | |
| CF030000562 | 3.000 | | 3.000 | | 0.562 | 0.125 | 2.625 | | 0.116 | |
| CF030000625 | 3.000 | | 3.000 | | 0.625 | 0.156 | 2.500 | | 0.146 | |
| CF030000750 | 3.000 | | 3.000 | | 0.750 | 0.187 | 2.500 | | 0.178 | |
| CF031250625 | 3.125 | | 3.125 | | 0.625 | 0.156 | 2.625 | | 0.146 | |
| CF032500625 | 3.250 | | 3.250 | | 0.625 | 0.156 | 2.750 | | 0.146 | |
| CF032500625-1 | 3.250 | | 3.250 | | 0.625 | 0.187 | 2.750 | | 0.178 | |
| CF032500750 | 3.250 | | 3.250 | | 0.750 | 0.156 | 2.750 | | 0.146 | |
| CF033120562 | 3.312 | | 3.312 | | 0.562 | 0.125 | 2.937 | | 0.116 | |
| CF033120625 | 3.312 | | 3.312 | | 0.625 | 0.187 | 2.812 | | 0.178 | |
| CF033750625 | 3.375 | | 3.375 | | 0.625 | 0.156 | 2.875 | | 0.146 | |
| CF035000500 | 3.500 | | 3.500 | | 0.500 | 0.125 | 3.125 | | 0.116 | |
| CF035000562 | 3.500 | | 3.500 | | 0.562 | 0.125 | 3.125 | | 0.116 | |
| CF035000625 | 3.500 | | 3.500 | | 0.625 | 0.156 | 3.000 | | 0.146 | |
| CF035000750 | 3.500 | | 3.500 | | 0.750 | 0.187 | 3.000 | | 0.178 | |
| CF036250625 | 3.625 | | 3.625 | | 0.625 | 0.156 | 3.125 | | 0.146 | |
| CF037500625 | 3.750 | | 3.750 | | 0.625 | 0.125 | 3.375 | | 0.116 | |
| CF037500750 | 3.750 | | 3.750 | | 0.750 | 0.187 | 3.250 | | 0.178 | |
| CF038750625 | 3.875 | | 3.875 | | 0.625 | 0.156 | 3.375 | | 0.146 | |
| CF038750750 | 3.875 | ▼ | 3.875 | | 0.750 | 0.156 | 3.375 | ▼ | 0.146 | ▼ |

CF series - NEOFAB

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|---|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | t | d1 | Tol. | t1 | Tol. |
| CF039370500 | 3.937 | +0.003 -0.004 | 3.937 | | 0.500 | 0.156 | 3.437 | +0.016 -0.016 | 0.146 | +0.003 -0.000 |
| CF040000500 | 4.000 | | 4.000 | | 0.500 | 0.125 | 3.625 | | 0.116 | |
| CF040000500-1 | 4.000 | | 4.000 | | 0.500 | 0.187 | 3.500 | | 0.178 | |
| CF040000625 | 4.000 | | 4.000 | | 0.625 | 0.156 | 3.500 | | 0.146 | |
| CF040000750 | 4.000 | | 4.000 | | 0.750 | 0.156 | 3.500 | | 0.146 | |
| CF040000750-1 | 4.000 | | 4.000 | | 0.750 | 0.187 | 3.500 | | 0.178 | |
| CF041250750 | 4.125 | | 4.125 | | 0.750 | 0.187 | 3.625 | | 0.178 | |
| CF042500625 | 4.250 | | 4.250 | | 0.625 | 0.156 | 3.750 | | 0.146 | |
| CF042500750 | 4.250 | | 4.250 | | 0.750 | 0.187 | 3.750 | | 0.178 | |
| CF045000562 | 4.500 | | 4.500 | | 0.562 | 0.125 | 4.125 | | 0.116 | |
| CF045000625 | 4.500 | | 4.500 | | 0.625 | 0.156 | 4.000 | | 0.146 | |
| CF045000750 | 4.500 | | 4.500 | | 0.750 | 0.156 | 4.000 | | 0.178 | |
| CF046250625 | 4.625 | | 4.625 | | 0.625 | 0.156 | 4.125 | | 0.146 | |
| CF047500625 | 4.750 | | 4.750 | | 0.625 | 0.156 | 4.250 | | 0.146 | |
| CF047500750 | 4.750 | | 4.750 | | 0.750 | 0.187 | 4.250 | | 0.178 | |
| CF048750625 | 4.875 | | 4.875 | | 0.625 | 0.156 | 4.375 | | 0.146 | |
| CF050000500 | 5.000 | | 5.000 | | 0.500 | 0.187 | 4.500 | | 0.178 | |
| CF050000750 | 5.000 | | 5.000 | | 0.750 | 0.187 | 4.500 | | 0.178 | |
| CF050001000 | 5.000 | | 5.000 | | 1.000 | 0.187 | 4.500 | | 0.178 | |
| CF052500750 | 5.250 | | 5.250 | | 0.750 | 0.187 | 4.750 | | 0.178 | |
| CF055000750 | 5.500 | | 5.500 | | 0.750 | 0.187 | 5.000 | | 0.178 | |
| CF057500750 | 5.750 | | 5.750 | | 0.750 | 0.187 | 5.250 | | 0.178 | |
| CF058750750 | 5.875 | | 5.875 | | 0.750 | 0.187 | 5.375 | | 0.178 | |
| CF060000750 | 6.000 | | 6.000 | | 0.750 | 0.156 | 5.625 | | 0.146 | |
| CF060000750-1 | 6.000 | | 6.000 | | 0.750 | 0.187 | 5.500 | | 0.178 | |
| CF060001000 | 6.000 | | 6.000 | | 1.000 | 0.187 | 5.500 | | 0.178 | |
| CF060001250 | 6.000 | | 6.000 | | 1.250 | 0.187 | 5.500 | | 0.178 | |
| CF062500750 | 6.250 | | 6.250 | | 0.750 | 0.187 | 5.750 | | 0.178 | |
| CF063750750 | 6.375 | | 6.375 | | 0.750 | 0.187 | 5.875 | | 0.178 | |
| CF065000750 | 6.500 | | 6.500 | | 0.750 | 0.187 | 6.000 | | 0.178 | |
| CF065001125 | 6.500 | | 6.500 | | 1.125 | 0.187 | 6.000 | | 0.178 | |
| CF065001500 | 6.500 | ▼ | 6.500 | | 1.500 | 0.187 | 6.000 | | 0.178 | |
| CF067500750 | 6.750 | +0.005 -0.000 | 6.750 | | 0.750 | 0.187 | 6.250 | | 0.178 | |
| CF070000750 | 7.000 | | 7.000 | | 0.750 | 0.187 | 6.500 | | 0.178 | |
| CF070001500 | 7.000 | | 7.000 | | 1.500 | 0.187 | 6.500 | | 0.178 | |
| CF072501000 | 7.250 | | 7.250 | | 1.000 | 0.187 | 6.750 | | 0.178 | |
| CF075001000 | 7.500 | | 7.500 | | 1.000 | 0.187 | 7.000 | | 0.178 | |
| CF080000750 | 8.000 | | 8.000 | | 0.750 | 0.187 | 7.500 | | 0.178 | |
| CF080001000 | 8.000 | | 8.000 | | 1.000 | 0.187 | 7.500 | | 0.178 | |
| CF080001000-1 | 8.000 | | 8.000 | | 1.000 | 0.250 | 7.375 | | 0.178 | |
| CF080001250 | 8.000 | | 8.000 | | 1.250 | 0.187 | 7.500 | | 0.178 | |
| CF085001000 | 8.500 | | 8.500 | | 1.000 | 0.187 | 8.000 | | 0.178 | |
| CF090000750 | 9.000 | | 9.000 | | 0.750 | 0.187 | 8.500 | | 0.178 | |
| CF090001000 | 9.000 | | 9.000 | | 1.000 | 0.187 | 8.500 | | 0.178 | |
| CF095001000 | 9.500 | | 9.500 | | 1.000 | 0.187 | 9.000 | | 0.178 | |
| CF097501000 | 9.750 | ▼ | 9.750 | | 1.000 | 0.187 | 9.250 | ▼ | 0.178 | ▼ |

CF series - NEOFAB

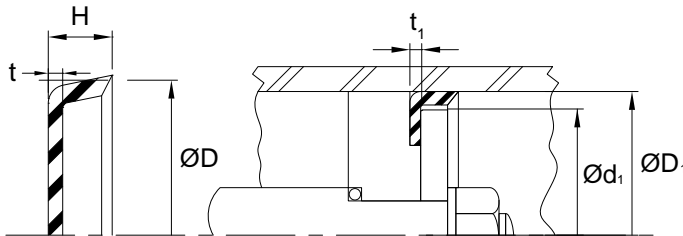
| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|---|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | t | d1 | Tol. | t1 | Tol. |
| CF100001000 | 10.000 | +0.005 -0.000 | 10.000 | | 1.000 | 0.187 | 9.500 | +0.016 -0.016 | 0.178 | +0.003 -0.000 |
| CF102501000 | 10.250 | | 10.250 | | 1.000 | 0.187 | 9.750 | | 0.178 | |
| CF105001250 | 10.500 | ↓ | 10.500 | | 1.250 | 0.250 | 9.875 | | 0.241 | |
| CF110001000 | 11.000 | +0.006 -0.000 | 11.000 | | 1.000 | 0.187 | 10.500 | | 0.178 | |
| CF110001000-1 | 11.000 | | 11.000 | | 1.000 | 0.250 | 10.375 | | 0.241 | |
| CF120001000 | 12.000 | | 12.000 | | 1.000 | 0.187 | 11.500 | | 0.178 | |
| CF120001250 | 12.000 | | 12.000 | | 1.250 | 0.250 | 11.375 | | 0.241 | |
| CF122501000 | 12.250 | | 12.250 | | 1.000 | 0.187 | 11.750 | | 0.178 | |
| CF140001250 | 14.000 | | 14.000 | | 1.250 | 0.250 | 13.375 | | 0.241 | |
| CF160001500 | 16.000 | | 16.000 | | 1.500 | 0.250 | 15.375 | | 0.241 | |
| CF165001500 | 16.500 | | 16.500 | | 1.500 | 0.312 | 15.750 | | 0.303 | |
| CF180001250 | 18.000 | | 18.000 | | 1.250 | 0.250 | 17.375 | | 0.241 | |
| CF200001250 | 20.000 | ↓ | 20.000 | | 1.250 | 0.187 | 19.500 | ↓ | 0.178 | ↓ |

CH - Piston cups - Inch



optional center hole

| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-----------------------|-----------------|
| Nitrile | -40°F to +250°F (-40°C to +121°C) | ≤150 psi (≤10 bar) | <3 ft/s (1 m/s) |



Similar to the **CF-style**, these homogeneous cups are limited in use to pneumatic or low-pressure hydraulic service.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|---|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | t | d1 | Tol. | t1 | Tol. |
| CH005000500 | 0.500 | +0.003 -0.000 | 0.500 | | 0.500 | 0.031 | 0.250 | +0.016 -0.016 | 0.085 | +0.003 -0.000 |
| CH005620250 | 0.562 | ↓ | 0.562 | | 0.250 | 0.093 | 0.312 | | 0.085 | |
| CH006250500 | 0.625 | ↓ | 0.625 | | 0.500 | 0.093 | 0.375 | ↓ | 0.085 | ↓ |

CH series - NBR 80/90A



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|---|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | t | d1 | Tol. | t1 | Tol. |
| CH007500250 | 0.750 | +0.003 -0.000 | 0.750 | | 0.250 | 0.093 | 0.500 | +0.016 -0.016 | 0.085 | +0.003 -0.000 |
| CH007500250-1 | 0.750 | | 0.750 | | 0.250 | 0.109 | 0.500 | | 0.101 | |
| CH007500500 | 0.750 | | 0.750 | | 0.500 | 0.125 | 0.375 | | 0.116 | |
| CH008750250 | 0.875 | | 0.875 | | 0.250 | 0.125 | 0.500 | | 0.116 | |
| CH009370312 | 0.937 | | 0.937 | | 0.312 | 0.125 | 0.562 | | 0.116 | |
| CH009370500 | 0.937 | | 0.937 | | 0.500 | 0.125 | 0.562 | | 0.116 | |
| CH010000250 | 1.000 | | 1.000 | | 0.250 | 0.062 | 0.750 | | 0.054 | |
| CH010000375 | 1.000 | | 1.000 | | 0.375 | 0.125 | 0.750 | | 0.116 | |
| CH010000500 | 1.000 | | 1.000 | | 0.500 | 0.125 | 0.625 | | 0.116 | |
| CH011250500 | 1.125 | | 1.125 | | 0.500 | 0.125 | 0.750 | | 0.116 | |
| CH011870500 | 1.187 | | 1.187 | | 0.500 | 0.125 | 0.812 | | 0.116 | |
| CH012500250 | 1.250 | | 1.250 | | 0.250 | 0.062 | 1.000 | | 0.054 | |
| CH012500500 | 1.250 | | 1.250 | | 0.500 | 0.125 | 0.875 | | 0.116 | |
| CH013750437 | 1.375 | | 1.375 | | 0.437 | 0.093 | 1.125 | | 0.085 | |
| CH014370375 | 1.437 | | 1.437 | | 0.375 | 0.125 | 1.062 | | 0.116 | |
| CH015000375 | 1.500 | | 1.500 | | 0.375 | 0.093 | 1.250 | | 0.085 | |
| CH015000500 | 1.500 | | 1.500 | | 0.500 | 0.125 | 1.125 | | 0.116 | |
| CH016250500 | 1.625 | | 1.625 | | 0.500 | 0.125 | 1.250 | | 0.116 | |
| CH016870500 | 1.687 | | 1.687 | | 0.500 | 0.187 | 1.187 | | 0.178 | |
| CH017500500 | 1.750 | | 1.750 | | 0.500 | 0.125 | 1.375 | | 0.116 | |
| CH018750500 | 1.875 | | 1.875 | | 0.500 | 0.125 | 1.500 | | 0.116 | |
| CH020000375 | 2.000 | | 2.000 | | 0.375 | 0.125 | 1.625 | | 0.116 | |
| CH020000437 | 2.000 | | 2.000 | | 0.437 | 0.125 | 1.625 | | 0.116 | |
| CH020000500 | 2.000 | | 2.000 | | 0.500 | 0.125 | 1.625 | | 0.116 | |
| CH020000625 | 2.000 | | 2.000 | | 0.625 | 0.156 | 1.500 | | 0.146 | |
| CH021870375 | 2.187 | | 2.187 | | 0.375 | 0.125 | 1.812 | | 0.116 | |
| CH022500500 | 2.250 | | 2.250 | | 0.500 | 0.125 | 1.875 | | 0.116 | |
| CH023750500 | 2.375 | | 2.375 | | 0.500 | 0.125 | 2.000 | | 0.116 | |
| CH025000375 | 2.500 | | 2.500 | | 0.375 | 0.125 | 2.125 | | 0.116 | |
| CH025000437 | 2.500 | | 2.500 | | 0.437 | 0.125 | 2.125 | | 0.116 | |
| CH025000500 | 2.500 | | 2.500 | | 0.500 | 0.125 | 2.125 | | 0.116 | |
| CH025000562 | 2.500 | | 2.500 | | 0.562 | 0.125 | 2.125 | | 0.116 | |
| CH025000625 | 2.500 | | 2.500 | | 0.625 | 0.125 | 2.125 | | 0.116 | |
| CH026250250 | 2.625 | | 2.625 | | 0.250 | 0.125 | 2.250 | | 0.116 | |
| CH026250500 | 2.625 | | 2.625 | | 0.500 | 0.125 | 2.125 | | 0.116 | |
| CH027500500 | 2.750 | | 2.750 | | 0.500 | 0.125 | 2.375 | | 0.116 | |
| CH028750500 | 2.875 | ▼ | 2.875 | | 0.500 | 0.125 | 2.500 | | 0.116 | |
| CH030000500 | 3.000 | +0.000 -0.004 | 3.000 | | 0.500 | 0.125 | 2.625 | | 0.116 | |
| CH030000500-1 | 3.000 | | 3.000 | | 0.500 | 0.156 | 2.500 | | 0.146 | |
| CH030000625 | 3.000 | | 3.000 | | 0.625 | 0.156 | 2.500 | | 0.146 | |
| CH031250625 | 3.125 | | 3.125 | | 0.625 | 0.156 | 2.625 | | 0.146 | |
| CH032500437 | 3.250 | | 3.250 | | 0.437 | 0.125 | 2.875 | | 0.116 | |
| CH032500500 | 3.250 | | 3.250 | | 0.500 | 0.125 | 2.875 | | 0.116 | |
| CH032500625 | 3.250 | | 3.250 | | 0.625 | 0.156 | 2.750 | | 0.146 | |
| CH035000500 | 3.500 | | 3.500 | | 0.500 | 0.125 | 3.125 | | 0.116 | |
| CH035000625 | 3.500 | ▼ | 3.500 | | 0.625 | 0.125 | 3.125 | ▼ | 0.116 | ▼ |

CH series - NBR 80/90A

PISTON SEALS

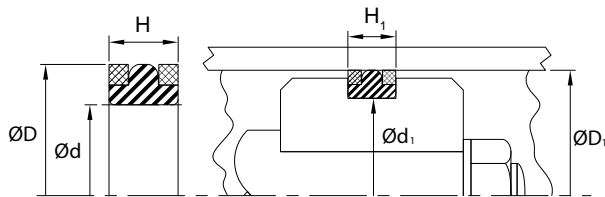
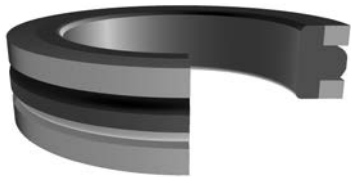


| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|---|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | t | d1 | Tol. | t1 | Tol. |
| CH035000625-1 | 3.500 | +0.004 -0.000 | 3.500 | | 0.625 | 0.156 | 3.000 | +0.016 -0.016 | 0.146 | +0.003 -0.000 |
| CH035000750 | 3.500 | | 3.500 | | 0.750 | 0.187 | 3.000 | | 0.178 | |
| CH036250625 | 3.625 | | 3.625 | | 0.625 | 0.156 | 3.125 | | 0.146 | |
| CH037500500 | 3.750 | | 3.750 | | 0.500 | 0.125 | 3.375 | | 0.116 | |
| CH037500750 | 3.750 | | 3.750 | | 0.750 | 0.187 | 3.250 | | 0.178 | |
| CH038750625 | 3.875 | | 3.875 | | 0.625 | 0.125 | 3.500 | | 0.116 | |
| CH040000437 | 4.000 | | 4.000 | | 0.437 | 0.125 | 3.625 | | 0.116 | |
| CH040000500 | 4.000 | | 4.000 | | 0.500 | 0.125 | 3.625 | | 0.116 | |
| CH040000625 | 4.000 | | 4.000 | | 0.625 | 0.156 | 3.500 | | 0.146 | |
| CH040000750 | 4.000 | | 4.000 | | 0.750 | 0.125 | 3.625 | | 0.116 | |
| CH040000750-1 | 4.000 | | 4.000 | | 0.750 | 0.187 | 3.500 | | 0.178 | |
| CH045000562 | 4.500 | | 4.500 | | 0.562 | 0.125 | 4.125 | | 0.116 | |
| CH045000625 | 4.500 | | 4.500 | | 0.625 | 0.125 | 4.125 | | 0.116 | |
| CH045000625-1 | 4.500 | | 4.500 | | 0.625 | 0.156 | 4.000 | | 0.146 | |
| CH046250625 | 4.625 | | 4.625 | | 0.625 | 0.125 | 4.250 | | 0.116 | |
| CH047500750 | 4.750 | | 4.750 | | 0.750 | 0.156 | 4.250 | | 0.146 | |
| CH050000562 | 5.000 | | 5.000 | | 0.562 | 0.125 | 4.625 | | 0.116 | |
| CH050000625 | 5.000 | | 5.000 | | 0.625 | 0.125 | 4.625 | | 0.116 | |
| CH050000625-1 | 5.000 | | 5.000 | | 0.625 | 0.187 | 4.500 | | 0.178 | |
| CH050000750 | 5.000 | | 5.000 | | 0.750 | 0.187 | 4.500 | | 0.178 | |
| CH051250750 | 5.125 | | 5.125 | | 0.750 | 0.187 | 4.625 | | 0.178 | |
| CH055000750 | 5.500 | | 5.500 | | 0.750 | 0.187 | 5.000 | | 0.178 | |
| CH057500750 | 5.750 | | 5.750 | | 0.750 | 0.187 | 5.250 | | 0.178 | |
| CH058750750 | 5.875 | | 5.875 | | 0.750 | 0.156 | 5.375 | | 0.146 | |
| CH060000562 | 6.000 | | 6.000 | | 0.562 | 0.156 | 5.500 | | 0.146 | |
| CH060000625 | 6.000 | | 6.000 | | 0.625 | 0.156 | 5.500 | | 0.146 | |
| CH060000750 | 6.000 | | 6.000 | | 0.750 | 0.156 | 5.500 | | 0.146 | |
| CH060000750-1 | 6.000 | | 6.000 | | 0.750 | 0.187 | 5.500 | | 0.178 | |
| CH060000875 | 6.000 | | 6.000 | | 0.875 | 0.125 | 5.625 | | 0.116 | |
| CH060001000 | 6.000 | | 6.000 | | 1.000 | 0.187 | 5.500 | | 0.178 | |
| CH065000750 | 6.500 | ▼ | 6.500 | | 0.750 | 0.187 | 6.000 | | 0.178 | |
| CH070000625 | 7.000 | +0.005 -0.000 | 7.000 | | 0.625 | 0.125 | 6.625 | | 0.116 | |
| CH070000750 | 7.000 | | 7.000 | | 0.750 | 0.187 | 6.500 | | 0.178 | |
| CH075000875 | 7.500 | | 7.500 | | 0.875 | 0.156 | 7.000 | | 0.146 | |
| CH080000625 | 8.000 | | 8.000 | | 0.625 | 0.125 | 7.625 | | 0.116 | |
| CH080000750 | 8.000 | | 8.000 | | 0.750 | 0.156 | 7.500 | | 0.146 | |
| CH080000750-1 | 8.000 | | 8.000 | | 0.750 | 0.187 | 7.500 | | 0.178 | |
| CH080001000 | 8.000 | | 8.000 | | 1.000 | 0.187 | 7.500 | | 0.178 | |
| CH090000750 | 9.000 | | 9.000 | | 0.750 | 0.187 | 8.500 | | 0.178 | |
| CH095001000 | 9.500 | | 9.500 | | 1.000 | 0.187 | 9.000 | | 0.178 | |
| CH100000750 | 10.000 | | 10.000 | | 0.750 | 0.125 | 9.625 | | 0.116 | |
| CH100000750-1 | 10.000 | | 10.000 | | 0.750 | 0.187 | 9.500 | | 0.178 | |
| CH100001000 | 10.000 | ▼ | 10.000 | | 1.000 | 0.187 | 9.500 | | 0.178 | |
| CH120000750 | 12.000 | +0.006 -0.000 | 12.000 | | 0.750 | 0.187 | 11.500 | | 0.178 | |
| CH120001000 | 12.000 | | 12.000 | | 1.000 | 0.187 | 11.500 | | 0.178 | |
| CH130000750 | 13.000 | ▼ | 13.000 | | 0.750 | 0.187 | 12.500 | ▼ | 0.178 | ▼ |

CH series - NBR 80/90A

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|---|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | t | d1 | Tol. | t1 | Tol. |
| CH140000812 | 14.000 | +0.006 -0.000 | 14.000 | | 0.812 | 0.187 | 13.500 | +0.016 -0.016 | 0.178 | +0.003 -0.000 |
| CH150001000 | 15.000 | | 15.000 | | 1.000 | 0.187 | 14.500 | | 0.178 | |
| CH160000750 | 16.000 | | 16.000 | | 0.750 | 0.187 | 15.500 | | 0.178 | |
| CH180000750 | 18.000 | | 18.000 | | 0.750 | 0.250 | 17.375 | | 0.241 | |

TP, TP-1, TP-2 - Piston seals - Inch



| Standard Material | Temperature Range | Pressure * Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|----------------------|
| Nitrile/Nylon | -40°F to +225°F (-40°C to +107°C) | ≤5000 psi (≤344 bar) | < 1.6 ft/s (0.5 m/s) |

*Pressure range without wear rings

PISTON SEALS



Piston **T-Seals** are designed to retrofit O'Rings in typically no-back-up standard grooves. Their flat base and positively actuated anti-extrusion rings provide improved stability and extrusion resistance. Piston **T-Seals** eliminate the spiral or twisting failure that can occur when using O'Rings against dynamic surfaces. Certain sizes are also available for one and two back-up O'Ring groove designs.

TP-style for no back-up O'Ring gland (Standard Offering)

TP-1-style for single back-up O'Ring gland

TP-2-style for two back-up O'Ring gland

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|------------|---------------|------------------|-------------------------|-------|---|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| TP-106 | 0.375 | +0.003 -0.000 | 0.375 | 0.187 | | 0.190 | +0.002 -0.000 | 0.150 | +0.005 -0.000 |
| TP-108 | 0.437 | | 0.437 | 0.250 | | 0.252 | | 0.150 | |
| TP-109 | 0.500 | | 0.500 | 0.312 | | 0.315 | | 0.150 | |
| TP-203 | 0.562 | | 0.562 | 0.312 | | 0.317 | | 0.185 | |
| TP-204 | 0.625 | | 0.625 | 0.375 | | 0.380 | | 0.185 | |
| TP-205 | 0.687 | | 0.687 | 0.437 | | 0.442 | | 0.185 | |
| TP-206 | 0.750 | | 0.750 | 0.500 | | 0.505 | | 0.185 | |
| TP-207 | 0.812 | | 0.812 | 0.562 | | 0.567 | | 0.185 | |
| TP-208 | 0.875 | | 0.875 | 0.625 | | 0.630 | | 0.185 | |
| TP-209 | 0.937 | | 0.937 | 0.687 | | 0.692 | | 0.185 | |
| TP-210 | 1.000 | | 1.000 | 0.750 | | 0.756 | | 0.185 | |

TP, TP-1, TP-2 series - NBR/NYLON

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|------------|---------------|------------------|-------------------------|-------|---|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| TP-211 | 1.062 | +0.003 -0.000 | 1.062 | 0.812 | | 0.818 | +0.002 -0.000 | 0.185 | +0.005 -0.000 |
| TP-212 | 1.125 | | 1.125 | 0.875 | | 0.881 | | 0.185 | |
| TP-213 | 1.187 | | 1.187 | 0.937 | | 0.943 | | 0.185 | |
| TP-214 | 1.250 | | 1.250 | 1.000 | | 1.006 | | 0.185 | |
| TP-215 | 1.312 | | 1.312 | 1.062 | | 1.068 | | 0.185 | |
| TP-216 | 1.375 | | 1.375 | 1.125 | | 1.131 | | 0.185 | |
| TP-217 | 1.437 | | 1.437 | 1.187 | | 1.193 | | 0.185 | |
| TP-218 | 1.500 | | 1.500 | 1.250 | | 1.256 | | 0.185 | ↓ |
| TP-218-2 | 1.500 | | 1.500 | 1.250 | | 1.256 | | 0.304 | +0.010/-0.000 |
| TP-219 | 1.562 | | 1.562 | 1.312 | | 1.318 | | 0.185 | +0.005 -0.001 |
| TP-220 | 1.625 | | 1.625 | 1.375 | | 1.381 | | 0.185 | ↓ |
| TP-222 | 1.750 | | 1.750 | 1.500 | | 1.506 | | 0.185 | |
| TP-222-1 | 1.750 | | 1.750 | 1.500 | | 1.506 | | 0.235 | +0.010/-0.000 |
| TP-325 | 1.875 | | 1.875 | 1.500 | | 1.502 | | 0.280 | +0.005 -0.000 |
| TP-326 | 2.000 | | 2.000 | 1.625 | | 1.627 | | 0.280 | |
| TP-326-1 | 2.000 | | 2.000 | 1.625 | | 1.627 | | 0.334 | +0.010/-0.000 |
| TP-327 | 2.125 | | 2.125 | 1.750 | | 1.752 | | 0.280 | +0.005 -0.000 |
| TP-328 | 2.250 | | 2.250 | 1.875 | | 1.877 | | 0.280 | |
| TP-328-1 | 2.250 | | 2.250 | 1.875 | | 1.877 | | 0.334 | +0.010 -0.000 |
| TP-328-2 | 2.250 | | 2.250 | 1.875 | | 1.877 | | 0.424 | +0.010 -0.000 |
| TP-329 | 2.375 | | 2.375 | 2.000 | | 2.002 | | 0.280 | +0.005 -0.000 |
| TP-330 | 2.500 | | 2.500 | 2.125 | | 2.127 | | 0.280 | |
| TP-330-1 | 2.500 | | 2.500 | 2.125 | | 2.127 | | 0.334 | +0.010 -0.000 |
| TP-330-2 | 2.500 | | 2.500 | 2.125 | | 2.127 | | 0.424 | |
| TP-331 | 2.625 | | 2.625 | 2.250 | | 2.252 | ↓ | 0.280 | +0.005 -0.000 |
| TP-332 | 2.750 | | 2.750 | 2.375 | | 2.377 | +0.003 -0.001 | 0.280 | ↓ |
| TP-333 | 2.875 | | 2.875 | 2.500 | | 2.502 | | 0.280 | ↓ |
| TP-333-2 | 2.875 | ↓ | 2.875 | 2.500 | | 2.502 | | 0.424 | +0.010/-0.000 |
| TP-334 | 3.000 | +0.004 -0.000 | 3.000 | 2.625 | | 2.627 | | 0.280 | +0.005/-0.000 |
| TP-334-1 | 3.000 | | 3.000 | 2.625 | | 2.627 | | 0.334 | +0.010 -0.000 |
| TP-334-2 | 3.000 | | 3.000 | 2.625 | | 2.627 | | 0.424 | |
| TP-335 | 3.125 | | 3.125 | 2.750 | | 2.752 | | 0.280 | +0.005 -0.000 |
| TP-336 | 3.250 | | 3.250 | 2.875 | | 2.877 | | 0.280 | ↓ |
| TP-338 | 3.500 | | 3.500 | 3.125 | | 3.128 | | 0.280 | ↓ |
| TP-338-1 | 3.500 | | 3.500 | 3.125 | | 3.128 | | 0.334 | +0.010 -0.000 |
| TP-338-2 | 3.500 | | 3.500 | 3.125 | | 3.128 | | 0.424 | |
| TP-339 | 3.625 | | 3.625 | 3.250 | | 3.253 | | 0.280 | +0.005 -0.001 |
| TP-340 | 3.750 | | 3.750 | 3.375 | | 3.378 | | 0.280 | ↓ |
| TP-341 | 3.875 | | 3.875 | 3.500 | | 3.503 | | 0.280 | ↓ |
| TP-342 | 4.000 | | 4.000 | 3.625 | | 3.628 | | 0.280 | ↓ |
| TP-342-2 | 4.000 | | 4.000 | 3.625 | | 3.628 | | 0.424 | +0.010/-0.000 |
| TP-343 | 4.125 | | 4.125 | 3.750 | | 3.753 | | 0.280 | +0.005 -0.001 |
| TP-344 | 4.250 | | 4.250 | 3.875 | | 3.878 | | 0.280 | ↓ |
| TP-345 | 4.375 | | 4.375 | 4.000 | | 4.003 | | 0.280 | ↓ |
| TP-346 | 4.500 | | 4.500 | 4.125 | | 4.128 | | 0.280 | ↓ |
| TP-346-1 | 4.500 | ↓ | 4.500 | 4.125 | | 4.128 | ↓ | 0.334 | +0.010/-0.000 |

TP, TP-1, TP-2 series - NBR/NYLON

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|------------|---------------|-----------------|-------------------------|--------|---|--------------------|-----------------|-------|-----------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| TP-346-2 | 4.500 | +0.004 -.000 | 4.500 | 4.125 | | 4.128 | +0.003 -.001 | 0.424 | +0.010/- .000 |
| TP-347 | 4.625 | | 4.625 | 4.250 | | 4.253 | | 0.280 | +0.005/- .001 |
| TP-347-1 | 4.625 | | 4.625 | 4.250 | | 4.253 | | 0.334 | +0.010/- .000 |
| TP-348 | 4.750 | | 4.750 | 4.375 | | 4.378 | | 0.280 | +0.005/- .001 |
| TP-348-2 | 4.750 | | 4.750 | 4.375 | | 4.378 | | 0.424 | +0.010/- .000 |
| TP-349 | 4.875 | | 4.875 | 4.500 | | 4.503 | | 0.280 | +0.005 -.001 |
| TP-350 | 5.000 | | 5.000 | 4.625 | | 4.629 | | 0.280 | |
| TP-350-2 | 5.000 | | 5.000 | 4.625 | | 4.629 | | 0.424 | +0.010 -.000 |
| TP-425-1 | 5.000 | | 5.000 | 4.500 | | 4.524 | | 0.475 | +0.010 -.000 |
| TP-425-2 | 5.000 | | 5.000 | 4.500 | | 4.524 | | 0.579 | ↓ |
| TP-426 | 5.125 | | 5.125 | 4.625 | | 4.649 | | 0.366 | +0.005 -.001 |
| TP-427 | 5.250 | | 5.250 | 4.750 | | 4.774 | | 0.366 | |
| TP-427-2 | 5.250 | | 5.250 | 4.750 | | 4.774 | | 0.579 | +0.010/- .000 |
| TP-428 | 5.375 | | 5.375 | 4.875 | | 4.889 | | 0.366 | +0.005 -.001 |
| TP-429 | 5.500 | | 5.500 | 5.000 | | 5.024 | | 0.366 | |
| TP-429-1 | 5.500 | | 5.500 | 5.000 | | 5.024 | | 0.475 | +0.010 -.000 |
| TP-429-2 | 5.500 | | 5.500 | 5.000 | | 5.024 | | 0.579 | |
| TP-430 | 5.625 | | 5.625 | 5.125 | | 5.149 | | 0.366 | +0.005 -.001 |
| TP-431 | 5.750 | | 5.750 | 5.250 | | 5.274 | | 0.366 | |
| TP-432 | 5.875 | | 5.875 | 5.375 | | 5.399 | | 0.366 | ↓ |
| TP-433 | 6.000 | | 6.000 | 5.500 | | 5.524 | | 0.366 | ↓ |
| TP-433-1 | 6.000 | | 6.000 | 5.500 | | 5.524 | | 0.475 | +0.010 -.000 |
| TP-433-2 | 6.000 | | 6.000 | 5.500 | | 5.524 | | 0.579 | |
| TP-434 | 6.125 | | 6.125 | 5.625 | | 5.649 | | 0.366 | +0.005 -.001 |
| TP-435 | 6.250 | | 6.250 | 5.750 | | 5.774 | | 0.366 | |
| TP-435-1 | 6.250 | | 6.250 | 5.750 | | 5.774 | ↓ | 0.475 | +0.010/- .000 |
| TP-437 | 6.500 | ↓ | 6.500 | 6.000 | | 6.024 | +0.004 -.002 | 0.366 | +0.005 -.000 |
| TP-438 | 6.750 | +0.005 -.000 | 6.750 | 6.250 | | 6.274 | | 0.366 | +0.005 -.000 |
| TP-439 | 7.000 | | 7.000 | 6.500 | | 6.524 | | 0.366 | ↓ |
| TP-439-1 | 7.000 | | 7.000 | 6.500 | | 6.524 | | 0.475 | +0.010 -.000 |
| TP-439-2 | 7.000 | | 7.000 | 6.500 | | 6.524 | | 0.579 | |
| TP-440 | 7.250 | | 7.250 | 6.750 | | 6.774 | | 0.366 | +0.005 -.001 |
| TP-441 | 7.500 | | 7.500 | 7.000 | | 7.024 | | 0.366 | |
| TP-442 | 7.750 | | 7.750 | 7.250 | | 7.274 | | 0.366 | ↓ |
| TP-443 | 8.000 | | 8.000 | 7.500 | | 7.524 | | 0.366 | ↓ |
| TP-443-2 | 8.000 | | 8.000 | 7.500 | | 7.524 | | 0.579 | +0.010/- .000 |
| TP-444 | 8.250 | | 8.250 | 7.750 | | 7.774 | | 0.366 | +0.005/- .001 |
| TP-444-1 | 8.250 | | 8.250 | 7.750 | | 7.774 | | 0.475 | +0.010/- .000 |
| TP-445 | 8.500 | | 8.500 | 8.000 | | 8.024 | | 0.366 | +0.005 -.001 |
| TP-446 | 9.000 | | 9.000 | 8.500 | | 8.524 | | 0.366 | |
| TP-446-1 | 9.000 | | 9.000 | 8.500 | | 8.524 | | 0.475 | +0.010/- .000 |
| TP-447 | 9.500 | | 9.500 | 9.000 | | 9.024 | | 0.366 | +0.005 -.001 |
| TP-448 | 10.000 | | 10.000 | 9.500 | | 9.524 | | 0.366 | |
| TP-448-1 | 10.000 | | 10.000 | 9.500 | | 9.524 | | 0.475 | +0.010 -.000 |
| TP-448-2 | 10.000 | | 10.000 | 9.500 | | 9.524 | | 0.579 | |
| TP-449 | 10.500 | ↓ | 10.500 | 10.000 | | 10.024 | ↓ | 0.366 | +0.005/- .001 |

TP, TP-1, TP-2 series - NBR/NYLON

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|--------|---|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| TP-449-2 | 10.500 | +0.005/-0.000 | 10.500 | 10.000 | | 10.024 | +0.004 -0.002 | 0.579 | +0.010/-0.000 |
| TP-450 | 11.000 | +0.006 -0.000 | 11.000 | 10.500 | | 10.524 | | 0.366 | +0.005/-0.001 |
| TP-450-1 | 11.000 | | 11.000 | 10.500 | | 10.524 | | 0.475 | +0.010/-0.000 |
| TP-451 | 11.500 | | 11.500 | 11.000 | | 11.024 | | 0.366 | +0.005 -0.001 |
| TP-452 | 12.000 | ▼ | 12.000 | 11.500 | | 11.524 | ▼ | 0.366 | |

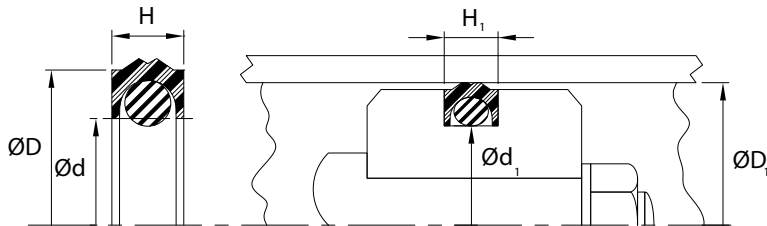
PISTON SEALS



PSP - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|--------------------------|--------------------------------------|-------------------------|----------------------|
| Polyurethane/ Nitrile | -30°F to +225°F (-34°C to +107°C) | ≤5000 psi (≤345 bar) | < 1.6 ft/s (0.5 m/s) |



The **PSP-style** is a squeeze-type, bi-directional piston seal for use in light to medium duty hydraulic applications. The PSP's seal geometry provides a fluid reservoir between the two sealing lips which holds system fluid, resulting in lower breakaway and running friction. It is designed to retrofit no-back-up O'Ring type grooves.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| PSP-203 | 0.562 | +0.003 -0.000 | 0.562 | 0.312 | 0.160 | 0.320 | +0.000 -0.002 | 0.187 | +0.005 -0.000 |
| PSP-204 | 0.625 | | 0.625 | 0.375 | 0.160 | 0.383 | | 0.187 | |
| PSP-205 | 0.687 | | 0.687 | 0.437 | 0.160 | 0.445 | | 0.187 | |
| PSP-206 | 0.750 | | 0.750 | 0.500 | 0.160 | 0.508 | | 0.187 | |
| PSP-207 | 0.812 | | 0.812 | 0.562 | 0.160 | 0.570 | | 0.187 | |
| PSP-208 | 0.875 | | 0.875 | 0.625 | 0.160 | 0.633 | | 0.187 | |
| PSP-209 | 0.937 | | 0.937 | 0.687 | 0.160 | 0.695 | | 0.187 | |
| PSP-210 | 1.000 | | 1.000 | 0.750 | 0.160 | 0.758 | | 0.187 | |
| PSP-211 | 1.062 | | 1.062 | 0.812 | 0.160 | 0.820 | | 0.187 | |
| PSP-212 | 1.125 | | 1.125 | 0.875 | 0.160 | 0.883 | | 0.187 | |
| PSP-213 | 1.187 | | 1.187 | 0.937 | 0.160 | 0.945 | | 0.187 | |
| PSP-214 | 1.250 | | 1.250 | 1.000 | 0.160 | 1.008 | | 0.187 | |
| PSP-215 | 1.312 | | 1.312 | 1.062 | 0.160 | 1.070 | | 0.187 | |
| PSP-216 | 1.375 | | 1.375 | 1.125 | 0.160 | 1.133 | | 0.187 | |
| PSP-217 | 1.437 | | 1.437 | 1.187 | 0.160 | 1.195 | | 0.187 | |
| PSP-218 | 1.500 | | 1.500 | 1.250 | 0.160 | 1.258 | | 0.187 | |
| PSP-219 | 1.562 | | 1.562 | 1.312 | 0.160 | 1.320 | | 0.187 | |
| PSP-220 | 1.625 | | 1.625 | 1.375 | 0.160 | 1.383 | | 0.187 | |
| PSP-221 | 1.687 | | 1.687 | 1.437 | 0.160 | 1.445 | | 0.187 | |
| PSP-222 | 1.750 | | 1.750 | 1.500 | 0.160 | 1.508 | | 0.187 | |
| PSP-325 | 1.875 | | 1.875 | 1.500 | 0.235 | 1.505 | | 0.281 | |
| PSP-326 | 2.000 | ▼ | 2.000 | 1.625 | 0.235 | 1.630 | ▼ | 0.281 | ▼ |



PSP series - AU/NBR

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| PSP-327 | 2.125 | +0.003 -0.000 | 2.125 | 1.750 | 0.235 | 1.755 | +0.000 -0.004 | 0.281 | +0.005 -0.000 |
| PSP-328 | 2.250 | | 2.250 | 1.875 | 0.235 | 1.880 | | 0.281 | |
| PSP-329 | 2.375 | | 2.375 | 2.000 | 0.235 | 2.005 | | 0.281 | |
| PSP-330 | 2.500 | | 2.500 | 2.125 | 0.235 | 2.130 | | 0.281 | |
| PSP-331 | 2.625 | | 2.625 | 2.250 | 0.235 | 2.255 | | 0.281 | |
| PSP-332 | 2.750 | | 2.750 | 2.375 | 0.235 | 2.380 | | 0.281 | |
| PSP-333 | 2.875 | ▼ | 2.875 | 2.500 | 0.235 | 2.505 | | 0.281 | |
| PSP-334 | 3.000 | +0.004 -0.000 | 3.000 | 2.625 | 0.235 | 2.630 | | 0.281 | |
| PSP-335 | 3.125 | | 3.125 | 2.750 | 0.235 | 2.755 | | 0.281 | |
| PSP-336 | 3.250 | | 3.250 | 2.875 | 0.235 | 2.880 | | 0.281 | |
| PSP-337 | 3.375 | | 3.375 | 3.000 | 0.235 | 3.005 | | 0.281 | |
| PSP-338 | 3.500 | | 3.500 | 3.125 | 0.235 | 3.130 | | 0.281 | |
| PSP-339 | 3.625 | | 3.625 | 3.250 | 0.235 | 3.255 | | 0.281 | |
| PSP-340 | 3.750 | | 3.750 | 3.375 | 0.235 | 3.380 | | 0.281 | |
| PSP-341 | 3.875 | | 3.875 | 3.500 | 0.235 | 3.505 | | 0.281 | |
| PSP-342 | 4.000 | | 4.000 | 3.625 | 0.235 | 3.630 | | 0.281 | |
| PSP-343 | 4.125 | | 4.125 | 3.750 | 0.235 | 3.755 | | 0.281 | |
| PSP-344 | 4.250 | | 4.250 | 3.875 | 0.235 | 3.880 | | 0.281 | |
| PSP-345 | 4.375 | | 4.375 | 4.000 | 0.235 | 4.005 | | 0.281 | |
| PSP-346 | 4.500 | | 4.500 | 4.125 | 0.235 | 4.130 | | 0.281 | |
| PSP-347 | 4.625 | | 4.625 | 4.250 | 0.235 | 4.255 | | 0.281 | |
| PSP-348 | 4.750 | | 4.750 | 4.375 | 0.235 | 4.380 | | 0.281 | |
| PSP-349 | 4.875 | | 4.875 | 4.500 | 0.235 | 4.505 | | 0.281 | |
| PSP-350 | 5.000 | | 5.000 | 4.625 | 0.235 | 4.630 | | 0.281 | |
| PSP-425 | 5.000 | | 5.000 | 4.500 | 0.320 | 4.528 | | 0.375 | |
| PSP-426 | 5.125 | | 5.125 | 4.625 | 0.320 | 4.653 | | 0.375 | |
| PSP-427 | 5.250 | | 5.250 | 4.750 | 0.320 | 4.778 | | 0.375 | |
| PSP-428 | 5.375 | | 5.375 | 4.875 | 0.320 | 4.903 | | 0.375 | |
| PSP-429 | 5.500 | | 5.500 | 5.000 | 0.320 | 5.028 | | 0.375 | |
| PSP-430 | 5.625 | | 5.625 | 5.125 | 0.320 | 5.153 | | 0.375 | |
| PSP-431 | 5.750 | | 5.750 | 5.250 | 0.320 | 5.278 | | 0.375 | |
| PSP-432 | 5.875 | | 5.875 | 5.375 | 0.320 | 5.403 | | 0.375 | |
| PSP-433 | 6.000 | | 6.000 | 5.500 | 0.320 | 5.528 | | 0.375 | |
| PSP-434 | 6.125 | | 6.125 | 5.375 | 0.320 | 5.653 | | 0.375 | |
| PSP-435 | 6.250 | | 6.250 | 5.250 | 0.320 | 5.778 | | 0.375 | |
| PSP-437 | 6.500 | ▼ | 6.500 | 6.000 | 0.320 | 6.028 | | 0.375 | |
| PSP-438 | 6.750 | +0.005 -0.000 | 6.750 | 6.250 | 0.320 | 6.278 | | 0.375 | |
| PSP-439 | 7.000 | | 7.000 | 6.500 | 0.320 | 6.528 | ▼ | 0.375 | ▼ |

Markets segments we are servicing



Truck Bus

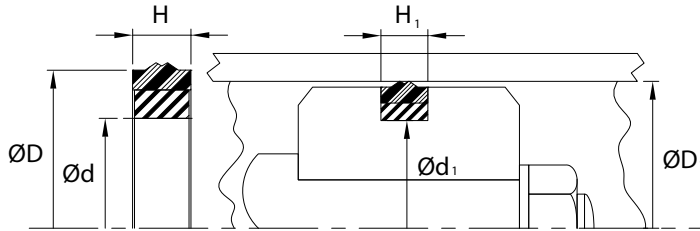


Accumulators

PSP - A - AT - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|--------------------------|--------------------------------------|-------------------------|----------------------|
| Polyurethane/ Nitrile | -30°F to +225°F (-34°C to +107°C) | ≤5000 psi (≤345 bar) | < 1.6 ft/s (0.5 m/s) |



Similar in nature to the **PSP-style**, these series are designed to retrofit one-backup (A) and two-backup (AT) O'Ring type grooves.

PSP-A-style for single back-up O'Ring gland

PSP-AT-style for two back-up O'Ring gland

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| PSP-203A | 0.562 | +0.003 -0.000 | 0.562 | 0.312 | 0.165 | 0.320 | +0.000 -0.002 | 0.187 | +0.005 -0.000 |
| PSP-204A | 0.625 | | 0.625 | 0.375 | 0.165 | 0.383 | | 0.187 | |
| PSP-205A | 0.687 | | 0.687 | 0.437 | 0.165 | 0.445 | | 0.187 | |
| PSP-206A | 0.750 | | 0.750 | 0.500 | 0.165 | 0.508 | | 0.187 | |
| PSP-207A | 0.812 | | 0.812 | 0.562 | 0.165 | 0.570 | | 0.187 | |
| PSP-208A | 0.875 | | 0.875 | 0.625 | 0.165 | 0.633 | | 0.187 | |
| PSP-209A | 0.937 | | 0.937 | 0.687 | 0.165 | 0.695 | | 0.187 | |
| PSP-210A | 1.000 | | 1.000 | 0.750 | 0.165 | 0.758 | | 0.187 | |
| PSP-211A | 1.062 | | 1.062 | 0.812 | 0.165 | 0.820 | | 0.187 | |
| PSP-212A | 1.125 | | 1.125 | 0.875 | 0.165 | 0.883 | | 0.187 | |
| PSP-213A | 1.187 | | 1.187 | 0.937 | 0.165 | 0.945 | | 0.187 | |
| PSP-214A | 1.250 | | 1.250 | 1.000 | 0.165 | 1.008 | | 0.187 | |
| PSP-215A | 1.312 | | 1.312 | 1.062 | 0.165 | 1.070 | | 0.187 | |
| PSP-216A | 1.375 | | 1.375 | 1.125 | 0.165 | 1.133 | | 0.187 | |
| PSP-217A | 1.437 | | 1.437 | 1.187 | 0.165 | 1.195 | | 0.187 | |
| PSP-218A | 1.500 | | 1.500 | 1.250 | 0.165 | 1.258 | | 0.187 | |
| PSP-218AT | 1.500 | | 1.500 | 1.250 | 0.255 | 1.258 | | 0.275 | |
| PSP-219A | 1.562 | | 1.562 | 1.312 | 0.165 | 1.320 | | 0.187 | |
| PSP-220A | 1.625 | | 1.625 | 1.375 | 0.165 | 1.383 | | 0.187 | |
| PSP-221A | 1.687 | | 1.687 | 1.437 | 0.165 | 1.445 | | 0.187 | |
| PSP-222A | 1.750 | | 1.750 | 1.500 | 0.165 | 1.508 | | 0.187 | |
| PSP-325A | 1.875 | | 1.875 | 1.500 | 0.260 | 1.505 | | 0.281 | |
| PSP-326A | 2.000 | ▼ | 2.000 | 1.625 | 0.260 | 1.630 | ▼ | 0.281 | ▼ |



PSP - A - AT series - AU/NBR

PISTON SEALS

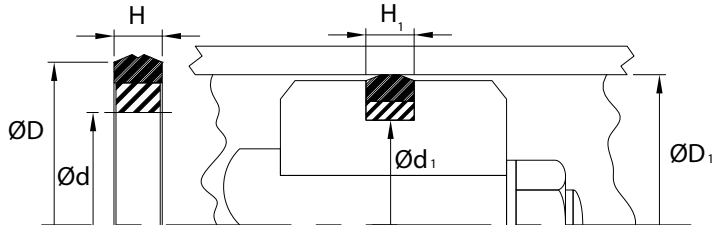


| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| PSP-326AT | 2.000 | +0.003 -0.000 | 2.000 | 1.625 | 0.375 | 1.630 | +0.000/-0.002 | 0.410 | +0.005 -0.000 |
| PSP-327A | 2.125 | | 2.125 | 1.750 | 0.260 | 1.755 | +0.000 -0.004 | 0.281 | |
| PSP-328A | 2.250 | | 2.250 | 1.875 | 0.260 | 1.880 | | 0.281 | |
| PSP-329A | 2.375 | | 2.375 | 2.000 | 0.260 | 2.005 | | 0.281 | |
| PSP-330A | 2.500 | | 2.500 | 2.125 | 0.260 | 2.130 | | 0.281 | |
| PSP-330AT | 2.500 | | 2.500 | 2.125 | 0.375 | 2.130 | | 0.410 | |
| PSP-331A | 2.625 | | 2.625 | 2.250 | 0.260 | 2.255 | | 0.281 | |
| PSP-332A | 2.750 | | 2.750 | 2.375 | 0.260 | 2.380 | | 0.281 | |
| PSP-333A | 2.875 | ▼ | 2.875 | 2.500 | 0.260 | 2.505 | | 0.281 | |
| PSP-334A | 3.000 | +0.004 -0.000 | 3.000 | 2.625 | 0.260 | 2.630 | | 0.281 | |
| PSP-334AT | 3.000 | | 3.000 | 2.625 | 0.375 | 2.630 | | 0.410 | |
| PSP-335A | 3.125 | | 3.125 | 2.750 | 0.260 | 2.755 | | 0.281 | |
| PSP-336A | 3.250 | | 3.250 | 2.875 | 0.260 | 2.880 | | 0.281 | |
| PSP-337A | 3.375 | | 3.375 | 3.000 | 0.260 | 3.005 | | 0.281 | |
| PSP-338A | 3.500 | | 3.500 | 3.125 | 0.260 | 3.130 | | 0.281 | |
| PSP-338AT | 3.500 | | 3.500 | 3.125 | 0.375 | 3.130 | | 0.410 | |
| PSP-339A | 3.625 | | 3.625 | 3.250 | 0.260 | 3.255 | | 0.281 | |
| PSP-340A | 3.750 | | 3.750 | 3.375 | 0.260 | 3.380 | | 0.281 | |
| PSP-341A | 3.875 | | 3.875 | 3.500 | 0.260 | 3.505 | | 0.281 | |
| PSP-342A | 4.000 | | 4.000 | 3.625 | 0.260 | 3.630 | | 0.281 | |
| PSP-342AT | 4.000 | | 4.000 | 3.625 | 0.375 | 3.630 | | 0.410 | |
| PSP-343A | 4.125 | | 4.125 | 3.750 | 0.260 | 3.755 | | 0.281 | |
| PSP-344A | 4.250 | | 4.250 | 3.875 | 0.260 | 3.880 | | 0.281 | |
| PSP-345A | 4.375 | | 4.375 | 4.000 | 0.260 | 4.005 | | 0.281 | |
| PSP-346A | 4.500 | | 4.500 | 4.125 | 0.260 | 4.130 | | 0.281 | |
| PSP-346AT | 4.500 | | 4.500 | 4.125 | 0.375 | 4.130 | | 0.410 | |
| PSP-347A | 4.625 | | 4.625 | 4.250 | 0.260 | 4.255 | | 0.281 | |
| PSP-348A | 4.750 | | 4.750 | 4.375 | 0.260 | 4.380 | | 0.281 | |
| PSP-349A | 4.875 | | 4.875 | 4.500 | 0.260 | 4.505 | | 0.281 | |
| PSP-350A | 5.000 | | 5.000 | 4.625 | 0.260 | 4.630 | | 0.281 | |
| PSP-425AT | 5.000 | | 5.000 | 4.500 | 0.515 | 4.528 | | 0.538 | |
| PSP-426A | 5.125 | | 5.125 | 4.625 | 0.355 | 4.653 | | 0.375 | |
| PSP-427A | 5.250 | | 5.250 | 4.750 | 0.355 | 4.778 | | 0.375 | |
| PSP-428A | 5.375 | | 5.375 | 4.875 | 0.355 | 4.903 | | 0.375 | |
| PSP-429A | 5.500 | | 5.500 | 5.000 | 0.355 | 5.028 | | 0.375 | |
| PSP-430A | 5.625 | | 5.625 | 5.125 | 0.355 | 5.153 | | 0.375 | |
| PSP-431A | 5.750 | | 5.750 | 5.250 | 0.355 | 5.278 | | 0.375 | |
| PSP-432A | 5.875 | | 5.875 | 5.375 | 0.355 | 5.403 | | 0.375 | |
| PSP-433A | 6.000 | | 6.000 | 5.500 | 0.355 | 5.528 | | 0.375 | |
| PSP-433AT | 6.000 | | 6.000 | 5.500 | 0.515 | 5.528 | | 0.538 | |
| PSP-434A | 6.125 | | 6.125 | 5.625 | 0.355 | 5.653 | | 0.375 | |
| PSP-435A | 6.250 | | 6.250 | 5.750 | 0.355 | 5.778 | | 0.375 | |
| PSP-437A | 6.500 | ▼ | 6.500 | 6.000 | 0.355 | 6.028 | | 0.375 | |
| PSP-438A | 6.750 | +0.005 -0.000 | 6.750 | 6.250 | 0.355 | 6.278 | | 0.375 | |
| PSP-439A | 7.000 | | 7.000 | 6.500 | 0.355 | 6.528 | | 0.375 | |
| PSP-439AT | 7.000 | ▼ | 7.000 | 6.500 | 0.515 | 6.528 | ▼ | 0.538 | ▼ |

BP - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|--------------------------|--------------------------------------|-------------------------|---------------------|
| Polyurethane/ Nitrile | -30°F to +250°F (-34°C to +121°C) | ≤7000 psi (≤483 bar) | < 1.6 ft/s (0.5m/s) |



The **BP-style** is a squeeze-type, bi-directional piston seal for use in medium to heavy-duty hydraulic applications. The **BP-style's** standard 60 Shore D outer ring offers exceptional extrusion resistance and extended temperature range. The **BP-style** is easy to install and will resist rolling and twisting in long stroke applications.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| BP203A/4304 | 0.562 | +0.003 -0.000 | 0.562 | 0.312 | 0.165 | 0.320 | +0.000 -0.002 | 0.187 | +0.005 -0.000 |
| BP204A/4304 | 0.625 | | 0.625 | 0.375 | 0.165 | 0.383 | | 0.187 | |
| BP205A/4304 | 0.687 | | 0.687 | 0.437 | 0.165 | 0.445 | | 0.187 | |
| BP206A/4304 | 0.750 | | 0.750 | 0.500 | 0.165 | 0.508 | | 0.187 | |
| BP207A/4304 | 0.812 | | 0.812 | 0.562 | 0.165 | 0.570 | | 0.187 | |
| BP208A/4304 | 0.875 | | 0.875 | 0.625 | 0.165 | 0.633 | | 0.187 | |
| BP209A/4304 | 0.937 | | 0.937 | 0.687 | 0.165 | 0.695 | | 0.187 | |
| BP210A/4304 | 1.000 | | 1.000 | 0.750 | 0.165 | 0.758 | | 0.187 | |
| BP211A/4304 | 1.062 | | 1.062 | 0.812 | 0.165 | 0.820 | | 0.187 | |
| BP212A/4304 | 1.125 | | 1.125 | 0.875 | 0.165 | 0.883 | | 0.187 | |
| BP213A/4304 | 1.187 | | 1.187 | 0.937 | 0.165 | 0.945 | | 0.187 | |
| BP214A/4304 | 1.250 | | 1.250 | 1.000 | 0.165 | 1.008 | | 0.187 | |
| BP215A/4304 | 1.312 | | 1.312 | 1.062 | 0.165 | 1.070 | | 0.187 | |
| BP216A/4304 | 1.375 | | 1.375 | 1.125 | 0.165 | 1.133 | | 0.187 | |
| BP217A/4304 | 1.437 | | 1.437 | 1.187 | 0.165 | 1.195 | | 0.187 | |
| BP218A/4304 | 1.500 | | 1.500 | 1.250 | 0.165 | 1.258 | | 0.187 | |
| BP219A/4304 | 1.562 | | 1.562 | 1.312 | 0.165 | 1.320 | | 0.187 | |
| BP220A/4304 | 1.625 | | 1.625 | 1.375 | 0.165 | 1.383 | | 0.187 | |
| BP221A/4304 | 1.687 | | 1.687 | 1.437 | 0.165 | 1.445 | | 0.187 | |
| BP222A/4304 | 1.750 | | 1.750 | 1.500 | 0.165 | 1.508 | | 0.187 | |
| BP325A/4304 | 1.875 | | 1.875 | 1.500 | 0.265 | 1.505 | | 0.281 | |
| BP326A/4304 | 2.000 | ▼ | 2.000 | 1.625 | 0.265 | 1.630 | ▼ | 0.281 | ▼ |



BP series - AU/NBR

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| BP327A/4304 | 2.125 | +0.003 -0.000 | 2.125 | 1.750 | 0.265 | 1.755 | +0.000 -0.002 | 0.281 | +0.005 -0.000 |
| BP328A/4304 | 2.250 | | 2.250 | 1.875 | 0.265 | 1.880 | | 0.281 | |
| BP329A/4304 | 2.375 | | 2.375 | 2.000 | 0.265 | 2.005 | | 0.281 | |
| BP330A/4304 | 2.500 | | 2.500 | 2.125 | 0.265 | 2.130 | | 0.281 | |
| BP331A/4304 | 2.625 | | 2.625 | 2.250 | 0.265 | 2.255 | | 0.281 | |
| BP332A/4304 | 2.750 | | 2.750 | 2.375 | 0.265 | 2.380 | | 0.281 | |
| BP333A/4304 | 2.875 | ▼ | 2.875 | 2.500 | 0.265 | 2.505 | | 0.281 | |
| BP334A/4304 | 3.000 | +0.004 -0.000 | 3.000 | 2.625 | 0.265 | 2.630 | | 0.281 | |
| BP335A/4304 | 3.125 | | 3.125 | 2.750 | 0.265 | 2.755 | | 0.281 | |
| BP336A/4304 | 3.250 | | 3.250 | 2.875 | 0.265 | 2.880 | | 0.281 | |
| BP337A/4304 | 3.375 | | 3.375 | 3.000 | 0.265 | 3.005 | | 0.281 | |
| BP338A/4304 | 3.500 | | 3.500 | 3.125 | 0.265 | 3.130 | | 0.281 | |
| BP339A/4304 | 3.625 | | 3.625 | 3.250 | 0.265 | 3.255 | | 0.281 | |
| BP340A/4304 | 3.750 | | 3.750 | 3.375 | 0.265 | 3.380 | | 0.281 | |
| BP341A/4304 | 3.875 | | 3.875 | 3.500 | 0.265 | 3.505 | | 0.281 | |
| BP342A/4304 | 4.000 | | 4.000 | 3.625 | 0.265 | 3.630 | | 0.281 | |
| BP343A/4304 | 4.125 | | 4.125 | 3.750 | 0.265 | 3.755 | | 0.281 | |
| BP344A/4304 | 4.250 | | 4.250 | 3.875 | 0.265 | 3.880 | | 0.281 | |
| BP345A/4304 | 4.375 | | 4.375 | 4.000 | 0.265 | 4.005 | | 0.281 | |
| BP346A/4304 | 4.500 | | 4.500 | 4.125 | 0.265 | 4.130 | | 0.281 | |
| BP347A/4304 | 4.625 | | 4.625 | 4.250 | 0.265 | 4.255 | | 0.281 | |
| BP348A/4304 | 4.750 | | 4.750 | 4.375 | 0.265 | 4.380 | | 0.281 | |
| BP349A/4304 | 4.875 | | 4.875 | 4.500 | 0.265 | 4.505 | | 0.281 | |
| BP350A/4304 | 5.000 | | 5.000 | 4.625 | 0.265 | 4.630 | | 0.281 | |
| BP426A/4304 | 5.125 | | 5.125 | 4.625 | 0.355 | 4.653 | | 0.375 | |
| BP427A/4304 | 5.250 | | 5.250 | 4.750 | 0.355 | 4.778 | | 0.375 | |
| BP428A/4304 | 5.375 | | 5.375 | 4.875 | 0.355 | 4.903 | | 0.375 | |
| BP429A/4304 | 5.500 | | 5.500 | 5.000 | 0.355 | 5.028 | | 0.375 | |
| BP430A/4304 | 5.625 | | 5.625 | 5.125 | 0.355 | 5.153 | | 0.375 | |
| BP431A/4304 | 5.750 | | 5.750 | 5.250 | 0.355 | 5.278 | | 0.375 | |
| BP432A/4304 | 5.875 | | 5.875 | 5.375 | 0.355 | 5.403 | | 0.375 | |
| BP433A/4304 | 6.000 | | 6.000 | 5.500 | 0.355 | 5.528 | | 0.375 | |
| BP434A/4304 | 6.125 | | 6.125 | 5.625 | 0.355 | 5.653 | | 0.375 | |
| BP435A/4304 | 6.250 | | 6.250 | 5.750 | 0.355 | 5.778 | | 0.375 | |
| BP437A/4304 | 6.500 | ▼ | 6.500 | 6.000 | 0.355 | 6.028 | | 0.375 | |
| BP438A/4304 | 6.750 | +0.005 -0.000 | 6.750 | 6.250 | 0.355 | 6.278 | | 0.375 | |
| BP439A/4304 | 7.000 | | 7.000 | 6.500 | 0.355 | 6.528 | ▼ | 0.375 | ▼ |

Markets segments we are servicing



Power Tools



Power Transmission



Pulp & Paper



Railway



Recreational

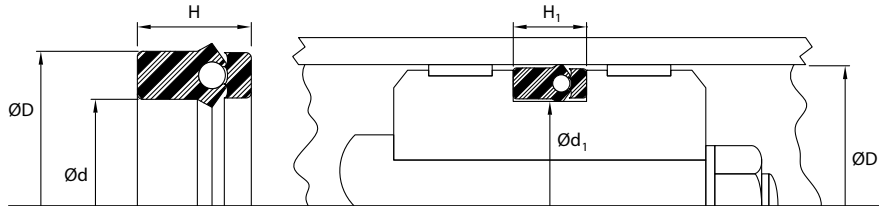


Truck & Bus Tier

Pip Seal - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|--------------------------|-------------------------------------|-------------------------|----------------------|
| Polyurethane/ Nitrile | -65°F to +200°F (-54°C to +93°C) | ≤5000 psi (≤345 bar) | < 1.6 ft/s (0.5 m/s) |



The **PIP-style** combines a “Pressure Inverting Pedestal” with **Type B PolyPak®** to provide excellent, bi-directional piston sealing in hydraulic applications. The Pressure Inverting Pedestal conforms to the beveled sealing lips of the **Type B PolyPak®** to provide extrusion resistance when pressure is applied to the heel side of the seal. The **PIP-style** requires only a single seal groove for installation. This eliminates the use of two **PolyPaks®** on the piston to save space and increase bearing length.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|-------|---|--------------------|-------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| 12500437P250B | 0.687 | + .003 - .000 | 0.687 | 0.437 | | 0.437 | + .000 - .002 | 0.340 | + .015 - .000 |
| 12500500P250B | 0.750 | | 0.750 | 0.500 | | 0.500 | | 0.340 | |
| 18700625P312B | 1.000 | | 1.000 | 0.625 | | 0.625 | | 0.453 | |
| 12500750P250B | 1.000 | | 1.000 | 0.750 | | 0.750 | | 0.340 | |
| 18700750P312B | 1.125 | | 1.125 | 0.750 | | 0.750 | | 0.453 | |
| 18700812P312B | 1.187 | | 1.187 | 0.812 | | 0.812 | | 0.453 | |
| 12500937P250B | 1.187 | | 1.187 | 0.937 | | 0.937 | | 0.340 | |
| 18700875P312B | 1.250 | | 1.250 | 0.875 | | 0.875 | | 0.453 | |
| 12501000P250B | 1.250 | | 1.250 | 1.000 | | 1.000 | | 0.340 | |
| 18700937P312B | 1.312 | | 1.312 | 0.937 | | 0.937 | | 0.453 | |
| 12501062P250B | 1.312 | | 1.312 | 1.062 | | 1.062 | | 0.340 | |
| 18701000P312B | 1.375 | | 1.375 | 1.000 | | 1.000 | | 0.453 | |
| 12501125P250B | 1.375 | | 1.375 | 1.125 | | 1.125 | | 0.340 | |
| 18701062P312B | 1.437 | | 1.437 | 1.062 | | 1.062 | | 0.453 | |
| 12501187P250B | 1.437 | | 1.437 | 1.187 | | 1.187 | ↓ | 0.340 | |
| 25001000P375B | 1.500 | | 1.500 | 1.000 | | 1.000 | + .000/ - .003 | 0.550 | |
| 18701125P312B | 1.500 | | 1.500 | 1.125 | | 1.125 | + .000 - .002 | 0.453 | |
| 12501250P250B | 1.500 | | 1.500 | 1.250 | | 1.250 | | 0.340 | |
| 18701187P312B | 1.562 | | 1.562 | 1.187 | | 1.187 | | 0.453 | |
| 18701250P312B | 1.625 | | 1.625 | 1.250 | | 1.250 | | 0.453 | |
| 12501375P250B | 1.625 | | 1.625 | 1.375 | | 1.375 | | 0.340 | |
| 12501437P250B | 1.687 | ↓ | 1.687 | 1.437 | | 1.437 | ↓ | 0.340 | ↓ |



Pip Seal series - AU/NBR

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|-------|---|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| 25001250P375B | 1.750 | +0.003 -0.000 | 1.750 | 1.250 | | 1.250 | +0.000/-0.003 | 0.550 | +0.015 -0.000 |
| 18701375P312B | 1.750 | | 1.750 | 1.375 | | 1.375 | +0.000 -0.002 | 0.453 | |
| 12501500P250B | 1.750 | | 1.750 | 1.500 | | 1.500 | | 0.340 | |
| 18701437P312B | 1.812 | | 1.812 | 1.437 | | 1.437 | ▼ | 0.453 | |
| 25001375P375B | 1.875 | | 1.875 | 1.375 | | 1.375 | +0.000/-0.003 | 0.550 | |
| 18701500P375B | 1.875 | | 1.875 | 1.500 | | 1.500 | +0.000/-0.002 | 0.522 | |
| 25001500P375B | 2.000 | | 2.000 | 1.500 | | 1.500 | +0.000/-0.003 | 0.550 | |
| 18701625P312B | 2.000 | | 2.000 | 1.625 | | 1.625 | +0.000 -0.002 | 0.453 | |
| 18701625P375B | 2.000 | | 2.000 | 1.625 | | 1.625 | | 0.550 | |
| 25001625P375B | 2.125 | | 2.125 | 1.625 | | 1.625 | +0.000/-0.003 | 0.550 | |
| 18701750P375B | 2.125 | | 2.125 | 1.750 | | 1.750 | +0.000/-0.002 | 0.550 | |
| 31201625P500B | 2.250 | | 2.250 | 1.625 | | 1.625 | +0.000/-0.004 | 0.715 | |
| 25001750P375B | 2.250 | | 2.250 | 1.750 | | 1.750 | +0.000/-0.003 | 0.550 | |
| 18701875P375B | 2.250 | | 2.250 | 1.875 | | 1.875 | +0.000/-0.002 | 0.550 | |
| 31201687P500B | 2.312 | | 2.312 | 1.687 | | 1.687 | +0.000 -0.004 | 0.715 | |
| 31201750P500B | 2.375 | | 2.375 | 1.750 | | 1.750 | | 0.715 | |
| 25001875P375B | 2.375 | | 2.375 | 1.875 | | 1.875 | +0.000/-0.003 | 0.550 | |
| 18702000P375B | 2.375 | | 2.375 | 2.000 | | 2.000 | +0.000/-0.002 | 0.550 | |
| 25001937P375B | 2.437 | | 2.437 | 1.937 | | 1.937 | +0.000/-0.003 | 0.550 | |
| 31201875P500B | 2.500 | | 2.500 | 1.875 | | 1.875 | +0.000/-0.004 | 0.715 | |
| 25002000P375B | 2.500 | | 2.500 | 2.000 | | 2.000 | +0.000/-0.003 | 0.550 | |
| 18702125P375B | 2.500 | | 2.500 | 2.125 | | 2.125 | +0.000/-0.002 | 0.550 | |
| 31202000P500B | 2.625 | | 2.625 | 2.000 | | 2.000 | +0.000/-0.004 | 0.715 | |
| 25002125P375B | 2.625 | | 2.625 | 2.125 | | 2.125 | +0.000/-0.003 | 0.550 | |
| 18702250P375B | 2.625 | | 2.625 | 2.250 | | 2.250 | +0.000/-0.002 | 0.550 | |
| 37502000P625B | 2.750 | | 2.750 | 2.000 | | 2.000 | +0.000/-0.005 | 0.895 | |
| 25002250P375B | 2.750 | | 2.750 | 2.250 | | 2.250 | +0.000/-0.003 | 0.550 | |
| 18702375P375B | 2.750 | | 2.750 | 2.375 | | 2.375 | +0.000/-0.002 | 0.550 | |
| 31202250P500B | 2.875 | | 2.875 | 2.250 | | 2.250 | +0.000/-0.004 | 0.715 | |
| 25002375P375B | 2.875 | | 2.875 | 2.375 | | 2.375 | +0.000/-0.003 | 0.550 | |
| 18702500P375B | 2.875 | ▼ | 2.875 | 2.500 | | 2.500 | +0.000/-0.002 | 0.550 | |
| 37502250P625B | 3.000 | +0.004 -0.000 | 3.000 | 2.250 | | 2.250 | +0.000/-0.005 | 0.895 | |
| 31202375P500B | 3.000 | | 3.000 | 2.375 | | 2.375 | +0.000/-0.004 | 0.715 | |
| 25002500P375B | 3.000 | | 3.000 | 2.500 | | 2.500 | +0.000/-0.003 | 0.550 | |
| 18702625P375B | 3.000 | | 3.000 | 2.625 | | 2.625 | +0.000/-0.002 | 0.550 | |
| 25002625P375B | 3.125 | | 3.125 | 2.625 | | 2.625 | +0.000/-0.003 | 0.550 | |
| 18702750P375B | 3.125 | | 3.125 | 2.750 | | 2.750 | +0.000/-0.002 | 0.550 | |
| 37502500P625B | 3.250 | | 3.250 | 2.500 | | 2.500 | +0.000/-0.005 | 0.895 | |
| 31202625P500B | 3.250 | | 3.250 | 2.625 | | 2.625 | +0.000/-0.004 | 0.715 | |
| 25002750P375B | 3.250 | | 3.250 | 2.750 | | 2.750 | +0.000/-0.003 | 0.550 | |
| 18702875P375B | 3.250 | | 3.250 | 2.875 | | 2.875 | +0.000/-0.002 | 0.550 | |
| 37502625P625B | 3.375 | | 3.375 | 2.625 | | 2.625 | +0.000/-0.005 | 0.895 | |
| 31202750P500B | 3.375 | | 3.375 | 2.750 | | 2.750 | +0.000/-0.004 | 0.715 | |
| 25002875P375B | 3.375 | | 3.375 | 2.875 | | 2.875 | +0.000/-0.003 | 0.550 | |
| 18703000P375B | 3.375 | | 3.375 | 3.000 | | 3.000 | +0.000/-0.002 | 0.550 | |
| 37502750P625B | 3.500 | ▼ | 3.500 | 2.750 | | 2.750 | +0.000/-0.005 | 0.895 | ▼ |

Pip Seal series - AU/NBR

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|-------|---|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| 31202875P500B | 3.500 | +0.004 -0.000 | 3.500 | 2.875 | | 2.875 | +0.000/-0.004 | 0.715 | +0.015 -0.000 |
| 25003000P375B | 3.500 | | 3.500 | 3.000 | | 3.000 | +0.000/-0.003 | 0.550 | |
| 18703125P375B | 3.500 | | 3.500 | 3.125 | | 3.125 | +0.000 -0.002 | 0.550 | |
| 18703250P375B | 3.625 | | 3.625 | 3.250 | | 3.250 | | 0.550 | |
| 37503000P625B | 3.750 | | 3.750 | 3.000 | | 3.000 | +0.000/-0.005 | 0.895 | |
| 25003250P375B | 3.750 | | 3.750 | 3.250 | | 3.250 | +0.000/-0.003 | 0.550 | |
| 18703375P375B | 3.750 | | 3.750 | 3.375 | | 3.375 | +0.000/-0.002 | 0.550 | |
| 37503125P625B | 3.875 | | 3.875 | 3.125 | | 3.125 | +0.000/-0.005 | 0.895 | |
| 31203250P500B | 3.875 | | 3.875 | 3.250 | | 3.250 | +0.000/-0.004 | 0.715 | |
| 25003375P375B | 3.875 | | 3.875 | 3.375 | | 3.375 | +0.000/-0.003 | 0.550 | |
| 18703500P375B | 3.875 | | 3.875 | 3.500 | | 3.500 | +0.000/-0.002 | 0.550 | |
| 37503250P625B | 4.000 | | 4.000 | 3.250 | | 3.250 | +0.000/-0.005 | 0.895 | |
| 31203375P500B | 4.000 | | 4.000 | 3.375 | | 3.375 | +0.000/-0.004 | 0.715 | |
| 25003500P375B | 4.000 | | 4.000 | 3.500 | | 3.500 | +0.000/-0.003 | 0.550 | |
| 18703625P375B | 4.000 | | 4.000 | 3.625 | | 3.625 | +0.000/-0.002 | 0.550 | |
| 37503375P625B | 4.125 | | 4.125 | 3.375 | | 3.375 | +0.000/-0.005 | 0.895 | |
| 25003625P375B | 4.125 | | 4.125 | 3.625 | | 3.625 | +0.000/-0.003 | 0.550 | |
| 50003250P750B | 4.250 | | 4.250 | 3.250 | | 3.250 | +0.000/-0.007 | 1.100 | |
| 37503500P625B | 4.250 | | 4.250 | 3.500 | | 3.500 | +0.000/-0.005 | 0.895 | |
| 25003750P375B | 4.250 | | 4.250 | 3.750 | | 3.750 | +0.000 -0.003 | 0.550 | |
| 25003750P562B | 4.250 | | 4.250 | 3.750 | | 3.750 | | 0.756 | |
| 37503625P625B | 4.375 | | 4.375 | 3.625 | | 3.625 | +0.000/-0.005 | 0.895 | |
| 50003500P750B | 4.500 | | 4.500 | 3.500 | | 3.500 | +0.000/-0.007 | 1.100 | |
| 37503750P625B | 4.500 | | 4.500 | 3.750 | | 3.750 | +0.000/-0.005 | 0.895 | |
| 25004000P375B | 4.500 | | 4.500 | 4.000 | | 4.000 | +0.000 -0.003 | 0.550 | |
| 25004125P562B | 4.625 | | 4.625 | 4.125 | | 4.125 | | 0.756 | |
| 37504000P625B | 4.750 | | 4.750 | 4.000 | | 4.000 | +0.000/-0.005 | 0.895 | |
| 31204125P562B | 4.750 | | 4.750 | 4.125 | | 4.125 | +0.000/-0.004 | 0.756 | |
| 25004250P375B | 4.750 | | 4.750 | 4.250 | | 4.250 | +0.000 -0.003 | 0.550 | |
| 25004250P562B | 4.750 | | 4.750 | 4.250 | | 4.750 | | 0.756 | |
| 50003875P750B | 4.875 | | 4.875 | 3.875 | | 3.875 | +0.000/-0.007 | 1.100 | |
| 37504125P625B | 4.875 | | 4.875 | 4.125 | | 4.125 | +0.000/-0.005 | 0.895 | |
| 31204250P562B | 4.875 | | 4.875 | 4.250 | | 4.250 | +0.000/-0.004 | 0.756 | |
| 25004437P375B | 4.937 | | 4.937 | 4.437 | | 4.437 | +0.000/-0.003 | 0.550 | |
| 50004000P750B | 5.000 | | 5.000 | 4.000 | | 4.000 | +0.000/-0.007 | 1.100 | |
| 37504250P625B | 5.000 | | 5.000 | 4.250 | | 4.250 | +0.000/-0.005 | 0.895 | |
| 31204375P562B | 5.000 | | 5.000 | 4.375 | | 4.375 | +0.000/-0.004 | 0.756 | |
| 25004500P375B | 5.000 | | 5.000 | 4.500 | | 4.500 | +0.000 -0.003 | 0.550 | |
| 25004500P562B | 5.000 | | 5.000 | 4.500 | | 4.500 | | 0.756 | |
| 31204500P625B | 5.125 | | 5.125 | 4.500 | | 4.500 | +0.000/-0.004 | 0.895 | |
| 37504500P625B | 5.250 | | 5.250 | 4.500 | | 4.500 | +0.000/-0.005 | 0.895 | |
| 25004750P375B | 5.250 | | 5.250 | 4.750 | | 4.750 | +0.000 -0.003 | 0.550 | |
| 25004750P562B | 5.250 | | 5.250 | 4.750 | | 4.750 | | 0.756 | |
| 37504625P625B | 5.375 | | 5.375 | 4.625 | | 4.625 | +0.000/-0.005 | 0.895 | |
| 25004875P375B | 5.375 | | 5.375 | 4.875 | | 4.875 | +0.000 -0.003 | 0.550 | |
| 25004875P562B | 5.375 | ▼ | 5.375 | 4.875 | | 4.875 | | 0.756 | ▼ |

Pip Seal series - AU/NBR

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|-------|---|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| 37504750P625B | 5.500 | +0.004 -0.000 | 5.500 | 4.750 | | 4.750 | +0.000/-0.005 | 0.895 | +0.015 -0.000 |
| 25005000P375B | 5.500 | | 5.500 | 5.000 | | 5.000 | +0.000 -0.003 | 0.550 | |
| 25005000P562B | 5.500 | | 5.500 | 5.000 | | 5.000 | | 0.756 | |
| 50004750P750B | 5.750 | | 5.750 | 4.750 | | 4.750 | +0.000/-0.007 | 1.100 | |
| 37505000P625B | 5.750 | | 5.750 | 5.000 | | 5.000 | +0.000/-0.005 | 0.895 | |
| 31205125P625B | 5.750 | | 5.750 | 5.125 | | 5.125 | +0.000/-0.004 | 0.895 | |
| 25005250P375B | 5.750 | | 5.750 | 5.250 | | 5.250 | +0.000/-0.003 | 0.550 | |
| 25005250P562B | 5.750 | | 5.750 | 5.250 | | 5.250 | +0.000/-0.002 | 0.756 | |
| 37505125P625B | 5.875 | | 5.875 | 5.125 | | 5.125 | +0.000/-0.005 | 0.895 | |
| 31205250P625B | 5.875 | | 5.875 | 5.250 | | 5.250 | +0.000/-0.004 | 0.895 | |
| 50005000P750B | 6.000 | | 6.000 | 5.000 | | 5.000 | +0.000/-0.007 | 1.100 | |
| 37505250P625B | 6.000 | | 6.000 | 5.250 | | 5.250 | +0.000/-0.005 | 0.895 | |
| 25005500P375B | 6.000 | | 6.000 | 5.500 | | 5.500 | +0.000/-0.003 | 0.550 | |
| 25005500P562B | 6.000 | | 6.000 | 5.500 | | 5.500 | +0.000/-0.002 | 0.756 | |
| 37505375P625B | 6.125 | | 6.125 | 5.375 | | 5.375 | +0.000/-0.005 | 0.895 | |
| 31205500P625B | 6.125 | | 6.125 | 5.500 | | 5.500 | +0.000/-0.004 | 0.895 | |
| 25005625P562B | 6.125 | | 6.125 | 5.625 | | 5.625 | +0.000/-0.003 | 0.756 | |
| 50005250P750B | 6.250 | | 6.250 | 5.250 | | 5.250 | +0.000/-0.007 | 1.100 | |
| 37505500P625B | 6.250 | | 6.250 | 5.500 | | 5.500 | +0.000/-0.005 | 0.895 | |
| 25005750P562B | 6.250 | | 6.250 | 5.750 | | 5.750 | +0.000/-0.003 | 0.756 | |
| 37505625P625B | 6.375 | | 6.375 | 5.625 | | 5.625 | +0.000/-0.005 | 0.895 | |
| 31205750P625B | 6.375 | | 6.375 | 5.750 | | 5.750 | +0.000/-0.004 | 0.895 | |
| 37505750P625B | 6.500 | | 6.500 | 5.750 | | 5.750 | +0.000/-0.005 | 0.895 | |
| 25006000P562B | 6.500 | | 6.500 | 6.000 | | 6.000 | +0.000/-0.003 | 0.756 | |
| 31206000P625B | 6.625 | ▼ | 6.625 | 6.000 | | 6.000 | +0.000/-0.004 | 0.895 | |
| 50005750P750B | 6.750 | +0.005 -0.000 | 6.750 | 5.750 | | 5.750 | +0.000/-0.007 | 1.100 | |
| 37506000P625B | 6.750 | | 6.750 | 6.000 | | 6.000 | +0.000/-0.005 | 0.895 | |
| 25006250P562B | 6.750 | | 6.750 | 6.250 | | 6.250 | +0.000/-0.003 | 0.756 | |
| 50006000P750B | 7.000 | | 7.000 | 6.000 | | 6.000 | +0.000/-0.007 | 1.100 | |
| 37506250P625B | 7.000 | | 7.000 | 6.250 | | 6.250 | +0.000/-0.005 | 0.895 | |
| 31206375P625B | 7.000 | | 7.000 | 6.375 | | 6.375 | +0.000/-0.004 | 0.895 | |
| 25006500P375B | 7.000 | | 7.000 | 6.500 | | 6.500 | +0.000 -0.003 | 0.550 | |
| 25006500P562B | 7.000 | | 7.000 | 6.500 | | 6.500 | | 0.756 | |
| 37506500P625B | 7.250 | | 7.250 | 6.500 | | 6.500 | +0.000 -0.005 | 0.895 | |
| 37506750P625B | 7.500 | | 7.500 | 6.750 | | 6.750 | | 0.895 | |
| 25007000P375B | 7.500 | | 7.500 | 7.000 | | 7.000 | +0.000 -0.003 | 0.550 | |
| 25007000P562B | 7.500 | | 7.500 | 7.000 | | 7.000 | | 0.756 | |
| 50006750P750B | 7.750 | | 7.750 | 6.750 | | 6.750 | +0.000/-0.007 | 1.100 | |
| 37507000P625B | 7.750 | | 7.750 | 7.000 | | 7.000 | +0.000/-0.005 | 0.895 | |
| 50007000P750B | 8.000 | | 8.000 | 7.000 | | 7.000 | +0.000/-0.007 | 1.100 | |
| 37507250P625B | 8.000 | | 8.000 | 7.250 | | 7.250 | +0.000/-0.005 | 0.895 | |
| 50007750P750B | 8.750 | | 8.750 | 7.750 | | 7.750 | +0.000/-0.007 | 1.100 | |
| 37508000P625B | 8.750 | | 8.750 | 8.000 | | 8.000 | +0.000/-0.005 | 0.895 | |
| 50008000P750B | 9.000 | | 9.000 | 8.000 | | 8.000 | +0.000/-0.007 | 1.100 | |
| 37508250P625B | 9.000 | | 9.000 | 8.250 | | 8.250 | +0.000 -0.005 | 0.895 | |
| 37508500P625B | 9.250 | ▼ | 9.250 | 8.500 | | 8.500 | | 0.895 | ▼ |

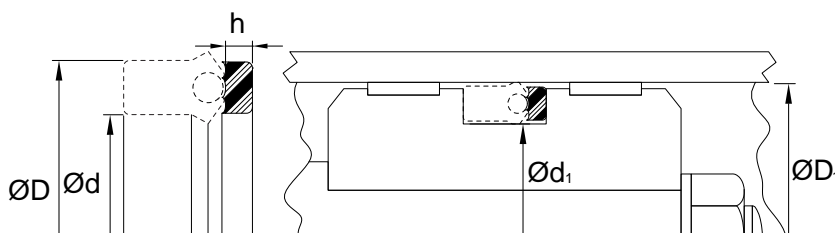
Pip Seal series - AU/NBR

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|--------|---|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| 50009000P750B | 10.000 | +0.005/-0.000 | 10.000 | 9.000 | | 9.000 | +0.000 -0.007 | 1.100 | +0.015 -0.000 |
| 50010500P750B | 11.500 | +0.006 -0.000 | 11.500 | 10.500 | | 10.500 | | 1.100 | |
| 50011000P750B | 12.000 | | 12.000 | 11.000 | | 11.000 | | 1.100 | |
| 50014000P750B | 15.000 | | 15.000 | 14.000 | | 14.000 | | 1.100 | |

Pip Ring - Piston seals - AU



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|-------------------------------------|-------------------------|----------------------|
| Polyurethane | -65°F to +200°F (-54°C to +93°C) | ≤5000 psi (≤345 bar) | < 1.6 ft/s (0.5 m/s) |



Pip Rings are auxiliary devices used to convert **Type B Polypak®** seals from single-acting to bi-directional sealing ability. See “**PIP Seal**” section for complete seal assemblies.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | D | d | h |
| 12500437PR | 0.687 | 0.437 | 0.065 |
| 12500500PR | 0.750 | 0.500 | 0.065 |
| 12500750PR | 1.000 | 0.750 | 0.065 |
| 18700625PR | 1.000 | 0.625 | 0.109 |
| 18700750PR | 1.125 | 0.750 | 0.109 |
| 12501000PR | 1.250 | 1.000 | 0.065 |
| 18700875PR | 1.250 | 0.875 | 0.109 |
| 18700937PR | 1.312 | 0.937 | 0.109 |
| 18701000PR | 1.375 | 1.000 | 0.109 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | D | d | h |
| 12501250PR | 1.500 | 1.250 | 0.065 |
| 18701125PR | 1.500 | 1.125 | 0.109 |
| 25001000PR | 1.500 | 1.000 | 0.137 |
| 18701250PR | 1.625 | 1.250 | 0.109 |
| 12501500PR | 1.750 | 1.500 | 0.065 |
| 18701375PR | 1.750 | 1.375 | 0.109 |
| 25001250PR | 1.750 | 1.250 | 0.137 |
| 18701500PR | 1.875 | 1.500 | 0.109 |
| 12501750PR | 2.000 | 1.750 | 0.065 |



Pip Ring series - AU 65D

PISTON SEALS



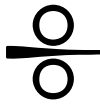
| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | D | d | h |
| 18701625PR | 2.000 | 1.625 | 0.109 |
| 25001500PR | 2.000 | 1.500 | 0.137 |
| 18701750PR | 2.125 | 1.750 | 0.109 |
| 12502000PR | 2.250 | 2.000 | 0.065 |
| 25001750PR | 2.250 | 1.750 | 0.137 |
| 18702000PR | 2.375 | 2.000 | 0.109 |
| 25001937PR | 2.437 | 1.937 | 0.137 |
| 25002000PR | 2.500 | 2.000 | 0.137 |
| 31201875PR | 2.500 | 1.875 | 0.160 |
| 18702375PR | 2.750 | 2.375 | 0.109 |
| 25002250PR | 2.750 | 2.250 | 0.137 |
| 37502000PR | 2.750 | 2.000 | 0.207 |
| 18702500PR | 2.875 | 2.500 | 0.109 |
| 18702625PR | 3.000 | 2.625 | 0.109 |
| 25002500PR | 3.000 | 2.500 | 0.137 |
| 31202375PR | 3.000 | 2.375 | 0.160 |
| 37502250PR | 3.000 | 2.250 | 0.207 |
| 18702750PR | 3.125 | 2.750 | 0.109 |
| 25002750PR | 3.250 | 2.750 | 0.137 |
| 37502500PR | 3.250 | 2.500 | 0.207 |
| 18703000PR | 3.375 | 3.000 | 0.109 |
| 25002875PR | 3.375 | 2.875 | 0.137 |
| 18703125PR | 3.500 | 3.125 | 0.109 |
| 25003000PR | 3.500 | 3.000 | 0.137 |
| 37502750PR | 3.500 | 2.750 | 0.207 |
| 18703250PR | 3.625 | 3.250 | 0.109 |
| 18703375PR | 3.750 | 3.375 | 0.109 |
| 25003250PR | 3.750 | 3.250 | 0.137 |
| 18703625PR | 4.000 | 3.625 | 0.109 |
| 25003500PR | 4.000 | 3.500 | 0.137 |
| 31203375PR | 4.000 | 3.375 | 0.160 |
| 37503250PR | 4.000 | 3.250 | 0.207 |
| 25003750PR | 4.250 | 3.750 | 0.137 |
| 37503500PR | 4.250 | 3.500 | 0.207 |
| 18704000PR | 4.375 | 4.000 | 0.109 |
| 25004000PR | 4.500 | 4.000 | 0.137 |
| 37503750PR | 4.500 | 3.750 | 0.207 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | D | d | h |
| 50003500PR | 4.500 | 3.500 | 0.275 |
| 25004250PR | 4.750 | 4.250 | 0.137 |
| 37504000PR | 4.750 | 4.000 | 0.207 |
| 25004500PR | 5.000 | 4.500 | 0.137 |
| 31204375PR | 5.000 | 4.375 | 0.160 |
| 37504250PR | 5.000 | 4.250 | 0.207 |
| 31204500PR | 5.125 | 4.500 | 0.160 |
| 25005000PR | 5.500 | 5.000 | 0.137 |
| 37504750PR | 5.500 | 4.750 | 0.207 |
| 25005250PR | 5.750 | 5.250 | 0.137 |
| 25005500PR | 6.000 | 5.500 | 0.137 |
| 37505250PR | 6.000 | 5.250 | 0.207 |
| 50005000PR | 6.000 | 5.000 | 0.275 |
| 31205500PR | 6.125 | 5.500 | 0.160 |
| 37505500PR | 6.250 | 5.500 | 0.207 |
| 50005250PR | 6.250 | 5.250 | 0.275 |
| 25006000PR | 6.500 | 6.000 | 0.137 |
| 37505750PR | 6.500 | 5.750 | 0.207 |
| 25006500PR | 7.000 | 6.500 | 0.137 |
| 31206375PR | 7.000 | 6.375 | 0.160 |
| 37506250PR | 7.000 | 6.250 | 0.207 |
| 50006000PR | 7.000 | 6.000 | 0.275 |
| 25007000PR | 7.500 | 7.000 | 0.137 |
| 37506750PR | 7.500 | 6.750 | 0.207 |
| 37507250PR | 8.000 | 7.250 | 0.207 |
| 50007000PR | 8.000 | 7.000 | 0.275 |
| 62507000PR | 8.250 | 7.000 | 0.312 |
| 62507250PR | 8.500 | 7.250 | 0.312 |
| 37508250PR | 9.000 | 8.250 | 0.207 |
| 50008000PR | 9.000 | 8.000 | 0.275 |
| 37508500PR | 9.250 | 8.500 | 0.207 |
| 37508750PR | 9.500 | 8.750 | 0.207 |
| 50009000PR | 10.000 | 9.000 | 0.275 |
| 50009500PR | 10.500 | 9.500 | 0.275 |
| 50011000PR | 12.000 | 11.000 | 0.275 |
| 50011875PR | 12.875 | 11.875 | 0.275 |
| 50014000PR | 15.000 | 14.000 | 0.275 |

Markets segments we are servicing



Agriculture



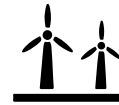
Metal Processing



Accumulators



Mining



Energy

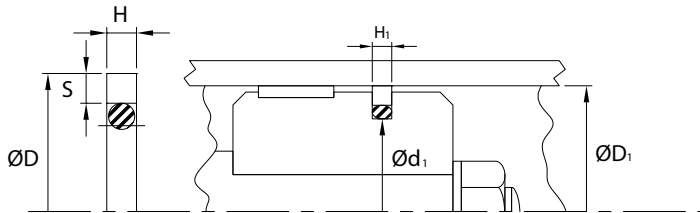


Building Engineering

TFES - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|---------------------|
| GF.PTFE/Nitrile | -30°F to +230°F (-34°C to +110°C) | ≤5800 psi (≤400 bar) | < 12 ft/s (3.7 m/s) |



The **TFES-style** is a bi-directional piston seal for use in low to medium duty hydraulic cylinders. Due to its compact size, it requires minimal gland space on the piston. The **TFES-style** offers both low break-out force and reduced wear.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|---------------|---------------|------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | S | H | EXP | d1 | Tol. | H1 | Tol. |
| TFES-00500 | 0.500 | +0.003 -0.000 | 0.500 | 0.065 - 0.075 | 0.065 - 0.075 | -009 | 0.241 | +0.002 -0.002 | 0.083 | +0.002 -0.002 |
| TFES-00625 | 0.625 | | 0.625 | 0.065 - 0.075 | 0.065 - 0.075 | -011 | 0.366 | | 0.083 | |
| TFES-00750 | 0.750 | | 0.750 | 0.065 - 0.075 | 0.065 - 0.075 | -013 | 0.491 | | 0.083 | |
| TFES-01000 | 1.000 | | 1.000 | 0.065 - 0.075 | 0.065 - 0.075 | -017 | 0.741 | | 0.083 | |
| TFES-01125 | 1.125 | | 1.125 | 0.065 - 0.075 | 0.065 - 0.075 | -019 | 0.866 | | 0.083 | |
| TFES-01250 | 1.250 | | 1.250 | 0.065 - 0.075 | 0.065 - 0.075 | -022 | 0.991 | | 0.083 | |
| TFES-01375 | 1.375 | | 1.375 | 0.065 - 0.075 | 0.065 - 0.075 | -023 | 1.116 | | 0.083 | |
| TFES-01500 | 1.500 | | 1.500 | 0.065 - 0.075 | 0.065 - 0.075 | -025 | 1.241 | | 0.083 | |
| TFES-01625 | 1.625 | | 1.625 | 0.099 - 0.119 | 0.099 - 0.119 | -123 | 1.235 | | 0.122 | |
| TFES-01750 | 1.750 | | 1.750 | 0.099 - 0.119 | 0.099 - 0.119 | -125 | 1.360 | | 0.122 | |
| TFES-01875 | 1.875 | | 1.875 | 0.099 - 0.119 | 0.099 - 0.119 | -128 | 1.483 | | 0.122 | |
| TFES-02000 | 2.000 | | 2.000 | 0.105 - 0.125 | 0.105 - 0.125 | -129 | 1.606 | | 0.130 | |
| TFES-02125 | 2.125 | | 2.125 | 0.105 - 0.125 | 0.105 - 0.125 | -132 | 1.733 | | 0.130 | |
| TFES-02250 | 2.250 | | 2.250 | 0.105 - 0.125 | 0.105 - 0.125 | -133 | 1.856 | | 0.130 | |
| TFES-02375 | 2.375 | | 2.375 | 0.105 - 0.125 | 0.105 - 0.125 | -135 | 1.981 | | 0.130 | |
| TFES-02500 | 2.500 | | 2.500 | 0.105 - 0.125 | 0.105 - 0.125 | -137 | 2.106 | | 0.130 | |
| TFES-02750 | 2.750 | ▼ | 2.750 | 0.105 - 0.125 | 0.105 - 0.125 | -141 | 2.356 | | 0.130 | |
| TFES-03000 | 3.000 | +0.004 -0.000 | 3.000 | 0.105 - 0.125 | 0.105 - 0.125 | -145 | 2.606 | | 0.130 | |
| TFES-03125 | 3.125 | | 3.125 | 0.105 - 0.125 | 0.105 - 0.125 | -148 | 2.733 | | 0.130 | |
| TFES-03250 | 3.250 | | 3.250 | 0.105 - 0.125 | 0.105 - 0.125 | -149 | 2.856 | | 0.130 | |
| TFES-03375 | 3.375 | | 3.375 | 0.105 - 0.125 | 0.105 - 0.125 | -150 | 2.983 | | 0.130 | |
| TFES-03500 | 3.500 | ▼ | 3.500 | 0.105 - 0.125 | 0.105 - 0.125 | -151 | 3.106 | ▼ | 0.130 | ▼ |



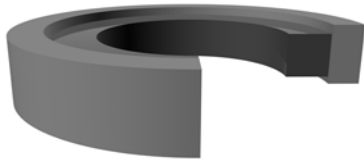
TFES series - GF.PTFE/NBR

PISTON SEALS

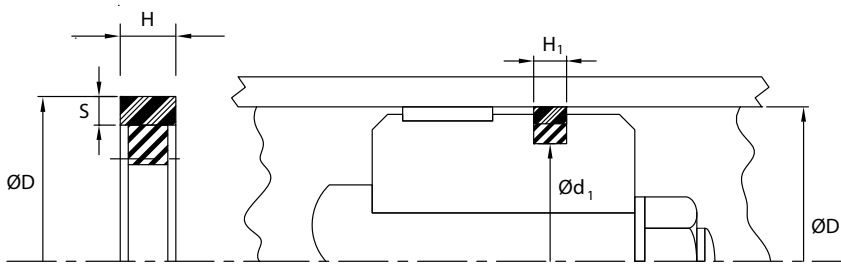


| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|---------------|---------------|------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | S | H | EXP | d1 | Tol. | H1 | Tol. |
| TFES-03625 | 3.625 | +0.004 -0.000 | 3.625 | 0.105 - 0.125 | 0.105 - 0.125 | -151 | 3.233 | +0.002 -0.002 | 0.130 | +0.002 -0.002 |
| TFES-03750 | 3.750 | | 3.750 | 0.105 - 0.125 | 0.105 - 0.125 | -152 | 3.356 | | 0.130 | |
| TFES-04000 | 4.000 | | 4.000 | 0.105 - 0.125 | 0.105 - 0.125 | -153 | 3.606 | | 0.130 | |
| TFES-04250 | 4.250 | | 4.250 | 0.105 - 0.125 | 0.105 - 0.125 | -154 | 3.856 | | 0.130 | |
| TFES-04500 | 4.500 | | 4.500 | 0.105 - 0.125 | 0.105 - 0.125 | -155 | 4.106 | | 0.130 | |
| TFES-04750 | 4.750 | | 4.750 | 0.105 - 0.125 | 0.105 - 0.125 | -156 | 4.356 | | 0.130 | |
| TFES-04875 | 4.875 | | 4.875 | 0.105 - 0.125 | 0.105 - 0.125 | -157 | 4.483 | | 0.130 | |
| TFES-05000 | 5.000 | | 5.000 | 0.105 - 0.125 | 0.105 - 0.125 | -157 | 4.606 | | 0.130 | |
| TFES-05250 | 5.250 | | 5.250 | 0.105 - 0.125 | 0.105 - 0.125 | -158 | 4.856 | | 0.130 | |
| TFES-05500 | 5.500 | | 5.500 | 0.105 - 0.125 | 0.105 - 0.125 | -159 | 5.106 | | 0.130 | |
| TFES-05750 | 5.750 | | 5.750 | 0.133 - 0.153 | 0.133 - 0.153 | -251 | 5.232 | | 0.159 | |
| TFES-05875 | 5.875 | | 5.875 | 0.133 - 0.153 | 0.133 - 0.153 | -252 | 5.357 | | 0.159 | |
| TFES-06000 | 6.000 | | 6.000 | 0.133 - 0.153 | 0.133 - 0.153 | -253 | 5.482 | | 0.159 | |
| TFES-06125 | 6.125 | | 6.125 | 0.133 - 0.153 | 0.133 - 0.153 | -254 | 5.607 | | 0.159 | |
| TFES-06250 | 6.250 | | 6.250 | 0.133 - 0.153 | 0.133 - 0.153 | -255 | 5.732 | | 0.159 | |
| TFES-06500 | 6.500 | ▼ | 6.500 | 0.133 - 0.153 | 0.133 - 0.153 | -257 | 5.982 | | 0.159 | |
| TFES-06750 | 6.750 | +0.005 -0.000 | 6.750 | 0.133 - 0.153 | 0.133 - 0.153 | -258 | 6.232 | | 0.159 | |
| TFES-07000 | 7.000 | | 7.000 | 0.133 - 0.153 | 0.133 - 0.153 | -259 | 6.482 | | 0.159 | |
| TFES-07250 | 7.250 | | 7.250 | 0.133 - 0.153 | 0.133 - 0.153 | -260 | 6.732 | | 0.159 | |
| TFES-07500 | 7.500 | | 7.500 | 0.133 - 0.153 | 0.133 - 0.153 | -261 | 6.982 | | 0.159 | |
| TFES-07750 | 7.750 | | 7.750 | 0.133 - 0.153 | 0.133 - 0.153 | -262 | 7.232 | | 0.159 | |
| TFES-08000 | 8.000 | | 8.000 | 0.133 - 0.153 | 0.133 - 0.153 | -263 | 7.482 | | 0.159 | |
| TFES-08125 | 8.125 | | 8.125 | 0.133 - 0.153 | 0.133 - 0.153 | -264 | 7.607 | | 0.159 | |
| TFES-08250 | 8.250 | | 8.250 | 0.133 - 0.153 | 0.133 - 0.153 | -264 | 7.732 | | 0.159 | |
| TFES-08500 | 8.500 | | 8.500 | 0.133 - 0.153 | 0.133 - 0.153 | -265 | 7.982 | | 0.159 | |
| TFES-08750 | 8.750 | | 8.750 | 0.133 - 0.153 | 0.133 - 0.153 | -266 | 8.232 | | 0.159 | |
| TFES-09000 | 9.000 | | 9.000 | 0.133 - 0.153 | 0.133 - 0.153 | -267 | 8.482 | | 0.159 | |
| TFES-09250 | 9.250 | | 9.250 | 0.133 - 0.153 | 0.133 - 0.153 | -268 | 8.732 | | 0.159 | |
| TFES-09500 | 9.500 | | 9.500 | 0.133 - 0.153 | 0.133 - 0.153 | -269 | 8.982 | | 0.159 | |
| TFES-09750 | 9.750 | | 9.750 | 0.133 - 0.153 | 0.133 - 0.153 | -270 | 9.232 | | 0.159 | |
| TFES-10000 | 10.000 | | 10.000 | 0.133 - 0.153 | 0.133 - 0.153 | -271 | 9.482 | | 0.159 | |
| TFES-10250 | 10.250 | | 10.250 | 0.133 - 0.153 | 0.133 - 0.153 | -272 | 9.732 | | 0.159 | |
| TFES-10500 | 10.500 | | 10.500 | 0.133 - 0.153 | 0.133 - 0.153 | -273 | 9.982 | | 0.159 | |
| TFES-10750 | 10.750 | ▼ | 10.750 | 0.133 - 0.153 | 0.133 - 0.153 | -274 | 10.232 | | 0.159 | |
| TFES-11000 | 11.000 | +0.006 -0.000 | 11.000 | 0.133 - 0.153 | 0.133 - 0.153 | -275 | 10.482 | | 0.159 | |
| TFES-11500 | 11.500 | | 11.500 | 0.133 - 0.153 | 0.133 - 0.153 | -276 | 10.982 | | 0.159 | |
| TFES-12000 | 12.000 | | 12.000 | 0.133 - 0.153 | 0.133 - 0.153 | -277 | 11.482 | | 0.159 | |
| TFES-12500 | 12.500 | | 12.500 | 0.133 - 0.153 | 0.133 - 0.153 | -278 | 11.982 | | 0.159 | |
| TFES-13000 | 13.000 | | 13.000 | 0.133 - 0.153 | 0.133 - 0.153 | -278 | 12.482 | | 0.159 | |
| TFES-14000 | 14.000 | ▼ | 14.000 | 0.133 - 0.153 | 0.133 - 0.153 | -279 | 13.482 | ▼ | 0.159 | ▼ |

160G - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|--------------------|
| GF.PTFE/Nitrile | -30°F to +230°F (-34°C to +110°C) | ≤5800 psi (≤400 bar) | <12 ft/s (3.7 m/s) |



The **160G-style** is a bi-directional piston seal for use in medium-duty hydraulic cylinder applications. Its 2-piece design is comprised of a glass-filled PTFE dynamic element and a square elastomeric expander ring. This seal offers low friction, low-wear and extrusion protection.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|---------------|---------------|------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | S | H | EXP | d1 | Tol. | H1 | Tol. |
| 160G01000 | 1.000 | +0.003 -0.000 | 1.000 | 0.055 - 0.060 | 0.088 - 0.093 | -019 | 0.787 | +0.000 -0.003 | 0.094 | +0.003 -0.000 |
| 160G01125 | 1.125 | | 1.125 | 0.055 - 0.060 | 0.088 - 0.093 | -021 | 0.912 | | 0.094 | |
| 160G01250 | 1.250 | | 1.250 | 0.055 - 0.060 | 0.088 - 0.093 | -023 | 1.037 | | 0.094 | |
| 160G01375 | 1.375 | | 1.375 | 0.055 - 0.060 | 0.088 - 0.093 | -025 | 1.162 | | 0.094 | |
| 160G01500 | 1.500 | | 1.500 | 0.055 - 0.060 | 0.088 - 0.093 | -027 | 1.287 | | 0.094 | |
| 160G01625 | 1.625 | | 1.625 | 0.055 - 0.060 | 0.088 - 0.093 | -029 | 1.412 | | 0.094 | |
| 160G01750 | 1.750 | | 1.750 | 0.060 - 0.065 | 0.088 - 0.093 | -127 | 1.473 | | 0.094 | |
| 160G01875 | 1.875 | | 1.875 | 0.060 - 0.065 | 0.120 - 0.125 | -130 | 1.598 | | 0.126 | |
| 160G02000 | 2.000 | | 2.000 | 0.060 - 0.065 | 0.120 - 0.125 | -132 | 1.723 | | 0.126 | |
| 160G02250 | 2.250 | | 2.250 | 0.060 - 0.065 | 0.120 - 0.125 | -135 | 1.937 | | 0.126 | |
| 160G02375 | 2.375 | | 2.375 | 0.060 - 0.065 | 0.120 - 0.125 | -137 | 2.098 | | 0.126 | |
| 160G02500 | 2.500 | | 2.500 | 0.060 - 0.065 | 0.120 - 0.125 | -140 | 2.223 | | 0.126 | |
| 160G02750 | 2.750 | ▼ | 2.750 | 0.085 - 0.090 | 0.150 - 0.155 | -229 | 2.348 | | 0.157 | |
| 160G03000 | 3.000 | +0.004 -0.000 | 3.000 | 0.085 - 0.090 | 0.150 - 0.155 | -231 | 2.603 | | 0.157 | |
| 160G03250 | 3.250 | | 3.250 | 0.085 - 0.090 | 0.150 - 0.155 | -233 | 2.853 | | 0.157 | |
| 160G03500 | 3.500 | | 3.500 | 0.085 - 0.090 | 0.150 - 0.155 | -235 | 3.103 | | 0.157 | |
| 160G03750 | 3.750 | | 3.750 | 0.085 - 0.090 | 0.150 - 0.155 | -237 | 3.353 | | 0.157 | |
| 160G04000 | 4.000 | | 4.000 | 0.085 - 0.090 | 0.150 - 0.155 | -238 | 3.600 | | 0.157 | |
| 160G04250 | 4.250 | | 4.250 | 0.085 - 0.090 | 0.150 - 0.155 | -241 | 3.853 | | 0.157 | |
| 160G04500 | 4.500 | | 4.500 | 0.085 - 0.090 | 0.150 - 0.155 | -243 | 4.103 | | 0.157 | |
| 160G04750 | 4.750 | | 4.750 | 0.085 - 0.090 | 0.150 - 0.155 | -245 | 4.353 | | 0.157 | |
| 160G05000 | 5.000 | ▼ | 5.000 | 0.085 - 0.090 | 0.150 - 0.155 | -247 | 4.603 | ▼ | 0.157 | ▼ |



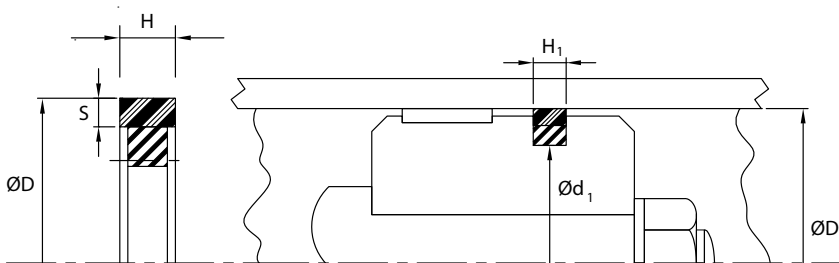
160G series - GF.PTFE/NBR

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|---------------|---------------|------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | S | H | EXP | d1 | Tol. | H1 | Tol. |
| 160G05250 | 5.250 | +0.004 -0.000 | 5.250 | 0.085 - 0.090 | 0.150 - 0.155 | -249 | 4.853 | +0.000 -0.003 | 0.157 | +0.003 -0.000 |
| 160G05500 | 5.500 | | 5.500 | 0.085 - 0.090 | 0.150 - 0.155 | -251 | 5.103 | | 0.157 | |
| 160G05750 | 5.750 | | 5.750 | 0.085 - 0.090 | 0.150 - 0.155 | -253 | 5.353 | | 0.157 | |
| 160G06000 | 6.000 | | 6.000 | 0.120 - 0.125 | 0.287 - 0.292 | -355 | 5.305 | | 0.293 | |
| 160G06500 | 6.500 | ▼ | 6.500 | 0.120 - 0.125 | 0.287 - 0.292 | -359 | 5.805 | | 0.293 | |
| 160G07000 | 7.000 | +0.005 -0.000 | 7.000 | 0.120 - 0.125 | 0.287 - 0.292 | -362 | 6.305 | | 0.293 | |
| 160G07500 | 7.500 | | 7.500 | 0.120 - 0.125 | 0.287 - 0.292 | -364 | 6.805 | | 0.293 | |
| 160G08000 | 8.000 | ▼ | 8.000 | 0.120 - 0.125 | 0.287 - 0.292 | -366 | 7.305 | ▼ | 0.293 | ▼ |

169B - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|---------------------|
| BR.PTFE/Nitrile | -30°F to +230°F (-34°C to +110°C) | ≤5800 psi (≤400 bar) | < 12 ft/s (3.7 m/s) |



Similar in design to the **160G-style**, the **169B-style** is of a heavier cross-sectional sizing to offer outstanding performance in heavy-duty applications. The bronze-filled PTFE outer ring allows for greatly reduced wear rates resulting in extended durability.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|---------------|---------------|------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | S | H | EXP | d1 | Tol. | H1 | Tol. |
| 169B01000125 | 1.000 | +0.004 -0.000 | 1.000 | 0.067 - 0.073 | 0.116 - 0.121 | -115 | 0.692 | +0.002 -0.000 | 0.125 | +0.002 -0.000 |
| 169B01250125 | 1.250 | | 1.250 | 0.067 - 0.073 | 0.116 - 0.121 | -119 | 0.942 | | 0.125 | |
| 169B01500125 | 1.500 | | 1.500 | 0.067 - 0.073 | 0.116 - 0.121 | -123 | 1.192 | | 0.125 | |
| 169B01750125 | 1.750 | | 1.750 | 0.067 - 0.073 | 0.116 - 0.121 | -127 | 1.443 | | 0.125 | |
| 169B02000125 | 2.000 | | 2.000 | 0.067 - 0.073 | 0.116 - 0.121 | -131 | 1.693 | | 0.125 | |
| 169B02250125 | 2.250 | ▼ | 2.250 | 0.067 - 0.073 | 0.116 - 0.121 | -135 | 1.943 | ▼ | 0.125 | ▼ |

169B series - BR.PTFE/NBR

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|---------------|---------------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | S | H | EXP | d1 | Tol. | H1 | Tol. |
| 169B02500125 | 2.500 | +0.003 -0.000 | 2.500 | 0.067 - 0.073 | 0.116 - 0.121 | -139 | 2.193 | +0.002 -0.002 | 0.125 | +0.002 -0.000 |
| 169B02750125 | 2.750 | | 2.750 | 0.067 - 0.073 | 0.116 - 0.121 | -143 | 2.443 | | 0.125 | |
| 169B03000281 | 3.000 | +0.004 -0.000 | 3.000 | 0.087 - 0.093 | 0.269 - 0.274 | -333 | 2.445 | | 0.278 | |
| 169B03250281 | 3.250 | | 3.250 | 0.087 - 0.093 | 0.269 - 0.274 | -335 | 2.695 | | 0.278 | |
| 169B03500281 | 3.500 | | 3.500 | 0.087 - 0.093 | 0.269 - 0.274 | -337 | 2.945 | | 0.278 | |
| 169B03750281 | 3.750 | | 3.750 | 0.087 - 0.093 | 0.269 - 0.274 | -339 | 3.195 | | 0.278 | |
| 169B04000281 | 4.000 | | 4.000 | 0.087 - 0.093 | 0.269 - 0.274 | -341 | 3.445 | | 0.278 | |
| 169B04250281 | 4.250 | | 4.250 | 0.087 - 0.093 | 0.269 - 0.274 | -343 | 3.695 | | 0.278 | |
| 169B04500281 | 4.500 | | 4.500 | 0.087 - 0.093 | 0.269 - 0.274 | -345 | 3.945 | | 0.278 | |
| 169B04750281 | 4.750 | | 4.750 | 0.087 - 0.093 | 0.269 - 0.274 | -347 | 4.195 | | 0.278 | |
| 169B05000281 | 5.000 | | 5.000 | 0.087 - 0.093 | 0.269 - 0.274 | -349 | 4.445 | | 0.278 | |
| 169B05000375 | 5.000 | | 5.000 | 0.137 - 0.147 | 0.362 - 0.367 | -4177 | 4.238 | | 0.375 | ↓ |
| 169B05250375 | 5.250 | | 5.250 | 0.137 - 0.147 | 0.362 - 0.367 | -425 | 4.488 | | 0.375 | +0.005 -0.000 |
| 169B05500375 | 5.500 | | 5.500 | 0.137 - 0.147 | 0.362 - 0.367 | -427 | 4.738 | | 0.375 | |
| 169B05750375 | 5.750 | | 5.750 | 0.137 - 0.147 | 0.362 - 0.367 | -429 | 4.988 | | 0.375 | |
| 169B06000375 | 6.000 | | 6.000 | 0.137 - 0.147 | 0.362 - 0.367 | -431 | 5.238 | | 0.375 | |
| 169B06250375 | 6.250 | | 6.250 | 0.137 - 0.147 | 0.362 - 0.367 | -433 | 5.488 | | 0.375 | |
| 169B06500375 | 6.500 | ↓ | 6.500 | 0.137 - 0.147 | 0.362 - 0.367 | -435 | 5.738 | | 0.375 | |
| 169B07000375 | 7.000 | +0.005 -0.000 | 7.000 | 0.137 - 0.147 | 0.362 - 0.367 | -438 | 6.238 | | 0.375 | |
| 169B07500375 | 7.500 | | 7.500 | 0.137 - 0.147 | 0.362 - 0.367 | -440 | 6.738 | | 0.375 | |
| 169B08000375 | 8.000 | | 8.000 | 0.137 - 0.147 | 0.362 - 0.367 | -442 | 7.238 | | 0.375 | |
| 169B08250375 | 8.250 | | 8.250 | 0.137 - 0.147 | 0.362 - 0.367 | -443 | 7.488 | | 0.375 | |
| 169B08500375 | 8.500 | | 8.500 | 0.137 - 0.147 | 0.362 - 0.367 | -444 | 7.738 | | 0.375 | |
| 169B09000375 | 9.000 | | 9.000 | 0.195 - 0.210 | 0.362 - 0.367 | -445 | 8.122 | | 0.375 | |
| 169B09500375 | 9.500 | | 9.500 | 0.195 - 0.210 | 0.362 - 0.367 | -446 | 8.622 | | 0.375 | |
| 169B10000375 | 10.000 | ↓ | 10.000 | 0.195 - 0.210 | 0.362 - 0.367 | -447 | 9.122 | | 0.375 | |
| 169B11000375 | 11.000 | +0.006 -0.000 | 11.000 | 0.195 - 0.210 | 0.362 - 0.367 | -449 | 10.122 | | 0.375 | |
| 169B12000375 | 12.000 | | 12.000 | 0.195 - 0.210 | 0.362 - 0.367 | -451 | 11.122 | | 0.375 | |
| 169B13000375 | 13.000 | | 13.000 | 0.195 - 0.210 | 0.362 - 0.367 | -453 | 12.122 | | 0.375 | ↓ |
| 169B14000375 | 14.000 | ↓ | 14.000 | 0.195 - 0.210 | 0.362 - 0.367 | -455 | 13.122 | ↓ | 0.375 | ↓ |

Markets segments we are servicing



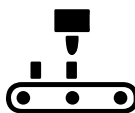
Fluid Handling



Fluid Power



Food & Beverages



Forming Machines



Health & Safety



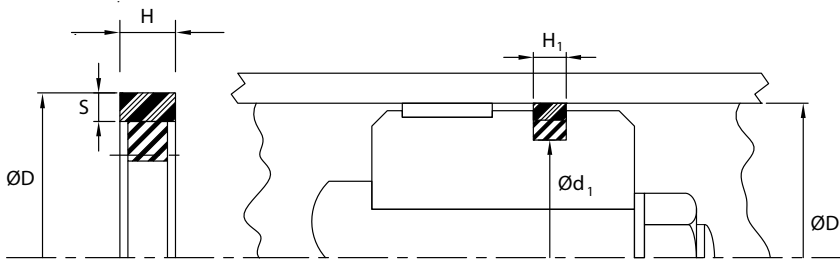
Ind Autom Aftermarket

169G - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|---------------------|
| GF.PTFE/Nitrile | -30°F to +230°F (-34°C to +110°C) | ≤5800 psi (≤400 bar) | < 12 ft/s (3.7 m/s) |

PISTON SEALS



Dimensionally identical to the **169B-style**, the **169G-style** with its high glass fiber content offers you superior extrusion resistance.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|---------------|---------------|------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | S | H | EXP | d1 | Tol. | H1 | Tol. |
| 169G01000125 | 1.000 | +0.003 -0.000 | 1.000 | 0.067 - 0.073 | 0.116 - 0.121 | -115 | 0.692 | +0.002 -0.002 | 0.125 | +0.002 -0.000 |
| 169G01250125 | 1.250 | | 1.250 | 0.067 - 0.073 | 0.116 - 0.121 | -119 | 0.942 | | 0.125 | |
| 169G01500125 | 1.500 | | 1.500 | 0.067 - 0.073 | 0.116 - 0.121 | -123 | 1.192 | | 0.125 | |
| 169G01750125 | 1.750 | | 1.750 | 0.067 - 0.073 | 0.116 - 0.121 | -127 | 1.443 | | 0.125 | |
| 169G02000125 | 2.000 | | 2.000 | 0.067 - 0.073 | 0.116 - 0.121 | -131 | 1.693 | | 0.125 | |
| 169G02250125 | 2.250 | | 2.250 | 0.067 - 0.073 | 0.116 - 0.121 | -135 | 1.943 | | 0.125 | |
| 169G02500125 | 2.500 | | 2.500 | 0.067 - 0.073 | 0.116 - 0.121 | -139 | 2.193 | | 0.125 | |
| 169G02750125 | 2.750 | ▼ | 2.750 | 0.067 - 0.073 | 0.116 - 0.121 | -143 | 2.443 | | 0.125 | |
| 169G03000281 | 3.000 | +0.004 -0.000 | 3.000 | 0.087 - 0.093 | 0.269 - 0.274 | -333 | 2.445 | | 0.281 | |
| 169G03250281 | 3.250 | | 3.250 | 0.087 - 0.093 | 0.269 - 0.274 | -335 | 2.695 | | 0.281 | |
| 169G03500281 | 3.500 | | 3.500 | 0.087 - 0.093 | 0.269 - 0.274 | -337 | 2.945 | | 0.281 | |
| 169G03750281 | 3.750 | | 3.750 | 0.087 - 0.093 | 0.269 - 0.274 | -339 | 3.195 | | 0.281 | |
| 169G04000281 | 4.000 | | 4.000 | 0.087 - 0.093 | 0.269 - 0.274 | -341 | 3.445 | | 0.281 | |
| 169G04250281 | 4.250 | | 4.250 | 0.087 - 0.093 | 0.269 - 0.274 | -343 | 3.695 | | 0.281 | |
| 169G04500281 | 4.500 | | 4.500 | 0.087 - 0.093 | 0.269 - 0.274 | -345 | 3.945 | | 0.281 | |
| 169G04750281 | 4.750 | | 4.750 | 0.087 - 0.093 | 0.269 - 0.274 | -347 | 4.195 | | 0.281 | |
| 169G05000281 | 5.000 | | 5.000 | 0.087 - 0.093 | 0.269 - 0.274 | -349 | 4.445 | | 0.281 | ▼ |
| 169G05250375 | 5.250 | | 5.250 | 0.137 - 0.147 | 0.362 - 0.367 | -425 | 4.488 | | 0.375 | +0.005 -0.000 |
| 169G05500375 | 5.500 | | 5.500 | 0.137 - 0.147 | 0.362 - 0.367 | -427 | 4.738 | | 0.375 | |
| 169G05750375 | 5.750 | | 5.750 | 0.137 - 0.147 | 0.362 - 0.367 | -429 | 4.988 | | 0.375 | |
| 169G06000375 | 6.000 | | 6.000 | 0.137 - 0.147 | 0.362 - 0.367 | -431 | 5.238 | | 0.375 | |
| 169G06250375 | 6.250 | ▼ | 6.250 | 0.137 - 0.147 | 0.362 - 0.367 | -433 | 5.488 | ▼ | 0.375 | ▼ |

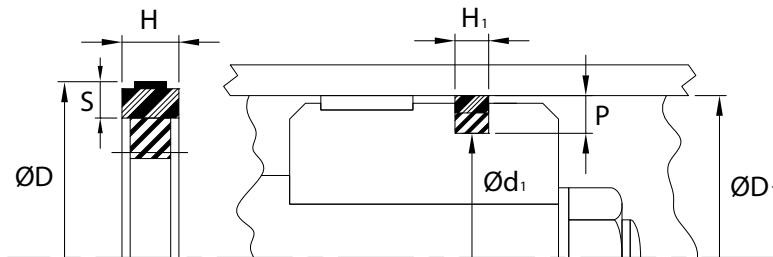
169G series - GF.PTFE/NBR

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|---------------|---------------|------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | S | H | EXP | d1 | Tol. | H1 | Tol. |
| 169G06500375 | 6.500 | +0.004/-0.000 | 6.500 | 0.137 - 0.147 | 0.362 - 0.367 | -435 | 5.738 | +0.002 -0.002 | 0.375 | +0.005 -0.000 |
| 169G07000375 | 7.000 | +0.000 -0.002 | 7.000 | 0.137 - 0.147 | 0.362 - 0.367 | -438 | 6.238 | | 0.375 | |
| 169G07500375 | 7.500 | | 7.500 | 0.137 - 0.147 | 0.362 - 0.367 | -440 | 6.738 | | 0.375 | |
| 169G08000375 | 8.000 | | 8.000 | 0.137 - 0.147 | 0.362 - 0.367 | -442 | 7.238 | | 0.375 | |
| 169G08250375 | 8.250 | | 8.250 | 0.137 - 0.147 | 0.362 - 0.367 | -443 | 7.488 | | 0.375 | |
| 169G08500375 | 8.500 | | 8.500 | 0.137 - 0.147 | 0.362 - 0.367 | -444 | 7.738 | | 0.375 | |
| 169G09000375 | 9.000 | | 9.000 | 0.195 - 0.210 | 0.362 - 0.367 | -445 | 8.122 | | 0.375 | |
| 169G09500375 | 9.500 | | 9.500 | 0.195 - 0.210 | 0.362 - 0.367 | -446 | 8.622 | | 0.375 | |
| 169G10000375 | 10.000 | ↓ | 10.000 | 0.195 - 0.210 | 0.362 - 0.367 | -447 | 9.122 | | 0.375 | |
| 169G11000375 | 11.000 | +0.006 -0.000 | 11.000 | 0.195 - 0.210 | 0.362 - 0.367 | -449 | 10.122 | | 0.375 | |
| 169G12000375 | 12.000 | | 12.000 | 0.195 - 0.210 | 0.362 - 0.367 | -451 | 11.122 | | 0.375 | |
| 169G13000375 | 13.000 | | 13.000 | 0.195 - 0.210 | 0.362 - 0.367 | -453 | 12.122 | | 0.375 | |
| 169G14000375 | 14.000 | ↓ | 14.000 | 0.195 - 0.210 | 0.362 - 0.367 | -455 | 13.122 | ↓ | 0.375 | ↓ |

169U - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|----------------------|--------------------------------------|-------------------------|-------------------|
| Polyurethane/Nitrile | -40°F to +250°F (-40°C to +121°C) | ≤5000 psi (≤345 bar) | <2 ft/s (0.6 m/s) |



The **169U-style** piston seal is a compact, low friction seal designed for low to medium duty hydraulic applications. It comprises of a tough, polyurethane dynamic sealing element which is pre-loaded by a square section elastomeric ring.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|---------------|---------------|------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | S | H | EXP | d1 | Tol. | H1 | Tol. |
| 169U01000125 | 1.000 | +0.003 -0.000 | 1.000 | 0.067 - 0.073 | 0.116 - 0.121 | -115 | 0.692 | +0.002 -0.002 | 0.125 | +0.002 -0.000 |
| 169U01250125 | 1.250 | | 1.250 | 0.067 - 0.073 | 0.116 - 0.121 | -119 | 0.942 | | 0.125 | |
| 169U01500125 | 1.500 | ↓ | 1.500 | 0.067 - 0.073 | 0.116 - 0.121 | -123 | 1.192 | ↓ | 0.125 | ↓ |



169U series - AU/NBR

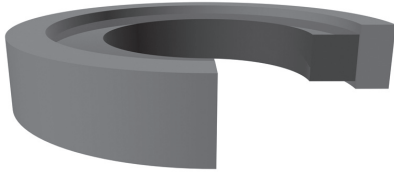
PISTON SEALS



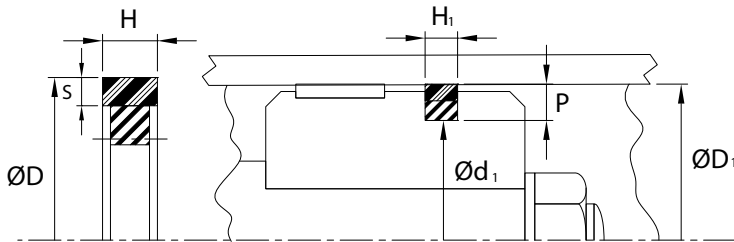
| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|---------------|---------------|------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | S | H | EXP | d1 | Tol. | H1 | Tol. |
| 169U01750125 | 1.750 | +0.003 -0.000 | 1.750 | 0.067 - 0.073 | 0.116 - 0.121 | -127 | 1.443 | +0.000 -0.004 | 0.125 | +0.002 -0.000 |
| 169U02000125 | 2.000 | | 2.000 | 0.067 - 0.073 | 0.116 - 0.121 | -131 | 1.693 | | 0.125 | |
| 169U02250125 | 2.250 | | 2.250 | 0.067 - 0.073 | 0.116 - 0.121 | -135 | 1.943 | | 0.125 | |
| 169U02500125 | 2.500 | | 2.500 | 0.067 - 0.073 | 0.116 - 0.121 | -139 | 2.193 | | 0.125 | |
| 169U02750125 | 2.750 | ▼ | 2.750 | 0.067 - 0.073 | 0.116 - 0.121 | -143 | 2.443 | | 0.125 | |
| 169U03000281 | 3.000 | +0.004 -0.000 | 3.000 | 0.087 - 0.093 | 0.269 - 0.274 | -333 | 2.443 | | 0.281 | |
| 169U03250281 | 3.250 | | 3.250 | 0.087 - 0.093 | 0.269 - 0.274 | -335 | 2.695 | | 0.281 | |
| 169U03500281 | 3.500 | | 3.500 | 0.087 - 0.093 | 0.269 - 0.274 | -337 | 2.945 | | 0.281 | |
| 169U03750281 | 3.750 | | 3.750 | 0.087 - 0.093 | 0.269 - 0.274 | -339 | 3.195 | | 0.281 | |
| 169U04000281 | 4.000 | | 4.000 | 0.087 - 0.093 | 0.269 - 0.274 | -341 | 3.445 | | 0.281 | |
| 169U04250281 | 4.250 | | 4.250 | 0.087 - 0.093 | 0.269 - 0.274 | -343 | 3.695 | | 0.281 | |
| 169U04500281 | 4.500 | | 4.500 | 0.087 - 0.093 | 0.269 - 0.274 | -345 | 3.945 | | 0.281 | |
| 169U04750281 | 4.750 | | 4.750 | 0.087 - 0.093 | 0.269 - 0.274 | -347 | 4.195 | | 0.281 | |
| 169U05000281 | 5.000 | | 5.000 | 0.087 - 0.093 | 0.269 - 0.274 | -349 | 4.445 | ▼ | 0.281 | ▼ |
| 169U05250375 | 5.250 | | 5.250 | 0.137 - 0.147 | 0.362 - 0.367 | -425 | 4.488 | +0.000 -0.010 | 0.375 | +0.005 -0.000 |
| 169U05500375 | 5.500 | | 5.500 | 0.137 - 0.147 | 0.362 - 0.367 | -427 | 4.738 | | 0.375 | |
| 169U05750375 | 5.750 | | 5.750 | 0.137 - 0.147 | 0.362 - 0.367 | -429 | 4.988 | | 0.375 | |
| 169U06000375 | 6.000 | | 6.000 | 0.137 - 0.147 | 0.362 - 0.367 | -431 | 5.238 | | 0.375 | |
| 169U06250375 | 6.250 | | 6.250 | 0.137 - 0.147 | 0.362 - 0.367 | -433 | 5.488 | | 0.375 | |
| 169U06500375 | 6.500 | ▼ | 6.500 | 0.137 - 0.147 | 0.362 - 0.367 | -435 | 5.738 | | 0.375 | |
| 169U07000375 | 7.000 | +0.005 -0.000 | 7.000 | 0.137 - 0.147 | 0.362 - 0.367 | -438 | 6.238 | | 0.375 | |
| 169U07250375 | 7.250 | | 7.250 | 0.137 - 0.147 | 0.362 - 0.367 | -439 | 6.504 | | 0.375 | |
| 169U07500375 | 7.500 | | 7.500 | 0.137 - 0.147 | 0.362 - 0.367 | -440 | 6.738 | | 0.375 | |
| 169U08000375 | 8.000 | | 8.000 | 0.137 - 0.147 | 0.362 - 0.367 | -442 | 7.238 | | 0.375 | |
| 169U08500375 | 8.500 | | 8.500 | 0.137 - 0.147 | 0.362 - 0.367 | -444 | 7.738 | | 0.375 | |
| 169U09000375 | 9.000 | | 9.000 | 0.195 - 0.210 | 0.362 - 0.367 | -445 | 8.122 | | 0.375 | |
| 169U09500375 | 9.500 | | 9.500 | 0.195 - 0.210 | 0.362 - 0.367 | -446 | 8.622 | | 0.375 | |
| 169U10000375 | 10.000 | ▼ | 10.000 | 0.195 - 0.210 | 0.362 - 0.367 | -447 | 9.122 | ▼ | 0.375 | ▼ |



CAT TYPE-1 - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|---------------------|
| GF.PTFE/Nitrile | -30°F to +230°F (-34°C to +110°C) | ≤5800 psi (≤400 bar) | < 12 ft/s (3.7 m/s) |



Two-Piece piston seal for **Caterpillar®** specific equipment. Part numbers are for reference purposes only, we do not imply that these parts are of original equipment provenance.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|-------------|---------------|------------------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| RCAT-3E4277 | 1.000 | +0.003 -0.000 | 0.691 | +0.003 -0.003 | 0.129 | +0.002 -0.002 |
| RCAT-3E4278 | 1.250 | | 0.941 | | 0.129 | |
| RCAT-5J9822 | 1.500 | | 1.106 | | 0.118 | |
| RCAT-3E4279 | 1.750 | | 1.441 | | 0.129 | |
| RCAT-5J7004 | 2.000 | | 1.625 | | 0.192 | |
| RCAT-1U3998 | 2.250 | | 1.875 | | 0.192 | |
| RCAT-8J6213 | 2.500 | | 2.125 | | 0.192 | |
| RCAT-5J7010 | 2.750 | | 2.375 | | 0.192 | |
| RCAT-6J1972 | 3.000 | +0.004 -0.000 | 2.460 | | 0.192 | |
| RCAT-6J0793 | 3.250 | | 2.710 | | 0.192 | |
| RCAT-5J7013 | 3.500 | | 2.960 | | 0.192 | |
| RCAT-5J8011 | 3.750 | | 3.210 | | 0.192 | |
| RCAT-9J9872 | 4.000 | | 3.210 | | 0.192 | |
| RCAT-5J5402 | 4.000 | | 3.335 | | 0.252 | |
| RCAT-7J2032 | 4.000 | | 3.482 | | 0.252 | |
| RCAT-4T0529 | 4.125 | | 3.460 | | 0.252 | |
| RCAT-5J7854 | 4.250 | | 3.585 | | 0.252 | |
| RCAT-5J4986 | 4.500 | | 3.835 | | 0.252 | |
| RCAT-5J4987 | 4.750 | | 4.090 | | 0.252 | |
| RCAT-9X7542 | 4.750 | | 4.090 | | 0.252 | |
| RCAT-5J5020 | 5.000 | | 4.225 | | 0.379 | |
| RCAT-5J7234 | 5.250 | | 4.480 | | 0.379 | |

| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|--------------|---------------|------------------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| RCAT-5J4988 | 5.500 | +0.004 -0.000 | 4.725 | +0.003 -0.003 | 0.379 | +0.002 -0.002 |
| RCAT-9J4981 | 5.750 | | 4.975 | | 0.379 | |
| RCAT-5J4989 | 6.000 | | 5.095 | | 0.379 | |
| RCAT-5J4990 | 6.250 | | 5.345 | | 0.379 | |
| RCAT-5J4991 | 6.500 | +0.005 -0.000 | 5.595 | | 0.379 | |
| RCAT-5J4997 | 7.000 | | 6.095 | | 0.379 | |
| RCAT-5J4993 | 7.250 | | 6.345 | | 0.379 | |
| RCAT-9J7117 | 7.500 | | 6.595 | | 0.379 | |
| RCAT-5J7016 | 7.750 | | 6.845 | | 0.379 | |
| RCAT-3E4280 | 8.000 | | 7.254 | | 0.379 | |
| RCAT-5J5559 | 8.250 | | 7.255 | | 0.379 | |
| RCAT-6J9385 | 8.500 | | 7.505 | | 0.379 | |
| RCAT-3E4281 | 9.000 | | 8.137 | | 0.379 | |
| RCAT-8T6923 | 9.500 | | 8.380 | | 0.440 | |
| RCAT-3E4282 | 9.500 | | 8.637 | | 0.379 | |
| RCAT-1214179 | 10.000 | | 8.880 | | 0.440 | |
| RCAT-5J6762 | 10.500 | | 9.380 | | 0.440 | |
| RCAT-6E0253 | 11.000 | | 9.880 | | 0.440 | |

All manufacturer's names, part numbers and descriptions are use for reference purpose only. We do not imply that any part shown is the product of these manufacturers.



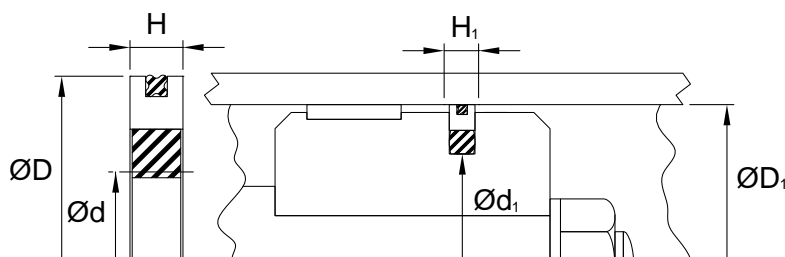
PISTON SEALS



AQ - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|------------------|
| BR.PTFE/Nitrile | -30°F to +230°F (-34°C to +110°C) | ≤5800 psi (≤400 bar) | <10 ft/s (3 m/s) |



The **AQ-style** is a bi-directional piston seal for use in medium to heavy-duty hydraulic applications. With its stable, rectangular design, it incorporates a rubber four-lobed seal on the PTFE cap to insure drift-free performance.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | | Housing Dimensions | | | |
|------------|---------------|------------------|-------------------------|-------|-------|------|--------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | EXP | Q'Ring | d1 | Tol. | H1 | Tol. |
| AQ-01000 | 1.000 | +0.003 -0.000 | 1.000 | 0.576 | 0.200 | -207 | -020 | 0.576 | +0.000 -0.004 | 0.210 | +0.005 -0.000 |
| AQ-01125 | 1.125 | | 1.125 | 0.701 | 0.200 | -209 | -022 | 0.701 | | 0.210 | |
| AQ-01250 | 1.250 | | 1.250 | 0.826 | 0.200 | -211 | -024 | 0.826 | | 0.210 | |
| AQ-01375 | 1.375 | | 1.375 | 0.951 | 0.200 | -213 | -026 | 0.951 | | 0.210 | |
| AQ-01500 | 1.500 | | 1.500 | 1.076 | 0.200 | -215 | -028 | 1.076 | | 0.210 | |
| AQ-01625 | 1.625 | | 1.625 | 1.201 | 0.200 | -217 | -030 | 1.201 | | 0.210 | |
| AQ-01750 | 1.750 | | 1.750 | 1.326 | 0.200 | -219 | -032 | 1.326 | ▼ | 0.210 | |
| AQ-01875 | 1.875 | | 1.875 | 1.451 | 0.200 | -221 | -034 | 1.451 | +0.000 -0.006 | 0.210 | |
| AQ-02000 | 2.000 | | 2.000 | 1.384 | 0.271 | -324 | -133 | 1.384 | | 0.288 | |
| AQ-02125 | 2.125 | | 2.125 | 1.509 | 0.271 | -325 | -135 | 1.509 | | 0.288 | |
| AQ-02250 | 2.250 | | 2.250 | 1.634 | 0.271 | -326 | -137 | 1.634 | | 0.288 | |
| AQ-02375 | 2.375 | | 2.375 | 1.759 | 0.271 | -327 | -139 | 1.759 | | 0.288 | |
| AQ-02500 | 2.500 | | 2.500 | 1.884 | 0.271 | -328 | -141 | 1.884 | | 0.288 | |
| AQ-02625 | 2.625 | | 2.625 | 2.009 | 0.271 | -329 | -143 | 2.009 | | 0.288 | |
| AQ-02750 | 2.750 | | 2.750 | 2.134 | 0.271 | -330 | -145 | 2.134 | | 0.288 | |
| AQ-02875 | 2.875 | ▼ | 2.875 | 2.259 | 0.271 | -331 | -147 | 2.259 | | 0.288 | |
| AQ-03000 | 3.000 | +0.004 -0.000 | 3.000 | 2.384 | 0.271 | -332 | -149 | 2.384 | | 0.288 | |
| AQ-03125 | 3.125 | | 3.125 | 2.509 | 0.271 | -333 | -150 | 2.509 | | 0.288 | |
| AQ-03250 | 3.250 | | 3.250 | 2.634 | 0.271 | -334 | -151 | 2.634 | | 0.288 | |
| AQ-03375 | 3.375 | | 3.375 | 2.759 | 0.271 | -335 | -151 | 2.759 | | 0.288 | |
| AQ-03500 | 3.500 | | 3.500 | 2.884 | 0.271 | -336 | -152 | 2.884 | | 0.288 | |
| AQ-03625 | 3.625 | ▼ | 3.625 | 3.009 | 0.271 | -337 | -152 | 3.009 | ▼ | 0.288 | ▼ |

PISTON SEALS



AQ series - BR.PTFE/NBR

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | | Housing Dimensions | | | |
|------------|---------------|------------------|-------------------------|--------|-------|------|--------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | EXP | Q'Ring | d1 | Tol. | H1 | Tol. |
| AQ-03750 | 3.750 | +0.004 -0.000 | 3.750 | 3.134 | 0.271 | -338 | -153 | 3.134 | +0.000 -0.006 | 0.288 | +0.005 -0.000 |
| AQ-03875 | 3.875 | | 3.875 | 3.259 | 0.271 | -339 | -153 | 3.259 | | 0.288 | |
| AQ-04000 | 4.000 | | 4.000 | 3.384 | 0.271 | -340 | -154 | 3.384 | | 0.288 | |
| AQ-04125 | 4.125 | | 4.125 | 3.509 | 0.271 | -341 | -154 | 3.509 | | 0.288 | |
| AQ-04250 | 4.250 | | 4.250 | 3.634 | 0.271 | -342 | -155 | 3.634 | | 0.288 | |
| AQ-04375 | 4.375 | | 4.375 | 3.759 | 0.271 | -343 | -155 | 3.759 | | 0.288 | |
| AQ-04500 | 4.500 | | 4.500 | 3.884 | 0.271 | -344 | -156 | 3.884 | | 0.288 | |
| AQ-04625 | 4.625 | | 4.625 | 4.009 | 0.271 | -345 | -156 | 4.009 | ▼ | 0.288 | |
| AQ-04750 | 4.750 | | 4.750 | 4.134 | 0.271 | -346 | -157 | 4.134 | +0.000 -0.007 | 0.288 | |
| AQ-04875 | 4.875 | | 4.875 | 4.259 | 0.271 | -347 | -157 | 4.259 | | 0.288 | |
| AQ-05000 | 5.000 | | 5.000 | 4.384 | 0.271 | -348 | -158 | 4.384 | | 0.288 | |
| AQ-05125 | 5.125 | | 5.125 | 4.509 | 0.271 | -349 | -158 | 4.509 | | 0.288 | |
| AQ-05250 | 5.250 | | 5.250 | 4.634 | 0.271 | -350 | -159 | 4.634 | | 0.288 | |
| AQ-05375 | 5.375 | | 5.375 | 4.535 | 0.352 | -425 | -251 | 4.535 | | 0.375 | |
| AQ-05500 | 5.500 | | 5.500 | 4.660 | 0.352 | -426 | -252 | 4.660 | | 0.375 | |
| AQ-05625 | 5.625 | | 5.625 | 4.785 | 0.352 | -427 | -253 | 4.785 | | 0.375 | |
| AQ-05750 | 5.750 | | 5.750 | 4.910 | 0.352 | -428 | -254 | 4.910 | | 0.375 | |
| AQ-05875 | 5.875 | | 5.875 | 5.035 | 0.352 | -429 | -255 | 5.035 | | 0.375 | |
| AQ-06000 | 6.000 | | 6.000 | 5.160 | 0.352 | -430 | -256 | 5.160 | | 0.375 | |
| AQ-06125 | 6.125 | | 6.125 | 5.285 | 0.352 | -431 | -257 | 5.285 | | 0.375 | |
| AQ-06250 | 6.250 | | 6.250 | 5.415 | 0.352 | -432 | -258 | 5.415 | | 0.375 | |
| AQ-06375 | 6.375 | | 6.375 | 5.540 | 0.352 | -433 | -258 | 5.540 | | 0.375 | |
| AQ-06500 | 6.500 | | 6.500 | 5.665 | 0.352 | -434 | -259 | 5.665 | | 0.375 | |
| AQ-06625 | 6.625 | ▼ | 6.625 | 5.795 | 0.352 | -435 | -259 | 5.795 | | 0.375 | |
| AQ-06750 | 6.750 | +0.005 -0.000 | 6.750 | 5.920 | 0.352 | -436 | -260 | 5.920 | | 0.375 | |
| AQ-06875 | 6.875 | | 6.875 | 6.045 | 0.352 | -437 | -260 | 6.045 | ▼ | 0.375 | |
| AQ-07000 | 7.000 | | 7.000 | 6.170 | 0.352 | -437 | -261 | 6.170 | +0.000 -0.009 | 0.375 | |
| AQ-07250 | 7.250 | | 7.250 | 6.420 | 0.352 | -438 | -262 | 6.420 | | 0.375 | |
| AQ-07500 | 7.500 | | 7.500 | 6.670 | 0.352 | -439 | -263 | 6.670 | | 0.375 | |
| AQ-07750 | 7.750 | | 7.750 | 6.915 | 0.352 | -440 | -264 | 6.915 | | 0.375 | |
| AQ-08000 | 8.000 | | 8.000 | 7.170 | 0.352 | -441 | -265 | 7.170 | | 0.375 | |
| AQ-08250 | 8.250 | | 8.250 | 7.415 | 0.352 | -442 | -266 | 7.415 | | 0.375 | |
| AQ-08500 | 8.500 | | 8.500 | 7.665 | 0.352 | -443 | -267 | 7.665 | | 0.375 | |
| AQ-08750 | 8.750 | | 8.750 | 7.915 | 0.352 | -444 | -268 | 7.915 | | 0.375 | |
| AQ-09000 | 9.000 | | 9.000 | 8.165 | 0.352 | -445 | -269 | 8.165 | | 0.375 | |
| AQ-09250 | 9.250 | | 9.250 | 8.420 | 0.352 | -445 | -270 | 8.420 | | 0.375 | |
| AQ-09500 | 9.500 | | 9.500 | 8.665 | 0.352 | -446 | -271 | 8.665 | | 0.375 | |
| AQ-09750 | 9.750 | | 9.750 | 8.920 | 0.352 | -446 | -272 | 8.920 | | 0.375 | |
| AQ-10000 | 10.000 | | 10.000 | 9.165 | 0.352 | -447 | -273 | 9.165 | ▼ | 0.375 | |
| AQ-10250 | 10.250 | | 10.250 | 9.340 | 0.352 | -447 | -274 | 9.340 | +0.000 -0.011 | 0.375 | |
| AQ-10500 | 10.500 | | 10.500 | 9.580 | 0.352 | -448 | -274 | 9.580 | | 0.375 | |
| AQ-10750 | 10.750 | | 10.750 | 9.840 | 0.352 | -448 | -275 | 9.840 | | 0.375 | |
| AQ-11000 | 11.000 | | 11.000 | 10.080 | 0.352 | -449 | -275 | 10.080 | | 0.375 | |
| AQ-11250 | 11.250 | | 11.250 | 10.340 | 0.352 | -449 | -276 | 10.340 | | 0.375 | |
| AQ-11500 | 11.500 | | 11.500 | 10.580 | 0.352 | -450 | -276 | 10.580 | | 0.375 | |
| AQ-11750 | 11.750 | ▼ | 11.750 | 10.840 | 0.352 | -450 | -277 | 10.840 | ▼ | 0.375 | ▼ |

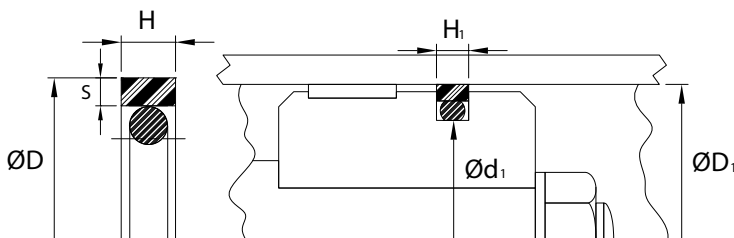
AQ series - BR.PTFE/NBR

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | | Housing Dimensions | | | |
|------------|---------------|------------------|-------------------------|--------|-------|------|--------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | EXP | Q'Ring | d1 | Tol. | H1 | Tol. |
| AQ-12000 | 12.000 | +0.006 -0.000 | 12.000 | 11.080 | 0.352 | -451 | -277 | 11.080 | +0.000 -0.011 | 0.375 | +0.005 -0.000 |
| AQ-12250 | 12.250 | | 12.250 | 11.340 | 0.352 | -451 | -278 | 11.340 | | 0.375 | |
| AQ-12500 | 12.500 | | 12.500 | 11.580 | 0.352 | -452 | -278 | 11.580 | | 0.375 | |
| AQ-12750 | 12.750 | | 12.750 | 11.840 | 0.352 | -452 | -278 | 11.840 | | 0.375 | |
| AQ-13000 | 13.000 | | 13.000 | 12.080 | 0.352 | -453 | -278 | 12.080 | | 0.375 | |
| AQ-13250 | 13.250 | | 13.250 | 12.335 | 0.352 | -453 | -279 | 12.335 | | 0.375 | |
| AQ-13500 | 13.500 | | 13.500 | 12.580 | 0.352 | -454 | -279 | 12.580 | | 0.375 | |
| AQ-13750 | 13.750 | | 13.750 | 12.840 | 0.352 | -454 | -279 | 12.840 | | 0.375 | |
| AQ-14000 | 14.000 | ▼ | 14.000 | 13.080 | 0.352 | -455 | -279 | 13.080 | ▼ | 0.375 | ▼ |

PS2470 - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|---------------------|
| BR.PTFE/Nitrile | -30°F to +230°F (-34°C to +110°C) | ≤5800 psi (≤400 bar) | < 12 ft/s (3.7 m/s) |



A compact bi-directional seal designed for medium-duty hydraulic service. the **PS2470-style** seal offers low-friction and good wear resistance. The addition of chamfered edges makes it easy to install in the cylinder bore and facilitate resizing during cylinder reassembly.

Alternate Materials: For applications that may require an alternate material. please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|------------|---------------|------------------|-------------------------|-------|-------|------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | S | H | EXP | d1 | Tol. | H1 | Tol. |
| PS2472-24 | 1.500 | +0.003 -0.000 | 1.500 | 0.100 | 0.150 | -215 | 1.067 | +0.000 -0.004 | 0.168 | +0.000 -0.002 |
| PS2472-28 | 1.750 | | 1.750 | 0.100 | 0.150 | -219 | 1.317 | | 0.168 | |
| PS2472-32 | 2.000 | | 2.000 | 0.100 | 0.150 | -222 | 1.576 | | 0.168 | |
| PS2472-36 | 2.250 | | 2.250 | 0.100 | 0.150 | -224 | 1.826 | | 0.168 | |
| PS2472-40 | 2.500 | ▼ | 2.500 | 0.100 | 0.150 | -227 | 2.076 | ▼ | 0.168 | ▼ |



PS2470 series - BR.PTFE/NBR

PISTON SEALS



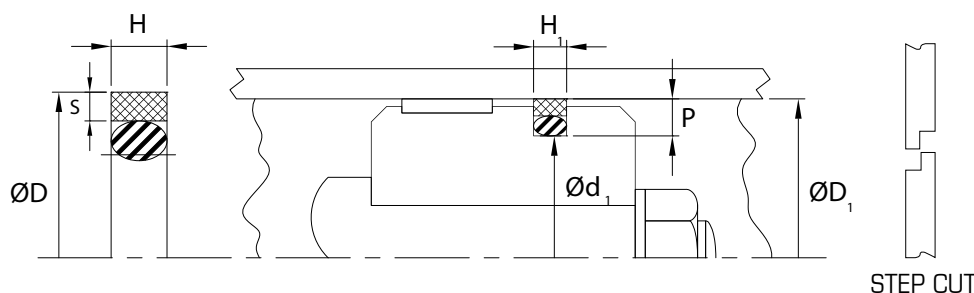
| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|------------|---------------|---------------|-------------------------|-------|-------|------|--------------------|---------------|-------|---------------|
| | D1 | Tol. | D | S | H | EXP | d1 | Tol. | H1 | Tol. |
| PS2472-44 | 2.750 | +0.003/-0.000 | 2.750 | 0.100 | 0.150 | -228 | 2.317 | | 0.168 | |
| PS2472-48 | 3.000 | +0.004/-0.000 | 3.000 | 0.100 | 0.150 | -230 | 2.567 | +0.000/-0.004 | 0.168 | +0.000/-0.002 |
| PS2473-48 | 3.000 | | 3.000 | 0.140 | 0.225 | -332 | 2.390 | | 0.249 | |
| PS2473-52 | 3.250 | | 3.250 | 0.140 | 0.225 | -334 | 2.640 | | 0.249 | |
| PS2473-56 | 3.500 | | 3.500 | 0.140 | 0.225 | -336 | 2.890 | | 0.249 | |
| PS2472-60 | 3.750 | | 3.750 | 0.100 | 0.150 | -236 | 3.317 | | 0.168 | |
| PS2472-64 | 4.000 | | 4.000 | 0.100 | 0.150 | -238 | 3.567 | | 0.168 | |
| PS2473-64 | 4.000 | | 4.000 | 0.140 | 0.225 | -340 | 3.390 | | 0.249 | |
| PS2473-68 | 4.250 | | 4.250 | 0.140 | 0.225 | -342 | 3.640 | | 0.249 | |
| PS2473-72 | 4.500 | | 4.500 | 0.140 | 0.225 | -344 | 3.890 | | 0.249 | |
| PS2473-76 | 4.750 | | 4.750 | 0.140 | 0.225 | -346 | 4.140 | | 0.249 | |
| PS2473-80 | 5.000 | | 5.000 | 0.140 | 0.225 | -348 | 4.390 | | 0.249 | |
| PS2473-88 | 5.500 | | 5.500 | 0.140 | 0.225 | -352 | 4.890 | | 0.249 | |
| PS2474-88 | 5.500 | | 5.500 | 0.195 | 0.290 | -426 | 4.670 | +0.000/-0.010 | 0.322 | |
| PS2473-96 | 6.000 | | 6.000 | 0.140 | 0.225 | -355 | 5.390 | | 0.249 | |
| PS2474-96 | 6.000 | | 6.000 | 0.195 | 0.290 | -430 | 5.170 | | 0.322 | +0.000/-0.005 |
| PS2474-104 | 6.500 | | 6.500 | 0.195 | 0.290 | -434 | 5.670 | | 0.322 | |
| PS2474-112 | 7.000 | +0.005/-0.000 | 7.000 | 0.195 | 0.290 | -437 | 6.170 | | 0.322 | |
| PS2474-120 | 7.500 | | 7.500 | 0.195 | 0.290 | -439 | 6.670 | | 0.322 | |
| PS2474-128 | 8.000 | | 8.000 | 0.195 | 0.290 | -441 | 7.170 | | 0.322 | |
| PS2474-136 | 8.500 | | 8.500 | 0.195 | 0.290 | -443 | 7.670 | | 0.322 | |
| PS2474-144 | 9.000 | | 9.000 | 0.195 | 0.290 | -445 | 8.170 | | 0.322 | |
| PS2474-152 | 9.500 | | 9.500 | 0.195 | 0.290 | -446 | 8.670 | | 0.322 | |
| PS2474-160 | 10.000 | | 10.000 | 0.195 | 0.290 | -447 | 9.170 | | 0.322 | |



C914 - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|-------------------|
| Nylon/Nitrile | -40°F to +250°F (-40°C to +121°C) | ≤7000 psi (≤483 bar) | <3.3 ft/s (1 m/s) |



This is a bi-directional piston seal designed for heavy-duty hydraulic application. Its hard thermoplastic outer ring allows for high diametrical clearances and extrusion resistance as well as the ability to pass over open ports. It has the capability to work effectively in substandard surface finishes and is an excellent choice for mobile equipment experiencing shock loads.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|----------------|---------------|------------------|-------------------------|-------|-------|-------|--------------------|-------|------------------|------|
| | D1 | Tol. | D | d | S | H | d1 | Tol. | H1 | Tol. |
| C91402000281NS | 2.000 | +0.003 -0.000 | 2.000 | 0.105 | 0.281 | 1.462 | +0.000 -0.005 | 0.281 | +0.005 -0.000 | |
| C914020003120S | 2.000 | | 2.000 | 0.125 | 0.312 | 1.408 | | 0.312 | | |
| C91402500281NS | 2.500 | | 2.500 | 0.105 | 0.281 | 1.962 | | 0.281 | | |
| C914025003120S | 2.500 | | 2.500 | 0.125 | 0.312 | 1.908 | | 0.312 | | |
| C91402750281NS | 2.750 | ▼ | 2.750 | 0.105 | 0.281 | 2.212 | | 0.281 | | |
| C91403000281NS | 3.000 | +0.004 -0.000 | 3.000 | 0.125 | 0.281 | 2.442 | | 0.281 | | |
| C914030003120S | 3.000 | | 3.000 | 0.125 | 0.312 | 2.408 | | 0.312 | | |
| C91403250281NS | 3.250 | | 3.250 | 0.125 | 0.281 | 2.692 | | 0.281 | | |
| C91403500281NS | 3.500 | | 3.500 | 0.125 | 0.281 | 2.942 | | 0.281 | | |
| C914035003120S | 3.500 | | 3.500 | 0.125 | 0.312 | 2.908 | | 0.312 | | |
| C91404000281NS | 4.000 | | 4.000 | 0.125 | 0.281 | 3.442 | | 0.281 | | |
| C914040003120S | 4.000 | | 4.000 | 0.125 | 0.312 | 3.408 | | 0.312 | | |
| C91404500281NS | 4.500 | | 4.500 | 0.125 | 0.281 | 3.942 | | 0.281 | | |
| C914045003120S | 4.500 | | 4.500 | 0.125 | 0.312 | 3.908 | | 0.312 | | |
| C91405000281NS | 5.000 | | 5.000 | 0.125 | 0.281 | 4.442 | | 0.281 | | |
| C914050003750S | 5.000 | | 5.000 | 0.125 | 0.375 | 4.240 | | 0.375 | | |
| C91405500375 | 5.500 | | 5.500 | 0.125 | 0.375 | 4.740 | | 0.375 | | |
| C91406000375 | 6.000 | | 6.000 | 0.125 | 0.375 | 5.240 | | 0.375 | | |
| C91406500375 | 6.500 | ▼ | 6.500 | 0.125 | 0.375 | 5.740 | | 0.375 | | |
| C91407000375 | 7.000 | +0.005 -0.000 | 7.000 | 0.125 | 0.375 | 6.240 | | 0.375 | | |
| C91407500375 | 7.500 | | 7.500 | 0.125 | 0.375 | 6.740 | | 0.375 | | |
| C91408000375 | 8.000 | | 8.000 | 0.125 | 0.375 | 7.240 | | 0.375 | | |
| C91408500375NS | 8.500 | ▼ | 8.500 | 0.125 | 0.375 | 7.740 | ▼ | 0.375 | ▼ | |

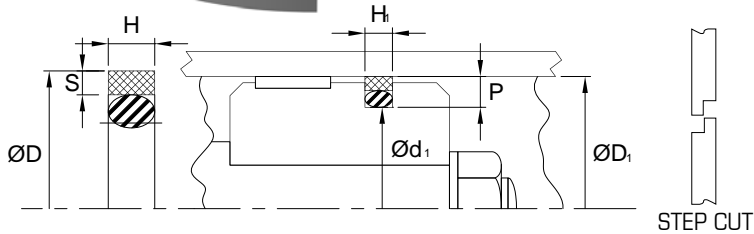
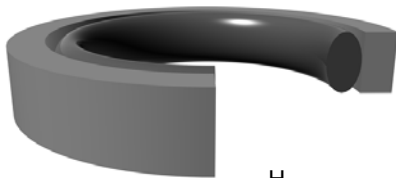
PISTON SEALS



C914 series - NYLON/NBR (Step cut)

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|----------------|---------------|------------------|-------------------------|---|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | S | H | d1 | Tol. | H1 | Tol. |
| C914085003750S | 8.500 | +0.005 -0.000 | 8.500 | | 0.187 | 0.375 | 7.624 | +0.000 -0.005 | 0.375 | +0.005 -0.000 |
| C91409000375 | 9.000 | | 9.000 | | 0.187 | 0.375 | 8.124 | | 0.375 | |
| C91409500375 | 9.500 | | 9.500 | | 0.187 | 0.375 | 8.624 | | 0.375 | |
| C91410000375 | 10.000 | | 10.000 | | 0.187 | 0.375 | 9.124 | | 0.375 | |
| C91410500375 | 10.500 | ▼ | 10.500 | | 0.187 | 0.375 | 9.624 | | 0.375 | |
| C91411000375 | 11.000 | | 11.000 | | 0.187 | 0.375 | 10.124 | | 0.375 | |
| C91412000375 | 12.000 | +0.005 -0.000 | 12.000 | | 0.187 | 0.375 | 11.124 | | 0.375 | |
| C91412500375 | 12.500 | | 12.500 | | 0.187 | 0.375 | 11.624 | | 0.375 | |
| C91413000375 | 13.000 | | 13.000 | | 0.187 | 0.375 | 12.124 | | 0.375 | |
| C91413500375 | 13.500 | | 13.500 | | 0.187 | 0.375 | 12.624 | | 0.375 | |
| C91414000375 | 14.000 | | 14.000 | | 0.187 | 0.375 | 13.124 | | 0.375 | |
| C91415000375 | 15.000 | | 15.000 | | 0.187 | 0.375 | 14.124 | | 0.375 | |
| C91415500375 | 15.500 | | 15.500 | | 0.187 | 0.375 | 14.624 | | 0.375 | |
| C91416000375 | 16.000 | | 16.000 | | 0.187 | 0.375 | 15.124 | | 0.375 | |
| C91417000375 | 17.000 | ▼ | 17.000 | | 0.187 | 0.375 | 16.124 | ▼ | 0.375 | ▼ |

CAT TYPE-3 - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|-------------------|
| Nylon/Nitrile | -40°F to +250°F (-40°C to +121°C) | ≤7000 psi (≤483 bar) | <3.3 ft/s (1 m/s) |

Similar to the **C914-style**, this is a two-piece piston seal for **Caterpillar®** specific equipment. Part numbers are for reference purposes only, we do not imply that these parts are of original equipment provenance.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|---|---|---|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | S | H | d1 | Tol. | H1 | Tol. |
| RCAT-8C9170 | 2.000 | +0.003 -0.000 | 2.000 | | | | 1.630 | +0.003 -0.003 | 0.190 | +0.002 -0.002 |
| RCAT-8C4905 | 2.280 | | 2.280 | | | | 1.875 | | 0.192 | |
| RCAT-8C4908 | 2.310 | ▼ | 2.310 | | | | 1.875 | ▼ | 0.192 | ▼ |

All manufacturer's names, part numbers and descriptions are use for reference purpose only. We do not imply that any part shown is the product of these manufacturers.

CAT TYPE3 - CAT X-ref - NYLON/NBR (STEP CUT)



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|---|---|---|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | S | H | d1 | Tol. | H1 | Tol. |
| RCAT-8C9167 | 2.500 | +0.003 -0.000 | 2.500 | | | | 2.130 | +0.003 -0.003 | 0.190 | +0.002 -0.002 |
| RCAT-8C4911 | 2.530 | | 2.530 | | | | 2.125 | | 0.192 | |
| RCAT-8C4914 | 2.560 | | 2.560 | | | | 2.125 | | 0.192 | |
| RCAT-8C4917 | 2.780 | ▼ | 2.780 | | | | 2.375 | | 0.192 | |
| RCAT-8C4920 | 2.810 | +0.004 -0.000 | 2.810 | | | | 2.375 | | 0.192 | |
| RCAT-9X7337 | 3.000 | | 3.000 | | | | 2.460 | | 0.192 | |
| RCAT-8T8209 | 3.030 | | 3.030 | | | | 2.460 | | 0.192 | |
| RCAT-8T8212 | 3.060 | | 3.060 | | | | 2.460 | | 0.192 | |
| RCAT-8C4923 | 3.280 | | 3.280 | | | | 2.710 | | 0.192 | |
| RCAT-8C4926 | 3.310 | | 3.310 | | | | 2.710 | | 0.192 | |
| RCAT-4T8054 | 3.500 | | 3.500 | | | | 2.960 | | 0.192 | |
| RCAT-8T8215 | 3.530 | | 3.530 | | | | 2.960 | | 0.192 | |
| RCAT-8T8218 | 3.560 | | 3.560 | | | | 2.960 | | 0.192 | |
| RCAT-9X7274 | 3.750 | | 3.750 | | | | 3.210 | | 0.192 | |
| RCAT-8T8221 | 3.780 | | 3.780 | | | | 3.210 | | 0.192 | |
| RCAT-8T8224 | 3.810 | | 3.810 | | | | 3.210 | | 0.192 | |
| RCAT-8C9160 | 4.000 | | 4.000 | | | | 3.335 | | 0.252 | |
| RCAT-8T8227 | 4.030 | | 4.030 | | | | 3.335 | | 0.252 | |
| RCAT-8T8230 | 4.060 | | 4.060 | | | | 3.335 | | 0.252 | |
| RCAT-8C9164 | 4.250 | | 4.250 | | | | 3.585 | | 0.252 | |
| RCAT-8T8233 | 4.280 | | 4.280 | | | | 3.585 | | 0.252 | |
| RCAT-8T8236 | 4.310 | | 4.310 | | | | 3.585 | | 0.252 | |
| RCAT-9X7269 | 4.500 | | 4.500 | | | | 3.835 | | 0.252 | |
| RCAT-4T5172 | 4.500 | | 4.500 | | | | 3.835 | | 0.502 | |
| RCAT-8T8239 | 4.530 | | 4.530 | | | | 3.835 | | 0.252 | |
| RCAT-9X4551 | 4.530 | | 4.530 | | | | 3.835 | | 0.502 | |
| RCAT-8T8242 | 4.560 | | 4.560 | | | | 3.835 | | 0.252 | |
| RCAT-4T8588 | 4.750 | | 4.750 | | | | 4.085 | | 0.252 | |
| RCAT-8C5215 | 4.750 | | 4.750 | | | | 4.085 | | 0.629 | |
| RCAT-8T8245 | 4.780 | | 4.780 | | | | 4.085 | | 0.252 | |
| RCAT-8T8248 | 4.810 | | 4.810 | | | | 4.085 | | 0.252 | |
| RCAT-9X7264 | 5.000 | | 5.000 | | | | 4.225 | | 0.379 | |
| RCAT-8T0776 | 5.000 | | 5.000 | | | | 4.440 | | 0.280 | |
| RCAT-8T1787 | 5.000 | | 5.000 | | | | 4.225 | | 0.629 | |
| RCAT-8T8251 | 5.030 | | 5.030 | | | | 4.225 | | 0.379 | |
| RCAT-8T8254 | 5.060 | | 5.060 | | | | 4.225 | | 0.379 | |
| RCAT-8T0763 | 5.250 | | 5.250 | | | | 4.475 | | 0.379 | |
| RCAT-8T8257 | 5.280 | | 5.280 | | | | 4.475 | | 0.379 | |
| RCAT-8T8260 | 5.310 | | 5.310 | | | | 4.475 | | 0.379 | |
| RCAT-6E0465 | 5.500 | | 5.500 | | | | 4.725 | | 0.379 | |
| RCAT-4T5173 | 5.500 | | 5.500 | | | | 4.725 | | 0.629 | |
| RCAT-8T8263 | 5.530 | | 5.530 | | | | 4.725 | | 0.379 | |
| RCAT-9X4563 | 5.530 | | 5.530 | | | | 4.725 | | 0.629 | |
| RCAT-8T8266 | 5.560 | | 5.560 | | | | 4.725 | | 0.379 | |
| RCAT-8C9173 | 6.000 | | 6.000 | | | | 5.095 | | 0.379 | |
| RCAT-4T4144 | 6.000 | ▼ | 6.000 | | | | 5.095 | ▼ | 0.629 | ▼ |

All manufacturer's names, part numbers and descriptions are use for reference purpose only.
We do not imply that any part shown is the product of these manufacturers.

CAT TYPE3 - CAT X-ref - NYLON/NBR (STEP CUT)

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|---|---|---|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | S | H | d1 | Tol. | H1 | Tol. |
| RCAT-8T8269 | 6.030 | +0.004 -0.000 | 6.030 | | | | 5.095 | +0.003 -0.003 | 0.379 | +0.002 -0.002 |
| RCAT-8C4929 | 6.030 | | 6.030 | | | | 5.095 | | 0.629 | |
| RCAT-8T8272 | 6.060 | | 6.060 | | | | 5.095 | | 0.379 | |
| RCAT-8C4932 | 6.060 | | 6.060 | | | | 5.095 | | 0.629 | |
| RCAT-8T1788 | 6.250 | | 6.250 | | | | 5.345 | | 0.629 | |
| RCAT-8T8275 | 6.280 | | 6.280 | | | | 5.345 | | 0.379 | |
| RCAT-8C4935 | 6.280 | | 6.280 | | | | 5.345 | | 0.629 | |
| RCAT-8T8278 | 6.310 | | 6.310 | | | | 5.345 | | 0.379 | |
| RCAT-8C4938 | 6.310 | | 6.310 | | | | 5.345 | | 0.629 | |
| RCAT-4T8695 | 6.500 | | 6.500 | | | | 5.595 | | 0.629 | |
| RCAT-8T8281 | 6.530 | | 6.530 | | | | 5.595 | | 0.379 | |
| RCAT-8C4941 | 6.530 | | 6.530 | | | | 5.595 | | 0.629 | |
| RCAT-8T8284 | 6.560 | | 6.560 | | | | 5.595 | | 0.379 | |
| RCAT-8C4944 | 6.560 | ▼ | 6.560 | | | | 5.595 | | 0.629 | |
| RCAT-8T1789 | 7.000 | +0.005 -0.000 | 7.000 | | | | 6.095 | | 0.629 | |
| RCAT-8T8287 | 7.030 | | 7.030 | | | | 6.095 | | 0.379 | |
| RCAT-8C5100 | 7.030 | | 7.030 | | | | 6.095 | | 0.629 | |
| RCAT-8T8290 | 7.060 | | 7.060 | | | | 6.095 | | 0.379 | |
| RCAT-8C5103 | 7.060 | | 7.060 | | | | 6.095 | | 0.629 | |
| RCAT-8T1790 | 7.250 | | 7.250 | | | | 6.345 | | 0.629 | |
| RCAT-8T8293 | 7.280 | | 7.280 | | | | 6.345 | | 0.379 | |
| RCAT-8C5112 | 7.280 | | 7.280 | | | | 6.345 | | 0.629 | |
| RCAT-8T8296 | 7.310 | | 7.310 | | | | 6.345 | | 0.379 | |
| RCAT-8C5115 | 7.310 | | 7.310 | | | | 6.345 | | 0.629 | |
| RCAT-8T1791 | 7.500 | | 7.500 | | | | 6.595 | | 0.629 | |
| RCAT-8C0558 | 7.530 | | 7.530 | | | | 6.595 | | 0.379 | |
| RCAT-8C5118 | 7.530 | | 7.530 | | | | 6.595 | | 0.629 | |
| RCAT-8C0561 | 7.560 | | 7.560 | | | | 6.595 | | 0.379 | |
| RCAT-8C5121 | 7.560 | | 7.560 | | | | 6.595 | | 0.629 | |
| RCAT-8T1792 | 7.750 | | 7.750 | | | | 6.845 | | 0.629 | |
| RCAT-8C5124 | 7.780 | | 7.780 | | | | 6.845 | | 0.629 | |
| RCAT-8C5127 | 7.810 | | 7.810 | | | | 6.845 | | 0.629 | |
| RCAT-8T1793 | 8.250 | | 8.250 | | | | 7.255 | | 0.629 | |
| RCAT-8T8299 | 8.280 | | 8.280 | | | | 7.255 | | 0.379 | |
| RCAT-8C5130 | 8.280 | | 8.280 | | | | 7.255 | | 0.629 | |
| RCAT-8T8302 | 8.310 | | 8.310 | | | | 7.255 | | 0.379 | |
| RCAT-8C5133 | 8.310 | | 8.310 | | | | 7.255 | | 0.629 | |
| RCAT-9T0119 | 8.500 | | 8.500 | | | | 7.505 | | 0.629 | |
| RCAT-8C5136 | 8.530 | | 8.530 | | | | 7.505 | | 0.629 | |
| RCAT-8C5139 | 8.560 | | 8.560 | | | | 7.505 | | 0.629 | |
| RCAT-4T4143 | 9.250 | | 9.250 | | | | 8.255 | | 0.379 | |
| RCAT-8T8305 | 9.280 | | 9.280 | | | | 8.255 | | 0.379 | |
| RCAT-8T8384 | 9.310 | | 9.310 | | | | 8.255 | | 0.379 | |
| RCAT-9X7321 | 9.500 | | 9.500 | | | | 8.506 | | 0.379 | |
| RCAT-8T1794 | 10.000 | | 10.000 | | | | 8.880 | | 0.690 | |
| RCAT-8C5142 | 10.030 | ▼ | 10.030 | | | | 8.880 | ▼ | 0.690 | ▼ |

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CAT TYPE3 - CAT X-ref - NYLON/NBR (STEP CUT)

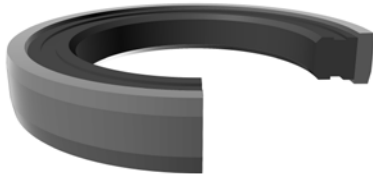
| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|---|---|---|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | S | H | d1 | Tol. | H1 | Tol. |
| RCAT-8C5145 | 10.060 | +0.005 -0.000 | 10.060 | | | | 8.880 | +0.003 -0.003 | 0.690 | +0.002 -0.002 |
| RCAT-8T1795 | 10.250 | | 10.250 | | | | 9.130 | | 0.690 | |
| RCAT-8C5148 | 10.280 | | 10.280 | | | | 9.130 | | 0.690 | |
| RCAT-8C5151 | 10.310 | ▼ | 10.310 | | | | 9.130 | | 0.690 | |
| RCAT-8T1796 | 10.500 | +0.006 -0.000 | 10.500 | | | | 9.380 | | 0.690 | |
| RCAT-8C5154 | 10.530 | | 10.530 | | | | 9.380 | | 0.690 | |
| RCAT-8C5157 | 10.560 | | 10.560 | | | | 9.380 | | 0.690 | |
| RCAT-1080125 | 11.000 | | 11.000 | | | | 9.880 | | 0.690 | |
| RCAT-1293706 | 11.030 | | 11.030 | | | | 9.880 | | 0.690 | |
| RCAT-8T1797 | 11.500 | | 11.500 | | | | 10.380 | | 0.690 | |
| RCAT-8C5160 | 11.530 | | 11.530 | | | | 10.380 | | 0.690 | |
| RCAT-8C5163 | 11.560 | | 11.560 | | | | 10.380 | | 0.690 | |
| RCAT-9X7326 | 12.000 | | 12.000 | | | | 10.880 | | 0.690 | |
| RCAT-6E0307 | 12.500 | | 12.500 | | | | 11.380 | | 0.690 | |
| RCAT-1293712 | 12.530 | | 12.530 | | | | 11.380 | | 0.690 | |
| RCAT-1086211 | 13.000 | | 13.000 | | | | 11.880 | | 0.690 | |
| RCAT-1293709 | 13.030 | | 13.030 | | | | 11.880 | | 0.690 | |
| RCAT-1214185 | 13.500 | | 13.500 | | | | 12.400 | | 0.690 | |
| RCAT-1301857 | 13.530 | ▼ | 13.530 | | | | 12.400 | ▼ | 0.690 | ▼ |

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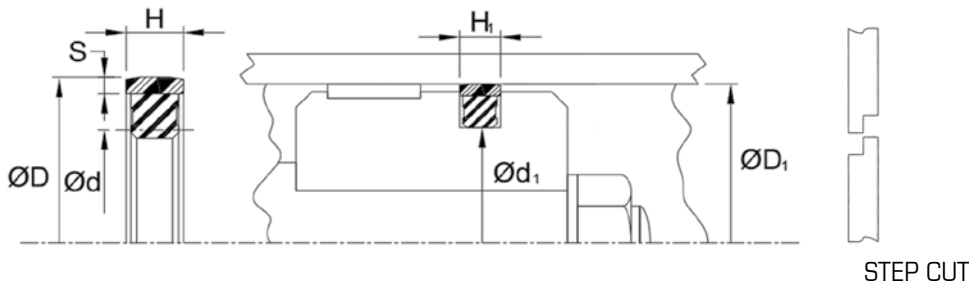
PISTON SEALS



HDP 330 - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|-------------------|
| Nylon/Nitrile | -22°F to +212°F (-30°C to +100°C) | ≤8700 psi (≤600 bar) | <3 ft/s (0.9 m/s) |



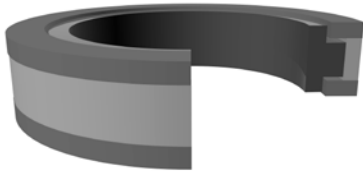
The **HDP 330** piston seal is a two-part seal set consisting of a stepped-cut thermoset sliding ring with an elastomeric loader ring. The special polyamide ring withstands the most extreme pressures and also allows for rougher cylinder bores, which can reduce production costs. Its stepped-cut design and profiled expander ring make it especially easy to install.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

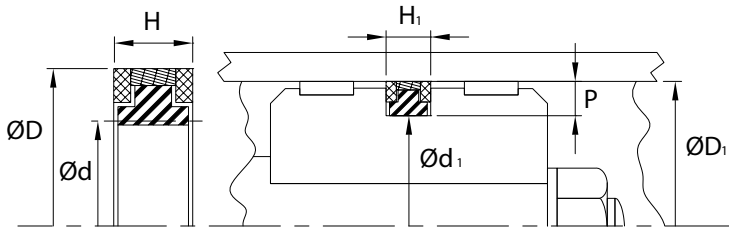
| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|---|---|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | S | H | d1 | Tol. | H1 | Tol. |
| HDP02000-281 | 2.000 | +0.003 -0.000 | 2.000 | | | 0.105 | 1.462 | +0.000 -0.005 | 0.281 | +0.005 -0.000 |
| HDP02000-312 | 2.000 | | 2.000 | | | 0.125 | 1.408 | | 0.312 | |
| HDP02500-281 | 2.500 | | 2.500 | | | 0.105 | 1.962 | | 0.281 | |
| HDP02500-312 | 2.500 | ▼ | 2.500 | | | 0.125 | 1.908 | | 0.312 | |
| HDP03000-281 | 3.000 | +0.004 -0.000 | 3.000 | | | 0.125 | 2.442 | | 0.281 | |
| HDP03000-312 | 3.000 | | 3.000 | | | 0.125 | 2.408 | | 0.312 | |
| HDP03250-281 | 3.250 | | 3.250 | | | 0.125 | 2.692 | | 0.281 | |
| HDP03500-281 | 3.500 | | 3.500 | | | 0.125 | 2.942 | | 0.281 | |
| HDP03500-312 | 3.500 | | 3.500 | | | 0.125 | 2.908 | | 0.312 | |
| HDP04000-281 | 4.000 | | 4.000 | | | 0.125 | 3.442 | | 0.281 | |
| HDP04000-312 | 4.000 | | 4.000 | | | 0.125 | 3.408 | | 0.312 | |
| HDP04500-281 | 4.500 | | 4.500 | | | 0.125 | 3.942 | | 0.281 | |
| HDP04500-312 | 4.500 | | 4.500 | | | 0.125 | 3.908 | | 0.312 | |
| HDP05000-281 | 5.000 | | 5.000 | | | 0.125 | 4.442 | | 0.281 | |
| HDP05000-375 | 5.000 | | 5.000 | | | 0.125 | 4.240 | | 0.375 | |
| HDP05500-375 | 5.500 | | 5.500 | | | 0.125 | 4.740 | | 0.375 | |
| HDP06000-375 | 6.000 | | 6.000 | | | 0.125 | 5.240 | | 0.375 | |
| HDP06500-375 | 6.500 | ▼ | 6.500 | | | 0.125 | 5.740 | | 0.375 | |
| HDP07000-375 | 7.000 | +0.005 -0.000 | 7.000 | | | 0.125 | 6.240 | | 0.375 | |
| HDP07500-375 | 7.500 | | 7.500 | | | 0.125 | 6.740 | | 0.375 | |
| HDP08000-375 | 8.000 | ▼ | 8.000 | | | 0.125 | 7.240 | ▼ | 0.375 | ▼ |



CTS - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-----------------------------|--------------------------------------|-------------------------|-------------------|
| GF/M.PTFE/ Nylon/Nitrile | -30°F to +230°F (-22°C to +110°C) | ≤6500 psi (≤448 bar) | <5 ft/s (1.5 m/s) |



The **CTS-style** is a four-piece assembly made up of a rubber energizer, a PTFE cap and two anti-extrusion rings. A low-friction, low wear seal with high extrusion resistance, this seal is an excellent choice for sealing mobile hydraulic applications that experience shock loads.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| CTS-01000 | 1.000 | +0.002 -0.000 | 1.000 | 0.625 | 0.397 | 0.627 | +0.000 -0.002 | 0.424 | +0.010 -0.000 |
| CTS-01250 | 1.250 | | 1.250 | 0.875 | 0.397 | 0.877 | | 0.424 | |
| CTS-01500 | 1.500 | | 1.500 | 1.125 | 0.397 | 1.127 | | 0.424 | |
| CTS-01750 | 1.750 | | 1.750 | 1.375 | 0.397 | 1.377 | | 0.424 | |
| CTS-02000 | 2.000 | | 2.000 | 1.625 | 0.397 | 1.627 | | 0.424 | |
| CTS-02250 | 2.250 | | 2.250 | 1.875 | 0.397 | 1.877 | | 0.424 | |
| CTS-02500 | 2.500 | | 2.500 | 2.125 | 0.397 | 2.127 | | 0.424 | |
| CTS-02750 | 2.750 | ▼ | 2.750 | 2.375 | 0.397 | 2.377 | | 0.424 | |
| CTS-03000 | 3.000 | +0.003 -0.000 | 3.000 | 2.520 | 0.557 | 5.522 | ▼ | 0.579 | |
| CTS-03250 | 3.250 | | 3.250 | 2.770 | 0.557 | 2.772 | +0.000 -0.003 | 0.579 | |
| CTS-03500 | 3.500 | | 3.500 | 3.020 | 0.557 | 3.022 | | 0.579 | |
| CTS-03750 | 3.750 | | 3.750 | 3.270 | 0.557 | 3.272 | | 0.579 | |
| CTS-04000 | 4.000 | | 4.000 | 3.520 | 0.557 | 3.522 | | 0.579 | |
| CTS-04250 | 4.250 | | 4.250 | 3.770 | 0.557 | 3.772 | | 0.579 | |
| CTS-04500 | 4.500 | | 4.500 | 4.020 | 0.557 | 4.022 | | 0.579 | |
| CTS-04500-1 | 4.500 | ▼ | 4.500 | 3.909 | 0.472 | 3.909 | ▼ | 0.492 | |
| CTS-04500-2 | 4.500 | +0.004 -0.000 | 4.500 | 3.830 | 0.480 | 3.830 | +0.005/-0.000 | 0.500 | |
| CTS-04750 | 4.750 | | 4.750 | 4.159 | 0.472 | 4.159 | +0.000 -0.004 | 0.492 | |
| CTS-04750-1 | 4.750 | | 4.750 | 4.272 | 0.559 | 4.272 | | 0.579 | |
| CTS-05000 | 5.000 | | 5.000 | 4.270 | 0.730 | 4.274 | | 0.750 | |
| CTS-05000-1 | 5.000 | | 5.000 | 4.094 | 0.610 | 4.094 | ▼ | 0.630 | |
| CTS-05000-2 | 5.000 | | 5.000 | 4.220 | 0.620 | 4.220 | +0.005/-0.000 | 0.640 | |
| CTS-05250 | 5.250 | | 5.250 | 4.520 | 0.730 | 4.524 | +0.000 -0.004 | 0.750 | |
| CTS-05500 | 5.500 | | 5.500 | 4.770 | 0.730 | 4.774 | | 0.750 | |
| CTS-05500-1 | 5.500 | | 5.500 | 5.022 | 0.559 | 5.022 | | 0.579 | |
| CTS-05500-2 | 5.500 | ▼ | 5.500 | 4.594 | 0.610 | 4.594 | ▼ | 0.630 | ▼ |



CTS series - GF/M.PTFE/NYLON/NBR

PISTON SEALS

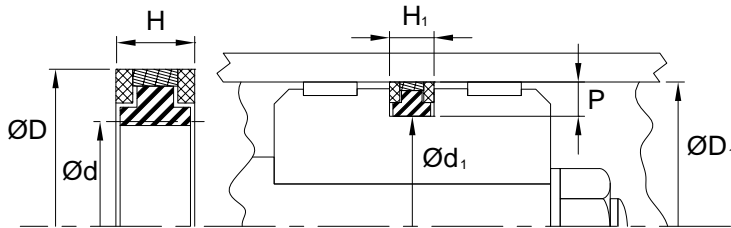


| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| CTS-05500-3 | 5.500 | +0.004 -0.000 | 5.500 | 4.720 | 0.620 | 4.720 | +0.005/-0.000 | 0.640 | +0.010 -0.000 |
| CTS-05750 | 5.750 | | 5.750 | 5.022 | 0.730 | 5.024 | +0.000 -0.004 | 0.750 | |
| CTS-06000 | 6.000 | | 6.000 | 5.274 | 0.730 | 5.274 | | 0.750 | |
| CTS-06000-1 | 6.000 | | 6.000 | 5.090 | 0.620 | 5.090 | +0.005/-0.000 | 0.640 | |
| CTS-06000-1 | 6.250 | | 6.250 | 5.772 | 0.559 | 5.772 | +0.000/-0.004 | 0.579 | |
| CTS-06000-2 | 6.250 | | 6.250 | 5.340 | 0.620 | 5.340 | +0.005/-0.000 | 0.640 | |
| CTS-06250 | 6.250 | | 6.250 | 5.520 | 0.730 | 5.524 | +0.000 -0.004 | 0.750 | |
| CTS-06500 | 6.500 | | 6.500 | 5.770 | 0.730 | 5.774 | | 0.750 | |
| CTS-06500-1 | 6.500 | | 6.500 | 6.022 | 0.559 | 6.022 | ↓ | 0.579 | |
| CTS-06500-2 | 6.500 | | 6.500 | 5.590 | 0.620 | 5.590 | +0.005/-0.000 | 0.640 | |
| CTS-06750 | 6.750 | | 6.750 | 6.022 | 0.730 | 6.024 | +0.000 -0.004 | 0.750 | |
| CTS-07000 | 7.000 | ↓ | 7.000 | 6.270 | 0.730 | 6.274 | | 0.750 | |
| CTS-07000-1 | 7.000 | +0.005 -0.000 | 7.000 | 6.090 | 0.620 | 6.090 | +0.005/-0.000 | 0.640 | |
| CTS-07250 | 7.250 | | 7.250 | 6.520 | 0.730 | 6.524 | +0.000/-0.004 | 0.750 | |
| CTS-07250-1 | 7.250 | | 7.250 | 6.340 | 0.620 | 6.340 | +0.005/-0.000 | 0.640 | |
| CTS-07500 | 7.500 | | 7.500 | 6.770 | 0.730 | 6.774 | +0.000/-0.004 | 0.750 | |
| CTS-07500-1 | 7.500 | | 7.500 | 6.590 | 0.620 | 6.590 | +0.005/-0.000 | 0.640 | |
| CTS-07750 | 7.750 | | 7.750 | 7.022 | 0.730 | 7.024 | +0.000/-0.004 | 0.750 | |
| CTS-07750-1 | 7.750 | | 7.750 | 6.840 | 0.620 | 6.840 | +0.005/-0.000 | 0.640 | |
| CTS-08000 | 8.000 | | 8.000 | 7.270 | 0.730 | 7.274 | +0.000 -0.004 | 0.750 | |
| CTS-08250 | 8.250 | | 8.250 | 7.520 | 0.730 | 7.524 | | 0.750 | |
| CTS-08250-1 | 8.250 | | 8.250 | 7.344 | 0.610 | 7.344 | ↓ | 0.630 | |
| CTS-08250-2 | 8.250 | | 8.250 | 7.250 | 0.620 | 7.250 | +0.005/-0.000 | 0.640 | |
| CTS-08500 | 8.500 | | 8.500 | 7.770 | 0.730 | 7.774 | +0.000 -0.004 | 0.750 | |
| CTS-08500-1 | 8.500 | | 8.500 | 7.594 | 0.610 | 7.594 | | 0.630 | |
| CTS-08500-2 | 8.500 | | 8.500 | 7.500 | 0.620 | 7.500 | +0.005/-0.000 | 0.640 | |
| CTS-08750 | 8.750 | | 8.750 | 8.022 | 0.730 | 8.024 | +0.000 -0.004 | 0.750 | |
| CTS-09000 | 9.000 | | 9.000 | 8.270 | 0.730 | 8.274 | | 0.750 | |
| CTS-09500 | 9.500 | | 9.500 | 8.770 | 0.730 | 8.774 | ↓ | 0.750 | |
| CTS-10000 | 10.000 | | 10.000 | 9.270 | 0.730 | 9.275 | ↓ | 0.750 | |
| CTS-10000-1 | 10.000 | | 10.000 | 8.880 | 0.670 | 8.880 | +0.005 -0.000 | 0.690 | |
| CTS-10250 | 10.250 | | 10.250 | 9.130 | 0.670 | 9.130 | ↓ | 0.690 | |
| CTS-10500 | 10.500 | | 10.500 | 9.380 | 0.670 | 9.380 | ↓ | 0.690 | |
| CTS-11000 | 11.000 | | 11.000 | 10.270 | 0.730 | 10.275 | +0.000 -0.004 | 0.750 | |
| CTS-11500 | 11.500 | | 11.500 | 10.770 | 0.730 | 10.774 | | 0.750 | |
| CTS-11500-1 | 11.500 | | 11.500 | 10.380 | 0.670 | 10.380 | +0.005/-0.000 | 0.690 | |
| CTS-12000 | 12.000 | | 12.000 | 11.270 | 0.730 | 11.275 | +0.000 -0.004 | 0.750 | |
| CTS-12500 | 12.500 | | 12.500 | 11.775 | 0.730 | 11.775 | | 0.750 | |
| CTS-13000 | 13.000 | | 13.000 | 12.270 | 0.730 | 12.275 | | 0.750 | |
| CTS-13500 | 13.500 | | 13.500 | 12.770 | 0.730 | 12.775 | | 0.750 | |
| CTS-14000 | 14.000 | | 14.000 | 13.275 | 0.730 | 13.275 | | 0.750 | |
| CTS-14000-1 | 14.000 | ↓ | 14.000 | 12.898 | 0.667 | 12.898 | | 0.687 | |
| CTS-14500 | 14.500 | +0.006 -0.000 | 14.500 | 13.770 | 0.730 | 13.775 | | 0.750 | |
| CTS-15000 | 15.000 | | 15.000 | 14.270 | 0.730 | 14.275 | | 0.750 | |
| CTS-16000 | 16.000 | | 16.000 | 15.270 | 0.730 | 15.275 | | 0.750 | |
| CTS-18000 | 18.000 | ↓ | 18.000 | 17.060 | 0.730 | 17.060 | ↓ | 0.750 | ↓ |

CAT TYPE-4 - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-----------------------------|--------------------------------------|-------------------------|-------------------|
| GF/M.PTFE/ Nylon/Nitrile | -30°F to +230°F (-22°C to +110°C) | ≤6500 psi (≤448 bar) | <5 ft/s (1.5 m/s) |



Similar to the **CTS-style**, this is a four-piece piston seal for **Caterpillar®** specific equipment. Part numbers are for reference purposes only. We do not imply that these parts are of original equipment provenance.

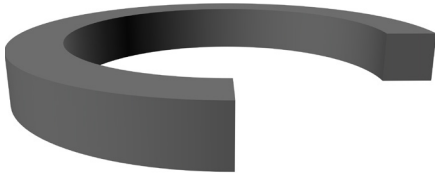
Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-------------|---------------|------------------|-------------------------|---|---|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| RCAT-8J3747 | 4.500 | +0.004 -0.000 | 4.500 | | | 3.830 | +0.005 -0.000 | 0.500 | +0.010 -0.000 |
| RCAT-9J7868 | 5.000 | | 5.000 | | | 4.220 | | 0.640 | |
| RCAT-8J8767 | 5.500 | | 5.500 | | | 4.720 | | 0.640 | |
| RCAT-9J1242 | 6.000 | | 6.000 | | | 5.090 | | 0.640 | |
| RCAT-9J5558 | 6.250 | | 6.250 | | | 5.340 | | 0.640 | |
| RCAT-8J8703 | 6.500 | | 6.500 | | | 5.590 | | 0.640 | |
| RCAT-8J3749 | 7.000 | +0.005 -0.000 | 7.000 | | | 6.090 | | 0.640 | |
| RCAT-8J4510 | 7.250 | | 7.250 | | | 6.340 | | 0.640 | |
| RCAT-9J5567 | 7.500 | | 7.500 | | | 6.590 | | 0.640 | |
| RCAT-8J5644 | 7.750 | | 7.750 | | | 6.840 | | 0.640 | |
| RCAT-8J4390 | 8.250 | | 8.250 | | | 7.250 | | 0.640 | |
| RCAT-3G4762 | 8.500 | | 8.500 | | | 7.500 | | 0.640 | |
| RCAT-9J3406 | 10.000 | | 10.000 | | | 8.880 | | 0.690 | |
| RCAT-3G0889 | 10.250 | | 10.250 | | | 9.130 | | 0.690 | |
| RCAT-3G4765 | 10.500 | | 10.500 | | | 9.380 | | 0.690 | |
| RCAT-9J2987 | 11.500 | +0.006 -0.000 | 11.500 | | | 10.380 | | 0.690 | |

All manufacturer's names, part numbers and descriptions are use for reference purpose only. We do not imply that any part shown is the product of these manufacturers.

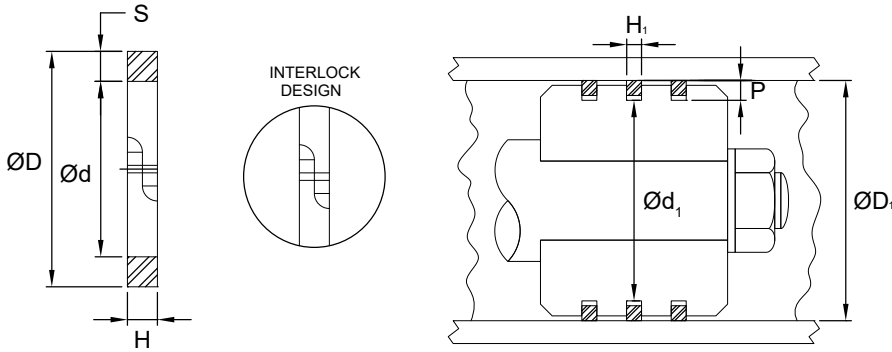


P1000 - Piston rings - Inch



| Standard Material |
|----------------------|
| Cast or ductile iron |

PISTON SEALS



These metallic piston rings are low wear, highly extrusion resistant seals used in hydraulic applications. They are bi-directional in use, and can pass open ports without clipping the joint tips.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Nominal Bore Diameter | Depth P + .003/ -.000 | Nominal Bore Diameter | Depth P + .003/ -.000 | Nominal Bore Diameter | Depth P + .003/ -.000 | Nominal Bore Diameter | Depth P + .003/ -.000 |
|-----------------------|--------------------------|-----------------------|--------------------------|-----------------------|--------------------------|-----------------------|--------------------------|
| 1.000 | 0.065 | 3.000 | 0.160 | 6.000 | 0.256 | 10.500 | 0.405 |
| 1.125 | 0.070 | 3.125 | 0.165 | 6.250 | 0.258 | 11.000 | 0.420 |
| 1.250 | 0.075 | 3.250 | 0.168 | 6.500 | 0.276 | 11.500 | 0.436 |
| 1.375 | 0.085 | 3.375 | 0.171 | 6.750 | 0.284 | 12.000 | 0.446 |
| 1.500 | 0.107 | 3.500 | 0.176 | 7.000 | 0.293 | 12.500 | 0.457 |
| 1.625 | 0.116 | 3.625 | 0.179 | 7.250 | 0.302 | 13.000 | 0.470 |
| 1.750 | 0.120 | 3.750 | 0.185 | 7.500 | 0.309 | 13.500 | 0.480 |
| 1.875 | 0.125 | 3.875 | 0.195 | 7.750 | 0.307 | 14.000 | 0.500 |
| 2.000 | 0.125 | 4.000 | 0.194 | 8.000 | 0.325 | 14.500 | 0.520 |
| 2.125 | 0.130 | 4.250 | 0.203 | 8.250 | 0.333 | 15.000 | 0.537 |
| 2.250 | 0.135 | 4.500 | 0.213 | 8.500 | 0.340 | 15.500 | 0.545 |
| 2.375 | 0.141 | 4.750 | 0.221 | 8.750 | 0.349 | 16.000 | 0.560 |
| 2.500 | 0.147 | 5.000 | 0.230 | 9.000 | 0.359 | 16.500 | 0.580 |
| 2.625 | 0.152 | 5.250 | 0.234 | 9.250 | 0.365 | 17.000 | 0.592 |
| 2.750 | 0.156 | 5.500 | 0.240 | 9.500 | 0.370 | 17.500 | 0.610 |
| 2.875 | 0.158 | 5.750 | 0.249 | 10.000 | 0.382 | 18.000 | 0.625 |

| Nominal Piston Ring width | Width H1 + .003/ -.000 |
|---------------------------|---------------------------|
| 1/8 | 0.125 |
| 3/16 | 0.188 |
| 1/4 | 0.250 |
| 5/16 | 0.313 |
| 3/8 | 0.375 |
| 1/2 | 0.500 |
| 5/8 | 0.625 |
| 3/4 | 0.750 |
| 7/8 | 0.875 |
| 1 | 1.000 |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |



P1000 series - CAST IRON



| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | |
|-------------|---------------|-----------------|-------------------------|---------------|
| | D1 | Tol. | S | H |
| P1001 | 1.500 | +0.003 -.000 | 0.052 - 0.067 | 0.123 - 0.124 |
| P1001-03 | 1.500 | | 0.052 - 0.067 | 0.093 - 0.094 |
| P1001-06 | 1.500 | | 0.052 - 0.067 | 0.186 - 0.187 |
| P1002 | 1.625 | | 0.056 - 0.071 | 0.123 - 0.124 |
| P1002-03 | 1.625 | | 0.056 - 0.071 | 0.093 - 0.094 |
| P1002-06 | 1.625 | | 0.056 - 0.071 | 0.186 - 0.187 |
| P1003 | 1.750 | | 0.060 - 0.075 | 0.123 - 0.124 |
| P1003-03 | 1.750 | | 0.060 - 0.075 | 0.093 - 0.094 |
| P1003-06 | 1.750 | | 0.060 - 0.075 | 0.186 - 0.187 |
| P1004 | 1.875 | | 0.060 - 0.075 | 0.123 - 0.124 |
| P1004-03 | 1.875 | | 0.060 - 0.075 | 0.093 - 0.094 |
| P1004-06 | 1.875 | | 0.060 - 0.075 | 0.186 - 0.187 |
| P1005 | 2.000 | | 0.060 - 0.075 | 0.123 - 0.124 |
| P1005-03 | 2.000 | | 0.060 - 0.075 | 0.093 - 0.094 |
| P1005-06 | 2.000 | | 0.060 - 0.075 | 0.186 - 0.187 |
| P1006 | 2.125 | | 0.065 - 0.080 | 0.186 - 0.187 |
| P1006-03 | 2.125 | | 0.065 - 0.080 | 0.093 - 0.094 |
| P1006-04 | 2.125 | | 0.065 - 0.080 | 0.123 - 0.124 |
| P1006-08 | 2.125 | | 0.065 - 0.080 | 0.248 - 0.249 |
| P1007 | 2.250 | | 0.070 - 0.085 | 0.186 - 0.187 |
| P1007-03 | 2.250 | | 0.070 - 0.085 | 0.093 - 0.094 |
| P1007-04 | 2.250 | | 0.070 - 0.085 | 0.123 - 0.124 |
| P1007-08 | 2.250 | | 0.070 - 0.085 | 0.248 - 0.249 |
| P1008 | 2.375 | | 0.076 - 0.091 | 0.186 - 0.187 |
| P1008-03 | 2.375 | | 0.076 - 0.091 | 0.093 - 0.094 |
| P1008-04 | 2.375 | | 0.076 - 0.091 | 0.123 - 0.124 |
| P1008-08 | 2.375 | | 0.076 - 0.091 | 0.248 - 0.249 |
| P1009 | 2.500 | | 0.082 - 0.097 | 0.186 - 0.187 |
| P1009-03 | 2.500 | | 0.082 - 0.097 | 0.093 - 0.094 |
| P1009-04 | 2.500 | | 0.082 - 0.097 | 0.123 - 0.124 |
| P1009-08 | 2.500 | | 0.082 - 0.097 | 0.248 - 0.249 |
| P1010 | 2.625 | | 0.087 - 0.102 | 0.186 - 0.187 |
| P1010-03 | 2.625 | | 0.087 - 0.102 | 0.093 - 0.094 |
| P1010-04 | 2.625 | | 0.087 - 0.102 | 0.123 - 0.124 |
| P1010-08 | 2.625 | | 0.087 - 0.102 | 0.248 - 0.249 |
| P1011 | 2.750 | | 0.091 - 0.106 | 0.186 - 0.187 |
| P1011-03 | 2.750 | | 0.091 - 0.106 | 0.093 - 0.094 |
| P1011-04 | 2.750 | | 0.091 - 0.106 | 0.123 - 0.124 |
| P1011-08 | 2.750 | | 0.091 - 0.106 | 0.248 - 0.249 |
| P1012 | 2.875 | | 0.093 - 0.108 | 0.186 - 0.187 |
| P1012-04 | 2.875 | | 0.093 - 0.108 | 0.123 - 0.124 |
| P1012-08 | 2.875 | ▼ | 0.093 - 0.108 | 0.248 - 0.249 |
| P1013 | 3.000 | +0.004 -.000 | 0.095 - 0.110 | 0.186 - 0.187 |
| P1013-04 | 3.000 | | 0.095 - 0.110 | 0.123 - 0.124 |
| P1013-08 | 3.000 | | 0.095 - 0.110 | 0.248 - 0.249 |
| P1013-10 | 3.000 | ▼ | 0.095 - 0.110 | 0.310 - 0.311 |

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | |
|-------------|---------------|-----------------|-------------------------|---------------|
| | D1 | Tol. | S | H |
| P1014 | 3.125 | +0.004 -.000 | 0.100 - 0.115 | 0.186 - 0.187 |
| P1014-04 | 3.125 | | 0.100 - 0.115 | 0.123 - 0.124 |
| P1014-08 | 3.125 | | 0.100 - 0.115 | 0.248 - 0.249 |
| P1014-10 | 3.125 | | 0.100 - 0.115 | 0.310 - 0.311 |
| P1015 | 3.250 | | 0.103 - 0.118 | 0.186 - 0.187 |
| P1015-04 | 3.250 | | 0.103 - 0.118 | 0.123 - 0.124 |
| P1015-08 | 3.250 | | 0.103 - 0.118 | 0.248 - 0.249 |
| P1015-10 | 3.250 | | 0.103 - 0.118 | 0.310 - 0.311 |
| P1016 | 3.375 | | 0.106 - 0.121 | 0.186 - 0.187 |
| P1016-04 | 3.375 | | 0.106 - 0.121 | 0.123 - 0.124 |
| P1016-08 | 3.375 | | 0.106 - 0.121 | 0.248 - 0.249 |
| P1016-10 | 3.375 | | 0.106 - 0.121 | 0.310 - 0.311 |
| P1017 | 3.500 | | 0.109 - 0.124 | 0.186 - 0.187 |
| P1017-04 | 3.500 | | 0.109 - 0.124 | 0.123 - 0.124 |
| P1017-08 | 3.500 | | 0.109 - 0.124 | 0.248 - 0.249 |
| P1017-10 | 3.500 | | 0.109 - 0.124 | 0.310 - 0.311 |
| P1018 | 3.625 | | 0.112 - 0.127 | 0.186 - 0.187 |
| P1018-04 | 3.625 | | 0.112 - 0.127 | 0.123 - 0.124 |
| P1018-08 | 3.625 | | 0.112 - 0.127 | 0.248 - 0.249 |
| P1018-10 | 3.625 | | 0.112 - 0.127 | 0.310 - 0.311 |
| P1019 | 3.750 | | 0.115 - 0.130 | 0.248 - 0.249 |
| P1019-04 | 3.750 | | 0.115 - 0.130 | 0.123 - 0.124 |
| P1019-06 | 3.750 | | 0.115 - 0.130 | 0.186 - 0.187 |
| P1019-10 | 3.750 | | 0.115 - 0.130 | 0.310 - 0.311 |
| P1020 | 3.875 | | 0.123 - 0.138 | 0.248 - 0.249 |
| P1020-04 | 3.875 | | 0.123 - 0.138 | 0.123 - 0.124 |
| P1020-06 | 3.875 | | 0.123 - 0.138 | 0.186 - 0.187 |
| P1020-10 | 3.875 | | 0.123 - 0.138 | 0.310 - 0.311 |
| P1021 | 4.000 | | 0.127 - 0.142 | 0.248 - 0.249 |
| P1021-04 | 4.000 | | 0.127 - 0.142 | 0.123 - 0.124 |
| P1021-06 | 4.000 | | 0.127 - 0.142 | 0.186 - 0.187 |
| P1021-10 | 4.000 | | 0.127 - 0.142 | 0.310 - 0.311 |
| P1022 | 4.250 | | 0.135 - 0.150 | 0.248 - 0.249 |
| P1022-04 | 4.250 | | 0.135 - 0.150 | 0.123 - 0.124 |
| P1022-06 | 4.250 | | 0.135 - 0.150 | 0.186 - 0.187 |
| P1022-10 | 4.250 | | 0.135 - 0.150 | 0.310 - 0.311 |
| P1023 | 4.500 | | 0.145 - 0.160 | 0.248 - 0.249 |
| P1023-04 | 4.500 | | 0.145 - 0.160 | 0.123 - 0.124 |
| P1023-06 | 4.500 | | 0.145 - 0.160 | 0.186 - 0.187 |
| P1023-10 | 4.500 | | 0.145 - 0.160 | 0.310 - 0.311 |
| P1023-12 | 4.500 | | 0.145 - 0.160 | 0.372 - 0.373 |
| P1023-16 | 4.500 | | 0.145 - 0.160 | 0.497 - 0.498 |
| P1024 | 4.750 | | 0.152 - 0.167 | 0.248 - 0.249 |
| P1024-04 | 4.750 | | 0.152 - 0.167 | 0.123 - 0.124 |
| P1024-06 | 4.750 | | 0.152 - 0.167 | 0.186 - 0.187 |
| P1024-10 | 4.750 | ▼ | 0.152 - 0.167 | 0.310 - 0.311 |

P1000 series - CAST IRON

PISTON SEALS



| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | |
|-------------|---------------|------------------|-------------------------|---------------|
| | D1 | Tol. | S | H |
| P1024-12 | 4.750 | +0.004 -0.000 | 0.152 - 0.167 | 0.372 - 0.373 |
| P1024-16 | 4.750 | | 0.152 - 0.167 | 0.497 - 0.498 |
| P1025 | 5.000 | | 0.160 - 0.175 | 0.248 - 0.249 |
| P1025-04 | 5.000 | | 0.160 - 0.175 | 0.123 - 0.124 |
| P1025-06 | 5.000 | | 0.160 - 0.175 | 0.186 - 0.187 |
| P1025-10 | 5.000 | | 0.160 - 0.175 | 0.310 - 0.311 |
| P1025-12 | 5.000 | | 0.160 - 0.175 | 0.372 - 0.373 |
| P1025-16 | 5.000 | | 0.160 - 0.175 | 0.497 - 0.498 |
| P1026 | 5.250 | | 0.166 - 0.181 | 0.248 - 0.249 |
| P1026-04 | 5.250 | | 0.166 - 0.181 | 0.123 - 0.124 |
| P1026-06 | 5.250 | | 0.166 - 0.181 | 0.186 - 0.187 |
| P1026-10 | 5.250 | | 0.166 - 0.181 | 0.310 - 0.311 |
| P1026-12 | 5.250 | | 0.166 - 0.181 | 0.372 - 0.373 |
| P1026-16 | 5.250 | | 0.166 - 0.181 | 0.497 - 0.498 |
| P1027 | 5.500 | | 0.175 - 0.190 | 0.248 - 0.249 |
| P1027-04 | 5.500 | | 0.175 - 0.190 | 0.123 - 0.124 |
| P1027-06 | 5.500 | | 0.175 - 0.190 | 0.186 - 0.187 |
| P1027-10 | 5.500 | | 0.175 - 0.190 | 0.310 - 0.311 |
| P1027-12 | 5.500 | | 0.175 - 0.190 | 0.372 - 0.373 |
| P1027-16 | 5.500 | | 0.175 - 0.190 | 0.497 - 0.498 |
| P1028 | 5.750 | | 0.184 - 0.199 | 0.248 - 0.249 |
| P1028-04 | 5.750 | | 0.184 - 0.199 | 0.123 - 0.124 |
| P1028-06 | 5.750 | | 0.184 - 0.199 | 0.186 - 0.187 |
| P1028-10 | 5.750 | | 0.184 - 0.199 | 0.310 - 0.311 |
| P1028-12 | 5.750 | | 0.184 - 0.199 | 0.372 - 0.373 |
| P1028-16 | 5.750 | | 0.184 - 0.199 | 0.497 - 0.498 |
| P1029 | 6.000 | | 0.191 - 0.206 | 0.310 - 0.311 |
| P1029-04 | 6.000 | | 0.191 - 0.206 | 0.123 - 0.124 |
| P1029-06 | 6.000 | | 0.191 - 0.206 | 0.185 - 0.187 |
| P1029-08 | 6.000 | | 0.191 - 0.206 | 0.248 - 0.249 |
| P1029-12 | 6.000 | | 0.191 - 0.206 | 0.372 - 0.373 |
| P1029-16 | 6.000 | | 0.191 - 0.206 | 0.497 - 0.498 |
| P1030 | 6.250 | | 0.202 - 0.217 | 0.310 - 0.311 |
| P1030-04 | 6.250 | | 0.202 - 0.217 | 0.123 - 0.124 |
| P1030-06 | 6.250 | | 0.202 - 0.217 | 0.185 - 0.187 |
| P1030-08 | 6.250 | | 0.202 - 0.217 | 0.248 - 0.249 |
| P1030-12 | 6.250 | | 0.202 - 0.217 | 0.372 - 0.373 |
| P1030-16 | 6.250 | | 0.202 - 0.217 | 0.497 - 0.498 |
| P1031 | 6.500 | | 0.211 - 0.226 | 0.310 - 0.311 |
| P1031-04 | 6.500 | | 0.211 - 0.226 | 0.123 - 0.124 |
| P1031-06 | 6.500 | | 0.211 - 0.226 | 0.185 - 0.187 |
| P1031-08 | 6.500 | | 0.211 - 0.226 | 0.248 - 0.249 |
| P1031-12 | 6.500 | | 0.211 - 0.226 | 0.372 - 0.373 |
| P1031-16 | 6.500 | ▼ | 0.211 - 0.226 | 0.497 - 0.498 |
| P1032 | 6.750 | +0.005 -0.000 | 0.219 - 0.234 | 0.310 - 0.311 |
| P1032-04 | 6.750 | | 0.219 - 0.234 | 0.123 - 0.124 |

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | |
|-------------|---------------|------------------|-------------------------|---------------|
| | D1 | Tol. | S | H |
| P1032-06 | 6.750 | +0.005 -0.000 | 0.219 - 0.234 | 0.185 - 0.187 |
| P1032-08 | 6.750 | | 0.219 - 0.234 | 0.248 - 0.249 |
| P1032-12 | 6.750 | | 0.219 - 0.234 | 0.372 - 0.373 |
| P1032-16 | 6.750 | | 0.219 - 0.234 | 0.497 - 0.498 |
| P1033 | 7.000 | | 0.228 - 0.243 | 0.310 - 0.311 |
| P1033-04 | 7.000 | | 0.228 - 0.243 | 0.123 - 0.124 |
| P1033-06 | 7.000 | | 0.228 - 0.243 | 0.185 - 0.187 |
| P1033-08 | 7.000 | | 0.228 - 0.243 | 0.248 - 0.249 |
| P1033-12 | 7.000 | | 0.228 - 0.243 | 0.372 - 0.373 |
| P1033-16 | 7.000 | | 0.228 - 0.243 | 0.497 - 0.498 |
| P1034 | 7.250 | | 0.237 - 0.252 | 0.310 - 0.311 |
| P1034-04 | 7.250 | | 0.237 - 0.252 | 0.123 - 0.124 |
| P1034-06 | 7.250 | | 0.237 - 0.252 | 0.185 - 0.187 |
| P1034-08 | 7.250 | | 0.237 - 0.252 | 0.248 - 0.249 |
| P1034-12 | 7.250 | | 0.237 - 0.252 | 0.372 - 0.373 |
| P1034-16 | 7.250 | | 0.237 - 0.252 | 0.497 - 0.498 |
| P1035 | 7.500 | | 0.244 - 0.259 | 0.310 - 0.311 |
| P1035-04 | 7.500 | | 0.244 - 0.259 | 0.123 - 0.124 |
| P1035-06 | 7.500 | | 0.244 - 0.259 | 0.185 - 0.187 |
| P1035-08 | 7.500 | | 0.244 - 0.259 | 0.248 - 0.249 |
| P1035-12 | 7.500 | | 0.244 - 0.259 | 0.372 - 0.373 |
| P1035-16 | 7.500 | | 0.244 - 0.259 | 0.497 - 0.498 |
| P1036 | 7.750 | | 0.252 - 0.267 | 0.310 - 0.311 |
| P1036-04 | 7.750 | | 0.252 - 0.267 | 0.123 - 0.124 |
| P1036-06 | 7.750 | | 0.252 - 0.267 | 0.185 - 0.187 |
| P1036-08 | 7.750 | | 0.252 - 0.267 | 0.248 - 0.249 |
| P1036-12 | 7.750 | | 0.252 - 0.267 | 0.372 - 0.373 |
| P1036-16 | 7.750 | | 0.252 - 0.267 | 0.497 - 0.498 |
| P1037 | 8.000 | | 0.260 - 0.275 | 0.372 - 0.373 |
| P1037-04 | 8.000 | | 0.260 - 0.275 | 0.123 - 0.124 |
| P1037-06 | 8.000 | | 0.260 - 0.275 | 0.185 - 0.187 |
| P1037-08 | 8.000 | | 0.260 - 0.275 | 0.248 - 0.249 |
| P1037-10 | 8.000 | | 0.260 - 0.275 | 0.310 - 0.311 |
| P1037-16 | 8.000 | | 0.260 - 0.275 | 0.497 - 0.498 |
| P1038 | 8.250 | | 0.268 - 0.283 | 0.372 - 0.373 |
| P1038-06 | 8.250 | | 0.268 - 0.283 | 0.185 - 0.187 |
| P1038-08 | 8.250 | | 0.268 - 0.283 | 0.248 - 0.249 |
| P1038-10 | 8.250 | | 0.268 - 0.283 | 0.310 - 0.311 |
| P1038-16 | 8.250 | | 0.268 - 0.283 | 0.497 - 0.498 |
| P1039 | 8.500 | | 0.275 - 0.290 | 0.372 - 0.373 |
| P1039-06 | 8.500 | | 0.275 - 0.290 | 0.185 - 0.187 |
| P1039-08 | 8.500 | | 0.275 - 0.290 | 0.248 - 0.249 |
| P1039-10 | 8.500 | | 0.275 - 0.290 | 0.310 - 0.311 |
| P1039-16 | 8.500 | | 0.275 - 0.290 | 0.497 - 0.498 |
| P1040 | 8.750 | | 0.284 - 0.299 | 0.372 - 0.373 |
| P1040-06 | 8.750 | ▼ | 0.284 - 0.299 | 0.185 - 0.187 |

P1000 series - CAST IRON

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | |
|-------------|---------------|------------------|-------------------------|---------------|
| | D1 | Tol. | S | H |
| P1040-08 | 8.750 | +0.005 -0.000 | 0.284 - 0.299 | 0.248 - 0.249 |
| P1040-10 | 8.750 | | 0.284 - 0.299 | 0.310 - 0.311 |
| P1040-16 | 8.750 | | 0.284 - 0.299 | 0.497 - 0.498 |
| P1041 | 9.000 | | 0.294 - 0.309 | 0.372 - 0.373 |
| P1041-06 | 9.000 | | 0.294 - 0.309 | 0.185 - 0.187 |
| P1041-08 | 9.000 | | 0.294 - 0.309 | 0.248 - 0.249 |
| P1041-10 | 9.000 | | 0.294 - 0.309 | 0.310 - 0.311 |
| P1041-16 | 9.000 | | 0.294 - 0.309 | 0.497 - 0.498 |
| P1042 | 9.250 | | 0.300 - 0.315 | 0.372 - 0.373 |
| P1042-06 | 9.250 | | 0.300 - 0.315 | 0.185 - 0.187 |
| P1042-08 | 9.250 | | 0.300 - 0.315 | 0.248 - 0.249 |
| P1042-10 | 9.250 | | 0.300 - 0.315 | 0.310 - 0.311 |
| P1042-16 | 9.250 | | 0.300 - 0.315 | 0.497 - 0.498 |
| P1043 | 9.500 | | 0.305 - 0.320 | 0.372 - 0.373 |
| P1043-06 | 9.500 | | 0.305 - 0.320 | 0.185 - 0.187 |
| P1043-08 | 9.500 | | 0.305 - 0.320 | 0.248 - 0.249 |
| P1043-10 | 9.500 | | 0.305 - 0.320 | 0.309 - 0.311 |
| P1043-16 | 9.500 | | 0.305 - 0.320 | 0.497 - 0.498 |
| P1044 | 10.000 | | 0.317 - 0.332 | 0.371 - 0.373 |
| P1044-08 | 10.000 | | 0.317 - 0.332 | 0.247 - 0.249 |
| P1044-10 | 10.000 | | 0.317 - 0.332 | 0.309 - 0.311 |
| P1044-16 | 10.000 | | 0.317 - 0.332 | 0.496 - 0.498 |
| P1045 | 10.500 | | 0.326 - 0.341 | 0.371 - 0.373 |
| P1045-08 | 10.500 | ▼ | 0.326 - 0.341 | 0.247 - 0.249 |

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | |
|-------------|---------------|------------------|-------------------------|---------------|
| | D1 | Tol. | S | H |
| P1045-10 | 10.500 | +0.005 -0.000 | 0.326 - 0.341 | 0.309 - 0.311 |
| P1045-16 | 10.500 | | 0.326 - 0.341 | 0.496 - 0.498 |
| P1046 | 11.000 | +0.006 -0.000 | 0.343 - 0.358 | 0.371 - 0.373 |
| P1046-08 | 11.000 | | 0.343 - 0.358 | 0.247 - 0.249 |
| P1046-10 | 11.000 | | 0.343 - 0.358 | 0.309 - 0.311 |
| P1046-16 | 11.000 | | 0.343 - 0.358 | 0.496 - 0.498 |
| P1047 | 11.500 | | 0.358 - 0.373 | 0.371 - 0.373 |
| P1047-08 | 11.500 | | 0.358 - 0.373 | 0.247 - 0.249 |
| P1047-10 | 11.500 | | 0.358 - 0.373 | 0.309 - 0.311 |
| P1047-16 | 11.500 | | 0.358 - 0.373 | 0.496 - 0.498 |
| P1048 | 12.000 | | 0.386 - 0.401 | 0.371 - 0.373 |
| P1048-08 | 12.000 | | 0.386 - 0.401 | 0.247 - 0.249 |
| P1048-10 | 12.000 | | 0.386 - 0.401 | 0.309 - 0.311 |
| P1048-16 | 12.000 | | 0.386 - 0.401 | 0.496 - 0.498 |
| P1050 | 13.000 | | 0.400 - 0.430 | 0.496 - 0.498 |
| P1050-12 | 13.000 | | 0.400 - 0.430 | 0.371 - 0.373 |
| P1050-20 | 13.000 | | 0.400 - 0.430 | 0.621 - 0.623 |
| P1051 | 13.500 | | 0.410 - 0.440 | 0.496 - 0.498 |
| P1052 | 14.000 | | 0.430 - 0.460 | 0.496 - 0.498 |
| P1054 | 15.000 | | 0.463 - 0.493 | 0.496 - 0.498 |
| P1055 | 15.500 | | 0.487 - 0.517 | 0.496 - 0.498 |
| P1056 | 16.000 | | 0.487 - 0.517 | 0.496 - 0.498 |
| P1057 | 16.500 | | 0.490 - 0.520 | 0.621 - 0.623 |
| P1057-16 | 16.500 | ▼ | 0.490 - 0.520 | 0.496 - 0.498 |

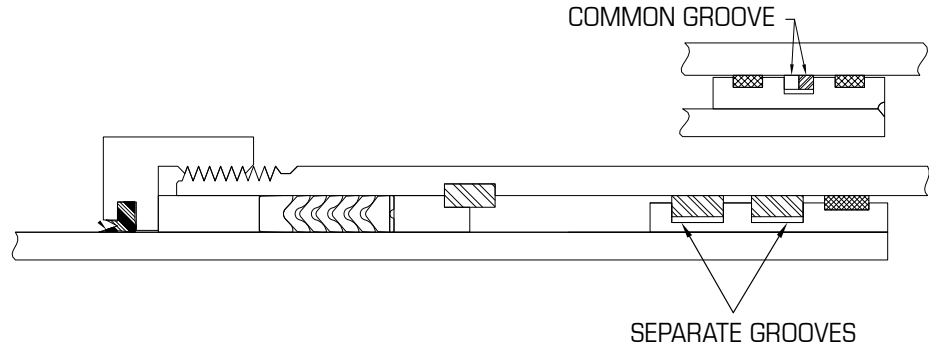
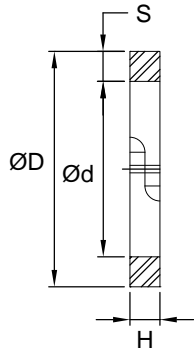
PISTON SEALS



P1000 - Hyco[®] - Piston rings - Inch



| Standard Material |
|----------------------|
| Cast or ductile iron |



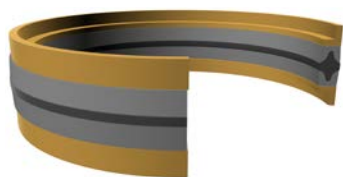
PISTON SEALS

Similar to the standard **P1000-style**, these are **Hyco[®]** brand-specific equipment. Part numbers are for reference purposes only, we do not imply that these parts are of original equipment provenance.

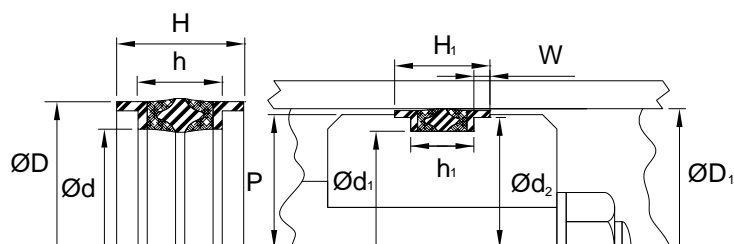
Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-----------------|---------------|---------------|-------------------------|---|---------------|---------------|--------------------|------|----|------|
| | | Tol. | D | d | S | H | d1 | Tol. | H1 | Tol. |
| RHYC-A18030 | 3.500 | +0.004 - .000 | 3.500 | | 0.135 - 0.150 | 0.248 - 0.249 | | | | |
| RHYC-B12071/300 | 3.500 | +0.003 - .000 | 3.500 | | 0.135 - 0.150 | 0.497 - 0.498 | | | | |
| RHYC-A18029 | 4.500 | +0.004 - .000 | 4.500 | | 0.135 - 0.150 | 0.248 - 0.249 | | | | |
| RHYC-B12071/400 | 4.500 | +0.003 - .000 | 4.500 | | 0.135 - 0.150 | 0.497 - 0.498 | | | | |
| RHYC-A18028 | 5.500 | +0.004 - .000 | 5.500 | | 0.135 - 0.150 | 0.248 - 0.249 | | | | |
| RHYC-B12071/500 | 5.500 | +0.003 - .000 | 5.500 | | 0.135 - 0.150 | 0.497 - 0.498 | | | | |
| RHYC-A18027 | 6.500 | +0.004 - .000 | 6.500 | | 0.135 - 0.150 | 0.248 - 0.249 | | | | |
| RHYC-B12071/600 | 6.500 | +0.003 - .000 | 6.500 | | 0.135 - 0.150 | 0.497 - 0.498 | | | | |
| RHYC-A18026 | 7.500 | +0.005 - .000 | 7.500 | | 0.135 - 0.150 | 0.248 - 0.249 | | | | |
| RHYC-B12071/700 | 7.500 | +0.004 - .000 | 7.500 | | 0.135 - 0.150 | 0.497 - 0.498 | | | | |
| RHYC-A18025 | 8.500 | +0.005 - .000 | 8.500 | | 0.135 - 0.150 | 0.248 - 0.249 | | | | |
| RHYC-B12071/800 | 8.500 | +0.004 - .000 | 8.500 | | 0.135 - 0.150 | 0.497 - 0.498 | | | | |
| RHYC-B12071/812 | 8.625 | +0.004 - .000 | 8.625 | | 0.135 - 0.150 | 0.497 - 0.498 | | | | |
| RHYC-A18385 | 9.750 | +0.005 - .000 | 9.750 | | 0.135 - 0.150 | 0.248 - 0.249 | | | | |
| RHYC-B12071/900 | 9.750 | +0.004 - .000 | 9.750 | | 0.135 - 0.150 | 0.497 - 0.498 | | | | |
| RHYC-B12071/938 | 9.875 | +0.005 - .000 | 9.875 | | 0.135 - 0.150 | 0.497 - 0.498 | | | | |

P3C - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|--------------------------|--------------------------------------|---------------------------|----------------------|
| Neo-Fabric/ Polyamide | -22°F to +212°F (-30°C to +100°C) | ≤10 000 psi (≤689 bar) | < 1.6 ft/s (0.5 m/s) |



The **P3C-style** is a double-acting piston seal used in combination with “L”-shaped bearing rings to give a very robust heavy duty seal assembly requiring split pistons. Its dual material construction allows low-pressure sealing ability with the elastomeric center as well as high extrusion resistance with the fabric-reinforced ends. The “L”-shaped bearing rings protect from metal-to-metal contact and insure proper centering of the piston within the cylinder bore.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | |
|-------------|---------------|------------------|-------------------------|-------|-------|-------|--------------------|------------------|---------------------|--------------------|---------------------|--------------------|
| | D1 | Tol. | D | d | h | H | d1 | Tol. | d2 + .005/- .005 | P + .000/- .005 | h1 + .015/- .005 | W + .000/- .005 |
| P3C-01000 | 1.000 | + .003 - .000 | 1.000 | 0.625 | 0.594 | 0.969 | 0.625 | + .000 - .003 | 0.868 | 0.968 | 0.614 | 0.187 |
| P3C-01000-1 | 1.000 | | 1.000 | 0.500 | 0.625 | 1.000 | 0.625 | | 0.864 | 0.960 | 0.645 | 0.187 |
| P3C-01125 | 1.125 | | 1.125 | 0.625 | 0.750 | 1.250 | 0.625 | + .000 - .004 | 0.990 | 1.093 | 0.770 | 0.250 |
| P3C-01250 | 1.250 | | 1.250 | 0.750 | 0.750 | 1.250 | 0.750 | | 1.118 | 1.218 | 0.770 | 0.250 |
| P3C-01375 | 1.375 | | 1.375 | 0.875 | 0.625 | 1.125 | 0.875 | | 1.234 | 1.343 | 0.645 | 0.250 |
| P3C-01375-1 | 1.375 | | 1.375 | 0.875 | 0.750 | 1.250 | 0.875 | | 1.241 | 1.343 | 0.770 | 0.250 |
| P3C-01500 | 1.500 | | 1.500 | 1.000 | 0.625 | 1.000 | 1.000 | | 1.362 | 1.460 | 0.643 | 0.187 |
| P3C-01500-1 | 1.500 | | 1.500 | 1.000 | 0.625 | 1.125 | 1.000 | | 1.362 | 1.460 | 0.645 | 0.250 |
| P3C-01500-2 | 1.500 | | 1.500 | 1.000 | 0.750 | 1.250 | 1.000 | ▼ | 1.371 | 1.468 | 0.770 | 0.250 |
| P3C-01625 | 1.625 | | 1.625 | 1.000 | 0.937 | 1.437 | 1.000 | + .000 - .005 | 1.428 | 1.562 | 0.957 | 0.250 |
| P3C-01750 | 1.750 | | 1.750 | 1.125 | 0.750 | 1.250 | 1.125 | | 1.572 | 1.710 | 0.770 | 0.250 |
| P3C-01750-1 | 1.750 | | 1.750 | 1.125 | 0.937 | 1.437 | 1.125 | | 1.555 | 1.687 | 0.957 | 0.250 |
| P3C-01875 | 1.875 | | 1.875 | 1.250 | 0.937 | 1.437 | 1.250 | | 1.678 | 1.812 | 0.957 | 0.250 |
| P3C-02000 | 2.000 | | 2.000 | 1.375 | 0.750 | 1.250 | 1.375 | | 1.822 | 1.962 | 0.770 | 0.250 |
| P3C-02000-1 | 2.000 | | 2.000 | 1.375 | 0.937 | 1.437 | 1.375 | | 1.805 | 1.937 | 0.957 | 0.250 |
| P3C-02125 | 2.125 | | 2.125 | 1.500 | 0.937 | 1.437 | 1.500 | | 1.928 | 2.062 | 0.957 | 0.250 |
| P3C-02250 | 2.250 | | 2.250 | 1.625 | 0.750 | 1.250 | 1.625 | | 2.071 | 2.211 | 0.770 | 0.250 |
| P3C-02250-1 | 2.250 | | 2.250 | 1.625 | 0.937 | 1.437 | 1.625 | | 2.055 | 2.187 | 0.957 | 0.250 |
| P3C-02375 | 2.375 | | 2.375 | 1.750 | 0.750 | 1.250 | 1.750 | | 2.180 | 2.312 | 0.770 | 0.250 |
| P3C-02375-1 | 2.375 | | 2.375 | 1.750 | 0.937 | 1.437 | 1.750 | | 2.180 | 2.312 | 0.957 | 0.250 |
| P3C-02500 | 2.500 | | 2.500 | 1.875 | 0.750 | 1.250 | 1.875 | | 2.321 | 2.460 | 0.675 | 0.250 |
| P3C-02500-1 | 2.500 | | 2.500 | 1.875 | 0.937 | 1.437 | 1.875 | | 2.305 | 2.437 | 0.957 | 0.250 |
| P3C-02625 | 2.625 | | 2.625 | 2.000 | 0.937 | 1.437 | 2.000 | ▼ | 2.428 | 2.562 | 0.956 | 0.250 |
| P3C-02750 | 2.750 | ▼ | 2.750 | 2.000 | 0.937 | 1.437 | 2.000 | + .000/- .006 | 2.524 | 2.710 | 0.957 | 0.250 |

PISTON SEALS



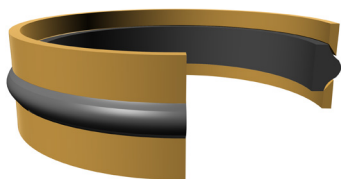
P3C series - NEOFAB/POM

PISTON SEALS

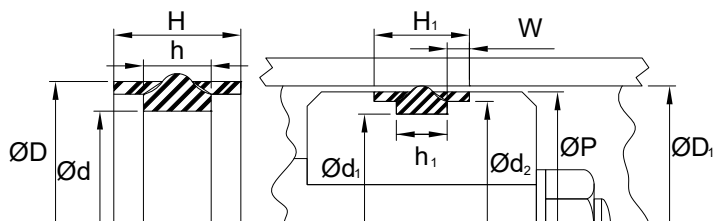


| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | |
|-------------|---------------|------------------|-------------------------|-------|-------|-------|--------------------|------------------|-------------------|------------------|-------------------|------------------|
| | D1 | Tol. | D | d | h | H | d1 | Tol. | d2 + 005/- 005 | P + 000/- 005 | h1 + 015/- 005 | W + 000/- 005 |
| P3C-02750-1 | 2.750 | +0.003 -0.000 | 2.750 | 2.000 | 1.187 | 1.687 | 2.000 | +0.000 -0.006 | 2.485 | 2.687 | 1.207 | 0.250 |
| P3C-02875 | 2.875 | | 2.875 | 2.125 | 1.187 | 1.687 | 2.125 | | 2.610 | 2.812 | 1.207 | 0.250 |
| P3C-03000 | 3.000 | +0.004 -0.000 | 3.000 | 2.250 | 0.937 | 1.445 | 2.250 | | 2.774 | 2.960 | 0.957 | 0.254 |
| P3C-03000-1 | 3.000 | | 3.000 | 2.250 | 1.187 | 1.687 | 2.250 | | 2.735 | 2.937 | 1.207 | 0.250 |
| P3C-03125 | 3.125 | | 3.125 | 2.375 | 1.187 | 1.687 | 2.375 | | 2.858 | 3.062 | 1.207 | 0.250 |
| P3C-03250 | 3.250 | | 3.250 | 2.500 | 0.937 | 1.437 | 2.500 | | 3.024 | 3.210 | 0.957 | 0.250 |
| P3C-03250-1 | 3.250 | | 3.250 | 2.500 | 1.187 | 1.687 | 2.500 | | 2.985 | 3.187 | 1.207 | 0.250 |
| P3C-03375 | 3.375 | | 3.375 | 2.625 | 1.000 | 1.500 | 2.625 | | 3.110 | 3.312 | 1.020 | 0.250 |
| P3C-03375-1 | 3.375 | | 3.375 | 2.625 | 1.187 | 1.687 | 2.625 | | 3.108 | 3.312 | 1.207 | 0.250 |
| P3C-03500 | 3.500 | | 3.500 | 2.750 | 0.937 | 1.437 | 2.750 | | 3.273 | 3.460 | 0.957 | 0.250 |
| P3C-03500-1 | 3.500 | | 3.500 | 2.750 | 1.187 | 1.687 | 2.750 | | 3.235 | 3.437 | 1.207 | 0.250 |
| P3C-03625 | 3.625 | | 3.625 | 2.875 | 1.187 | 1.687 | 2.875 | | 3.360 | 3.562 | 1.207 | 0.250 |
| P3C-03750 | 3.750 | | 3.750 | 3.000 | 1.187 | 1.687 | 3.000 | | 3.485 | 3.687 | 1.207 | 0.250 |
| P3C-03875 | 3.875 | | 3.875 | 3.125 | 1.187 | 1.687 | 3.125 | | 3.610 | 3.812 | 1.207 | 0.250 |
| P3C-04000 | 4.000 | | 4.000 | 3.250 | 0.937 | 1.437 | 3.250 | | 3.772 | 3.958 | 0.957 | 0.250 |
| P3C-04000-1 | 4.000 | | 4.000 | 3.250 | 1.187 | 1.687 | 3.250 | | 3.735 | 3.937 | 1.207 | 0.250 |
| P3C-04250 | 4.250 | | 4.250 | 3.500 | 0.937 | 1.437 | 3.500 | | 4.022 | 4.210 | 0.957 | 0.250 |
| P3C-04250-1 | 4.250 | | 4.250 | 3.500 | 1.187 | 1.687 | 3.500 | | 3.985 | 4.187 | 1.207 | 0.250 |
| P3C-04500 | 4.500 | | 4.500 | 3.500 | 1.250 | 1.758 | 3.500 | | 4.231 | 4.450 | 1.280 | 0.254 |
| P3C-04500-1 | 4.500 | | 4.500 | 3.500 | 1.500 | 2.250 | 3.500 | | 4.234 | 4.437 | 1.530 | 0.375 |
| P3C-04625 | 4.625 | | 4.625 | 3.625 | 1.250 | 1.758 | 3.625 | | 4.360 | 4.562 | 1.530 | 0.254 |
| P3C-04625-1 | 4.625 | | 4.625 | 3.625 | 1.500 | 2.250 | 3.625 | | 4.335 | 4.582 | 1.310 | 0.375 |
| P3C-04750 | 4.750 | | 4.750 | 3.750 | 1.250 | 1.750 | 3.750 | | 4.483 | 4.700 | 1.280 | 0.250 |
| P3C-04750-1 | 4.750 | | 4.750 | 3.750 | 1.500 | 2.250 | 3.750 | | 4.485 | 4.687 | 1.530 | 0.375 |
| P3C-05000 | 5.000 | | 5.000 | 4.000 | 1.250 | 1.750 | 4.000 | | 4.730 | 4.956 | 1.280 | 0.250 |
| P3C-05000-1 | 5.000 | | 5.000 | 4.000 | 1.500 | 2.250 | 4.000 | | 4.735 | 4.937 | 1.530 | 0.375 |
| P3C-05250 | 5.250 | | 5.250 | 4.250 | 1.500 | 2.250 | 4.250 | | 4.980 | 5.187 | 1.530 | 0.375 |
| P3C-05500 | 5.500 | | 5.500 | 4.500 | 1.000 | 1.500 | 4.500 | | 5.235 | 5.437 | 1.030 | 0.250 |
| P3C-05500-1 | 5.500 | | 5.500 | 4.500 | 1.250 | 1.750 | 4.500 | | 5.235 | 5.456 | 1.280 | 0.250 |
| P3C-05500-2 | 5.500 | | 5.500 | 4.500 | 1.500 | 2.250 | 4.500 | | 5.235 | 5.437 | 1.530 | 0.375 |
| P3C-05750 | 5.750 | | 5.750 | 4.750 | 1.500 | 2.250 | 4.750 | | 5.484 | 5.687 | 1.530 | 0.375 |
| P3C-06000 | 6.000 | | 6.000 | 5.000 | 1.250 | 1.750 | 5.000 | | 5.728 | 5.954 | 1.280 | 0.250 |
| P3C-06000-1 | 6.000 | | 6.000 | 5.000 | 1.500 | 2.250 | 5.000 | | 5.736 | 5.937 | 1.530 | 0.375 |
| P3C-06000-2 | 6.000 | | 6.000 | 5.000 | 1.750 | 2.750 | 5.000 | | 5.676 | 5.937 | 1.780 | 0.500 |
| P3C-06250 | 6.250 | | 6.250 | 5.250 | 1.500 | 2.250 | 5.250 | | 5.984 | 6.187 | 1.530 | 0.375 |
| P3C-06500 | 6.500 | | 6.500 | 5.500 | 1.250 | 1.750 | 5.500 | | 6.227 | 6.454 | 1.280 | 0.250 |
| P3C-06500-1 | 6.500 | ▼ | 6.500 | 5.500 | 1.500 | 2.250 | 5.500 | | 6.236 | 6.437 | 1.530 | 0.375 |
| P3C-06750 | 6.750 | +0.005 -0.000 | 6.750 | 5.750 | 1.500 | 2.250 | 5.750 | | 6.484 | 6.687 | 1.530 | 0.375 |
| P3C-07000 | 7.000 | | 7.000 | 6.000 | 1.500 | 2.250 | 6.000 | | 6.736 | 6.937 | 1.530 | 0.375 |
| P3C-07250 | 7.250 | | 7.250 | 6.000 | 1.875 | 2.625 | 6.000 | | 6.990 | 7.187 | 1.905 | 0.375 |
| P3C-07500 | 7.500 | | 7.500 | 6.250 | 1.875 | 2.625 | 6.250 | | 7.240 | 7.437 | 1.905 | 0.375 |
| P3C-07750 | 7.750 | | 7.750 | 6.500 | 1.875 | 2.625 | 6.500 | | 7.490 | 7.687 | 1.905 | 0.375 |
| P3C-08000 | 8.000 | | 8.000 | 7.000 | 1.250 | 2.000 | 7.000 | | 7.740 | 7.937 | 1.280 | 0.375 |
| P3C-09000 | 9.000 | | 9.000 | 7.750 | 1.875 | 2.625 | 7.750 | | 8.740 | 8.937 | 1.905 | 0.375 |
| P3C-09000-1 | 9.000 | | 9.000 | 8.000 | 1.250 | 2.000 | 8.000 | | 8.740 | 8.937 | 1.280 | 0.375 |
| P3C-10000 | 10.000 | ▼ | 10.000 | 9.000 | 1.250 | 2.000 | 9.000 | ▼ | 9.740 | 9.937 | 1.280 | 0.375 |

P3D - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-----------------------|--------------------------------------|-------------------------|----------------------|
| Nitrile/ Polyamide | -22°F to +212°F (-30°C to +100°C) | ≤2300 psi (≤159 bar) | < 1.6 ft/s (0.5 m/s) |



Specifically used for light-duty, one-piece piston applications, the **P3D-style** piston seal is an assembly of a continuous rubber ring with two scarf-cut acetal bearing rings. These bearing rings are designed to support the piston assembly and avoid excessive side-loading.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | |
|------------|---------------|------------------|-------------------------|-------|-------|-------|--------------------|-------------------|------------------|-------------------|------------------|
| | D1 | Tol. | D | d | h | H | d1 + 000/- 003 | d2 + 005/- 005 | P + 000/- 005 | h1 + 015/- 005 | W + 000/- 005 |
| P3D-01000 | 1.000 | +0.003 -0.000 | 1.000 | 0.687 | 0.343 | 0.593 | 0.687 | 0.829 | 0.937 | 0.348 | 0.125 |
| P3D-01250 | 1.250 | | 1.250 | 0.937 | 0.343 | 0.593 | 0.937 | 1.079 | 1.187 | 0.348 | 0.125 |
| P3D-01500 | 1.500 | | 1.500 | 1.125 | 0.437 | 0.737 | 1.125 | 1.324 | 1.437 | 0.442 | 0.150 |
| P3D-01750 | 1.750 | | 1.750 | 1.375 | 0.437 | 0.737 | 1.375 | 1.574 | 1.687 | 0.442 | 0.150 |
| P3D-02000 | 2.000 | | 2.000 | 1.625 | 0.437 | 0.737 | 1.625 | 1.824 | 1.937 | 0.442 | 0.150 |
| P3D-02250 | 2.250 | | 2.250 | 1.875 | 0.437 | 0.737 | 1.875 | 2.075 | 2.187 | 0.442 | 0.150 |
| P3D-02500 | 2.500 | | 2.500 | 2.125 | 0.437 | 0.737 | 2.125 | 2.325 | 2.437 | 0.442 | 0.150 |
| P3D-02750 | 2.750 | | 2.750 | 2.375 | 0.437 | 0.737 | 2.375 | 2.575 | 2.687 | 0.442 | 0.150 |
| P3D-03000 | 3.000 | +0.004 -0.000 | 3.000 | 2.625 | 0.437 | 0.737 | 2.625 | 2.825 | 2.937 | 0.442 | 0.150 |
| P3D-03250 | 3.250 | | 3.250 | 2.875 | 0.437 | 0.737 | 2.875 | 3.075 | 3.187 | 0.442 | 0.150 |
| P3D-03500 | 3.500 | | 3.500 | 3.000 | 0.562 | 0.982 | 3.000 | 3.270 | 3.437 | 0.567 | 0.210 |
| P3D-03750 | 3.750 | | 3.750 | 3.250 | 0.562 | 0.982 | 3.250 | 3.520 | 3.687 | 0.567 | 0.210 |
| P3D-04000 | 4.000 | | 4.000 | 3.500 | 0.562 | 0.982 | 3.500 | 3.770 | 3.937 | 0.567 | 0.210 |
| P3D-04250 | 4.250 | | 4.250 | 3.750 | 0.562 | 0.982 | 3.750 | 4.020 | 4.187 | 0.567 | 0.210 |
| P3D-04500 | 4.500 | | 4.500 | 4.000 | 0.562 | 0.982 | 4.000 | 4.270 | 4.437 | 0.567 | 0.210 |
| P3D-04750 | 4.750 | | 4.750 | 4.250 | 0.562 | 0.982 | 4.250 | 4.520 | 4.687 | 0.567 | 0.210 |
| P3D-05000 | 5.000 | | 5.000 | 4.375 | 0.687 | 1.375 | 4.375 | 4.689 | 4.937 | 0.692 | 0.344 |
| P3D-05250 | 5.250 | | 5.250 | 4.625 | 0.687 | 1.375 | 4.625 | 4.938 | 5.187 | 0.692 | 0.344 |
| P3D-05500 | 5.500 | | 5.500 | 4.875 | 0.687 | 1.375 | 4.875 | 5.188 | 5.437 | 0.692 | 0.344 |
| P3D-06000 | 6.000 | | 6.000 | 5.250 | 1.000 | 2.000 | 5.250 | 5.712 | 5.937 | 1.005 | 0.500 |
| P3D-06500 | 6.500 | | 6.500 | 5.750 | 1.000 | 2.000 | 5.750 | 6.212 | 6.437 | 1.005 | 0.500 |
| P3D-07000 | 7.000 | +0.005/-0.000 | 7.000 | 6.250 | 1.000 | 2.000 | 6.250 | 6.712 | 6.937 | 1.005 | 0.500 |

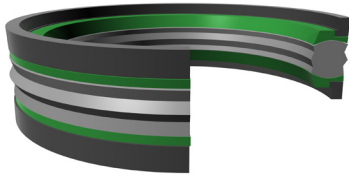
PISTON SEALS



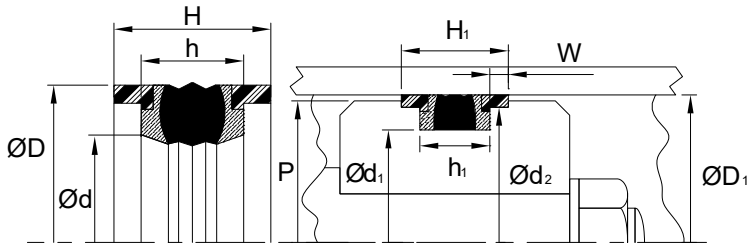
P3D series - NBR/POM

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | |
|------------|---------------|------------------|-------------------------|-------|-------|-------|--------------------|-------|-------|-------|-------|
| | D1 | Tol. | D | d | h | H | d1 | d2 | P | h1 | W |
| P3D-07500 | 7.500 | +0.005 -0.000 | 7.500 | 6.750 | 1.000 | 2.000 | 6.750 | 7.212 | 7.437 | 1.005 | 0.500 |
| P3D-08000 | 8.000 | | 8.000 | 7.250 | 1.000 | 2.000 | 7.250 | 7.712 | 7.937 | 1.005 | 0.500 |
| P3D-09000 | 9.000 | | 9.000 | 8.250 | 1.000 | 2.000 | 8.250 | 8.712 | 8.937 | 1.005 | 0.500 |

P5B - Piston seals - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-----------------------------|--------------------------------------|-------------------------|----------------------|
| Nitrile/Nylon/ Polyamide | -40°F to +230°F (-40°C to +110°C) | ≤5800 psi (≤400 bar) | < 1.5 ft/s (0.5 m/s) |



P5B-style is designed for easy installation on one-piece pistons. Using a homogeneous center ring for excellent sealability, split nylon rings are added for extrusion resistance as well as split bearing rings for guiding and piston support to avoid side-loading.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | |
|-------------|---------------|------------------|-------------------------|-------|-------|-------|--------------------|-------|-------|-------|-------|
| | D1 | Tol. | D | d | h | H | d1 | d2 | P | h1 | W |
| P5B-01000 | 1.000 | +0.003 -0.000 | 1.000 | 0.687 | 0.331 | 0.574 | 0.687 | 0.829 | 0.937 | 0.331 | 0.121 |
| P5B-01062 | 1.062 | | 1.062 | 0.750 | 0.312 | 0.428 | 0.750 | 0.900 | 1.038 | 0.312 | 0.058 |
| P5B-01250 | 1.250 | | 1.250 | 0.937 | 0.331 | 0.574 | 0.937 | 1.079 | 1.187 | 0.331 | 0.121 |
| P5B-01500 | 1.500 | | 1.500 | 1.125 | 0.425 | 0.717 | 1.125 | 1.324 | 1.437 | 0.425 | 0.146 |
| P5B-01750 | 1.750 | | 1.750 | 1.375 | 0.425 | 0.717 | 1.375 | 1.574 | 1.687 | 0.425 | 0.146 |
| P5B-01750-1 | 1.750 | | 1.750 | 1.375 | 0.490 | 0.973 | 1.375 | 1.638 | 1.710 | 0.490 | 0.241 |
| P5B-01750-2 | 1.750 | | 1.750 | 1.125 | 0.750 | 1.250 | 1.125 | 1.574 | 1.687 | 0.750 | 0.250 |
| P5B-02000 | 2.000 | | 2.000 | 1.625 | 0.437 | 0.737 | 1.625 | 1.824 | 1.937 | 0.437 | 0.150 |
| P5B-02000-1 | 2.000 | | 2.000 | 1.625 | 0.478 | 0.961 | 1.625 | 1.888 | 1.960 | 0.478 | 0.241 |
| P5B-02000-2 | 2.000 | | 2.000 | 1.375 | 0.750 | 1.250 | 1.375 | 1.820 | 1.948 | 0.750 | 0.250 |
| P5B-02250 | 2.250 | | 2.250 | 1.625 | 0.750 | 1.250 | 1.625 | 2.069 | 2.197 | 0.750 | 0.250 |

P5B series - NBR/NYLON/POM

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | |
|-------------|---------------|------------------|-------------------------|-------|-------|-------|--------------------|-------------------|------------------|-------------------|------------------|
| | D1 | Tol. | D | d | h | H | d1 + 000/- 003 | d2 + 005/- 005 | P + 000/- 005 | h1 + 015/- 005 | W + 000/- 005 |
| P5B-02375 | 2.375 | +0.003 -0.000 | 2.375 | 2.000 | 0.425 | 0.717 | 2.000 | 2.195 | 2.312 | 0.425 | 0.146 |
| P5B-02375-1 | 2.375 | | 2.375 | 1.734 | 0.750 | 1.250 | 1.734 | 2.194 | 2.322 | 0.750 | 0.250 |
| P5B-02500 | 2.500 | | 2.500 | 2.125 | 0.425 | 0.717 | 2.125 | 2.325 | 2.437 | 0.425 | 0.146 |
| P5B-02500-1 | 2.500 | | 2.500 | 2.000 | 0.638 | 1.121 | 2.000 | 2.320 | 2.460 | 0.638 | 0.241 |
| P5B-02500-2 | 2.500 | | 2.500 | 1.875 | 0.750 | 1.250 | 1.875 | 2.302 | 2.437 | 0.750 | 0.250 |
| P5B-02750 | 2.750 | | 2.750 | 2.375 | 0.425 | 0.717 | 2.375 | 2.575 | 2.687 | 0.425 | 0.146 |
| P5B-02750-1 | 2.750 | | 2.750 | 2.250 | 0.650 | 1.150 | 2.250 | 2.570 | 2.710 | 0.650 | 0.250 |
| P5B-02750-2 | 2.750 | ▼ | 2.750 | 2.000 | 0.937 | 1.437 | 2.000 | 2.522 | 2.685 | 0.937 | 0.250 |
| P5B-03000 | 3.000 | +0.004 -0.000 | 3.000 | 2.625 | 0.425 | 0.717 | 2.625 | 2.825 | 2.937 | 0.425 | 0.146 |
| P5B-03000-1 | 3.000 | | 3.000 | 2.375 | 0.763 | 1.246 | 2.375 | 2.772 | 2.960 | 0.763 | 0.241 |
| P5B-03000-2 | 3.000 | | 3.000 | 2.250 | 0.937 | 1.437 | 2.250 | 2.772 | 2.935 | 0.937 | 0.250 |
| P5B-03250 | 3.250 | | 3.250 | 2.625 | 0.775 | 1.257 | 2.625 | 3.021 | 3.184 | 0.775 | 0.241 |
| P5B-03250-1 | 3.250 | | 3.250 | 2.500 | 0.937 | 1.437 | 2.500 | 3.021 | 3.184 | 0.937 | 0.250 |
| P5B-03500 | 3.500 | | 3.500 | 3.000 | 0.550 | 0.962 | 3.000 | 3.271 | 3.437 | 0.550 | 0.206 |
| P5B-03500-1 | 3.500 | | 3.500 | 2.850 | 0.775 | 1.355 | 2.850 | 3.271 | 3.460 | 0.775 | 0.290 |
| P5B-03500-2 | 3.500 | | 3.500 | 2.750 | 0.937 | 1.437 | 2.750 | 3.271 | 3.434 | 0.937 | 0.250 |
| P5B-03750 | 3.750 | | 3.750 | 3.250 | 0.550 | 0.962 | 3.250 | 3.520 | 3.687 | 0.550 | 0.206 |
| P5B-03750-1 | 3.750 | | 3.750 | 3.000 | 0.937 | 1.437 | 3.000 | 3.520 | 3.683 | 0.937 | 0.250 |
| P5B-04000 | 4.000 | | 4.000 | 3.500 | 0.550 | 0.962 | 3.500 | 3.770 | 3.937 | 0.550 | 0.206 |
| P5B-04000-1 | 4.000 | | 4.000 | 3.375 | 0.775 | 1.257 | 3.375 | 3.770 | 3.960 | 0.775 | 0.241 |
| P5B-04000-2 | 4.000 | | 4.000 | 3.250 | 0.937 | 1.437 | 3.250 | 3.770 | 3.933 | 0.937 | 0.250 |
| P5B-04500 | 4.500 | | 4.500 | 3.500 | 1.250 | 1.750 | 3.500 | 4.229 | 4.422 | 1.250 | 0.250 |
| P5B-05000 | 5.000 | | 5.000 | 4.250 | 0.963 | 1.446 | 4.250 | 4.772 | 4.960 | 0.963 | 0.241 |
| P5B-05000-1 | 5.000 | | 5.000 | 4.000 | 1.250 | 2.000 | 4.000 | 4.709 | 4.902 | 1.250 | 0.375 |
| P5B-06000 | 6.000 | | 6.000 | 5.000 | 1.250 | 2.000 | 5.000 | 5.709 | 5.902 | 1.250 | 0.375 |
| P5B-06500 | 6.500 | ▼ | 6.500 | 5.500 | 1.250 | 2.000 | 5.500 | 6.213 | 6.909 | 1.250 | 0.375 |
| P5B-08000 | 8.000 | +0.005/-0.000 | 8.000 | 7.000 | 1.250 | 2.250 | 7.000 | 7.676 | 7.896 | 1.250 | 0.500 |

OTHER PROFILES ARE ALSO AVAILABLE ON REQUEST

Though this product offering contains a wide selection of commonly used parts in the marketplace, it is possible that you haven't found the exact part you were looking for.




We have many other seal profiles available on request. please do not hesitate to contact us and we will do our best to help you locate the required part.



PISTON SEALS





| | | | |
|---|------------------|---|----|
|  | STD VEE SETS | E | 2 |
|  | HYDROLOCK V.SETS | E | 9 |
|  | GUIDELOCKS® | E | 11 |
|  | VEE COIL | E | 13 |

VEE PACKINGS



Standard vee sets - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|---------------------------|--------------------------------------|---------------------------|----------------------|
| Neo-Fabric, Nylon, Hytrel | -40°F to +230°F (-40°C to +110°C) | ≤10 000 psi (≤690 bar) | < 1.6 ft/s (0.5 m/s) |

NF
NYLON FEMALE
 -40°F to +250°F
 (-40°C to +121°C)

FF
FABRIC FEMALE
 -40°F to +250°F
 (-40°C to +121°C)

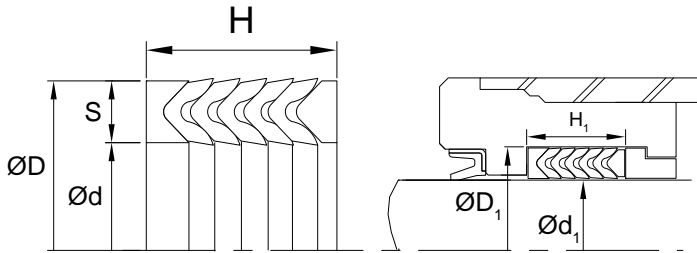
BV
BUNA VEE
 -40°F to +250°F
 (-40°C to +121°C)

HV
HYTREL VEE
 -40°F to +300°F
 (-40°C to +189°C)

FV
FABRIC VEE
 -40°F to +250°F
 (-40°C to +121°C)

NM
NYLON MALE
 -40°F to +250°F
 (-40°C to +121°C)

FM
FABRIC MALE
 -40°F to +250°F
 (-40°C to +121°C)



Vee sets are pre-packaged assemblies comprising of 5 intermediate sealing rings and also include male and female adapter rings. These pre-packaged sets facilitate your ordering and stocking duties and are available in a wide variety of sizes.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

CROSS SECTION - PRESSURE RATING P.S.I (INCLUDES MALE AND FEMALE ADAPTORS)

| NO VEES | 5/32 | 3/16 | 1/4 | 5/16 | 3/8 | 7/16 | 1/2 | 5/8 | 3/4 | 7/8 | 1 |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 2 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| 3 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 |
| 4 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 |
| 5 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 |
| 6 | 10000 | 10000 | 10000 | 10000 | 10000 | 10000 | 10000 | 10000 | 10000 | 10000 | 10000 |
| 7 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 |

CROSS SECTION - STACK HEIGHT (INCLUDES MALE AND FEMALE ADAPTORS)

| NO VEES | 5/32 | 3/16 | 1/4 | 5/16 | 3/8 | 7/16 | 1/2 | 5/8 | 3/4 | 7/8 | 1 |
|---------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 2 | .437 | .562 | .625 | .687 | .812 | .937 | 1.125 | 1.375 | 1.625 | 1.875 | 2.125 |
| 3 | .531 | .687 | .750 | .843 | 1.000 | 1.156 | 1.375 | 1.687 | 2.000 | 2.312 | 2.625 |
| 4 | .625 | .812 | .875 | 1.000 | 1.187 | 1.375 | 1.625 | 2.000 | 2.375 | 2.750 | 3.125 |
| 5 | .718 | .937 | 1.000 | 1.156 | 1.375 | 1.593 | 1.875 | 2.312 | 2.750 | 3.187 | 3.625 |
| 6 | .812 | 1.062 | 1.125 | 1.312 | 1.562 | 1.812 | 2.125 | 2.625 | 3.125 | 3.625 | 4.125 |
| 7 | .906 | 1.187 | 1.250 | 1.468 | 1.750 | 2.032 | 2.375 | 2.937 | 3.500 | 4.062 | 4.625 |



Standard vee sets series



| Ref.Number | Nominal Seal Dimensions | | |
|--------------------|-------------------------|-------|---------|
| | d | D | Section |
| V0025000625VS-1051 | 0.250 | 0.625 | 0.187 |
| V0025000750VS-1051 | 0.250 | 0.750 | 0.250 |
| V0025000875VS-1051 | 0.250 | 0.875 | 0.312 |
| V0025001000VS-1051 | 0.250 | 1.000 | 0.375 |
| V0025001125VS-1051 | 0.250 | 1.125 | 0.437 |
| V0037500625VS-1051 | 0.375 | 0.625 | 0.125 |
| V0037500750VS-1051 | 0.375 | 0.750 | 0.187 |
| V0037500875VS-1051 | 0.375 | 0.875 | 0.250 |
| V0037500937VS-1051 | 0.375 | 0.937 | 0.281 |
| V0037501000VS-1051 | 0.375 | 1.000 | 0.312 |
| V0043700812VS-1051 | 0.437 | 0.812 | 0.187 |
| V0043701125VS-1051 | 0.437 | 1.125 | 0.344 |
| V0050000875VS-1051 | 0.500 | 0.875 | 0.187 |
| V0050000937VS-1051 | 0.500 | 0.937 | 0.219 |
| V0050001000VS-1231 | 0.500 | 1.000 | 0.250 |
| V0050001125VS-1051 | 0.500 | 1.125 | 0.312 |
| V0050001250VS-1051 | 0.500 | 1.250 | 0.375 |
| V0056200937VS-1051 | 0.562 | 0.937 | 0.187 |
| V0056201062VS-1051 | 0.562 | 1.062 | 0.250 |
| V0056201500VS-1051 | 0.562 | 1.500 | 0.469 |
| V0062500875VS-1051 | 0.625 | 0.875 | 0.125 |
| V0062500937VS-1051 | 0.625 | 0.937 | 0.156 |
| V0062501000VS-1231 | 0.625 | 1.000 | 0.187 |
| V0062501125VS-1231 | 0.625 | 1.125 | 0.250 |
| V0062501250VS-1051 | 0.625 | 1.250 | 0.312 |
| V0068701187VS-1051 | 0.687 | 1.187 | 0.250 |
| V0075001125VS-1051 | 0.750 | 1.125 | 0.187 |
| V0075001187VS-1051 | 0.750 | 1.187 | 0.219 |
| V0075001250VS-1051 | 0.750 | 1.250 | 0.250 |
| V0075001375VS-1051 | 0.750 | 1.375 | 0.312 |
| V0075001437VS-1051 | 0.750 | 1.437 | 0.344 |
| V0075001500VS-1051 | 0.750 | 1.500 | 0.375 |
| V0075001750VS-1051 | 0.750 | 1.750 | 0.500 |
| V0081201312VS-1231 | 0.812 | 1.312 | 0.250 |
| V0081201375VS-1051 | 0.812 | 1.375 | 0.282 |
| V0087501250VS-1231 | 0.875 | 1.250 | 0.187 |
| V0087501375VS-1231 | 0.875 | 1.375 | 0.250 |
| V0087501500VS-1231 | 0.875 | 1.500 | 0.312 |
| V0087501625VS-1051 | 0.875 | 1.625 | 0.375 |
| V0093701375VS-1051 | 0.937 | 1.375 | 0.219 |
| V0093701437VS-1051 | 0.937 | 1.437 | 0.250 |
| V0100001375VS-1231 | 1.000 | 1.375 | 0.187 |
| V0100001500VS-1231 | 1.000 | 1.500 | 0.250 |
| V0100001625VS-1051 | 1.000 | 1.625 | 0.312 |
| V0100001750VS-1231 | 1.000 | 1.750 | 0.375 |
| V0100002000VS-1051 | 1.000 | 2.000 | 0.500 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------------|-------------------------|-------|---------|
| | d | D | Section |
| V0106201562VS-1051 | 1.062 | 1.562 | 0.250 |
| V0106201687VS-1051 | 1.062 | 1.687 | 0.312 |
| V0112501500VS-1051 | 1.125 | 1.500 | 0.187 |
| V0112501625VS-1231 | 1.125 | 1.625 | 0.250 |
| V0112501750VS-1051 | 1.125 | 1.750 | 0.312 |
| V0112501812VS-1051 | 1.125 | 1.812 | 0.344 |
| V0112501875VS-1051 | 1.125 | 1.875 | 0.375 |
| V0118701562VS-1051 | 1.187 | 1.562 | 0.187 |
| V0118701687VS-1051 | 1.187 | 1.687 | 0.250 |
| V0118701750VS-1051 | 1.187 | 1.750 | 0.282 |
| V0118702062VS-1051 | 1.187 | 2.062 | 0.437 |
| V0125001625VS-1051 | 1.250 | 1.625 | 0.187 |
| V0125001750VS-1231 | 1.250 | 1.750 | 0.250 |
| V0125001875VS-1051 | 1.250 | 1.875 | 0.312 |
| V0125002000VS-1231 | 1.250 | 2.000 | 0.375 |
| V0125002125VS-1051 | 1.250 | 2.125 | 0.437 |
| V0125002250VS-1051 | 1.250 | 2.250 | 0.500 |
| V0125002500VS-1051 | 1.250 | 2.500 | 0.625 |
| V0131201812VS-1051 | 1.312 | 1.812 | 0.250 |
| V0131202000VS-1051 | 1.312 | 2.000 | 0.344 |
| V0131202062VS-1051 | 1.312 | 2.062 | 0.375 |
| V0137501750VS-1051 | 1.375 | 1.750 | 0.187 |
| V0137501875VS-1231 | 1.375 | 1.875 | 0.250 |
| V0137502000VS-1231 | 1.375 | 2.000 | 0.312 |
| V0137502125VS-1051 | 1.375 | 2.125 | 0.375 |
| V0137502250VS-1051 | 1.375 | 2.250 | 0.437 |
| V0143701937VS-1051 | 1.437 | 1.937 | 0.250 |
| V0143702000VS-1051 | 1.437 | 2.000 | 0.282 |
| V0143702062VS-1051 | 1.437 | 2.062 | 0.312 |
| V0143702125VS-1051 | 1.437 | 2.125 | 0.344 |
| V0143702187VS-1051 | 1.437 | 2.187 | 0.375 |
| V0150001875VS-1051 | 1.500 | 1.875 | 0.187 |
| V0150002000VS-1231 | 1.500 | 2.000 | 0.250 |
| V0150002125VS-1231 | 1.500 | 2.125 | 0.312 |
| V0150002250VS-1231 | 1.500 | 2.250 | 0.375 |
| V0150002281VS-1051 | 1.500 | 2.281 | 0.391 |
| V0150002375VS-1051 | 1.500 | 2.375 | 0.437 |
| V0150002500VS-1231 | 1.500 | 2.500 | 0.500 |
| V0156202187VS-1051 | 1.562 | 2.187 | 0.312 |
| V0162502000VS-1051 | 1.625 | 2.000 | 0.187 |
| V0162502125VS-1231 | 1.625 | 2.125 | 0.250 |
| V0162502250VS-1231 | 1.625 | 2.250 | 0.312 |
| V0162502375VS-1051 | 1.625 | 2.375 | 0.375 |
| V0175002125VS-1051 | 1.750 | 2.125 | 0.187 |
| V0175002250VS-1231 | 1.750 | 2.250 | 0.250 |
| V0175002265VS-1051 | 1.750 | 2.265 | 0.258 |

Standard vee sets series

VEE PACKINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------------|-------------------------|-------|---------|
| | d | D | Section |
| V0175002375VS-1231 | 1.750 | 2.375 | 0.312 |
| V0175002500VS-1231 | 1.750 | 2.500 | 0.375 |
| V0175002750VS-1051 | 1.750 | 2.750 | 0.500 |
| V0187502250VS-1051 | 1.875 | 2.250 | 0.187 |
| V0187502375VS-1051 | 1.875 | 2.375 | 0.250 |
| V0187502500VS-1231 | 1.875 | 2.500 | 0.312 |
| V0187502625VS-1051 | 1.875 | 2.625 | 0.375 |
| V0193702437VS-1231 | 1.937 | 2.437 | 0.250 |
| V0193702687VS-1051 | 1.937 | 2.687 | 0.375 |
| V0193702812VS-1051 | 1.937 | 2.812 | 0.437 |
| V0197002500VS-1051 | 1.970 | 2.500 | 0.265 |
| V0197002520VS-1231 | 1.970 | 2.520 | 0.275 |
| V0199502525VS-1051 | 1.995 | 2.525 | 0.265 |
| V0200002375VS-1051 | 2.000 | 2.375 | 0.187 |
| V0200002500VS-1231 | 2.000 | 2.500 | 0.250 |
| V0200002625VS-1231 | 2.000 | 2.625 | 0.312 |
| V0200002687VS-1051 | 2.000 | 2.687 | 0.344 |
| V0200002750VS-1231 | 2.000 | 2.750 | 0.375 |
| V0200002875VS-1051 | 2.000 | 2.875 | 0.437 |
| V0200003000VS-1231 | 2.000 | 3.000 | 0.500 |
| V0212502562VS-1051 | 2.125 | 2.562 | 0.219 |
| V0212502625VS-1051 | 2.125 | 2.625 | 0.250 |
| V0212502750VS-1051 | 2.125 | 2.750 | 0.312 |
| V0212502875VS-1051 | 2.125 | 2.875 | 0.375 |
| V0212503000VS-1051 | 2.125 | 3.000 | 0.437 |
| V0212503125VS-1051 | 2.125 | 3.125 | 0.500 |
| V0218702687VS-1051 | 2.187 | 2.687 | 0.250 |
| V0218702937VS-1051 | 2.187 | 2.937 | 0.375 |
| V0220002700VS-1231 | 2.200 | 2.700 | 0.250 |
| V0222502775VS-1051 | 2.225 | 2.775 | 0.275 |
| V0225002625VS-1231 | 2.250 | 2.625 | 0.187 |
| V0225002750VS-1231 | 2.250 | 2.750 | 0.250 |
| V0225002875VS-1231 | 2.250 | 2.875 | 0.312 |
| V0225003000VS-1051 | 2.250 | 3.000 | 0.375 |
| V0225003020VS-1051 | 2.250 | 3.020 | 0.385 |
| V0225003125VS-1051 | 2.250 | 3.125 | 0.437 |
| V0225003250VS-1051 | 2.250 | 3.250 | 0.500 |
| V0225003500VS-1051 | 2.250 | 3.500 | 0.625 |
| V0227503025VS-1231 | 2.275 | 3.025 | 0.375 |
| V0231202687VS-1051 | 2.312 | 2.687 | 0.187 |
| V0231202937VS-1051 | 2.312 | 2.937 | 0.312 |
| V0237002812VS-1051 | 2.370 | 2.812 | 0.221 |
| V0237502875VS-1051 | 2.375 | 2.875 | 0.250 |
| V0237503000VS-1051 | 2.375 | 3.000 | 0.312 |
| V0237503125VS-1231 | 2.375 | 3.125 | 0.375 |
| V0237503375VS-1051 | 2.375 | 3.375 | 0.500 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------------|-------------------------|-------|---------|
| | d | D | Section |
| V0243703187VS-1051 | 2.437 | 3.187 | 0.375 |
| V0243703437VS-1051 | 2.437 | 3.437 | 0.500 |
| V0245003000VS-1051 | 2.450 | 3.000 | 0.275 |
| V0245003020VS-1051 | 2.450 | 3.020 | 0.285 |
| V0250002875VS-1231 | 2.500 | 2.875 | 0.187 |
| V0250003000VS-1231 | 2.500 | 3.000 | 0.250 |
| V0250003125VS-1231 | 2.500 | 3.125 | 0.312 |
| V0250003250VS-1231 | 2.500 | 3.250 | 0.375 |
| V0250003375VS-1051 | 2.500 | 3.375 | 0.437 |
| V0250003437VS-1051 | 2.500 | 3.437 | 0.469 |
| V0250003500VS-1051 | 2.500 | 3.500 | 0.500 |
| V0250003750VS-1051 | 2.500 | 3.750 | 0.625 |
| V0258003110VS-1231 | 2.580 | 3.110 | 0.265 |
| V0262503000VS-1051 | 2.625 | 3.000 | 0.187 |
| V0262503125VS-1051 | 2.625 | 3.125 | 0.250 |
| V0262503250VS-1231 | 2.625 | 3.250 | 0.312 |
| V0262503375VS-1051 | 2.625 | 3.375 | 0.375 |
| V0262503500VS-1051 | 2.625 | 3.500 | 0.437 |
| V0270003450VS-1231 | 2.700 | 3.450 | 0.375 |
| V0275003250VS-1231 | 2.750 | 3.250 | 0.250 |
| V0275003375VS-1231 | 2.750 | 3.375 | 0.312 |
| V0275003500VS-1231 | 2.750 | 3.500 | 0.375 |
| V0275003625VS-1051 | 2.750 | 3.625 | 0.437 |
| V0275003750VS-1051 | 2.750 | 3.750 | 0.500 |
| V0275003875VS-1051 | 2.750 | 3.875 | 0.562 |
| V0277503525VS-1231 | 2.775 | 3.525 | 0.375 |
| V0287503250VS-1051 | 2.875 | 3.250 | 0.187 |
| V0287503375VS-1231 | 2.875 | 3.375 | 0.250 |
| V0287503500VS-1051 | 2.875 | 3.500 | 0.312 |
| V0287503625VS-1051 | 2.875 | 3.625 | 0.375 |
| V0287503875VS-1051 | 2.875 | 3.875 | 0.500 |
| V0293704250VS-1051 | 2.937 | 4.250 | 0.657 |
| V0295003450VS-1231 | 2.950 | 3.450 | 0.250 |
| V0295003500VS-1231 | 2.950 | 3.500 | 0.275 |
| V0297003520VS-1231 | 2.970 | 3.520 | 0.275 |
| V0300003500VS-1231 | 3.000 | 3.500 | 0.250 |
| V0300003515VS-1051 | 3.000 | 3.515 | 0.258 |
| V0300003520VS-1051 | 3.000 | 3.520 | 0.260 |
| V0300003625VS-1231 | 3.000 | 3.625 | 0.312 |
| V0300003750VS-1231 | 3.000 | 3.750 | 0.375 |
| V0300003875VS-1051 | 3.000 | 3.875 | 0.437 |
| V0300004000VS-1231 | 3.000 | 4.000 | 0.500 |
| V0300004500VS-1051 | 3.000 | 4.500 | 0.750 |
| V0312503500VS-1231 | 3.125 | 3.500 | 0.187 |
| V0312503625VS-1051 | 3.125 | 3.625 | 0.250 |
| V0312503750VS-1051 | 3.125 | 3.750 | 0.312 |

Standard vee sets series



| Ref.Number | Nominal Seal Dimensions | | |
|--------------------|-------------------------|-------|---------|
| | d | D | Section |
| V0312503875VS-1051 | 3.125 | 3.875 | 0.375 |
| V0312504000VS-1231 | 3.125 | 4.000 | 0.437 |
| V0312504125VS-1051 | 3.125 | 4.125 | 0.500 |
| V0318703937VS-1051 | 3.187 | 3.937 | 0.375 |
| V0318704020VS-1051 | 3.187 | 4.020 | 0.417 |
| V0320003770VS-1051 | 3.200 | 3.770 | 0.285 |
| V0325003625VS-1231 | 3.250 | 3.625 | 0.187 |
| V0325003750VS-1231 | 3.250 | 3.750 | 0.250 |
| V0325003875VS-1051 | 3.250 | 3.875 | 0.312 |
| V0325004000VS-1231 | 3.250 | 4.000 | 0.375 |
| V0325004020VS-1051 | 3.250 | 4.020 | 0.385 |
| V0325004250VS-1231 | 3.250 | 4.250 | 0.500 |
| V0325004500VS-1051 | 3.250 | 4.500 | 0.625 |
| V0327504025VS-1231 | 3.275 | 4.025 | 0.375 |
| V0337503875VS-1231 | 3.375 | 3.875 | 0.250 |
| V0337504000VS-1051 | 3.375 | 4.000 | 0.312 |
| V0337504125VS-1231 | 3.375 | 4.125 | 0.375 |
| V0337504375VS-1051 | 3.375 | 4.375 | 0.500 |
| V0343703937VS-1051 | 3.437 | 3.937 | 0.250 |
| V0345004000VS-1051 | 3.450 | 4.000 | 0.275 |
| V0345004250VS-1231 | 3.450 | 4.250 | 0.400 |
| V0347504015VS-1051 | 3.475 | 4.015 | 0.270 |
| V0348504015VS-1231 | 3.485 | 4.015 | 0.265 |
| V0350004000VS-1231 | 3.500 | 4.000 | 0.250 |
| V0350004125VS-1231 | 3.500 | 4.125 | 0.312 |
| V0350004250VS-1231 | 3.500 | 4.250 | 0.375 |
| V0350004500VS-1051 | 3.500 | 4.500 | 0.500 |
| V0350005000VS-1051 | 3.500 | 5.000 | 0.750 |
| V0358004110VS-1231 | 3.580 | 4.110 | 0.265 |
| V0362504062VS-1051 | 3.625 | 4.062 | 0.219 |
| V0362504125VS-1051 | 3.625 | 4.125 | 0.250 |
| V0362504500VS-1051 | 3.625 | 4.500 | 0.437 |
| V0362504625VS-1051 | 3.625 | 4.625 | 0.500 |
| V0368704250VS-1051 | 3.687 | 4.250 | 0.282 |
| V0375004250VS-1231 | 3.750 | 4.250 | 0.250 |
| V0375004375VS-1231 | 3.750 | 4.375 | 0.312 |
| V0375004500VS-1231 | 3.750 | 4.500 | 0.375 |
| V0375004520VS-1051 | 3.750 | 4.520 | 0.385 |
| V0375004750VS-1051 | 3.750 | 4.750 | 0.500 |
| V0375005250VS-1051 | 3.750 | 5.250 | 0.750 |
| V0377504525VS-1051 | 3.775 | 4.525 | 0.375 |
| V0387504375VS-1051 | 3.875 | 4.375 | 0.250 |
| V0387504500VS-1051 | 3.875 | 4.500 | 0.312 |
| V0387505000VS-1051 | 3.875 | 5.000 | 0.562 |
| V0395004500VS-1231 | 3.950 | 4.500 | 0.275 |
| V0395004750VS-1051 | 3.950 | 4.750 | 0.400 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------------|-------------------------|-------|---------|
| | d | D | Section |
| V0397004520VS-1231 | 3.970 | 4.520 | 0.275 |
| V0400004500VS-1231 | 4.000 | 4.500 | 0.250 |
| V0400004525VS-1051 | 4.000 | 4.525 | 0.263 |
| V0400004530VS-1051 | 4.000 | 4.530 | 0.265 |
| V0400004562VS-1051 | 4.000 | 4.562 | 0.281 |
| V0400004625VS-1051 | 4.000 | 4.625 | 0.312 |
| V0400004750VS-1231 | 4.000 | 4.750 | 0.375 |
| V0400004875VS-1231 | 4.000 | 4.875 | 0.437 |
| V0400005000VS-1231 | 4.000 | 5.000 | 0.500 |
| V0400005125VS-1051 | 4.000 | 5.125 | 0.562 |
| V0400005250VS-1051 | 4.000 | 5.250 | 0.625 |
| V0400005500VS-1051 | 4.000 | 5.500 | 0.750 |
| V0402505025VS-1231 | 4.025 | 5.025 | 0.500 |
| V0405404570VS-1051 | 4.054 | 4.570 | 0.258 |
| V0406204812VS-1231 | 4.062 | 4.812 | 0.375 |
| V0412504875VS-1051 | 4.125 | 4.875 | 0.375 |
| V0412505000VS-1051 | 4.125 | 5.000 | 0.437 |
| V0412505025VS-1231 | 4.125 | 5.025 | 0.450 |
| V0412505125VS-1051 | 4.125 | 5.125 | 0.500 |
| V0412505250VS-1051 | 4.125 | 5.250 | 0.562 |
| V0420004750VS-1051 | 4.200 | 4.750 | 0.275 |
| V0423004781VS-1051 | 4.230 | 4.781 | 0.276 |
| V0425004750VS-1231 | 4.250 | 4.750 | 0.250 |
| V0425004875VS-1051 | 4.250 | 4.875 | 0.312 |
| V0425005000VS-1231 | 4.250 | 5.000 | 0.375 |
| V0425005125VS-1051 | 4.250 | 5.125 | 0.437 |
| V0425005250VS-1231 | 4.250 | 5.250 | 0.500 |
| V0425005500VS-1051 | 4.250 | 5.500 | 0.625 |
| V0427505025VS-1231 | 4.275 | 5.025 | 0.375 |
| V0437504875VS-1051 | 4.375 | 4.875 | 0.250 |
| V0437505000VS-1051 | 4.375 | 5.000 | 0.312 |
| V0437505375VS-1051 | 4.375 | 5.375 | 0.500 |
| V0443704937VS-1051 | 4.437 | 4.937 | 0.250 |
| V0443705000VS-1051 | 4.437 | 5.000 | 0.282 |
| V0445005000VS-1051 | 4.450 | 5.000 | 0.275 |
| V0447505015VS-1231 | 4.475 | 5.015 | 0.270 |
| V0447505025VS-1051 | 4.475 | 5.025 | 0.275 |
| V0448005031VS-1051 | 4.480 | 5.031 | 0.276 |
| V0450005000VS-1231 | 4.500 | 5.000 | 0.250 |
| V0450005125VS-1051 | 4.500 | 5.125 | 0.312 |
| V0450005250VS-1231 | 4.500 | 5.250 | 0.375 |
| V0450005375VS-1231 | 4.500 | 5.375 | 0.437 |
| V0450005500VS-1051 | 4.500 | 5.500 | 0.500 |
| V0458005080VS-1231 | 4.580 | 5.080 | 0.250 |
| V0462505250VS-1051 | 4.625 | 5.250 | 0.312 |
| V0462505375VS-1051 | 4.625 | 5.375 | 0.375 |

Standard vee sets series

VEE PACKINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------------|-------------------------|-------|---------|
| | d | D | Section |
| V0462505625VS-1051 | 4.625 | 5.625 | 0.500 |
| V0470005250VS-1051 | 4.700 | 5.250 | 0.275 |
| V0470005445VS-1051 | 4.700 | 5.445 | 0.373 |
| V0474505380VS-1051 | 4.745 | 5.380 | 0.318 |
| V0475005250VS-1051 | 4.750 | 5.250 | 0.250 |
| V0475005375VS-1231 | 4.750 | 5.375 | 0.312 |
| V0475005500VS-1231 | 4.750 | 5.500 | 0.375 |
| V0475005625VS-1051 | 4.750 | 5.625 | 0.437 |
| V0475005750VS-1051 | 4.750 | 5.750 | 0.500 |
| V0475006000VS-1051 | 4.750 | 6.000 | 0.625 |
| V0477505525VS-1231 | 4.775 | 5.525 | 0.375 |
| V0487505500VS-1051 | 4.875 | 5.500 | 0.312 |
| V0493705687VS-1051 | 4.937 | 5.687 | 0.375 |
| V0493705937VS-1051 | 4.937 | 5.937 | 0.500 |
| V0493706062VS-1051 | 4.937 | 6.062 | 0.562 |
| V0495005500VS-1231 | 4.950 | 5.500 | 0.275 |
| V0497005520VS-1231 | 4.970 | 5.520 | 0.275 |
| V0500005375VS-1051 | 5.000 | 5.375 | 0.187 |
| V0500005500VS-1231 | 5.000 | 5.500 | 0.250 |
| V0500005530VS-1051 | 5.000 | 5.530 | 0.265 |
| V0500005562VS-1051 | 5.000 | 5.562 | 0.281 |
| V0500005625VS-1051 | 5.000 | 5.625 | 0.312 |
| V0500005750VS-1231 | 5.000 | 5.750 | 0.375 |
| V0500005875VS-1051 | 5.000 | 5.875 | 0.437 |
| V0500006000VS-1231 | 5.000 | 6.000 | 0.500 |
| V0500006040VS-1051 | 5.000 | 6.040 | 0.520 |
| V0500006250VS-1051 | 5.000 | 6.250 | 0.625 |
| V0500006500VS-1051 | 5.000 | 6.500 | 0.750 |
| V0500006750VS-1051 | 5.000 | 6.750 | 0.875 |
| V0500007000VS-1051 | 5.000 | 7.000 | 1.000 |
| V0512505625VS-1231 | 5.125 | 5.625 | 0.250 |
| V0512505750VS-1051 | 5.125 | 5.750 | 0.312 |
| V0512506000VS-1051 | 5.125 | 6.000 | 0.437 |
| V0518705750VS-1051 | 5.187 | 5.750 | 0.282 |
| V0525005750VS-1231 | 5.250 | 5.750 | 0.250 |
| V0525006000VS-1231 | 5.250 | 6.000 | 0.375 |
| V0525006032VS-1051 | 5.250 | 6.032 | 0.391 |
| V0525006250VS-1051 | 5.250 | 6.250 | 0.500 |
| V0525006750VS-1051 | 5.250 | 6.750 | 0.750 |
| V0527506025VS-1051 | 5.275 | 6.025 | 0.375 |
| V0528206010VS-1051 | 5.282 | 6.010 | 0.364 |
| V0530006175VS-1051 | 5.300 | 6.175 | 0.437 |
| V0531206312VS-1051 | 5.312 | 6.312 | 0.500 |
| V0537506000VS-1051 | 5.375 | 6.000 | 0.312 |
| V0537506250VS-1051 | 5.375 | 6.250 | 0.437 |
| V0537506375VS-1051 | 5.375 | 6.375 | 0.500 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------------|-------------------------|-------|---------|
| | d | D | Section |
| V0543706437VS-1051 | 5.437 | 6.437 | 0.500 |
| V0544505945VS-1231 | 5.445 | 5.945 | 0.250 |
| V0547506020VS-1051 | 5.475 | 6.020 | 0.273 |
| V0547506025VS-1231 | 5.475 | 6.025 | 0.275 |
| V0550006000VS-1231 | 5.500 | 6.000 | 0.250 |
| V0550006125VS-1051 | 5.500 | 6.125 | 0.312 |
| V0550006250VS-1231 | 5.500 | 6.250 | 0.375 |
| V0550006375VS-1051 | 5.500 | 6.375 | 0.437 |
| V0550006500VS-1051 | 5.500 | 6.500 | 0.500 |
| V0550006625VS-1051 | 5.500 | 6.625 | 0.562 |
| V0562506250VS-1051 | 5.625 | 6.250 | 0.312 |
| V0562506500VS-1051 | 5.625 | 6.500 | 0.437 |
| V0562506625VS-1051 | 5.625 | 6.625 | 0.500 |
| V0562506875VS-1051 | 5.625 | 6.875 | 0.625 |
| V0570006450VS-1231 | 5.700 | 6.450 | 0.375 |
| V0575006250VS-1051 | 5.750 | 6.250 | 0.250 |
| V0575006375VS-1231 | 5.750 | 6.375 | 0.312 |
| V0575006500VS-1051 | 5.750 | 6.500 | 0.375 |
| V0575006750VS-1051 | 5.750 | 6.750 | 0.500 |
| V0575007250VS-1051 | 5.750 | 7.250 | 0.750 |
| V0577506525VS-1051 | 5.775 | 6.525 | 0.375 |
| V0579506545VS-1051 | 5.795 | 6.545 | 0.375 |
| V0587506375VS-1051 | 5.875 | 6.375 | 0.250 |
| V0587506437VS-1051 | 5.875 | 6.437 | 0.281 |
| V0595006500VS-1231 | 5.950 | 6.500 | 0.275 |
| V0597006520VS-1231 | 5.970 | 6.520 | 0.275 |
| V0600006500VS-1231 | 6.000 | 6.500 | 0.250 |
| V0600006530VS-1051 | 6.000 | 6.530 | 0.265 |
| V0600006625VS-1231 | 6.000 | 6.625 | 0.312 |
| V0600006750VS-1231 | 6.000 | 6.750 | 0.375 |
| V0600007000VS-1051 | 6.000 | 7.000 | 0.500 |
| V0600007040VS-1051 | 6.000 | 7.040 | 0.520 |
| V0600007250VS-1051 | 6.000 | 7.250 | 0.625 |
| V0600007500VS-1051 | 6.000 | 7.500 | 0.750 |
| V0625006750VS-1051 | 6.250 | 6.750 | 0.250 |
| V0625006875VS-1231 | 6.250 | 6.875 | 0.312 |
| V0625007000VS-1051 | 6.250 | 7.000 | 0.375 |
| V0625007250VS-1051 | 6.250 | 7.250 | 0.500 |
| V0644506945VS-1231 | 6.445 | 6.945 | 0.250 |
| V0647507020VS-1051 | 6.475 | 7.020 | 0.273 |
| V0647507025VS-1231 | 6.475 | 7.025 | 0.275 |
| V0650007000VS-1231 | 6.500 | 7.000 | 0.250 |
| V0650007062VS-1051 | 6.500 | 7.062 | 0.281 |
| V0650007250VS-1051 | 6.500 | 7.250 | 0.375 |
| V0650007500VS-1231 | 6.500 | 7.500 | 0.500 |
| V0650007750VS-1051 | 6.500 | 7.750 | 0.625 |

Standard vee sets series



| Ref.Number | Nominal Seal Dimensions | | |
|--------------------|-------------------------|--------|---------|
| | d | D | Section |
| V0650008000VS-1051 | 6.500 | 8.000 | 0.750 |
| V0650008500VS-1051 | 6.500 | 8.500 | 1.000 |
| V0662507250VS-1051 | 6.625 | 7.250 | 0.312 |
| V0668707312VS-1051 | 6.687 | 7.312 | 0.312 |
| V0670007250VS-1051 | 6.700 | 7.250 | 0.275 |
| V0670007500VS-1051 | 6.700 | 7.500 | 0.400 |
| V0675007250VS-1051 | 6.750 | 7.250 | 0.250 |
| V0675007375VS-1231 | 6.750 | 7.375 | 0.312 |
| V0675007500VS-1051 | 6.750 | 7.500 | 0.375 |
| V0675007750VS-1051 | 6.750 | 7.750 | 0.500 |
| V0675008000VS-1051 | 6.750 | 8.000 | 0.625 |
| V0687507750VS-1051 | 6.875 | 7.750 | 0.437 |
| V0694007500VS-1051 | 6.940 | 7.500 | 0.280 |
| V0695007500VS-1231 | 6.950 | 7.500 | 0.275 |
| V0697007520VS-1231 | 6.970 | 7.520 | 0.275 |
| V0700007500VS-1231 | 7.000 | 7.500 | 0.250 |
| V0700007530VS-1051 | 7.000 | 7.530 | 0.265 |
| V0700007750VS-1051 | 7.000 | 7.750 | 0.375 |
| V0700008000VS-1231 | 7.000 | 8.000 | 0.500 |
| V0700008040VS-1051 | 7.000 | 8.040 | 0.520 |
| V0700008250VS-1051 | 7.000 | 8.250 | 0.625 |
| V0700008500VS-1051 | 7.000 | 8.500 | 0.750 |
| V0725007750VS-1051 | 7.250 | 7.750 | 0.250 |
| V0725008000VS-1051 | 7.250 | 8.000 | 0.375 |
| V0725008250VS-1051 | 7.250 | 8.250 | 0.500 |
| V0737508000VS-1051 | 7.375 | 8.000 | 0.312 |
| V0744507945VS-1231 | 7.445 | 7.945 | 0.250 |
| V0745008000VS-1051 | 7.450 | 8.000 | 0.275 |
| V0750008000VS-1231 | 7.500 | 8.000 | 0.250 |
| V0750008125VS-1231 | 7.500 | 8.125 | 0.312 |
| V0750008250VS-1231 | 7.500 | 8.250 | 0.375 |
| V0750008500VS-1051 | 7.500 | 8.500 | 0.500 |
| V0750008750VS-1051 | 7.500 | 8.750 | 0.625 |
| V0750008812VS-1051 | 7.500 | 8.812 | 0.656 |
| V0750009000VS-1051 | 7.500 | 9.000 | 0.750 |
| V0750010000VS-1051 | 7.500 | 10.000 | 1.250 |
| V0762508125VS-1051 | 7.625 | 8.125 | 0.250 |
| V0768708312VS-1051 | 7.687 | 8.312 | 0.312 |
| V0775008250VS-1051 | 7.750 | 8.250 | 0.250 |
| V0775008500VS-1051 | 7.750 | 8.500 | 0.375 |
| V0775008514VS-1051 | 7.750 | 8.514 | 0.382 |
| V0775008750VS-1051 | 7.750 | 8.750 | 0.500 |
| V0787508625VS-1051 | 7.875 | 8.625 | 0.375 |
| V0787508875VS-1051 | 7.875 | 8.875 | 0.500 |
| V0790508543VS-1231 | 7.905 | 8.543 | 0.319 |
| V0795008500VS-1231 | 7.950 | 8.500 | 0.275 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------------|-------------------------|--------|---------|
| | d | D | Section |
| V0797008520VS-1231 | 7.970 | 8.520 | 0.275 |
| V0800008500VS-1231 | 8.000 | 8.500 | 0.250 |
| V0800008525VS-1051 | 8.000 | 8.525 | 0.263 |
| V0800008530VS-1051 | 8.000 | 8.530 | 0.265 |
| V0800008750VS-1051 | 8.000 | 8.750 | 0.375 |
| V0800009000VS-1051 | 8.000 | 9.000 | 0.500 |
| V0800009250VS-1051 | 8.000 | 9.250 | 0.625 |
| V0800009500VS-1051 | 8.000 | 9.500 | 0.750 |
| V0804009040VS-1051 | 8.040 | 9.040 | 0.500 |
| V0805009050VS-1051 | 8.050 | 9.050 | 0.500 |
| V0812508625VS-1231 | 8.125 | 8.625 | 0.250 |
| V0812508655VS-1231 | 8.125 | 8.655 | 0.265 |
| V0825008750VS-1231 | 8.250 | 8.750 | 0.250 |
| V0825009000VS-1231 | 8.250 | 9.000 | 0.375 |
| V0844509195VS-1231 | 8.445 | 9.195 | 0.375 |
| V0850009000VS-1231 | 8.500 | 9.000 | 0.250 |
| V0850009250VS-1051 | 8.500 | 9.250 | 0.375 |
| V0850009500VS-1051 | 8.500 | 9.500 | 0.500 |
| V0850010000VS-1051 | 8.500 | 10.000 | 0.750 |
| V0850010062VS-1051 | 8.500 | 10.062 | 0.781 |
| V0862509625VS-1051 | 8.625 | 9.625 | 0.500 |
| V0875009375VS-1051 | 8.750 | 9.375 | 0.312 |
| V0875009500VS-1051 | 8.750 | 9.500 | 0.375 |
| V0875010000VS-1051 | 8.750 | 10.000 | 0.625 |
| V0887509875VS-1051 | 8.875 | 9.875 | 0.500 |
| V0894509745VS-1051 | 8.945 | 9.745 | 0.400 |
| V0895009500VS-1231 | 8.950 | 9.500 | 0.275 |
| V0900009500VS-1051 | 9.000 | 9.500 | 0.250 |
| V0900009750VS-1231 | 9.000 | 9.750 | 0.375 |
| V0900010000VS-1051 | 9.000 | 10.000 | 0.500 |
| V0900010250VS-1051 | 9.000 | 10.250 | 0.625 |
| V0900010500VS-1051 | 9.000 | 10.500 | 0.750 |
| V0900011000VS-1051 | 9.000 | 11.000 | 1.000 |
| V0912509625VS-1231 | 9.125 | 9.625 | 0.250 |
| V0912509675VS-1231 | 9.125 | 9.675 | 0.275 |
| V0912509750VS-1231 | 9.125 | 9.750 | 0.312 |
| V0912509875VS-1051 | 9.125 | 9.875 | 0.375 |
| V0912510625VS-1051 | 9.125 | 10.625 | 0.750 |
| V0924009790VS-1051 | 9.240 | 9.790 | 0.275 |
| V0925009750VS-1051 | 9.250 | 9.750 | 0.250 |
| V0937509875VS-1231 | 9.375 | 9.875 | 0.250 |
| V0937509905VS-1051 | 9.375 | 9.905 | 0.265 |
| V0937510000VS-1231 | 9.375 | 10.000 | 0.312 |
| V0942510017VS-1051 | 9.425 | 10.017 | 0.296 |
| V0950010000VS-1231 | 9.500 | 10.000 | 0.250 |
| V0950010500VS-1051 | 9.500 | 10.500 | 0.500 |

Standard vee sets series

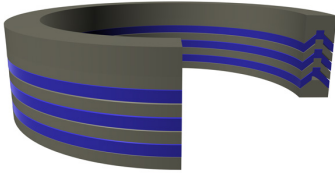


| Ref.Number | Nominal Seal Dimensions | | |
|--------------------|-------------------------|--------|---------|
| | d | D | Section |
| V0962510125VS-1051 | 9.625 | 10.125 | 0.250 |
| V0975010500VS-1231 | 9.750 | 10.500 | 0.375 |
| V0975011000VS-1051 | 9.750 | 11.000 | 0.625 |
| V0987510625VS-1051 | 9.875 | 10.625 | 0.375 |
| V0987510875VS-1051 | 9.875 | 10.875 | 0.500 |
| V1000011000VS-1051 | 10.000 | 11.000 | 0.500 |
| V1000011250VS-1051 | 10.000 | 11.250 | 0.625 |
| V1000011500VS-1051 | 10.000 | 11.500 | 0.750 |
| V1044511245VS-1051 | 10.445 | 11.245 | 0.400 |
| V1050011000VS-1051 | 10.500 | 11.000 | 0.250 |
| V1050011250VS-1051 | 10.500 | 11.250 | 0.375 |
| V1050011500VS-1051 | 10.500 | 11.500 | 0.500 |
| V1050012000VS-1051 | 10.500 | 12.000 | 0.750 |
| V1062511375VS-1051 | 10.625 | 11.375 | 0.375 |
| V1062511750VS-1051 | 10.625 | 11.750 | 0.562 |
| V1062512125VS-1051 | 10.625 | 12.125 | 0.750 |
| V1075011500VS-1051 | 10.750 | 11.500 | 0.375 |
| V1075011750VS-1051 | 10.750 | 11.750 | 0.500 |
| V1075012000VS-1051 | 10.750 | 12.000 | 0.625 |
| V1087511875VS-1051 | 10.875 | 11.875 | 0.500 |
| V1100011750VS-1231 | 11.000 | 11.750 | 0.375 |
| V1100012000VS-1051 | 11.000 | 12.000 | 0.500 |
| V1100012250VS-1051 | 11.000 | 12.250 | 0.625 |
| V1125012000VS-1051 | 11.250 | 12.000 | 0.375 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------------|-------------------------|--------|---------|
| | d | D | Section |
| V1150013250VS-1051 | 11.500 | 13.250 | 0.875 |
| V1175013000VS-1051 | 11.750 | 13.000 | 0.625 |
| V1175013250VS-1051 | 11.750 | 13.250 | 0.750 |
| V1187512875VS-1051 | 11.875 | 12.875 | 0.500 |
| V1200013000VS-1051 | 12.000 | 13.000 | 0.500 |
| V1200013250VS-1051 | 12.000 | 13.250 | 0.625 |
| V1250013750VS-1051 | 12.500 | 13.750 | 0.625 |
| V1250014000VS-1051 | 12.500 | 14.000 | 0.750 |
| V1275014000VS-1051 | 12.750 | 14.000 | 0.625 |
| V1300014000VS-1051 | 13.000 | 14.000 | 0.500 |
| V1300014500VS-1051 | 13.000 | 14.500 | 0.750 |
| V1350015000VS-1051 | 13.500 | 15.000 | 0.750 |
| V1400015000VS-1051 | 14.000 | 15.000 | 0.500 |
| V1425015500VS-1051 | 14.250 | 15.500 | 0.625 |
| V1500016000VS-1051 | 15.000 | 16.000 | 0.500 |
| V1500016250VS-1051 | 15.000 | 16.250 | 0.625 |
| V1600017500VS-1051 | 16.000 | 17.500 | 0.750 |
| V1700018000VS-1051 | 17.000 | 18.000 | 0.500 |
| V1725018000VS-1051 | 17.250 | 18.000 | 0.375 |
| V1850020000VS-1051 | 18.500 | 20.000 | 0.750 |
| V1900020000VS-1051 | 19.000 | 20.000 | 0.500 |
| V1900020250VS-1051 | 19.000 | 20.250 | 0.625 |
| V2200023500VS-1051 | 22.000 | 23.500 | 0.750 |
| V2250024000VS-1051 | 22.500 | 24.000 | 0.750 |

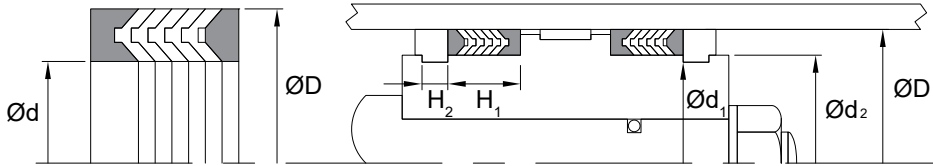


«Hydrolock» vee sets - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|----------------------|
| Nylon/Hytrel | -40°F to +250°F (-40°C to +121°C) | ≤6000 psi (≤414 bar) | < 1.6 ft/s (0.5 m/s) |

1740 = 3 Vees, 1741 = 4 Vees, 1742 = 5 Vees



«**Hydrolock vee sets** is adaptable to multiple sealing applications. It is used in telescoping truck hoists, pumps and valves and is also popular for sealing rods and pistons. Sets are made up of a top and bottom component with a number of center vees that can vary. We can help guide your material choices to accommodate different pressures, temperatures and chemicals or gases.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|-----------------|---------------|------------------|-------------------------|-------|---------|--------------------|------------------|------------------------|-------|-------|------------------|
| | D1 | Tol. | D | d | Bearing | d1 | d2 | 1740 | 1741 | 1742 | H2 |
| | | | | | | +0.000 -0.003 | +0.005 -0.005 | H1 - TOL: +.005/-0.000 | | | +0.005 -0.000 |
| 1742-200 | 2.000 | +0.003 -0.000 | 2.000 | 1.500 | | 1.250 | 1.500 | 0.750 | 0.875 | 1.000 | 0.252 |
| 1742-200-100-FB | 2.000 | +0.003 -0.000 | 2.000 | 1.500 | 1.000 | 1.250 | 1.500 | 1.500 | 1.625 | 1.750 | 0.252 |
| 1742-225 | 2.250 | | 2.250 | 1.750 | | 1.500 | 1.750 | 0.750 | 0.875 | 1.000 | 0.252 |
| 1742-225-100-FB | 2.250 | | 2.250 | 1.750 | 1.000 | 1.500 | 1.750 | 1.500 | 1.625 | 1.750 | 0.252 |
| 1742-250 | 2.500 | | 2.500 | 2.000 | | 1.750 | 2.000 | 0.750 | 0.875 | 1.000 | 0.252 |
| 1742-250-100-FB | 2.500 | | 2.500 | 2.000 | 1.000 | 1.750 | 2.000 | 1.500 | 1.625 | 1.750 | 0.252 |
| 1742-275 | 2.750 | | 2.750 | 2.250 | | 2.000 | 2.250 | 0.750 | 0.875 | 1.000 | 0.252 |
| 1742-275-100-FB | 2.750 | ▼ | 2.750 | 2.250 | 1.000 | 2.000 | 2.250 | 1.500 | 1.625 | 1.750 | 0.252 |
| 1742-300 | 3.000 | +0.004 -0.000 | 3.000 | 2.500 | | 2.250 | 2.500 | 0.750 | 0.875 | 1.000 | 0.252 |
| 1742-300-100-FB | 3.000 | +0.004 -0.000 | 3.000 | 2.500 | 1.000 | 2.250 | 2.500 | 1.500 | 1.625 | 1.750 | 0.252 |
| 1742-325 | 3.250 | | 3.250 | 2.750 | | 2.500 | 2.750 | 0.750 | 0.875 | 1.000 | 0.252 |
| 1742-325-100-FB | 3.250 | | 3.250 | 2.750 | 1.000 | 2.500 | 2.750 | 1.500 | 1.625 | 1.750 | 0.252 |
| 1742-350 | 3.500 | | 3.500 | 3.000 | | 2.750 | 3.000 | 0.750 | 0.875 | 1.000 | 0.252 |
| 1742-350-100-FB | 3.500 | | 3.500 | 3.000 | 1.000 | 2.750 | 3.000 | 1.500 | 1.625 | 1.750 | 0.252 |
| 1742-375 | 3.750 | | 3.750 | 3.250 | | 3.000 | 3.250 | 0.750 | 0.875 | 1.000 | 0.252 |
| 1742-375-100-FB | 3.750 | | 3.750 | 3.250 | 1.000 | 3.000 | 3.250 | 1.500 | 1.625 | 1.750 | 0.252 |
| 1742-400 | 4.000 | | 4.000 | 3.500 | | 3.250 | 3.500 | 0.750 | 0.875 | 1.000 | 0.377 |
| 1742-400-100-FB | 4.000 | | 4.000 | 3.500 | 1.000 | 3.250 | 3.500 | 1.500 | 1.625 | 1.750 | 0.377 |
| 1742-450 | 4.500 | | 4.500 | 4.000 | | 3.750 | 4.000 | 0.750 | 0.875 | 1.000 | 0.377 |
| 1742-450-100-FB | 4.500 | | 4.500 | 4.000 | 1.000 | 3.750 | 4.000 | 1.500 | 1.625 | 1.750 | 0.377 |
| 1742-500 | 5.000 | | 5.000 | 4.500 | | 4.125 | 4.500 | 0.750 | 0.875 | 1.000 | 0.377 |
| 1742-500-100-FB | 5.000 | | 5.000 | 4.500 | 1.000 | 4.125 | 4.500 | 1.500 | 1.625 | 1.750 | 0.377 |
| 1742-550 | 5.500 | ▼ | 5.500 | 5.000 | | 4.625 | 5.000 | 0.750 | 0.875 | 1.000 | 0.377 |



« Hydrolock » vee sets series - NYLON/HYTREL

VEE PACKINGS



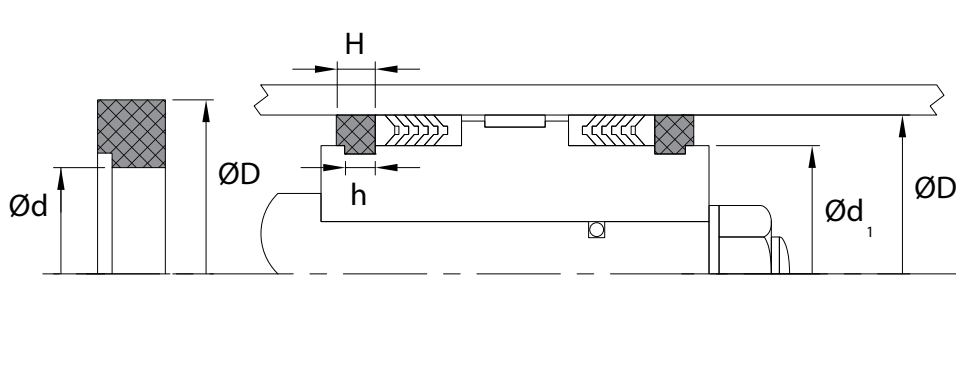
| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|------------------|---------------|------------------|-------------------------|--------|---------|--------------------|------------------|-------------------------|-------|-------|------------------|
| | D1 | Tol. | D | d | Bearing | d1 | d2 | 1740 | 1741 | 1742 | H2 |
| | | | | | | +0.000 -0.003 | +0.005 -0.005 | H1 - TOL: +0.005/-0.000 | | | +0.005 -0.000 |
| 1742-550-100-FB | 5.500 | +0.004 -0.000 | 5.500 | 5.000 | 1.000 | 4.620 | 5.000 | 1.500 | 1.625 | 1.750 | 0.377 |
| 1742-600 | 6.000 | | 6.000 | 5.500 | | 5.125 | 5.500 | 0.750 | 0.875 | 1.000 | 0.377 |
| 1742-600-100-FB | 6.000 | | 6.000 | 5.500 | 1.000 | 5.125 | 5.500 | 1.500 | 1.625 | 1.750 | 0.377 |
| 1742-650 | 6.500 | | 6.500 | 6.000 | | 5.625 | 6.000 | 0.750 | 0.875 | 1.000 | 0.377 |
| 1742-650-100-FB | 6.500 | ▼ | 6.500 | 6.000 | 1.000 | 5.625 | 6.000 | 1.500 | 1.625 | 1.750 | 0.377 |
| 1742-700 | 7.000 | +0.004 -0.000 | 7.000 | 6.500 | | 6.125 | 6.500 | 0.750 | 0.875 | 1.000 | 0.377 |
| 1742-700-100-FB | 7.000 | | 7.000 | 6.500 | 1.000 | 6.125 | 6.500 | 1.500 | 1.625 | 1.750 | 0.377 |
| 1742-750 | 7.500 | | 7.500 | 7.000 | | 6.625 | 7.000 | 0.750 | 0.875 | 1.000 | 0.377 |
| 1742-750-100-FB | 7.500 | | 7.500 | 7.000 | 1.000 | 6.625 | 7.000 | 1.500 | 1.625 | 1.750 | 0.377 |
| 1742-800 | 8.000 | | 8.000 | 7.500 | | 7.125 | 7.500 | 0.800 | 0.925 | 1.050 | 0.377 |
| 1742-800-100-FB | 8.000 | | 8.000 | 7.500 | 1.000 | 7.125 | 7.500 | 1.500 | 1.625 | 1.750 | 0.377 |
| 1742-850 | 8.500 | | 8.500 | 8.000 | | 7.625 | 8.000 | 0.800 | 0.925 | 1.050 | 0.377 |
| 1742-850-100-FB | 8.500 | | 8.500 | 8.000 | 1.000 | 7.625 | 8.000 | 1.500 | 1.625 | 1.750 | 0.377 |
| 1742-900 | 9.000 | | 9.000 | 8.500 | | 8.125 | 8.500 | 0.800 | 0.925 | 1.050 | 0.377 |
| 1742-900-100-FB | 9.000 | | 9.000 | 8.500 | 1.000 | 8.125 | 8.500 | 1.500 | 1.625 | 1.750 | 0.377 |
| 1742-950 | 9.500 | | 9.500 | 9.000 | | 8.625 | 9.000 | 0.800 | 0.925 | 1.050 | 0.377 |
| 1742-950-100-FB | 9.500 | | 9.500 | 9.000 | 1.000 | 8.625 | 9.000 | 1.500 | 1.625 | 1.750 | 0.377 |
| 1742-1000 | 10.000 | | 10.000 | 9.500 | | 9.125 | 9.500 | 0.800 | 0.925 | 1.050 | 0.377 |
| 1742-1000-100-FB | 10.000 | ▼ | 10.000 | 9.500 | 1.000 | 9.125 | 9.500 | 1.500 | 1.625 | 1.750 | 0.377 |
| 1742-1100 | 11.000 | +0.005 -0.000 | 11.000 | 10.500 | 1.000 | 10.125 | 10.500 | 1.500 | 1.625 | 1.750 | 0.377 |
| 1742-1100-100-FB | 11.000 | | 11.000 | 10.500 | 1.000 | 10.125 | 10.500 | 1.500 | 1.625 | 1.750 | 0.377 |



« Guidelocks » - Vee packings - Inch



| Standard Material | Temperature Range | Surface Speed |
|-------------------|--------------------------------------|----------------------|
| Nylon | -40°F to +250°F (-40°C to +121°C) | < 1.6 ft/s (0.5 m/s) |



These guide-locking rings serve to retain the « Hydrolock » vee sets when mounted on the piston as well as offering additional bearing surface for better support.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Housing Dimensions | | | |
|------------|--------------------|-------|-------|-------|
| | D | d | h | H |
| 550-200 | 2.000 | 1.250 | 0.255 | 0.312 |
| 550-225 | 2.250 | 1.500 | 0.255 | 0.335 |
| 550-250 | 2.500 | 1.750 | 0.255 | 0.335 |
| 550-300 | 3.000 | 2.250 | 0.255 | 0.340 |
| 550-350 | 3.500 | 2.750 | 0.255 | 0.340 |
| 550-400 | 4.000 | 3.250 | 0.380 | 0.485 |
| 550-450 | 4.500 | 3.750 | 0.380 | 0.485 |
| 550-500 | 5.000 | 4.125 | 0.380 | 0.485 |
| 550-550 | 5.500 | 4.625 | 0.380 | 0.485 |
| 550-600 | 6.000 | 5.125 | 0.380 | 0.485 |

| Ref.Number | Housing Dimensions | | | |
|------------|--------------------|--------|-------|-------|
| | D | d | h | H |
| 550-650 | 6.500 | 5.625 | 0.380 | 0.485 |
| 550-700 | 7.000 | 6.125 | 0.380 | 0.485 |
| 550-750 | 7.500 | 6.625 | 0.380 | 0.485 |
| 550-800 | 8.000 | 7.125 | 0.380 | 0.485 |
| 550-850 | 8.500 | 7.625 | 0.380 | 0.485 |
| 550-900 | 9.000 | 8.125 | 0.380 | 0.485 |
| 550-950 | 9.500 | 8.625 | 0.380 | 0.485 |
| 550-1000 | 10.000 | 9.125 | 0.380 | 0.485 |
| 550-1100 | 11.000 | 10.125 | 0.380 | 0.485 |

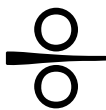
Markets segments we are servicing



Machine Tools



Material Handling



Metal Processing



Mining



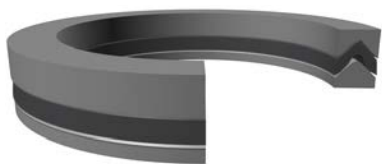
Pharmaceutical



Power Generation



Vee Coil - Vee packings - Inch



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|----------------------|
| Neo-Fabric | -40°F to +230°F (-40°C to +110°C) | ≤5000 psi (≤345 bar) | < 1.6 ft/s (0.5 m/s) |



FEMALE (F)

VEE (V)

MALE (M)

Typically supplied in coil form, this type of vee-packing can be pre-split to almost any diameter and stack height requirement. They are available in intermediate, male and female profiles and in a variety of cross-sectional sizes to insure quick turnaround time.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Nominal Packing Dimensions | |
|-------------|----------------------------|---------|
| | Section | Mandrel |
| VC00250F-02 | 0.250 | 2.000 |
| VC00250M-02 | 0.250 | 2.000 |
| VC00250V-02 | 0.250 | 2.000 |
| VC00250F-04 | 0.250 | 4.000 |
| VC00250M-04 | 0.250 | 4.000 |
| VC00250V-04 | 0.250 | 4.000 |
| VC00312F-02 | 0.312 | 2.000 |
| VC00312M-02 | 0.312 | 2.000 |
| VC00312V-02 | 0.312 | 2.000 |
| VC00312F-05 | 0.312 | 5.000 |
| VC00312M-05 | 0.312 | 5.000 |
| VC00312V-05 | 0.312 | 5.000 |
| VC00375F-03 | 0.375 | 3.000 |
| VC00375M-03 | 0.375 | 3.000 |
| VC00375V-03 | 0.375 | 3.000 |
| VC00375F-06 | 0.375 | 6.000 |
| VC00375M-06 | 0.375 | 6.000 |
| VC00375V-06 | 0.375 | 6.000 |
| VC00437F-04 | 0.437 | 4.000 |
| VC00437M-04 | 0.437 | 4.000 |
| VC00437V-04 | 0.437 | 4.000 |
| VC00437F-09 | 0.437 | 9.000 |
| VC00437M-09 | 0.437 | 9.000 |

| Ref.Number | Nominal Packing Dimensions | |
|-------------|----------------------------|---------|
| | Section | Mandrel |
| VC00437V-09 | 0.437 | 9.000 |
| VC00500F-04 | 0.500 | 4.000 |
| VC00500M-04 | 0.500 | 4.000 |
| VC00500V-04 | 0.500 | 4.000 |
| VC00500F-09 | 0.500 | 9.000 |
| VC00500M-09 | 0.500 | 9.000 |
| VC00500V-09 | 0.500 | 9.000 |
| VC00562F-05 | 0.562 | 5.000 |
| VC00562M-05 | 0.562 | 5.000 |
| VC00562V-05 | 0.562 | 5.000 |
| VC00562F-11 | 0.562 | 11.000 |
| VC00562M-11 | 0.562 | 11.000 |
| VC00562V-11 | 0.562 | 11.000 |
| VC00625F-05 | 0.625 | 5.000 |
| VC00625M-05 | 0.625 | 5.000 |
| VC00625V-05 | 0.625 | 5.000 |
| VC00625F-11 | 0.625 | 11.000 |
| VC00625M-11 | 0.625 | 11.000 |
| VC00625V-11 | 0.625 | 11.000 |
| VC00750F-09 | 0.750 | 9.000 |
| VC00750M-09 | 0.750 | 9.000 |
| VC00750V-09 | 0.750 | 9.000 |
| VC00750F-13 | 0.750 | 13.000 |



Vee Coil series - NEOFAB

| Ref.Number | Nominal Packing Dimensions | |
|-------------|----------------------------|---------|
| | Section | Mandrel |
| VC00750M-13 | 0.750 | 13.000 |
| VC00750V-13 | 0.750 | 13.000 |
| VC00750F-24 | 0.750 | 24.000 |
| VC00750M-24 | 0.750 | 24.000 |
| VC00750V-24 | 0.750 | 24.000 |
| VC00875F-11 | 0.750 | 11.000 |
| VC00875M-11 | 0.875 | 11.000 |
| VC00875V-11 | 0.875 | 11.000 |
| VC00875F-16 | 0.875 | 16.000 |
| VC00875M-16 | 0.875 | 16.000 |
| VC00875V-16 | 0.875 | 16.000 |
| VC00875F-24 | 0.875 | 24.000 |

| Ref.Number | Nominal Packing Dimensions | |
|-------------|----------------------------|---------|
| | Section | Mandrel |
| VC00875M-24 | 0.875 | 24.000 |
| VC00875V-24 | 0.875 | 24.000 |
| VC01000F-13 | 1.000 | 13.000 |
| VC01000M-13 | 1.000 | 13.000 |
| VC01000V-13 | 1.000 | 13.000 |
| VC01000F-18 | 1.000 | 18.000 |
| VC01000M-18 | 1.000 | 18.000 |
| VC01000V-18 | 1.000 | 18.000 |
| VC01000F-24 | 1.000 | 24.000 |
| VC01000M-24 | 1.000 | 24.000 |
| VC01000V-24 | 1.000 | 24.000 |

OTHER PROFILES ARE ALSO AVAILABLE ON REQUEST

Though this product offering contains a wide selection of commonly used parts in the marketplace, it is possible that you haven't found the exact part you were looking for.

We have many other seal profiles available on request, please do not hesitate to contact us and we will do our best to help you locate the required part.










VEE PACKINGS



VEE PACKINGS



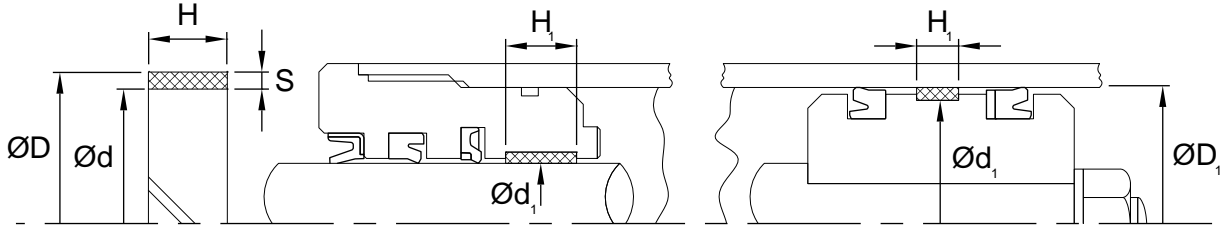
| | | | |
|---|------------------------------|---|----|
|  | W1 TO W4 + WR | F | 2 |
|  | CAT - PISTON GUIDING ELEMENT | F | 12 |
|  | CAT - ROD GUIDING ELEMENT | F | 16 |
|  | WS | F | 18 |
| INFO | DU REF. TABLE | F | 19 |
|  | DU BEARING | F | 21 |
|  | SBB | F | 25 |
|  | SBB-2RS | F | 26 |



Wear ring - W1, W2, W3, W4, WR - Inch



| Standard Material | Temperature Range |
|-------------------|--------------------------------------|
| GF.Nylon | -65°F to +275°F (-54°C to +135°C) |



The **W-style** wear-rings are primarily used on hydraulic/pneumatic cylinder pistons and rod glands. Their main function is to prevent metal-to-metal scoring as well as insuring that reciprocating parts are properly centered. Usually manufactured out of glass-filled nylon, other popular materials are also available.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

Formula for calculating rod wear ring grooves

$$D1 \text{ Min.Groove Dia.} = d \text{ Max.Rod Dia.} + 2 \text{ (Max.Wear Ring C/S)}$$

$$D1 \text{ tolerance} = .003/-0.000$$

$$d1 \text{ Min.Throat Dia.} = [D1 - 2(\text{Min.Wear Ring C/S})] + 2(\text{Min. Radial Clearance of } .005).$$

$$d1 \text{ tolerance} = +.003/-0.000$$

$$H1 \text{ Groove Length} = \text{Actual Part Height} + .010$$

$$H1 \text{ tolerance} = +.010/-0.000$$

NOTES:

1. Rod throat diameter d1 is a new diameter over and above the diameter which is normally called out for the rod seal. Additional diameter clearance is required as noted for the wear ring to function properly. Since a larger clearance gap results, consideration as to the rod seal compounds must be made to avoid rod seal extrusion.

2. Also consider wear ring groove design for small diameter sizes. Installation problems on small sizes will occur if the groove design is not compensated.

Formula for calculating piston wear ring Grooves

$$d1 \text{ Max.Groove Dia.} = D1 \text{ Min.Bore Dia.} - 2 \text{ (Max. Wear Ring C/S)}$$

$$d1 \text{ tolerance} = +.000/-0.005$$

$$P \text{ Max.Piston Dia.} = [d1 \text{ Min.Groove Dia.} + 2(\text{Min.Wear Ring C/S})] - 2(\text{Min. Radial Clearance of } .005).$$

$$P \text{ tolerance} = +.000/-0.005$$

$$H1 \text{ Groove Length} = \text{Actual Part Height} + .010$$

$$H1 \text{ tolerance} = +.010/-0.000$$

NOTES:

1. The piston diameter P will not correspond to diameters called out for the piston seals. Additional clearances are required for wear ring use. Be sure the entire outside diameter of the piston is no larger than P. Be sure the piston seal compound is considered to prevent extrusion of the piston seal with the new increased diameter clearance.



W1, W2, W3, W4, WR series - GF.NYLON

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|-------------------------------------|--------------|--------------|------------------------------|-------|-------|
| | | | D | H | S |
| 1/16" Cross Section - 0.062" | | | | | |
| W1006250500 | 0.625 | 0.500 | 0.625 | 0.500 | 0.062 |
| W1008750500 | 0.875 | 0.750 | 0.875 | 0.500 | 0.062 |
| W1011250500 | 1.125 | 1.000 | 1.125 | 0.500 | 0.062 |
| W1013750980 | 1.375 | 1.250 | 1.375 | 0.980 | 0.062 |
| W1015000500 | 1.500 | 1.375 | 1.500 | 0.500 | 0.062 |
| W1016250980 | 1.625 | 1.500 | 1.625 | 0.980 | 0.062 |
| W1016251000 | 1.625 | 1.500 | 1.625 | 1.000 | 0.062 |
| W1016251250 | 1.625 | 1.500 | 1.625 | 1.250 | 0.062 |
| W1016500500 | 1.650 | 1.525 | 1.650 | 0.500 | 0.062 |
| W1016700500 | 1.670 | 1.545 | 1.670 | 0.500 | 0.062 |
| W1017500500 | 1.750 | 1.625 | 1.750 | 0.500 | 0.062 |
| W1018750980 | 1.875 | 1.750 | 1.875 | 0.980 | 0.062 |
| W1018751000 | 1.875 | 1.750 | 1.875 | 1.000 | 0.062 |
| W1020000260 | 2.000 | 1.875 | 2.000 | 0.260 | 0.062 |
| W1020000312 | 2.000 | 1.875 | 2.000 | 0.312 | 0.062 |
| W1020000730 | 2.000 | 1.875 | 2.000 | 0.730 | 0.062 |
| W1020000980 | 2.000 | 1.875 | 2.000 | 0.980 | 0.062 |
| W1021250750 | 2.125 | 2.000 | 2.125 | 0.750 | 0.062 |
| W1021251000 | 2.125 | 2.000 | 2.125 | 1.000 | 0.062 |
| W1021251250 | 2.125 | 2.000 | 2.125 | 1.250 | 0.062 |
| W1022500370 | 2.250 | 2.125 | 2.250 | 0.370 | 0.062 |
| W1022500730 | 2.250 | 2.125 | 2.250 | 0.730 | 0.062 |
| W1022500980 | 2.250 | 2.125 | 2.250 | 0.980 | 0.062 |
| W1023750980 | 2.375 | 2.250 | 2.375 | 0.980 | 0.062 |
| W1023751000 | 2.375 | 2.250 | 2.375 | 1.000 | 0.062 |
| W1023751180 | 2.375 | 2.250 | 2.375 | 1.180 | 0.062 |
| W1023751480 | 2.375 | 2.250 | 2.375 | 1.480 | 0.062 |
| W1023751500 | 2.375 | 2.250 | 2.375 | 1.500 | 0.062 |
| W1025000500 | 2.500 | 2.375 | 2.500 | 0.500 | 0.062 |
| W1025001260 | 2.500 | 2.375 | 2.500 | 1.260 | 0.062 |
| W1026250500 | 2.625 | 2.500 | 2.625 | 0.500 | 0.062 |
| W1026250980 | 2.625 | 2.500 | 2.625 | 0.980 | 0.062 |
| W1026251000 | 2.625 | 2.500 | 2.625 | 1.000 | 0.062 |
| W1026251250 | 2.625 | 2.500 | 2.625 | 1.250 | 0.062 |
| W1026251500 | 2.625 | 2.500 | 2.625 | 1.500 | 0.062 |
| W1026251690 | 2.625 | 2.500 | 2.625 | 1.690 | 0.062 |
| W1027500500 | 2.750 | 2.625 | 2.750 | 0.500 | 0.062 |
| W1027500980 | 2.750 | 2.625 | 2.750 | 0.980 | 0.062 |
| W1027501000 | 2.750 | 2.625 | 2.750 | 1.000 | 0.062 |
| W1028750975 | 2.875 | 2.750 | 2.875 | 0.975 | 0.062 |
| W1028751000 | 2.875 | 2.750 | 2.875 | 1.000 | 0.062 |
| W1028751260 | 2.875 | 2.750 | 2.875 | 1.260 | 0.062 |
| W1028751500 | 2.875 | 2.750 | 2.875 | 1.500 | 0.062 |
| W1028751570 | 2.875 | 2.750 | 2.875 | 1.570 | 0.062 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|-------------------------------------|--------------|--------------|------------------------------|-------|-------|
| | | | D | H | S |
| 1/16" Cross Section - 0.062" | | | | | |
| W1028751790 | 2.875 | 2.750 | 2.875 | 1.790 | 0.062 |
| W1028751810 | 2.875 | 2.750 | 2.875 | 1.810 | 0.062 |
| W1031250500 | 3.125 | 3.000 | 3.125 | 0.500 | 0.062 |
| W1031250980 | 3.125 | 3.000 | 3.125 | 0.980 | 0.062 |
| W1031251240 | 3.125 | 3.000 | 3.125 | 1.240 | 0.062 |
| W1031251260 | 3.125 | 3.000 | 3.125 | 1.260 | 0.062 |
| W1031251480 | 3.125 | 3.000 | 3.125 | 1.480 | 0.062 |
| W1031251500 | 3.125 | 3.000 | 3.125 | 1.500 | 0.062 |
| W1031251562 | 3.125 | 3.000 | 3.125 | 1.562 | 0.062 |
| W1031251570 | 3.125 | 3.000 | 3.125 | 1.570 | 0.062 |
| W1031251650 | 3.125 | 3.000 | 3.125 | 1.650 | 0.062 |
| W1031870312 | 3.187 | 3.062 | 3.187 | 0.312 | 0.062 |
| W1033751730 | 3.375 | 3.250 | 3.375 | 1.730 | 0.062 |
| W1033751875 | 3.375 | 3.250 | 3.375 | 1.875 | 0.062 |
| W1036251060 | 3.625 | 3.500 | 3.625 | 1.060 | 0.062 |
| W1036251880 | 3.625 | 3.500 | 3.625 | 1.880 | 0.062 |
| W1038751570 | 3.875 | 3.750 | 3.875 | 1.570 | 0.062 |
| 5/64" Cross Section - 0.078" | | | | | |
| WR012500500-078 | 1.250 | 1.094 | 1.250 | 0.500 | 0.078 |
| WR016600625-078 | 1.660 | 1.503 | 1.660 | 0.625 | 0.078 |
| 3/32" Cross Section - 0.094" | | | | | |
| WR012500187-094 | 1.250 | 1.062 | 1.250 | 0.187 | 0.094 |
| WR015000187-094 | 1.500 | 1.312 | 1.500 | 0.187 | 0.094 |
| WR015000375-094 | 1.500 | 1.312 | 1.500 | 0.375 | 0.094 |
| WR020000187-094 | 2.000 | 1.812 | 2.000 | 0.187 | 0.094 |
| WR020000375-094 | 2.000 | 1.812 | 2.000 | 0.375 | 0.094 |
| WR025000375-094 | 2.500 | 2.312 | 2.500 | 0.375 | 0.094 |
| WR025501500-094 | 2.550 | 2.362 | 2.550 | 1.500 | 0.094 |
| WR028501000-094 | 2.850 | 2.662 | 2.850 | 1.000 | 0.094 |
| WR030000218-094 | 3.000 | 2.812 | 3.000 | 0.218 | 0.094 |
| WR032500375-094 | 3.250 | 3.062 | 3.250 | 0.375 | 0.094 |
| WR033120625-094 | 3.312 | 3.125 | 3.312 | 0.625 | 0.094 |
| WR035000500-094 | 3.500 | 3.312 | 3.500 | 0.500 | 0.094 |
| WR036250218-094 | 3.625 | 3.437 | 3.625 | 0.218 | 0.094 |
| WR039370218-094 | 3.937 | 3.750 | 3.937 | 0.218 | 0.094 |
| WR040000375-094 | 4.000 | 3.812 | 4.000 | 0.375 | 0.094 |
| WR050000500-094 | 5.000 | 4.812 | 5.000 | 0.500 | 0.094 |
| WR060000500-094 | 6.000 | 5.812 | 6.000 | 0.500 | 0.094 |
| 3/31" Cross Section - 0.096" | | | | | |
| WR032500212-096 | 3.250 | 3.058 | 3.250 | 0.212 | 0.096 |
| WR036250212-096 | 3.625 | 3.433 | 3.625 | 0.212 | 0.096 |



W1, W2, W3, W4, WR series - GF.NYLON



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|-------------------------------------|--------------|--------------|------------------------------|-------|-------|
| | | | D | H | S |
| 4/41" Cross Section - 0.098" | | | | | |
| WR020000190-098 | 2.000 | 1.804 | 2.000 | 0.190 | 0.098 |
| WR027002280-098 | 2.700 | 2.500 | 2.700 | 2.280 | 0.098 |
| WR029501970-098 | 2.950 | 2.750 | 2.950 | 1.970 | 0.098 |
| WR030000990-098 | 3.000 | 2.800 | 3.000 | 0.990 | 0.098 |
| WR032001180-098 | 3.200 | 3.000 | 3.200 | 1.180 | 0.098 |
| WR032501125-098 | 3.250 | 3.050 | 3.250 | 1.125 | 0.098 |
| WR034501610-098 | 3.450 | 3.250 | 3.450 | 1.610 | 0.098 |
| WR034501970-098 | 3.450 | 3.250 | 3.450 | 1.970 | 0.098 |
| WR034502760-098 | 3.450 | 3.250 | 3.450 | 2.760 | 0.098 |
| WR037001770-098 | 3.700 | 3.500 | 3.700 | 1.770 | 0.098 |
| WR037001880-098 | 3.700 | 3.500 | 3.700 | 1.880 | 0.098 |
| WR037002360-098 | 3.700 | 3.500 | 3.700 | 2.360 | 0.098 |
| WR039502440-098 | 3.950 | 3.750 | 3.950 | 2.440 | 0.098 |
| WR040000212-098 | 4.000 | 3.800 | 4.000 | 0.212 | 0.098 |
| WR040001312-098 | 4.000 | 3.800 | 4.000 | 1.312 | 0.098 |
| WR042001312-098 | 4.200 | 4.000 | 4.200 | 1.312 | 0.098 |
| WR042001570-098 | 4.200 | 4.000 | 4.200 | 1.570 | 0.098 |
| WR042002560-098 | 4.200 | 4.000 | 4.200 | 2.560 | 0.098 |
| WR044502360-098 | 4.450 | 4.250 | 4.450 | 2.360 | 0.098 |
| WR049501970-098 | 4.950 | 4.750 | 4.950 | 1.970 | 0.098 |
| WR052002520-098 | 5.200 | 5.000 | 5.200 | 2.520 | 0.098 |
| WR054502500-098 | 5.450 | 5.250 | 5.450 | 2.500 | 0.098 |
| WR059501970-098 | 5.950 | 5.750 | 5.950 | 1.970 | 0.098 |
| WR059503620-098 | 5.950 | 5.750 | 5.950 | 3.620 | 0.098 |
| WR072003150-098 | 7.200 | 7.000 | 7.200 | 3.150 | 0.098 |
| 1/8" Cross Section - 0.125" | | | | | |
| W2010000375 | 1.000 | 0.750 | 1.000 | 0.375 | 0.125 |
| W2010000500 | 1.000 | 0.750 | 1.000 | 0.500 | 0.125 |
| W2010000625 | 1.000 | 0.750 | 1.000 | 0.625 | 0.125 |
| W2011250375 | 1.125 | 0.875 | 1.125 | 0.375 | 0.125 |
| W2011250500 | 1.125 | 0.875 | 1.125 | 0.500 | 0.125 |
| W2012500250 | 1.250 | 1.000 | 1.250 | 0.250 | 0.125 |
| W2012500375 | 1.250 | 1.000 | 1.250 | 0.375 | 0.125 |
| W2012500500 | 1.250 | 1.000 | 1.250 | 0.500 | 0.125 |
| W2012500625 | 1.250 | 1.000 | 1.250 | 0.625 | 0.125 |
| W2012500750 | 1.250 | 1.000 | 1.250 | 0.750 | 0.125 |
| W2012501000 | 1.250 | 1.000 | 1.250 | 1.000 | 0.125 |
| W2013750500 | 1.375 | 1.125 | 1.375 | 0.500 | 0.125 |
| W2013750750 | 1.375 | 1.125 | 1.375 | 0.750 | 0.125 |
| W2013751000 | 1.375 | 1.125 | 1.375 | 1.000 | 0.125 |
| W2015000250 | 1.500 | 1.250 | 1.500 | 0.250 | 0.125 |
| W2015000375 | 1.500 | 1.250 | 1.500 | 0.375 | 0.125 |
| W2015000500 | 1.500 | 1.250 | 1.500 | 0.500 | 0.125 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|------------------------------------|--------------|--------------|------------------------------|-------|-------|
| | | | D | H | S |
| 1/8" Cross Section - 0.125" | | | | | |
| W2015000625 | 1.500 | 1.250 | 1.500 | 0.625 | 0.125 |
| W2015000750 | 1.500 | 1.250 | 1.500 | 0.750 | 0.125 |
| W2015001000 | 1.500 | 1.250 | 1.500 | 1.000 | 0.125 |
| W2016250375 | 1.625 | 1.375 | 1.625 | 0.375 | 0.125 |
| W2016250442 | 1.625 | 1.375 | 1.625 | 0.442 | 0.125 |
| W2016250500 | 1.625 | 1.375 | 1.625 | 0.500 | 0.125 |
| W2017500250 | 1.750 | 1.500 | 1.750 | 0.250 | 0.125 |
| W2017500375 | 1.750 | 1.500 | 1.750 | 0.375 | 0.125 |
| W2017500500 | 1.750 | 1.500 | 1.750 | 0.500 | 0.125 |
| W2017500625 | 1.750 | 1.500 | 1.750 | 0.625 | 0.125 |
| W2017500750 | 1.750 | 1.500 | 1.750 | 0.750 | 0.125 |
| W2017501000 | 1.750 | 1.500 | 1.750 | 1.000 | 0.125 |
| W2018750500 | 1.875 | 1.625 | 1.875 | 0.500 | 0.125 |
| W2018750750 | 1.875 | 1.625 | 1.875 | 0.750 | 0.125 |
| W2018751000 | 1.875 | 1.625 | 1.875 | 1.000 | 0.125 |
| W2020000160 | 2.000 | 1.750 | 2.000 | 0.160 | 0.125 |
| W2020000250 | 2.000 | 1.750 | 2.000 | 0.250 | 0.125 |
| W2020000312 | 2.000 | 1.750 | 2.000 | 0.312 | 0.125 |
| W2020000375 | 2.000 | 1.750 | 2.000 | 0.375 | 0.125 |
| W2020000500 | 2.000 | 1.750 | 2.000 | 0.500 | 0.125 |
| W2020000625 | 2.000 | 1.750 | 2.000 | 0.625 | 0.125 |
| W2020000750 | 2.000 | 1.750 | 2.000 | 0.750 | 0.125 |
| W2020001000 | 2.000 | 1.750 | 2.000 | 1.000 | 0.125 |
| W2020001250 | 2.000 | 1.750 | 2.000 | 1.250 | 0.125 |
| W2020001500 | 2.000 | 1.750 | 2.000 | 1.500 | 0.125 |
| W2021250375 | 2.125 | 1.875 | 2.125 | 0.375 | 0.125 |
| W2021250500 | 2.125 | 1.875 | 2.125 | 0.500 | 0.125 |
| W2021250750 | 2.125 | 1.875 | 2.125 | 0.750 | 0.125 |
| W2021870260 | 2.187 | 1.937 | 2.187 | 0.260 | 0.125 |
| W2021871000 | 2.187 | 1.937 | 2.187 | 1.000 | 0.125 |
| W2022500187 | 2.250 | 2.000 | 2.250 | 0.187 | 0.125 |
| W2022500250 | 2.250 | 2.000 | 2.250 | 0.250 | 0.125 |
| W2022500312 | 2.250 | 2.000 | 2.250 | 0.312 | 0.125 |
| W2022500375 | 2.250 | 2.000 | 2.250 | 0.375 | 0.125 |
| W2022500500 | 2.250 | 2.000 | 2.250 | 0.500 | 0.125 |
| W2022500625 | 2.250 | 2.000 | 2.250 | 0.625 | 0.125 |
| W2022500750 | 2.250 | 2.000 | 2.250 | 0.750 | 0.125 |
| W2022500875 | 2.250 | 2.000 | 2.250 | 0.875 | 0.125 |
| W2022501000 | 2.250 | 2.000 | 2.250 | 1.000 | 0.125 |
| W2022501250 | 2.250 | 2.000 | 2.250 | 1.250 | 0.125 |
| W2022501500 | 2.250 | 2.000 | 2.250 | 1.500 | 0.125 |
| W2023750500 | 2.375 | 2.125 | 2.375 | 0.500 | 0.125 |
| W2023750750 | 2.375 | 2.125 | 2.375 | 0.750 | 0.125 |
| W2025000160 | 2.500 | 2.250 | 2.500 | 0.160 | 0.125 |

W1, W2, W3, W4, WR series - GF.NYLON



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|------------------------------------|--------------|--------------|------------------------------|-------|-------|
| | | | D | H | S |
| 1/8" Cross Section - 0.125" | | | | | |
| W2025000187 | 2.500 | 2.250 | 2.500 | 0.187 | 0.125 |
| W2025000250 | 2.500 | 2.250 | 2.500 | 0.250 | 0.125 |
| W2025000312 | 2.500 | 2.250 | 2.500 | 0.312 | 0.125 |
| W2025000375 | 2.500 | 2.250 | 2.500 | 0.375 | 0.125 |
| W2025000500 | 2.500 | 2.250 | 2.500 | 0.500 | 0.125 |
| W2025000625 | 2.500 | 2.250 | 2.500 | 0.625 | 0.125 |
| W2025000740 | 2.500 | 2.250 | 2.500 | 0.740 | 0.125 |
| W2025000750 | 2.500 | 2.250 | 2.500 | 0.750 | 0.125 |
| W2025000875 | 2.500 | 2.250 | 2.500 | 0.875 | 0.125 |
| W2025001000 | 2.500 | 2.250 | 2.500 | 1.000 | 0.125 |
| W2025001250 | 2.500 | 2.250 | 2.500 | 1.250 | 0.125 |
| W2025001500 | 2.500 | 2.250 | 2.500 | 1.500 | 0.125 |
| W2026250500 | 2.625 | 2.375 | 2.625 | 0.500 | 0.125 |
| W2026250625 | 2.625 | 2.375 | 2.625 | 0.625 | 0.125 |
| W2026250750 | 2.625 | 2.375 | 2.625 | 0.750 | 0.125 |
| W2026251000 | 2.625 | 2.375 | 2.625 | 1.000 | 0.125 |
| W2027500250 | 2.750 | 2.500 | 2.750 | 0.250 | 0.125 |
| W2027500312 | 2.750 | 2.500 | 2.750 | 0.312 | 0.125 |
| W2027500375 | 2.750 | 2.500 | 2.750 | 0.375 | 0.125 |
| W2027500500 | 2.750 | 2.500 | 2.750 | 0.500 | 0.125 |
| W2027500625 | 2.750 | 2.500 | 2.750 | 0.625 | 0.125 |
| W2027500750 | 2.750 | 2.500 | 2.750 | 0.750 | 0.125 |
| W2027500940 | 2.750 | 2.500 | 2.750 | 0.940 | 0.125 |
| W2027501000 | 2.750 | 2.500 | 2.750 | 1.000 | 0.125 |
| W2027501500 | 2.750 | 2.500 | 2.750 | 1.500 | 0.125 |
| W2027501750 | 2.750 | 2.500 | 2.750 | 1.750 | 0.125 |
| W2027502000 | 2.750 | 2.500 | 2.750 | 2.000 | 0.125 |
| W2028750500 | 2.875 | 2.625 | 2.875 | 0.500 | 0.125 |
| W2028750750 | 2.875 | 2.625 | 2.875 | 0.750 | 0.125 |
| W2028750875 | 2.875 | 2.625 | 2.875 | 0.875 | 0.125 |
| W2028751000 | 2.875 | 2.625 | 2.875 | 1.000 | 0.125 |
| W2030000160 | 3.000 | 2.750 | 3.000 | 0.160 | 0.125 |
| W2030000250 | 3.000 | 2.750 | 3.000 | 0.250 | 0.125 |
| W2030000312 | 3.000 | 2.750 | 3.000 | 0.312 | 0.125 |
| W2030000375 | 3.000 | 2.750 | 3.000 | 0.375 | 0.125 |
| W2030000500 | 3.000 | 2.750 | 3.000 | 0.500 | 0.125 |
| W2030000570 | 3.000 | 2.750 | 3.000 | 0.570 | 0.125 |
| W2030000625 | 3.000 | 2.750 | 3.000 | 0.625 | 0.125 |
| W2030000750 | 3.000 | 2.750 | 3.000 | 0.750 | 0.125 |
| W2030000990 | 3.000 | 2.750 | 3.000 | 0.990 | 0.125 |
| W2030001000 | 3.000 | 2.750 | 3.000 | 1.000 | 0.125 |
| W2030001250 | 3.000 | 2.750 | 3.000 | 1.250 | 0.125 |
| W2030001500 | 3.000 | 2.750 | 3.000 | 1.500 | 0.125 |
| W2030001562 | 3.000 | 2.750 | 3.000 | 1.562 | 0.125 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|------------------------------------|--------------|--------------|------------------------------|-------|-------|
| | | | D | H | S |
| 1/8" Cross Section - 0.125" | | | | | |
| W2030620250 | 3.062 | 2.812 | 3.062 | 0.250 | 0.125 |
| W2031250500 | 3.125 | 2.875 | 3.125 | 0.500 | 0.125 |
| W2031251000 | 3.125 | 2.875 | 3.125 | 1.000 | 0.125 |
| W2032500250 | 3.250 | 3.000 | 3.250 | 0.250 | 0.125 |
| W2032500312 | 3.250 | 3.000 | 3.250 | 0.312 | 0.125 |
| W2032500375 | 3.250 | 3.000 | 3.250 | 0.375 | 0.125 |
| W2032500500 | 3.250 | 3.000 | 3.250 | 0.500 | 0.125 |
| W2032500625 | 3.250 | 3.000 | 3.250 | 0.625 | 0.125 |
| W2032500750 | 3.250 | 3.000 | 3.250 | 0.750 | 0.125 |
| W2032501000 | 3.250 | 3.000 | 3.250 | 1.000 | 0.125 |
| W2032501130 | 3.250 | 3.000 | 3.250 | 1.130 | 0.125 |
| W2032501250 | 3.250 | 3.000 | 3.250 | 1.250 | 0.125 |
| W2032501500 | 3.250 | 3.000 | 3.250 | 1.500 | 0.125 |
| W2032501550 | 3.250 | 3.000 | 3.250 | 1.550 | 0.125 |
| W2032501562 | 3.250 | 3.000 | 3.250 | 1.562 | 0.125 |
| W2032501625 | 3.250 | 3.000 | 3.250 | 1.625 | 0.125 |
| W2032502000 | 3.250 | 3.000 | 3.250 | 2.000 | 0.125 |
| W2032502125 | 3.250 | 3.000 | 3.250 | 2.125 | 0.125 |
| W2033750500 | 3.375 | 3.125 | 3.375 | 0.500 | 0.125 |
| W2033750750 | 3.375 | 3.125 | 3.375 | 0.750 | 0.125 |
| W2035000160 | 3.500 | 3.250 | 3.500 | 0.160 | 0.125 |
| W2035000250 | 3.500 | 3.250 | 3.500 | 0.250 | 0.125 |
| W2035000375 | 3.500 | 3.250 | 3.500 | 0.375 | 0.125 |
| W2035000437 | 3.500 | 3.250 | 3.500 | 0.437 | 0.125 |
| W2035000500 | 3.500 | 3.250 | 3.500 | 0.500 | 0.125 |
| W2035000625 | 3.500 | 3.250 | 3.500 | 0.625 | 0.125 |
| W2035000750 | 3.500 | 3.250 | 3.500 | 0.750 | 0.125 |
| W2035000875 | 3.500 | 3.250 | 3.500 | 0.875 | 0.125 |
| W2035001000 | 3.500 | 3.250 | 3.500 | 1.000 | 0.125 |
| W2035001120 | 3.500 | 3.250 | 3.500 | 1.120 | 0.125 |
| W2035001250 | 3.500 | 3.250 | 3.500 | 1.250 | 0.125 |
| W2035001500 | 3.500 | 3.250 | 3.500 | 1.500 | 0.125 |
| W2036250500 | 3.625 | 3.375 | 3.625 | 0.500 | 0.125 |
| W2036250625 | 3.625 | 3.375 | 3.625 | 0.625 | 0.125 |
| W2036250750 | 3.625 | 3.375 | 3.625 | 0.750 | 0.125 |
| W2036251000 | 3.625 | 3.375 | 3.625 | 1.000 | 0.125 |
| W2037500250 | 3.750 | 3.500 | 3.750 | 0.250 | 0.125 |
| W2037500375 | 3.750 | 3.500 | 3.750 | 0.375 | 0.125 |
| W2037500500 | 3.750 | 3.500 | 3.750 | 0.500 | 0.125 |
| W2037500625 | 3.750 | 3.500 | 3.750 | 0.625 | 0.125 |
| W2037500750 | 3.750 | 3.500 | 3.750 | 0.750 | 0.125 |
| W2037501000 | 3.750 | 3.500 | 3.750 | 1.000 | 0.125 |
| W2037501250 | 3.750 | 3.500 | 3.750 | 1.250 | 0.125 |
| W2037501490 | 3.750 | 3.500 | 3.750 | 1.490 | 0.125 |

W1, W2, W3, W4, WR series - GF.NYLON



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|------------------------------------|--------------|--------------|------------------------------|-------|-------|
| | | | D | H | S |
| 1/8" Cross Section - 0.125" | | | | | |
| W2037501500 | 3.750 | 3.500 | 3.750 | 1.500 | 0.125 |
| W2037502000 | 3.750 | 3.500 | 3.750 | 2.000 | 0.125 |
| W2038750250 | 3.875 | 3.625 | 3.875 | 0.250 | 0.125 |
| W2038751000 | 3.875 | 3.625 | 3.875 | 1.000 | 0.125 |
| W2040000160 | 4.000 | 3.750 | 4.000 | 0.160 | 0.125 |
| W2040000250 | 4.000 | 3.750 | 4.000 | 0.250 | 0.125 |
| W2040000312 | 4.000 | 3.750 | 4.000 | 0.312 | 0.125 |
| W2040000375 | 4.000 | 3.750 | 4.000 | 0.375 | 0.125 |
| W2040000500 | 4.000 | 3.750 | 4.000 | 0.500 | 0.125 |
| W2040000570 | 4.000 | 3.750 | 4.000 | 0.570 | 0.125 |
| W2040000625 | 4.000 | 3.750 | 4.000 | 0.625 | 0.125 |
| W2040000750 | 4.000 | 3.750 | 4.000 | 0.750 | 0.125 |
| W2040000875 | 4.000 | 3.750 | 4.000 | 0.875 | 0.125 |
| W2040000990 | 4.000 | 3.750 | 4.000 | 0.990 | 0.125 |
| W2040001000 | 4.000 | 3.750 | 4.000 | 1.000 | 0.125 |
| W2040001250 | 4.000 | 3.750 | 4.000 | 1.250 | 0.125 |
| W2040001500 | 4.000 | 3.750 | 4.000 | 1.500 | 0.125 |
| W2040002000 | 4.000 | 3.750 | 4.000 | 2.000 | 0.125 |
| W2041250420 | 4.125 | 3.875 | 4.125 | 0.420 | 0.125 |
| W2041251000 | 4.125 | 3.875 | 4.125 | 1.000 | 0.125 |
| W2042500250 | 4.250 | 4.000 | 4.250 | 0.250 | 0.125 |
| W2042500375 | 4.250 | 4.000 | 4.250 | 0.375 | 0.125 |
| W2042500500 | 4.250 | 4.000 | 4.250 | 0.500 | 0.125 |
| W2042500625 | 4.250 | 4.000 | 4.250 | 0.625 | 0.125 |
| W2042500750 | 4.250 | 4.000 | 4.250 | 0.750 | 0.125 |
| W2042500875 | 4.250 | 4.000 | 4.250 | 0.875 | 0.125 |
| W2042501000 | 4.250 | 4.000 | 4.250 | 1.000 | 0.125 |
| W2042501250 | 4.250 | 4.000 | 4.250 | 1.250 | 0.125 |
| W2042501500 | 4.250 | 4.000 | 4.250 | 1.500 | 0.125 |
| W2042501890 | 4.250 | 4.000 | 4.250 | 1.890 | 0.125 |
| W2042502500 | 4.250 | 4.000 | 4.250 | 2.500 | 0.125 |
| W2042600500 | 4.260 | 4.010 | 4.260 | 0.500 | 0.125 |
| W2044000625 | 4.400 | 4.150 | 4.400 | 0.625 | 0.125 |
| W2045000180 | 4.500 | 4.250 | 4.500 | 0.180 | 0.125 |
| W2045000250 | 4.500 | 4.250 | 4.500 | 0.250 | 0.125 |
| W2045000375 | 4.500 | 4.250 | 4.500 | 0.375 | 0.125 |
| W2045000500 | 4.500 | 4.250 | 4.500 | 0.500 | 0.125 |
| W2045000625 | 4.500 | 4.250 | 4.500 | 0.625 | 0.125 |
| W2045000750 | 4.500 | 4.250 | 4.500 | 0.750 | 0.125 |
| W2045000875 | 4.500 | 4.250 | 4.500 | 0.875 | 0.125 |
| W2045000930 | 4.500 | 4.250 | 4.500 | 0.930 | 0.125 |
| W2045000990 | 4.500 | 4.250 | 4.500 | 0.990 | 0.125 |
| W2045001000 | 4.500 | 4.250 | 4.500 | 1.000 | 0.125 |
| W2045001250 | 4.500 | 4.250 | 4.500 | 1.250 | 0.125 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|------------------------------------|--------------|--------------|------------------------------|-------|-------|
| | | | D | H | S |
| 1/8" Cross Section - 0.125" | | | | | |
| W2045001500 | 4.500 | 4.250 | 4.500 | 1.500 | 0.125 |
| W2045001870 | 4.500 | 4.250 | 4.500 | 1.870 | 0.125 |
| W2045002360 | 4.500 | 4.250 | 4.500 | 2.360 | 0.125 |
| W2046251000 | 4.625 | 4.375 | 4.625 | 1.000 | 0.125 |
| W2047500375 | 4.750 | 4.500 | 4.750 | 0.375 | 0.125 |
| W2047500500 | 4.750 | 4.500 | 4.750 | 0.500 | 0.125 |
| W2047500625 | 4.750 | 4.500 | 4.750 | 0.625 | 0.125 |
| W2047500750 | 4.750 | 4.500 | 4.750 | 0.750 | 0.125 |
| W2047501000 | 4.750 | 4.500 | 4.750 | 1.000 | 0.125 |
| W2047501250 | 4.750 | 4.500 | 4.750 | 1.250 | 0.125 |
| W2047501500 | 4.750 | 4.500 | 4.750 | 1.500 | 0.125 |
| W2047501562 | 4.750 | 4.500 | 4.750 | 1.562 | 0.125 |
| W2047501990 | 4.750 | 4.500 | 4.750 | 1.990 | 0.125 |
| W2047502000 | 4.750 | 4.500 | 4.750 | 2.000 | 0.125 |
| W2047503500 | 4.750 | 4.500 | 4.750 | 3.500 | 0.125 |
| W2048750375 | 4.875 | 4.625 | 4.875 | 0.375 | 0.125 |
| W2048750750 | 4.875 | 4.625 | 4.875 | 0.750 | 0.125 |
| W2050000375 | 5.000 | 4.750 | 5.000 | 0.375 | 0.125 |
| W2050000500 | 5.000 | 4.750 | 5.000 | 0.500 | 0.125 |
| W2050000625 | 5.000 | 4.750 | 5.000 | 0.625 | 0.125 |
| W2050000750 | 5.000 | 4.750 | 5.000 | 0.750 | 0.125 |
| W2050000875 | 5.000 | 4.750 | 5.000 | 0.875 | 0.125 |
| W2050001000 | 5.000 | 4.750 | 5.000 | 1.000 | 0.125 |
| W2050001120 | 5.000 | 4.750 | 5.000 | 1.120 | 0.125 |
| W2050001125 | 5.000 | 4.750 | 5.000 | 1.125 | 0.125 |
| W2050001250 | 5.000 | 4.750 | 5.000 | 1.250 | 0.125 |
| W2050001500 | 5.000 | 4.750 | 5.000 | 1.500 | 0.125 |
| W2050001562 | 5.000 | 4.750 | 5.000 | 1.562 | 0.125 |
| W2050001750 | 5.000 | 4.750 | 5.000 | 1.750 | 0.125 |
| W2050002000 | 5.000 | 4.750 | 5.000 | 2.000 | 0.125 |
| W2051251562 | 5.125 | 4.875 | 5.125 | 1.562 | 0.125 |
| W2052500375 | 5.250 | 5.000 | 5.250 | 0.375 | 0.125 |
| W2052500500 | 5.250 | 5.000 | 5.250 | 0.500 | 0.125 |
| W2052500625 | 5.250 | 5.000 | 5.250 | 0.625 | 0.125 |
| W2052500750 | 5.250 | 5.000 | 5.250 | 0.750 | 0.125 |
| W2052501000 | 5.250 | 5.000 | 5.250 | 1.000 | 0.125 |
| W2052501030 | 5.250 | 5.000 | 5.250 | 1.030 | 0.125 |
| W2052501250 | 5.250 | 5.000 | 5.250 | 1.250 | 0.125 |
| W2052501500 | 5.250 | 5.000 | 5.250 | 1.500 | 0.125 |
| W2052502000 | 5.250 | 5.000 | 5.250 | 2.000 | 0.125 |
| W2052502250 | 5.250 | 5.000 | 5.250 | 2.250 | 0.125 |
| W2052503500 | 5.250 | 5.000 | 5.250 | 3.500 | 0.125 |
| W2052503620 | 5.250 | 5.000 | 5.250 | 3.620 | 0.125 |
| W2055000375 | 5.500 | 5.250 | 5.500 | 0.375 | 0.125 |

W1, W2, W3, W4, WR series - GF.NYLON

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|------------------------------------|--------------|--------------|------------------------------|-------|-------|
| | | | D | H | S |
| 1/8" Cross Section - 0.125" | | | | | |
| W2055000500 | 5.500 | 5.250 | 5.500 | 0.500 | 0.125 |
| W2055000625 | 5.500 | 5.250 | 5.500 | 0.625 | 0.125 |
| W2055000750 | 5.500 | 5.250 | 5.500 | 0.750 | 0.125 |
| W2055001000 | 5.500 | 5.250 | 5.500 | 1.000 | 0.125 |
| W2055001250 | 5.500 | 5.250 | 5.500 | 1.250 | 0.125 |
| W2055001312 | 5.500 | 5.250 | 5.500 | 1.312 | 0.125 |
| W2055001370 | 5.500 | 5.250 | 5.500 | 1.370 | 0.125 |
| W2055001500 | 5.500 | 5.250 | 5.500 | 1.500 | 0.125 |
| W2055001620 | 5.500 | 5.250 | 5.500 | 1.620 | 0.125 |
| W2055001750 | 5.500 | 5.250 | 5.500 | 1.750 | 0.125 |
| W2055002000 | 5.500 | 5.250 | 5.500 | 2.000 | 0.125 |
| W2055002250 | 5.500 | 5.250 | 5.500 | 2.250 | 0.125 |
| W2057500500 | 5.750 | 5.500 | 5.750 | 0.500 | 0.125 |
| W2057500625 | 5.750 | 5.500 | 5.750 | 0.625 | 0.125 |
| W2057500750 | 5.750 | 5.500 | 5.750 | 0.750 | 0.125 |
| W2057501000 | 5.750 | 5.500 | 5.750 | 1.000 | 0.125 |
| W2057501500 | 5.750 | 5.500 | 5.750 | 1.500 | 0.125 |
| W2057501620 | 5.750 | 5.500 | 5.750 | 1.620 | 0.125 |
| W2057501750 | 5.750 | 5.500 | 5.750 | 1.750 | 0.125 |
| W2057502000 | 5.750 | 5.500 | 5.750 | 2.000 | 0.125 |
| W2057502370 | 5.750 | 5.500 | 5.750 | 2.370 | 0.125 |
| W2060000180 | 6.000 | 5.750 | 6.000 | 0.180 | 0.125 |
| W2060000250 | 6.000 | 5.750 | 6.000 | 0.250 | 0.125 |
| W2060000375 | 6.000 | 5.750 | 6.000 | 0.375 | 0.125 |
| W2060000500 | 6.000 | 5.750 | 6.000 | 0.500 | 0.125 |
| W2060000625 | 6.000 | 5.750 | 6.000 | 0.625 | 0.125 |
| W2060000630 | 6.000 | 5.750 | 6.000 | 0.630 | 0.125 |
| W2060000750 | 6.000 | 5.750 | 6.000 | 0.750 | 0.125 |
| W2060000875 | 6.000 | 5.750 | 6.000 | 0.875 | 0.125 |
| W2060001000 | 6.000 | 5.750 | 6.000 | 1.000 | 0.125 |
| W2060001070 | 6.000 | 5.750 | 6.000 | 1.070 | 0.125 |
| W2060001250 | 6.000 | 5.750 | 6.000 | 1.250 | 0.125 |
| W2060001320 | 6.000 | 5.750 | 6.000 | 1.320 | 0.125 |
| W2060001500 | 6.000 | 5.750 | 6.000 | 1.500 | 0.125 |
| W2060001740 | 6.000 | 5.750 | 6.000 | 1.740 | 0.125 |
| W2060001750 | 6.000 | 5.750 | 6.000 | 1.750 | 0.125 |
| W2060002000 | 6.000 | 5.750 | 6.000 | 2.000 | 0.125 |
| W2060002860 | 6.000 | 5.750 | 6.000 | 2.860 | 0.125 |
| W2062500500 | 6.250 | 6.000 | 6.250 | 0.500 | 0.125 |
| W2062500625 | 6.250 | 6.000 | 6.250 | 0.625 | 0.125 |
| W2062500750 | 6.250 | 6.000 | 6.250 | 0.750 | 0.125 |
| W2062501000 | 6.250 | 6.000 | 6.250 | 1.000 | 0.125 |
| W2062501490 | 6.250 | 6.000 | 6.250 | 1.490 | 0.125 |
| W2062501500 | 6.250 | 6.000 | 6.250 | 1.500 | 0.125 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|------------------------------------|--------------|--------------|------------------------------|-------|-------|
| | | | D | H | S |
| 1/8" Cross Section - 0.125" | | | | | |
| W2062501750 | 6.250 | 6.000 | 6.250 | 1.750 | 0.125 |
| W2062502000 | 6.250 | 6.000 | 6.250 | 2.000 | 0.125 |
| W2062502750 | 6.250 | 6.000 | 6.250 | 2.750 | 0.125 |
| W2062502760 | 6.250 | 6.000 | 6.250 | 2.760 | 0.125 |
| W2065000375 | 6.500 | 6.250 | 6.500 | 0.375 | 0.125 |
| W2065000500 | 6.500 | 6.250 | 6.500 | 0.500 | 0.125 |
| W2065000625 | 6.500 | 6.250 | 6.500 | 0.625 | 0.125 |
| W2065000750 | 6.500 | 6.250 | 6.500 | 0.750 | 0.125 |
| W2065001000 | 6.500 | 6.250 | 6.500 | 1.000 | 0.125 |
| W2065001250 | 6.500 | 6.250 | 6.500 | 1.250 | 0.125 |
| W2065001370 | 6.500 | 6.250 | 6.500 | 1.370 | 0.125 |
| W2065001375 | 6.500 | 6.250 | 6.500 | 1.375 | 0.125 |
| W2065001500 | 6.500 | 6.250 | 6.500 | 1.500 | 0.125 |
| W2065001750 | 6.500 | 6.250 | 6.500 | 1.750 | 0.125 |
| W2065002000 | 6.500 | 6.250 | 6.500 | 2.000 | 0.125 |
| W2065002740 | 6.500 | 6.250 | 6.500 | 2.740 | 0.125 |
| W2065002860 | 6.500 | 6.250 | 6.500 | 2.860 | 0.125 |
| W2065002880 | 6.500 | 6.250 | 6.500 | 2.880 | 0.125 |
| W2065003500 | 6.500 | 6.250 | 6.500 | 3.500 | 0.125 |
| W2067500375 | 6.750 | 6.500 | 6.750 | 0.375 | 0.125 |
| W2067500500 | 6.750 | 6.500 | 6.750 | 0.500 | 0.125 |
| W2067500625 | 6.750 | 6.500 | 6.750 | 0.625 | 0.125 |
| W2067500750 | 6.750 | 6.500 | 6.750 | 0.750 | 0.125 |
| W2067501000 | 6.750 | 6.500 | 6.750 | 1.000 | 0.125 |
| W2067501500 | 6.750 | 6.500 | 6.750 | 1.500 | 0.125 |
| W2067561250 | 6.756 | 6.506 | 6.756 | 1.250 | 0.125 |
| W2070000375 | 7.000 | 6.750 | 7.000 | 0.375 | 0.125 |
| W2070000500 | 7.000 | 6.750 | 7.000 | 0.500 | 0.125 |
| W2070000625 | 7.000 | 6.750 | 7.000 | 0.625 | 0.125 |
| W2070000687 | 7.000 | 6.750 | 7.000 | 0.687 | 0.125 |
| W2070000750 | 7.000 | 6.750 | 7.000 | 0.750 | 0.125 |
| W2070001000 | 7.000 | 6.750 | 7.000 | 1.000 | 0.125 |
| W2070001250 | 7.000 | 6.750 | 7.000 | 1.250 | 0.125 |
| W2070001500 | 7.000 | 6.750 | 7.000 | 1.500 | 0.125 |
| W2070001750 | 7.000 | 6.750 | 7.000 | 1.750 | 0.125 |
| W2070002000 | 7.000 | 6.750 | 7.000 | 2.000 | 0.125 |
| W2070002370 | 7.000 | 6.750 | 7.000 | 2.370 | 0.125 |
| W2070003000 | 7.000 | 6.750 | 7.000 | 3.000 | 0.125 |
| W2070003120 | 7.000 | 6.750 | 7.000 | 3.120 | 0.125 |
| W2072500500 | 7.250 | 7.000 | 7.250 | 0.500 | 0.125 |
| W2072500625 | 7.250 | 7.000 | 7.250 | 0.625 | 0.125 |
| W2072500750 | 7.250 | 7.000 | 7.250 | 0.750 | 0.125 |
| W2072501000 | 7.250 | 7.000 | 7.250 | 1.000 | 0.125 |
| W2072501375 | 7.250 | 7.000 | 7.250 | 1.375 | 0.125 |



W1, W2, W3, W4, WR series - GF.NYLON

G. ELEMENTS

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|------------------------------------|--------------|--------------|------------------------------|-------|-------|
| | | | D | H | S |
| 1/8" Cross Section - 0.125" | | | | | |
| W2072502000 | 7.250 | 7.000 | 7.250 | 2.000 | 0.125 |
| W2072507140 | 7.250 | 7.000 | 7.250 | 7.140 | 0.125 |
| W2073750750 | 7.375 | 7.125 | 7.375 | 0.750 | 0.125 |
| W2075000500 | 7.500 | 7.250 | 7.500 | 0.500 | 0.125 |
| W2075000625 | 7.500 | 7.250 | 7.500 | 0.625 | 0.125 |
| W2075000750 | 7.500 | 7.250 | 7.500 | 0.750 | 0.125 |
| W2075001000 | 7.500 | 7.250 | 7.500 | 1.000 | 0.125 |
| W2075001500 | 7.500 | 7.250 | 7.500 | 1.500 | 0.125 |
| W2075002000 | 7.500 | 7.250 | 7.500 | 2.000 | 0.125 |
| W2075002370 | 7.500 | 7.250 | 7.500 | 2.370 | 0.125 |
| W2075002500 | 7.500 | 7.250 | 7.500 | 2.500 | 0.125 |
| W2075002950 | 7.500 | 7.250 | 7.500 | 2.950 | 0.125 |
| W2077500500 | 7.750 | 7.500 | 7.750 | 0.500 | 0.125 |
| W2077500625 | 7.750 | 7.500 | 7.750 | 0.625 | 0.125 |
| W2077501000 | 7.750 | 7.500 | 7.750 | 1.000 | 0.125 |
| W2077501500 | 7.750 | 7.500 | 7.750 | 1.500 | 0.125 |
| W2077501620 | 7.750 | 7.500 | 7.750 | 1.620 | 0.125 |
| W2077502000 | 7.750 | 7.500 | 7.750 | 2.000 | 0.125 |
| W2077503500 | 7.750 | 7.500 | 7.750 | 3.500 | 0.125 |
| W2078751000 | 7.875 | 7.625 | 7.875 | 1.000 | 0.125 |
| W2080000180 | 8.000 | 7.750 | 8.000 | 0.180 | 0.125 |
| W2080000375 | 8.000 | 7.750 | 8.000 | 0.375 | 0.125 |
| W2080000500 | 8.000 | 7.750 | 8.000 | 0.500 | 0.125 |
| W2080000625 | 8.000 | 7.750 | 8.000 | 0.625 | 0.125 |
| W2080000750 | 8.000 | 7.750 | 8.000 | 0.750 | 0.125 |
| W2080000875 | 8.000 | 7.750 | 8.000 | 0.875 | 0.125 |
| W2080001000 | 8.000 | 7.750 | 8.000 | 1.000 | 0.125 |
| W2080001250 | 8.000 | 7.750 | 8.000 | 1.250 | 0.125 |
| W2080001460 | 8.000 | 7.750 | 8.000 | 1.460 | 0.125 |
| W2080001500 | 8.000 | 7.750 | 8.000 | 1.500 | 0.125 |
| W2080002000 | 8.000 | 7.750 | 8.000 | 2.000 | 0.125 |
| W2080002250 | 8.000 | 7.750 | 8.000 | 2.250 | 0.125 |
| W2080002945 | 8.000 | 7.750 | 8.000 | 2.945 | 0.125 |
| W2080005000 | 8.000 | 7.750 | 8.000 | 5.000 | 0.125 |
| W2082500500 | 8.250 | 8.000 | 8.250 | 0.500 | 0.125 |
| W2082500625 | 8.250 | 8.000 | 8.250 | 0.625 | 0.125 |
| W2082500750 | 8.250 | 8.000 | 8.250 | 0.750 | 0.125 |
| W2082501000 | 8.250 | 8.000 | 8.250 | 1.000 | 0.125 |
| W2082501250 | 8.250 | 8.000 | 8.250 | 1.250 | 0.125 |
| W2082501500 | 8.250 | 8.000 | 8.250 | 1.500 | 0.125 |
| W2082501750 | 8.250 | 8.000 | 8.250 | 1.750 | 0.125 |
| W2082502120 | 8.250 | 8.000 | 8.250 | 2.120 | 0.125 |
| W2082502250 | 8.250 | 8.000 | 8.250 | 2.250 | 0.125 |
| W2082502500 | 8.250 | 8.000 | 8.250 | 2.500 | 0.125 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|------------------------------------|--------------|--------------|------------------------------|-------|-------|
| | | | D | H | S |
| 1/8" Cross Section - 0.125" | | | | | |
| W2082502750 | 8.250 | 8.000 | 8.250 | 2.750 | 0.125 |
| W2082504130 | 8.250 | 8.000 | 8.250 | 4.130 | 0.125 |
| W2083751000 | 8.375 | 8.125 | 8.375 | 1.000 | 0.125 |
| W2083751250 | 8.375 | 8.125 | 8.375 | 1.250 | 0.125 |
| W2084370750 | 8.437 | 8.187 | 8.437 | 0.750 | 0.125 |
| W2085000500 | 8.500 | 8.250 | 8.500 | 0.500 | 0.125 |
| W2085000625 | 8.500 | 8.250 | 8.500 | 0.625 | 0.125 |
| W2085000750 | 8.500 | 8.250 | 8.500 | 0.750 | 0.125 |
| W2085001000 | 8.500 | 8.250 | 8.500 | 1.000 | 0.125 |
| W2085001500 | 8.500 | 8.250 | 8.500 | 1.500 | 0.125 |
| W2085002000 | 8.500 | 8.250 | 8.500 | 2.000 | 0.125 |
| W2085002370 | 8.500 | 8.250 | 8.500 | 2.370 | 0.125 |
| W2085002375 | 8.500 | 8.250 | 8.500 | 2.375 | 0.125 |
| W2085003000 | 8.500 | 8.250 | 8.500 | 3.000 | 0.125 |
| W2086250500 | 8.625 | 8.375 | 8.625 | 0.500 | 0.125 |
| W2086251000 | 8.625 | 8.375 | 8.625 | 1.000 | 0.125 |
| W2087501000 | 8.750 | 8.500 | 8.750 | 1.000 | 0.125 |
| W2087502000 | 8.750 | 8.500 | 8.750 | 2.000 | 0.125 |
| W2090000500 | 9.000 | 8.750 | 9.000 | 0.500 | 0.125 |
| W2090000625 | 9.000 | 8.750 | 9.000 | 0.625 | 0.125 |
| W2090000750 | 9.000 | 8.750 | 9.000 | 0.750 | 0.125 |
| W2090001000 | 9.000 | 8.750 | 9.000 | 1.000 | 0.125 |
| W2090001250 | 9.000 | 8.750 | 9.000 | 1.250 | 0.125 |
| W2090001500 | 9.000 | 8.750 | 9.000 | 1.500 | 0.125 |
| W2090002000 | 9.000 | 8.750 | 9.000 | 2.000 | 0.125 |
| W2090002950 | 9.000 | 8.750 | 9.000 | 2.950 | 0.125 |
| W2091251000 | 9.125 | 8.875 | 9.125 | 1.000 | 0.125 |
| W2091701000 | 9.170 | 8.920 | 9.170 | 1.000 | 0.125 |
| W2092500750 | 9.000 | 8.750 | 9.000 | 0.750 | 0.125 |
| W2092501000 | 9.250 | 9.000 | 9.250 | 1.000 | 0.125 |
| W2092501250 | 9.250 | 9.000 | 9.250 | 1.250 | 0.125 |
| W2092501500 | 9.250 | 9.000 | 9.250 | 1.500 | 0.125 |
| W2092501750 | 9.250 | 9.000 | 9.250 | 1.750 | 0.125 |
| W2092502000 | 9.250 | 9.000 | 9.250 | 2.000 | 0.125 |
| W2092502250 | 9.250 | 9.000 | 9.250 | 2.250 | 0.125 |
| W2093750500 | 9.375 | 9.125 | 9.375 | 0.500 | 0.125 |
| W2095000500 | 9.500 | 9.250 | 9.500 | 0.500 | 0.125 |
| W2095000625 | 9.500 | 9.250 | 9.500 | 0.625 | 0.125 |
| W2095000750 | 9.500 | 9.250 | 9.500 | 0.750 | 0.125 |
| W2095001000 | 9.500 | 9.250 | 9.500 | 1.000 | 0.125 |
| W2095001250 | 9.500 | 9.250 | 9.500 | 1.250 | 0.125 |
| W2097500500 | 9.750 | 9.500 | 9.750 | 0.500 | 0.125 |
| W2097500625 | 9.750 | 9.500 | 9.750 | 0.625 | 0.125 |
| W2097500750 | 9.750 | 9.500 | 9.750 | 0.750 | 0.125 |

W1, W2, W3, W4, WR series - GF.NYLON

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|-------------------------------------|---------------|---------------|------------------------------|-------|-------|
| | | | D | H | S |
| 3/16" Cross Section - 0.187" | | | | | |
| W3070001500 | 7.000 | 6.625 | 7.000 | 1.500 | 0.187 |
| W3071250875 | 7.125 | 6.750 | 7.125 | 0.875 | 0.187 |
| W3071251000 | 7.125 | 6.750 | 7.125 | 1.000 | 0.187 |
| W3072501000 | 7.250 | 6.875 | 7.250 | 1.000 | 0.187 |
| W3072503070 | 7.250 | 6.875 | 7.250 | 3.070 | 0.187 |
| W3073751610 | 7.375 | 7.000 | 7.375 | 1.610 | 0.187 |
| W3073757000 | 7.375 | 7.000 | 7.375 | 7.000 | 0.187 |
| W3073757395 | 7.375 | 7.000 | 7.375 | 7.395 | 0.187 |
| W3073757400 | 7.375 | 7.000 | 7.375 | 7.400 | 0.187 |
| W3075000750 | 7.500 | 7.125 | 7.500 | 0.750 | 0.187 |
| W3075001250 | 7.500 | 7.125 | 7.500 | 1.250 | 0.187 |
| W3075001500 | 7.500 | 7.125 | 7.500 | 1.500 | 0.187 |
| W3077501000 | 7.750 | 7.375 | 7.750 | 1.000 | 0.187 |
| W3077504500 | 7.750 | 7.375 | 7.750 | 4.500 | 0.187 |
| W3080000500 | 8.000 | 7.625 | 8.000 | 0.500 | 0.187 |
| W3080001500 | 8.000 | 7.625 | 8.000 | 1.500 | 0.187 |
| W3080003000 | 8.000 | 7.625 | 8.000 | 3.000 | 0.187 |
| W3082501250 | 8.250 | 7.875 | 8.250 | 1.250 | 0.187 |
| W3082502000 | 8.250 | 7.875 | 8.250 | 2.000 | 0.187 |
| W3082502740 | 8.250 | 7.875 | 8.250 | 2.740 | 0.187 |
| W3082503500 | 8.250 | 7.875 | 8.250 | 3.500 | 0.187 |
| W3083751500 | 8.375 | 8.000 | 8.375 | 1.500 | 0.187 |
| W3085001000 | 8.500 | 8.125 | 8.500 | 1.000 | 0.187 |
| W3085001500 | 8.500 | 8.125 | 8.500 | 1.500 | 0.187 |
| W3085004250 | 8.500 | 8.125 | 8.500 | 4.250 | 0.187 |
| W3090000500 | 9.000 | 8.625 | 9.000 | 0.500 | 0.187 |
| W3090001000 | 9.000 | 8.625 | 9.000 | 1.000 | 0.187 |
| W3090001500 | 9.000 | 8.625 | 9.000 | 1.500 | 0.187 |
| W3091251000 | 9.125 | 8.750 | 9.125 | 1.000 | 0.187 |
| W3092501625 | 9.250 | 8.875 | 9.250 | 1.625 | 0.187 |
| W3093754750 | 9.375 | 9.000 | 9.375 | 4.750 | 0.187 |
| W3093758980 | 9.375 | 9.000 | 9.375 | 8.980 | 0.187 |
| W3093758995 | 9.375 | 9.000 | 9.375 | 8.995 | 0.187 |
| W3095001930 | 9.500 | 9.125 | 9.500 | 1.930 | 0.187 |
| W3095001970 | 9.500 | 9.125 | 9.500 | 1.970 | 0.187 |
| W3098750500 | 9.875 | 9.500 | 9.875 | 0.500 | 0.187 |
| W3100000500 | 10.000 | 9.625 | 10.000 | 0.500 | 0.187 |
| W3100000625 | 10.000 | 9.625 | 10.000 | 0.625 | 0.187 |
| W3100001000 | 10.000 | 9.625 | 10.000 | 1.000 | 0.187 |
| W3100001250 | 10.000 | 9.625 | 10.000 | 1.250 | 0.187 |
| W3100001500 | 10.000 | 9.625 | 10.000 | 1.500 | 0.187 |
| W3100002750 | 10.000 | 9.625 | 10.000 | 2.750 | 0.187 |
| W3105002500 | 10.500 | 10.125 | 10.500 | 2.500 | 0.187 |

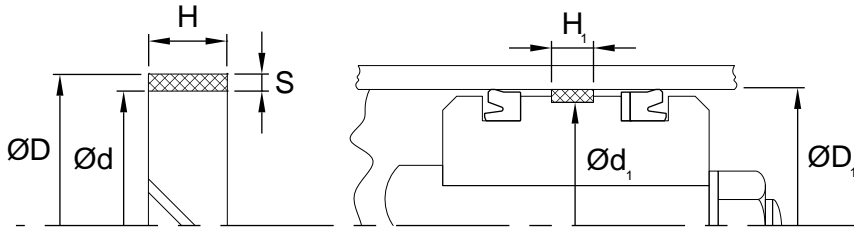
| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|-------------------------------------|---------------|---------------|------------------------------|--------|-------|
| | | | D | H | S |
| 3/16" Cross Section - 0.187" | | | | | |
| W3107506500 | 10.750 | 10.375 | 10.750 | 6.500 | 0.187 |
| W3110001000 | 11.000 | 10.625 | 11.000 | 1.000 | 0.187 |
| W3110002500 | 11.000 | 10.625 | 11.000 | 2.500 | 0.187 |
| W3112501000 | 11.250 | 10.875 | 11.250 | 1.000 | 0.187 |
| W31137511010 | 11.375 | 11.000 | 11.375 | 11.010 | 0.187 |
| W3120000500 | 12.000 | 11.625 | 12.000 | 0.500 | 0.187 |
| W3120000750 | 12.000 | 11.625 | 12.000 | 0.750 | 0.187 |
| W3120001000 | 12.000 | 11.625 | 12.000 | 1.000 | 0.187 |
| W3120001500 | 12.000 | 11.625 | 12.000 | 1.500 | 0.187 |
| W3120002500 | 12.000 | 11.625 | 12.000 | 2.500 | 0.187 |
| W3122504000 | 12.250 | 11.875 | 12.250 | 4.000 | 0.187 |
| W3125002000 | 12.500 | 12.125 | 12.500 | 2.000 | 0.187 |
| W3125002500 | 12.500 | 12.125 | 12.500 | 2.500 | 0.187 |
| W31287512187 | 12.875 | 12.500 | 12.875 | 12.187 | 0.187 |
| W31287512220 | 12.875 | 12.500 | 12.875 | 12.220 | 0.187 |
| W3128752890 | 12.875 | 12.500 | 12.875 | 2.890 | 0.187 |
| W3128754045 | 12.875 | 12.500 | 12.875 | 4.045 | 0.187 |
| W3130001000 | 13.000 | 12.625 | 13.000 | 1.000 | 0.187 |
| W3130001250 | 13.000 | 12.625 | 13.000 | 1.250 | 0.187 |
| W3131256500 | 13.125 | 12.750 | 13.125 | 6.500 | 0.187 |
| W3131257870 | 13.125 | 12.750 | 13.125 | 7.870 | 0.187 |
| W31387510020 | 13.875 | 13.500 | 13.875 | 10.020 | 0.187 |
| W3138752375 | 13.875 | 13.500 | 13.875 | 2.375 | 0.187 |
| W3140001000 | 14.000 | 13.625 | 14.000 | 1.000 | 0.187 |
| W3145001750 | 14.500 | 14.125 | 14.500 | 1.750 | 0.187 |
| W3147504760 | 14.750 | 14.375 | 14.750 | 4.760 | 0.187 |
| W3150001250 | 15.000 | 14.625 | 15.000 | 1.250 | 0.187 |
| W3151257720 | 15.125 | 14.750 | 15.125 | 7.720 | 0.187 |
| W3160001500 | 16.000 | 15.625 | 16.000 | 1.500 | 0.187 |
| W31612510020 | 16.125 | 15.750 | 16.125 | 10.020 | 0.187 |
| W3161252370 | 16.125 | 15.750 | 16.125 | 2.370 | 0.187 |
| W3161257720 | 16.125 | 15.750 | 16.125 | 7.720 | 0.187 |
| W3164371500 | 16.437 | 16.062 | 16.437 | 1.500 | 0.187 |
| W3165001500 | 16.500 | 16.125 | 16.500 | 1.500 | 0.187 |
| W3183757720 | 18.375 | 18.000 | 18.375 | 7.720 | 0.187 |
| 1/4" Cross Section - 0.250" | | | | | |
| W4065003500 | 6.500 | 6.000 | 6.500 | 3.500 | 0.250 |
| W4082503500 | 8.250 | 7.750 | 8.250 | 3.500 | 0.250 |
| W4100002750 | 10.000 | 9.500 | 10.000 | 2.750 | 0.250 |
| W4110002000 | 11.000 | 10.500 | 11.000 | 2.000 | 0.250 |
| W4120000500 | 12.000 | 11.500 | 12.000 | 0.500 | 0.250 |



WR-CAT - Guiding - Piston application - Inch



| Standard Material | Temperature Range |
|-------------------|--------------------------------------|
| GF.Nylon | -65°F to +275°F (-54°C to +135°C) |



The **WR-CAT-style** wear-rings are primarily used on hydraulic/pneumatic cylinder pistons. Their main function is to prevent metal-to-metal scoring as well as insuring that reciprocating parts are properly centered. Usually manufactured out of glass-filled nylon, other popular materials are also available.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|--------------|---------------|------------------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| RCAT-5W5108 | 0.710 | +0.003 -0.000 | 0.600 | +0.001 -0.001 | 0.040 | +0.003 -0.003 |
| RCAT-8U5770 | 0.850 | | 0.700 | | 0.080 | |
| RCAT-5J9073 | 1.500 | | 1.241 | | 0.500 | |
| RCAT-5J7942 | 2.000 | | 1.741 | | 0.496 | |
| RCAT-7H2423 | 2.250 | | 1.991 | | 0.886 | |
| RCAT-8C4802 | 2.280 | | 1.991 | | 0.886 | |
| RCAT-8C4803 | 2.310 | | 1.991 | | 0.886 | |
| RCAT-8J6212 | 2.500 | | 2.241 | | 0.750 | |
| RCAT-8C4804 | 2.530 | | 2.241 | | 0.750 | |
| RCAT-8C4805 | 2.560 | | 2.241 | | 0.750 | |
| RCAT-8J0112 | 2.750 | | 2.491 | | 0.938 | |
| RCAT-8C4806 | 2.780 | | 2.491 | | 0.938 | |
| RCAT-8C4807 | 2.810 | | 2.491 | | 0.938 | |
| RCAT-1076579 | 2.950 | | 2.560 | | 0.430 | |
| RCAT-6J5733 | 3.000 | +0.004 -0.000 | 2.741 | | 0.996 | |
| RCAT-8T6443 | 3.000 | | 2.798 | | 1.000 | |
| RCAT-8T8361 | 3.030 | | 2.741 | | 1.000 | |
| RCAT-8C4947 | 3.030 | | 2.798 | | 1.000 | |
| RCAT-8T8362 | 3.060 | | 2.741 | | 1.000 | |
| RCAT-8C4948 | 3.060 | | 2.798 | | 1.000 | |
| RCAT-8J2577 | 3.250 | | 2.991 | | 0.750 | |
| RCAT-8J6371 | 3.250 | | 2.991 | | 1.130 | |

| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|-------------|---------------|------------------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| RCAT-8T6683 | 3.250 | +0.004 -0.000 | 3.048 | +0.001 -0.001 | 1.130 | +0.003 -0.003 |
| RCAT-8C4808 | 3.280 | | 2.991 | | 1.130 | |
| RCAT-8C4809 | 3.310 | | 2.991 | | 1.130 | |
| RCAT-7J9885 | 3.500 | | 3.241 | | 1.125 | |
| RCAT-4J3236 | 3.500 | | 3.241 | | 1.496 | |
| RCAT-7U7647 | 3.500 | | 3.250 | | 0.750 | |
| RCAT-8T8317 | 3.530 | | 3.241 | | 1.125 | |
| RCAT-8T8331 | 3.530 | | 3.241 | | 1.496 | |
| RCAT-8T8318 | 3.560 | | 3.241 | | 1.125 | |
| RCAT-8T8332 | 3.560 | | 3.241 | | 1.496 | |
| RCAT-8J6245 | 3.750 | | 3.491 | | 1.000 | |
| RCAT-5J8019 | 3.750 | | 3.491 | | 1.246 | |
| RCAT-8T8337 | 3.780 | | 3.491 | | 1.000 | |
| RCAT-8C0547 | 3.780 | | 3.491 | | 1.246 | |
| RCAT-8T8338 | 3.810 | | 3.491 | | 1.000 | |
| RCAT-8C0548 | 3.810 | | 3.491 | | 1.246 | |
| RCAT-3D4522 | 4.000 | | 3.740 | | 0.714 | |
| RCAT-5J7154 | 4.000 | | 3.741 | | 0.621 | |
| RCAT-6J2797 | 4.000 | | 3.741 | | 0.996 | |
| RCAT-1M1571 | 4.000 | | 3.741 | | 1.246 | |
| RCAT-8C0539 | 4.030 | | 3.741 | | 0.621 | |
| RCAT-8T8311 | 4.030 | | 3.741 | | 0.996 | |

All manufacturer's names, part numbers and descriptions are use for reference purpose only. We do not imply that any part shown is the product of these manufacturers.

WR-CAT series - Piston application



| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|-------------|---------------|------------------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| RCAT-8T8335 | 4.030 | +0.004 -0.000 | 3.741 | +0.001 -0.001 | 1.246 | +0.003 -0.003 |
| RCAT-8T8312 | 4.060 | | 3.741 | | 0.996 | |
| RCAT-8T8336 | 4.060 | | 3.741 | | 1.246 | |
| RCAT-6J7264 | 4.250 | | 3.991 | | 0.997 | |
| RCAT-6J4003 | 4.250 | | 3.991 | | 1.250 | |
| RCAT-5J8157 | 4.250 | | 3.991 | | 1.496 | |
| RCAT-8C0541 | 4.280 | | 3.991 | | 0.997 | |
| RCAT-8T8325 | 4.280 | | 3.991 | | 1.250 | |
| RCAT-8T8329 | 4.280 | | 3.991 | | 1.496 | |
| RCAT-8C0542 | 4.310 | | 3.991 | | 0.997 | |
| RCAT-8T8326 | 4.310 | | 3.991 | | 1.250 | |
| RCAT-8T8330 | 4.310 | | 3.991 | | 1.496 | |
| RCAT-2D0829 | 4.500 | | 4.241 | | 0.929 | |
| RCAT-4J3745 | 4.500 | | 4.241 | | 0.997 | |
| RCAT-4J4605 | 4.500 | | 4.241 | | 0.997 | |
| RCAT-4J2620 | 4.500 | | 4.241 | | 1.496 | |
| RCAT-4T8758 | 4.500 | | 4.241 | | 1.871 | |
| RCAT-6J4175 | 4.500 | | 4.241 | | 1.871 | |
| RCAT-8T8327 | 4.530 | | 4.241 | | 0.997 | |
| RCAT-8T8355 | 4.530 | | 4.241 | | 1.496 | |
| RCAT-8C4810 | 4.530 | | 4.241 | | 1.871 | |
| RCAT-8T8328 | 4.560 | | 4.241 | | 0.997 | |
| RCAT-8T8356 | 4.560 | | 4.241 | | 1.496 | |
| RCAT-7J8879 | 4.750 | | 3.986 | | 0.393 | |
| RCAT-8T8390 | 4.750 | | 4.491 | | 1.000 | |
| RCAT-4J3342 | 4.750 | | 4.491 | | 1.250 | |
| RCAT-4T9248 | 4.750 | | 4.491 | | 1.250 | |
| RCAT-8T8345 | 4.780 | | 4.491 | | 1.250 | |
| RCAT-8T8346 | 4.810 | | 4.491 | | 1.250 | |
| RCAT-4F3515 | 5.000 | | 4.010 | | 0.250 | |
| RCAT-7J1627 | 5.000 | | 4.741 | | 0.858 | |
| RCAT-4J4630 | 5.000 | | 4.741 | | 1.125 | |
| RCAT-8M4226 | 5.000 | | 4.741 | | 1.246 | |
| RCAT-4J3420 | 5.000 | | 4.741 | | 1.562 | |
| RCAT-8C4813 | 5.030 | | 4.741 | | 1.125 | |
| RCAT-8T8339 | 5.030 | | 4.741 | | 1.562 | |
| RCAT-8C4812 | 5.060 | | 4.741 | | 1.125 | |
| RCAT-8T8340 | 5.060 | | 4.741 | | 1.562 | |
| RCAT-7J8878 | 5.250 | | 4.498 | | 3.925 | |
| RCAT-2D0714 | 5.250 | | 4.991 | | 1.027 | |
| RCAT-4J3887 | 5.250 | | 4.991 | | 1.323 | |
| RCAT-9J7978 | 5.250 | | 4.991 | | 1.500 | |
| RCAT-8T8359 | 5.280 | | 4.991 | | 1.500 | |
| RCAT-8T8360 | 5.310 | | 4.991 | | 1.500 | |
| RCAT-9J7191 | 5.500 | | 5.117 | | 1.750 | |
| RCAT-4J4606 | 5.500 | ▼ | 5.241 | ▼ | 1.246 | ▼ |

| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|--------------|---------------|------------------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| RCAT-3J9026 | 5.500 | +0.004 -0.000 | 5.241 | +0.001 -0.001 | 1.371 | +0.003 -0.003 |
| RCAT-7J3303 | 5.500 | | 5.241 | | 1.625 | |
| RCAT-7J1731 | 5.500 | | 5.241 | | 1.750 | |
| RCAT-4J3518 | 5.500 | | 5.241 | | 1.996 | |
| RCAT-8C9112 | 5.500 | | 5.241 | | 1.996 | |
| RCAT-8J1690 | 5.500 | | 5.241 | | 2.250 | |
| RCAT-5U4278 | 5.500 | | 5.250 | | 0.750 | |
| RCAT-1183955 | 5.510 | | 5.230 | | 1.780 | |
| RCAT-8C4818 | 5.530 | | 5.117 | | 1.750 | |
| RCAT-8C4817 | 5.530 | | 5.240 | | 1.370 | |
| RCAT-8T8315 | 5.530 | | 5.241 | | 1.246 | |
| RCAT-8C4815 | 5.530 | | 5.241 | | 1.750 | |
| RCAT-8C4820 | 5.530 | | 5.241 | | 1.996 | |
| RCAT-8C4822 | 5.530 | | 5.241 | | 2.250 | |
| RCAT-8T8316 | 5.560 | | 5.241 | | 1.246 | |
| RCAT-8C4816 | 5.560 | | 5.241 | | 1.371 | |
| RCAT-8C4814 | 5.560 | | 5.241 | | 1.750 | |
| RCAT-8C4821 | 5.560 | | 5.241 | | 1.996 | |
| RCAT-9J4164 | 5.750 | | 5.491 | | 1.625 | |
| RCAT-6J3074 | 5.750 | | 5.491 | | 1.996 | |
| RCAT-0990674 | 5.970 | | 5.670 | | 0.150 | |
| RCAT-0990695 | 5.970 | | 5.670 | | 0.150 | |
| RCAT-7J8877 | 6.000 | | 5.248 | | 0.393 | |
| RCAT-4J7503 | 6.000 | | 5.617 | | 0.996 | |
| RCAT-4T6930 | 6.000 | | 5.617 | | 2.750 | |
| RCAT-3G6537 | 6.000 | | 5.741 | | 1.073 | |
| RCAT-5J0014 | 6.000 | | 5.741 | | 1.246 | |
| RCAT-1J0708 | 6.000 | | 5.741 | | 1.323 | |
| RCAT-9J5860 | 6.000 | | 5.741 | | 1.500 | |
| RCAT-7J5326 | 6.000 | | 5.741 | | 1.750 | |
| RCAT-8C4826 | 6.030 | | 5.617 | | 2.750 | |
| RCAT-8C4824 | 6.030 | | 5.741 | | 1.073 | |
| RCAT-8C0543 | 6.030 | | 5.741 | | 1.246 | |
| RCAT-8T8343 | 6.030 | | 5.741 | | 1.323 | |
| RCAT-8T8347 | 6.030 | | 5.741 | | 1.500 | |
| RCAT-8T8349 | 6.030 | | 5.741 | | 1.750 | |
| RCAT-8C4827 | 6.060 | | 5.617 | | 2.750 | |
| RCAT-8C4825 | 6.060 | | 5.741 | | 1.073 | |
| RCAT-8C0544 | 6.060 | | 5.741 | | 1.246 | |
| RCAT-8T8344 | 6.060 | | 5.741 | | 1.323 | |
| RCAT-8T8348 | 6.060 | | 5.741 | | 1.500 | |
| RCAT-8T8350 | 6.060 | | 5.741 | | 1.750 | |
| RCAT-5J3326 | 6.250 | | 5.991 | | 1.496 | |
| RCAT-9J5550 | 6.250 | | 5.991 | | 1.750 | |
| RCAT-7J9232 | 6.250 | | 6.241 | | 2.875 | |
| RCAT-8T8357 | 6.280 | ▼ | 5.991 | ▼ | 1.496 | ▼ |

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WR-CAT series - Piston application

| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|-------------|---------------|------------------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| RCAT-8C4828 | 6.280 | +0.004 -0.000 | 5.991 | +0.001 -0.001 | 1.750 | +0.003 -0.003 |
| RCAT-8T8358 | 6.310 | | 5.991 | | 1.496 | |
| RCAT-8C4829 | 6.310 | | 5.991 | | 1.750 | |
| RCAT-7J8880 | 6.500 | | 5.990 | | 0.246 | |
| RCAT-7J8881 | 6.500 | | 5.993 | | 3.500 | |
| RCAT-4J7532 | 6.500 | | 6.117 | | 0.996 | |
| RCAT-8J9703 | 6.500 | | 6.240 | | 1.500 | |
| RCAT-9J0811 | 6.500 | | 6.241 | | 0.350 | |
| RCAT-5J0058 | 6.500 | | 6.241 | | 1.246 | |
| RCAT-3J9027 | 6.500 | | 6.241 | | 1.371 | |
| RCAT-3J9703 | 6.500 | | 6.241 | | 1.496 | |
| RCAT-9T0096 | 6.500 | | 6.241 | | 1.496 | |
| RCAT-9J9806 | 6.500 | | 6.241 | | 1.750 | |
| RCAT-7J1938 | 6.500 | | 6.241 | | 2.000 | |
| RCAT-8C9111 | 6.500 | | 6.241 | | 2.000 | |
| RCAT-9J3055 | 6.500 | | 6.241 | | 2.875 | |
| RCAT-8C4834 | 6.530 | | 5.993 | | 3.500 | |
| RCAT-9X7553 | 6.530 | | 6.240 | | 2.744 | |
| RCAT-9X7554 | 6.530 | | 6.240 | | 2.860 | |
| RCAT-8C0545 | 6.530 | | 6.241 | | 1.246 | |
| RCAT-8C4836 | 6.530 | | 6.241 | | 1.371 | |
| RCAT-8T8353 | 6.530 | | 6.241 | | 1.496 | |
| RCAT-8C4830 | 6.530 | | 6.241 | | 1.750 | |
| RCAT-8C4832 | 6.530 | | 6.241 | | 2.000 | |
| RCAT-8C4835 | 6.560 | | 5.993 | | 3.500 | |
| RCAT-8C0546 | 6.560 | | 6.241 | | 1.246 | |
| RCAT-8C4837 | 6.560 | | 6.241 | | 1.371 | |
| RCAT-8T8354 | 6.560 | | 6.241 | | 1.496 | |
| RCAT-8C4831 | 6.560 | | 6.241 | | 1.750 | |
| RCAT-8C4833 | 6.560 | ▼ | 6.241 | | 2.000 | |
| RCAT-7J3302 | 6.875 | +0.005 -0.000 | 6.616 | | 2.000 | |
| RCAT-5I8589 | 6.990 | | 6.680 | | 0.350 | |
| RCAT-8M4228 | 7.000 | | 6.741 | | 1.496 | |
| RCAT-3G5098 | 7.000 | | 6.741 | | 1.750 | |
| RCAT-9J0711 | 7.000 | | 6.741 | | 2.000 | |
| RCAT-3G3470 | 7.000 | | 6.741 | | 2.374 | |
| RCAT-8J1662 | 7.000 | | 6.741 | | 3.125 | |
| RCAT-3G4641 | 7.000 | | 6.741 | | 3.500 | |
| RCAT-8C4838 | 7.030 | | 6.741 | | 1.750 | |
| RCAT-8T8363 | 7.030 | | 6.741 | | 2.000 | |
| RCAT-8C4840 | 7.030 | | 6.741 | | 3.125 | |
| RCAT-8C4839 | 7.060 | | 6.741 | | 1.750 | |
| RCAT-8T8364 | 7.060 | | 6.741 | | 2.000 | |
| RCAT-1U1734 | 7.250 | | 6.867 | | 3.071 | |
| RCAT-1J2674 | 7.250 | | 6.991 | | 1.402 | |
| RCAT-3J7848 | 7.250 | ▼ | 6.991 | ▼ | 1.996 | ▼ |

| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|--------------|---------------|------------------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D1 | Tol. | H1 | Tol. |
| RCAT-8C4846 | 7.280 | +0.005 -0.000 | 6.867 | +0.001 -0.001 | 3.071 | +0.003 -0.003 |
| RCAT-8T8319 | 7.280 | | 6.991 | | 1.402 | |
| RCAT-8T8341 | 7.280 | | 6.991 | | 1.996 | |
| RCAT-8T8320 | 7.310 | | 6.991 | | 1.402 | |
| RCAT-8T8342 | 7.310 | | 6.991 | | 1.996 | |
| RCAT-1261957 | 7.480 | | 6.920 | | 0.790 | |
| RCAT-1U2218 | 7.500 | | 7.241 | | 1.496 | |
| RCAT-8J9936 | 7.500 | | 7.241 | | 2.375 | |
| RCAT-9J5562 | 7.500 | | 7.241 | | 2.500 | |
| RCAT-8C0549 | 7.530 | | 7.241 | | 1.496 | |
| RCAT-8C4848 | 7.530 | | 7.241 | | 2.500 | |
| RCAT-8C0550 | 7.560 | | 7.241 | | 1.496 | |
| RCAT-8C4849 | 7.560 | | 7.241 | | 2.500 | |
| RCAT-7J8886 | 7.750 | | 7.367 | | 0.246 | |
| RCAT-3G4625 | 7.750 | | 7.367 | | 4.500 | |
| RCAT-4T6932 | 7.750 | | 7.369 | | 4.500 | |
| RCAT-9J5037 | 7.750 | | 7.491 | | 1.624 | |
| RCAT-9J3624 | 7.750 | | 7.491 | | 2.000 | |
| RCAT-7J9247 | 7.750 | | 7.491 | | 3.500 | |
| RCAT-8C4852 | 7.780 | | 7.369 | | 4.500 | |
| RCAT-1082880 | 7.780 | | 7.491 | | 1.625 | |
| RCAT-8C4850 | 7.780 | | 7.491 | | 2.000 | |
| RCAT-8C4854 | 7.780 | | 7.491 | | 3.500 | |
| RCAT-8C4853 | 7.810 | | 7.369 | | 4.500 | |
| RCAT-8C4851 | 7.810 | | 7.491 | | 2.000 | |
| RCAT-8T7695 | 8.000 | | 7.741 | | 5.000 | |
| RCAT-4T9320 | 8.250 | | 7.739 | | 3.500 | |
| RCAT-7J8887 | 8.250 | | 7.740 | | 0.502 | |
| RCAT-3G1315 | 8.250 | | 7.866 | | 4.000 | |
| RCAT-3G9882 | 8.250 | | 7.867 | | 2.000 | |
| RCAT-2J0745 | 8.250 | | 7.991 | | 1.250 | |
| RCAT-4J7376 | 8.250 | | 7.991 | | 1.496 | |
| RCAT-3J8683 | 8.250 | | 7.991 | | 1.746 | |
| RCAT-8J8375 | 8.250 | | 7.991 | | 2.125 | |
| RCAT-3J7632 | 8.250 | | 7.991 | | 2.250 | |
| RCAT-7J3301 | 8.250 | | 7.991 | | 2.500 | |
| RCAT-8J8826 | 8.250 | | 7.991 | | 2.750 | |
| RCAT-9J3056 | 8.250 | | 7.991 | | 4.125 | |
| RCAT-1J2100 | 8.250 | | 8.000 | | 1.750 | |
| RCAT-8C4866 | 8.280 | | 7.739 | | 3.500 | |
| RCAT-8C4864 | 8.280 | | 7.867 | | 2.000 | |
| RCAT-8T8333 | 8.280 | | 7.991 | | 1.496 | |
| RCAT-8T8323 | 8.280 | | 7.991 | | 1.746 | |
| RCAT-8C4856 | 8.280 | | 7.991 | | 2.125 | |
| RCAT-8C4858 | 8.280 | | 7.991 | | 2.250 | |
| RCAT-8C4867 | 8.310 | ▼ | 7.739 | ▼ | 3.500 | ▼ |

All manufacturer's names, part numbers and descriptions are use for reference purpose only.
We do not imply that any part shown is the product of these manufacturers.

WR-CAT series - Piston application



| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|--------------|---------------|------------------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| RCAT-8T8334 | 8.310 | +0.005 -0.000 | 7.991 | +0.001 -0.001 | 1.496 | +0.003 -0.003 |
| RCAT-8T8324 | 8.310 | | 7.991 | | 1.746 | |
| RCAT-8C4857 | 8.310 | | 7.991 | | 2.125 | |
| RCAT-8C4859 | 8.310 | | 7.991 | | 2.250 | |
| RCAT-6J9365 | 8.500 | | 8.241 | | 1.996 | |
| RCAT-7J8064 | 8.500 | | 8.241 | | 2.374 | |
| RCAT-8T7694 | 8.500 | | 8.241 | | 3.010 | |
| RCAT-8C4868 | 8.530 | | 8.241 | | 2.374 | |
| RCAT-8C4869 | 8.560 | | 8.241 | | 2.374 | |
| RCAT-1080120 | 9.000 | | 8.750 | | 5.000 | |
| RCAT-1J5281 | 9.250 | | 8.991 | | 1.746 | |
| RCAT-4T5949 | 9.250 | | 8.991 | | 1.969 | |
| RCAT-7J2087 | 9.250 | | 8.991 | | 2.250 | |
| RCAT-8T8321 | 9.280 | | 8.991 | | 1.746 | |
| RCAT-8C0551 | 9.280 | | 8.991 | | 2.250 | |
| RCAT-8T8322 | 9.310 | | 8.991 | | 1.746 | |
| RCAT-8C0552 | 9.310 | | 8.991 | | 2.250 | |
| RCAT-7J8884 | 9.500 | | 8.993 | | 3.500 | |
| RCAT-4T6097 | 9.500 | | 9.117 | | 1.969 | |
| RCAT-8J9932 | 9.500 | | 9.241 | | 3.079 | |
| RCAT-7J8883 | 9.500 | | 9.250 | | 0.503 | |
| RCAT-1178865 | 10.000 | | 9.741 | | 1.496 | |
| RCAT-1214175 | 10.000 | | 9.741 | | 1.915 | |
| RCAT-8C3843 | 10.000 | | 9.741 | | 2.756 | |
| RCAT-9J3369 | 10.000 | | 9.741 | | 3.250 | |
| RCAT-1293701 | 10.030 | | 9.740 | | 1.500 | |
| RCAT-8C4874 | 10.030 | | 9.741 | | 3.250 | |
| RCAT-8C4875 | 10.060 | | 9.741 | | 3.250 | |
| RCAT-7J8890 | 10.250 | | 9.740 | | 0.246 | |
| RCAT-7J8891 | 10.250 | | 9.743 | | 3.500 | |
| RCAT-8C4876 | 10.280 | | 9.743 | | 3.500 | |
| RCAT-8C4877 | 10.310 | | 9.743 | | 3.500 | |
| RCAT-9J1159 | 10.500 | | 10.241 | | 2.750 | |
| RCAT-7J1065 | 10.500 | | 10.241 | | 3.501 | |
| RCAT-8J8900 | 10.500 | ▼ | 10.241 | ▼ | 3.750 | ▼ |

| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|--------------|---------------|------------------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| RCAT-8J5980 | 10.500 | +0.005 -0.000 | 10.241 | +0.001 -0.001 | 4.000 | +0.003 -0.003 |
| RCAT-8C4878 | 10.530 | | 10.241 | | 2.750 | |
| RCAT-8C4880 | 10.530 | | 10.241 | | 4.000 | |
| RCAT-8C4879 | 10.560 | | 10.241 | | 2.750 | |
| RCAT-8C4881 | 10.560 | | 10.241 | | 4.000 | |
| RCAT-8T6637 | 10.750 | ▼ | 10.367 | | 6.500 | |
| RCAT-6E0249 | 11.000 | +0.006 -0.000 | 10.741 | | 1.930 | |
| RCAT-1080124 | 11.000 | | 10.741 | | 3.250 | |
| RCAT-1293703 | 11.030 | | 10.741 | | 1.929 | |
| RCAT-1293702 | 11.030 | | 10.741 | | 3.250 | |
| RCAT-9J2991 | 11.500 | | 11.241 | | 3.875 | |
| RCAT-4T4815 | 11.500 | | 11.241 | | 4.000 | |
| RCAT-8C4882 | 11.530 | | 11.241 | | 3.875 | |
| RCAT-8C4883 | 11.560 | | 11.241 | | 3.875 | |
| RCAT-9X7331 | 12.000 | | 11.740 | | 1.460 | |
| RCAT-1503409 | 12.000 | | 11.741 | | 2.460 | |
| RCAT-4T6096 | 12.250 | | 11.867 | | 4.000 | |
| RCAT-6E0308 | 12.500 | | 12.241 | | 1.457 | |
| RCAT-1U2694 | 12.500 | | 12.241 | | 4.000 | |
| RCAT-1293705 | 12.530 | | 12.241 | | 1.457 | |
| RCAT-1530119 | 12.750 | | 12.491 | | 4.015 | |
| RCAT-1086215 | 13.000 | | 12.741 | | 1.457 | |
| RCAT-1293704 | 13.030 | | 12.741 | | 1.457 | |
| RCAT-4T8019 | 13.125 | | 12.742 | | 6.500 | |
| RCAT-1U4627 | 13.125 | | 12.742 | | 7.870 | |
| RCAT-8C9155 | 13.125 | | 12.934 | | 5.028 | |
| RCAT-1214188 | 13.500 | | 13.241 | | 1.457 | |
| RCAT-1301859 | 13.530 | | 13.241 | | 1.457 | |
| RCAT-6E0247 | 13.750 | | 13.491 | | 4.020 | |
| RCAT-4T4129 | 14.250 | | 13.991 | | 4.000 | |
| RCAT-1503411 | 14.750 | | 14.367 | | 4.760 | |
| RCAT-4T4825 | 15.125 | | 14.742 | | 7.720 | |
| RCAT-9X3564 | 16.125 | | 15.710 | | 7.720 | |
| RCAT-1518411 | 16.750 | | 16.495 | | 4.000 | |
| RCAT-1490811 | 18.375 | ▼ | 17.990 | ▼ | 7.720 | ▼ |

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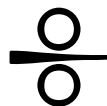
Markets segments we are servicing



Machine Tools



Material Handling



Metal Processing



Mining



Pharmaceutical

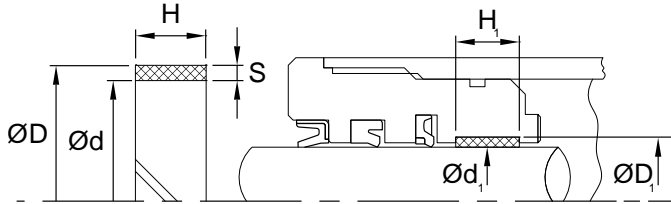


Power Generation

WR-CAT - Guiding - Rod application - Inch



| Standard Material | Temperature Range |
|-------------------|--------------------------------------|
| GF.Nylon | -65°F to +275°F (-54°C to +135°C) |



The **WR-CAT-style** wear-rings are primarily used on hydraulic/pneumatic rod glands. Their main function is to prevent metal-to-metal scoring as well as insuring that reciprocating parts are properly centered. Usually manufactured our of glass-filled nylon.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

G. ELEMENTS

| Ref.Number | Rod Diameter | | Housing Dimensions | | | |
|-------------|--------------|------------------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | D1 | Tol. | H1 | Tol. |
| RCAT-4T6780 | 1.500 | | 1.621 | | 0.984 | |
| RCAT-8C3853 | 1.500 | +0.000 -0.002 | 1.621 | +0.001 -0.001 | 2.087 | +0.003 -0.003 |
| RCAT-8C9120 | 1.500 | | 1.621 | | 0.827 | |
| RCAT-8T5443 | 1.500 | | 1.621 | | 1.250 | |
| RCAT-4T6907 | 1.750 | | 1.871 | | 0.984 | |
| RCAT-4T6779 | 1.875 | | 1.996 | | 0.984 | |
| RCAT-8T6441 | 1.875 | | 1.996 | | 0.256 | |
| RCAT-8T6442 | 1.875 | | 1.996 | | 0.728 | |
| RCAT-4T5613 | 2.000 | | 2.121 | | 0.984 | |
| RCAT-8C3836 | 2.000 | | 2.121 | | 1.575 | |
| RCAT-8T7030 | 2.000 | | 2.121 | | 1.250 | |
| RCAT-8T8205 | 2.000 | | 2.121 | | 0.787 | |
| RCAT-7J2171 | 2.000 | | 2.505 | | 1.063 | |
| RCAT-4T6128 | 2.125 | | 2.246 | | 0.984 | |
| RCAT-8T6681 | 2.125 | | 2.246 | | 0.728 | |
| RCAT-8T6682 | 2.125 | | 2.246 | | 0.335 | |
| RCAT-8T4958 | 2.250 | | 2.371 | | 0.984 | |
| RCAT-8T8204 | 2.250 | | 2.371 | | 1.181 | |
| RCAT-8J1585 | 2.250 | | 3.350 | | 1.430 | |
| RCAT-9X7260 | 2.375 | | 2.498 | | 1.260 | |
| RCAT-8T0785 | 2.500 | +0.000 -0.003 | 2.621 | | 0.984 | |
| RCAT-8T5668 | 2.500 | | 2.621 | | 1.250 | |

| Ref.Number | Rod Diameter | | Housing Dimensions | | | |
|-------------|--------------|------------------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | D1 | Tol. | H1 | Tol. |
| RCAT-8T8394 | 2.500 | +0.000 -0.003 | 2.621 | +0.001 -0.001 | 1.693 | +0.003 -0.003 |
| RCAT-8T8365 | 2.500 | | 2.700 | | 2.283 | |
| RCAT-8T7372 | 2.625 | | 2.746 | | 0.984 | |
| RCAT-6C2385 | 2.750 | | 2.871 | | 1.260 | |
| RCAT-8C9114 | 2.750 | | 2.871 | | 1.004 | |
| RCAT-8C9200 | 2.750 | | 2.871 | | 1.004 | |
| RCAT-8T7020 | 2.750 | | 2.871 | | 1.811 | |
| RCAT-8T7849 | 2.750 | | 2.871 | | 1.575 | |
| RCAT-8T6743 | 2.750 | | 2.950 | | 1.969 | |
| RCAT-4T7283 | 2.750 | | 3.005 | | 1.250 | |
| RCAT-8C9161 | 3.000 | +0.000 -0.004 | 3.121 | | 0.984 | |
| RCAT-8T1714 | 3.000 | | 3.121 | | 1.575 | |
| RCAT-8T7584 | 3.000 | | 3.121 | | 1.654 | |
| RCAT-9T0094 | 3.000 | | 3.121 | | 1.260 | |
| RCAT-8C9153 | 3.000 | | 3.200 | | 1.181 | |
| RCAT-8C9101 | 3.250 | | 3.371 | | 1.122 | |
| RCAT-8T0777 | 3.250 | | 3.371 | | 1.732 | |
| RCAT-8T4813 | 3.250 | | 3.450 | | 1.614 | |
| RCAT-8T6744 | 3.250 | | 3.450 | | 2.756 | |
| RCAT-8T6745 | 3.250 | | 3.450 | | 1.969 | |
| RCAT-8T3329 | 3.500 | | 3.617 | | 1.890 | |
| RCAT-8C5245 | 3.500 | | 3.621 | | 1.063 | |

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WR-CAT series - Rod application

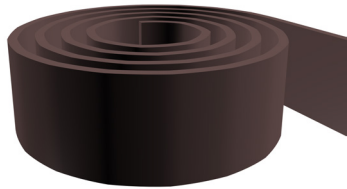
| Ref.Number | Rod Diameter | | Housing Dimensions | | | |
|--------------|--------------|------------------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | D1 | Tol. | H1 | Tol. |
| RCAT-8C3829 | 3.500 | + .000 - .004 | 3.700 | + .001 - .001 | 1.772 | + .003 - .003 |
| RCAT-8T6746 | 3.500 | | 3.700 | | 2.362 | |
| RCAT-8T3000 | 3.500 | | 3.740 | | 1.650 | |
| RCAT-6J3075 | 3.500 | | 3.756 | | 1.996 | |
| RCAT-1194761 | 3.500 | | 3.760 | | 0.980 | |
| RCAT-8T7848 | 3.750 | | 3.871 | | 1.575 | |
| RCAT-8T3330 | 3.750 | ▼ | 3.950 | | 2.441 | |
| RCAT-8T6747 | 4.000 | + .000 - .005 | 4.200 | | 2.559 | |
| RCAT-8T7538 | 4.000 | | 4.200 | | 1.575 | |
| RCAT-4T4753 | 4.000 | | 4.255 | | 1.890 | |
| RCAT-7J3300 | 4.000 | | 4.258 | | 2.500 | |
| RCAT-1194760 | 4.000 | | 4.260 | | 1.000 | |
| RCAT-8T6748 | 4.250 | | 4.450 | | 2.362 | |
| RCAT-9X3579 | 4.500 | | 4.700 | | 1.970 | |
| RCAT-4T6929 | 4.500 | | 4.754 | | 3.500 | |
| RCAT-9J9792 | 4.500 | | 4.754 | | 3.500 | |
| RCAT-8T7850 | 4.750 | | 4.950 | | 1.969 | |
| RCAT-8T3331 | 5.000 | | 5.200 | | 2.520 | |
| RCAT-9J3054 | 5.000 | | 5.254 | | 3.625 | |
| RCAT-4T5718 | 5.250 | | 5.450 | | 2.500 | |
| RCAT-8J9917 | 5.500 | | 5.752 | | 2.374 | |
| RCAT-9X7420 | 5.500 | | 5.760 | | 2.375 | |
| RCAT-8T3332 | 5.750 | | 5.950 | | 3.622 | |
| RCAT-8T7851 | 5.750 | | 5.950 | | 1.969 | |
| RCAT-6E0499 | 5.910 | | 6.100 | | 2.360 | |
| RCAT-9X3613 | 6.000 | | 6.200 | | 1.969 | |
| RCAT-4T9319 | 6.000 | ▼ | 6.255 | ▼ | 2.756 | ▼ |

| Ref.Number | Rod Diameter | | Housing Dimensions | | | |
|--------------|---------------|------------------|--------------------|------------------|--------|------------------|
| | d1 | Tol. | D1 | Tol. | H1 | Tol. |
| RCAT-7J3299 | 6.125 | + .000 - .005 | 6.383 | + .001 - .001 | 2.500 | + .003 - .003 |
| RCAT-8C3848 | 6.500 | | 6.700 | | 2.598 | |
| RCAT-8C9102 | 6.500 | | 6.700 | | 2.274 | |
| RCAT-4T6931 | 6.750 | | 7.006 | | 3.500 | |
| RCAT-8T6749 | 7.000 | | 7.200 | | 3.150 | |
| RCAT-8T7693 | 7.000 | | 7.259 | | 7.140 | |
| RCAT-8T7692 | 7.000 | | 7.380 | | 7.395 | |
| RCAT-1074347 | 7.000 | | 7.380 | | 7.400 | |
| RCAT-6E0173 | 7.250 | | 7.450 | | 2.350 | |
| RCAT-4T4811 | 7.250 | | 7.504 | | 2.953 | |
| RCAT-1080130 | 7.500 | | 7.700 | | 3.150 | |
| RCAT-1214703 | 7.750 | | 8.009 | | 2.945 | |
| RCAT-6E0245 | 8.000 | | 8.200 | | 2.953 | |
| RCAT-9X7330 | 8.250 | | 8.450 | | 2.950 | |
| RCAT-1086216 | 8.750 | | 8.950 | | 2.953 | |
| RCAT-6E0248 | 8.750 | | 9.009 | | 2.950 | |
| RCAT-1074349 | 9.000 | | 9.380 | | 8.995 | |
| RCAT-8C3846 | 9.000 | | 9.380 | | 8.980 | |
| RCAT-1503413 | 9.750 | | 10.009 | | 3.945 | |
| RCAT-8C9156 | 11.000 | | 11.180 | | 5.040 | |
| RCAT-1U4626 | 11.000 | | 11.380 | | 11.010 | |
| RCAT-4T4827 | 12.500 | | 12.880 | | 12.220 | |
| RCAT-1944420 | 12.500 | | 12.880 | | 4.045 | |
| RCAT-9X7439 | 13.500 | | 13.880 | | 2.375 | |
| RCAT-9X3563 | 13.500 | | 13.880 | | 10.020 | |
| RCAT-1490812 | 15.750 | | 16.130 | | 2.370 | |
| RCAT-1490813 | 15.750 | ▼ | 16.130 | ▼ | 10.020 | ▼ |

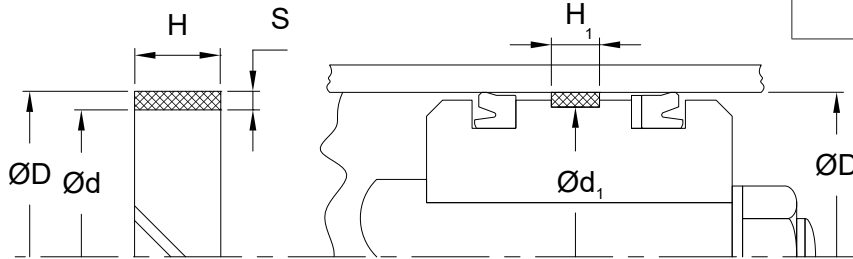
All manufacturer's names, part numbers and descriptions are use for reference purpose only.
We do not imply that any part shown is the product of these manufacturers.



WS - Wear Strip - Inch



| Standard Material | Temperature Range | Surface Speed |
|---------------------|--|--------------------|
| Bronze PTFE /BR60 | -400°F to +550°F (-240°C to +287°C) | < 50 ft/s (15 m/s) |
| Optional Material | Temperature Range | Surface Speed |
| Polyester Resin /PR | -40°F to +250°F (-40°C to +121°C) | < 3.3 ft/s (1 m/s) |



The **WS-BR60-style** is made of fluorinated polymer and fortified bronze (other fillers available upon request). Designed to eliminate scoring in hydraulic and pneumatic applications by preventing metal to metal contact; **WS-Wear** strip is effectively used for reciprocating, rotary and oscillating motion. The tape form allows the product to be installed economically, whether for new installation or repair.

The PTFE wear tape compound and width determines allowable radial load and velocity ranges.

Velocity: Up to 50 ft/s.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Nominal Seal Dimensions | | | |
|------------|-------------------------|------------------|-------|------------------|
| | H | Tol. | S | Tol. |
| WS00250062 | 0.250 | +0.000 -0.010 | 0.062 | +0.000 -0.005 |
| WS00375062 | 0.375 | | 0.062 | |
| WS00500062 | 0.500 | | 0.062 | |
| WS00625062 | 0.625 | | 0.062 | |
| WS00750062 | 0.750 | | 0.062 | |
| WS01000062 | 1.000 | | 0.062 | |
| WS01250062 | 1.250 | | 0.062 | |
| WS01500062 | 1.500 | +0.000 -0.015 | 0.062 | |
| WS01750062 | 1.750 | | 0.062 | |
| WS02000062 | 2.000 | +0.000/-0.020 | 0.062 | |
| WS00250093 | 0.250 | +0.000 -0.010 | 0.093 | |
| WS00375093 | 0.375 | | 0.093 | |
| WS00500093 | 0.500 | | 0.093 | |
| WS00625093 | 0.625 | | 0.093 | |
| WS00750093 | 0.750 | | 0.093 | |

Increments of 1 ft

| Ref.Number | Nominal Seal Dimensions | | | |
|------------|-------------------------|------------------|-------|------------------|
| | H | Tol. | S | Tol. |
| WS01000093 | 1.000 | +0.000 -0.015 | 0.093 | +0.000 -0.005 |
| WS01250093 | 1.250 | | 0.093 | |
| WS01500093 | 1.500 | +0.000 -0.015 | 0.093 | |
| WS01750093 | 1.750 | | 0.093 | |
| WS02000093 | 2.000 | +0.000/-0.020 | 0.093 | |
| WS00250125 | 0.250 | +0.000 -0.010 | 0.125 | |
| WS00375125 | 0.375 | | 0.125 | |
| WS00500125 | 0.500 | | 0.125 | |
| WS00625125 | 0.625 | | 0.125 | |
| WS00750125 | 0.750 | | 0.125 | |
| WS01000125 | 1.000 | | 0.125 | |
| WS01250125 | 1.250 | | 0.125 | |
| WS01500125 | 1.500 | +0.000 -0.015 | 0.125 | |
| WS01750125 | 1.750 | | 0.125 | |
| WS02000125 | 2.000 | +0.000/-0.020 | 0.125 | |

Increments of 1 ft



G. ELEMENTS



"DU" BEARING - UP to 2"

| Nominal Bearing Bore | Recommended | | Installed Bearing ID* | Bearing Length and Part Number | | | | | | | | | | | | | |
|----------------------|-------------|--------------|-----------------------|--------------------------------|------------|-------|-----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|---|
| | Shaft Dia. | Housing Bore | | 1/8 | 3/16 | 1/4 | 3/8 | 1/2 | 5/8 | 3/4 | 7/8 | 1 | 1 1/8 | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| 1/8 | .1243 | .1873 | .1243 | 1/8 | GB02DU02 | 3/16 | GB02DU03 | | | | | | | | | | |
| | .1236 | .1878 | .1268 | | | | | | | | | | | | | | |
| 5/32 | .1554 | .2186 | .1556 | 5/32 | GB025DU025 | 1/4 | GB025DU04 | | | | | | | | | | |
| | .1547 | .2191 | .1581 | | | | | | | | | | | | | | |
| 3/16 | .1865 | .2497 | .1867 | 3/16 | GB03DU03 | 1/4 | GB03DU04 | 3/8 | GB03DU06 | | | | | | | | |
| | .1858 | .2503 | .1893 | | | | | | | | | | | | | | |
| 1/4 | .2490 | .3122 | .2492 | 1/4 | GB04DU04 | 3/8 | GB04DU06 | | | | | | | | | | |
| | .2481 | .3128 | .2518 | | | | | | | | | | | | | | |
| 5/16 | .3115 | .3747 | .3117 | 3/8 | GB05DU06 | 1/2 | GB05DU08 | | | | | | | | | | |
| | .3106 | .3753 | .3143 | | | | | | | | | | | | | | |
| 3/8 | .3740 | .4684 | .3742 | 3/16 | GB06DU03 | 1/4 | GB06DU04 | 3/8 | GB06DU06 | 1/2 | GB06DU08 | 5/8 | GB06DU10 | 3/4 | GB06DU12 | | |
| | .3731 | .4691 | .3769 | | | | | | | | | | | | | | |
| 7/16 | .4365 | .5309 | .4367 | 1/2 | GB07DU08 | 3/4 | GB07DU12 | | | | | | | | | | |
| | .4355 | .5316 | .4394 | | | | | | | | | | | | | | |
| 1/2 | .4990 | .5934 | .4992 | 1/4 | GB08DU04 | 3/8 | GB08DU06 | 1/2 | GB08DU08 | 5/8 | GB08DU10 | 3/4 | GB08DU12 | 7/8 | GB08DU14 | | |
| | .4980 | .5941 | .5019 | | | | | | | | | | | | | | |
| 9/16 | .5615 | .6559 | .5617 | 3/8 | GB09DU06 | 1/2 | GB09DU08 | 5/8 | GB09DU10 | 3/4 | GB09DU12 | | | | | | |
| | .5605 | .6566 | .5644 | | | | | | | | | | | | | | |
| 5/8 | .6240 | .7184 | .6242 | 1/4 | GB10DU04 | 1/2 | GB10DU08 | 5/8 | GB10DU10 | 3/4 | GB10DU12 | 7/8 | GB10DU14 | 1 | GB10DU16 | | |
| | .6230 | .7192 | .6270 | | | | | | | | | | | | | | |
| 11/16 | .6865 | .7809 | .6867 | 7/8 | GB11DU14 | 3/4 | GB11DU12 | | | | | | | | | | |
| | .6855 | .7817 | .6895 | | | | | | | | | | | | | | |
| 3/4 | .7491 | .8747 | .7493 | 1/4 | GB12DU04 | 3/8 | GB12DU06 | 1/2 | GB12DU08 | 5/8 | GB12DU10 | 3/4 | GB12DU12 | 1 | GB12DU16 | | |
| | .7479 | .8755 | .7525 | | | | | | | | | | | | | | |
| 13/16 | .8116 | .9372 | .8110 | 3/4 | GB13DU12 | 1 1/8 | GB12DU18 | | | | | | | | | | |
| | .8104 | .9380 | .8150 | | | | | | | | | | | | | | |
| 7/8 | .8741 | .9997 | .8743 | 1/4 | GB14DU04 | 3/8 | GB14DU06 | 3/4 | GB14DU12 | 1 | GB14DU16 | 1 1/4 | GB14DU20 | | | | |
| | .8729 | 1.0005 | .8775 | | | | | | | | | | | | | | |
| 1 | .9991 | 1.1247 | .9993 | 3/8 | GB16DU06 | 1/2 | GB16DU08 | 3/4 | GB16DU12 | 1 | GB16DU16 | 1 1/4 | GB16DU20 | 1 1/2 | GB16DU24 | | |
| | .9979 | 1.1255 | 1.0025 | | | | | | | | | | | | | | |
| 1 1/8 | 1.1238 | 1.2808 | 1.1240 | 3/8 | GB18DU06 | 5/8 | GB18DU10 | 3/4 | GB18DU12 | 1 | GB18DU16 | | | | | | |
| | 1.1226 | 1.2818 | 1.1278 | | | | | | | | | | | | | | |
| 1 1/4 | 1.2488 | 1.4058 | 1.2490 | 3/8 | GB20DU06 | 3/4 | GB20DU12 | 7/8 | GB20DU14 | 1 | GB20DU16 | 1 1/4 | GB20DU20 | 1 3/4 | GB20DU28 | | |
| | 1.2472 | 1.4068 | 1.2528 | | | | | | | | | | | | | | |
| 1 3/8 | 1.3738 | 1.5308 | 1.3740 | 3/4 | GB22DU12 | 1 | GB22DU16 | 1 1/2 | GB22DU24 | 1 3/4 | GB22DU28 | | | | | | |
| | 1.3722 | 1.5318 | 1.3778 | | | | | | | | | | | | | | |
| 1 1/2 | 1.4988 | 1.6558 | 1.4990 | 1/2 | GB24DU08 | 1 | GB24DU16 | 1 1/8 | GB20DU18 | 1 1/4 | GB24DU20 | 1 1/2 | GB20DU24 | 2 | GB20DU32 | | |
| | 1.4972 | 1.6568 | 1.5028 | | | | | | | | | | | | | | |
| 1 5/8 | 1.6238 | 1.7808 | 1.6240 | 1 | GB26DU16 | 1 1/2 | GB26DU24 | | | | | | | | | | |
| | 1.6222 | 1.7818 | 1.6278 | | | | | | | | | | | | | | |
| 1 3/4 | 1.7487 | 1.9371 | 1.7489 | 1 | GB28DU16 | 1 1/2 | GB28DU24 | 2 | GB28DU32 | | | | | | | | |
| | 1.7471 | 1.9381 | 1.7535 | | | | | | | | | | | | | | |
| 1 7/8 | 1.8737 | 2.0621 | 1.8739 | 3/4 | GB30DU12 | 1 | GB30DU16 | 2 1/4 | GB30DU36 | | | | | | | | |
| | 1.8721 | 2.0633 | 1.8787 | | | | | | | | | | | | | | |
| 2 | 1.9987 | 2.1871 | 1.9989 | 1/2 | GB32DU08 | 1 | GB32DU16 | 1 1/2 | GB32DU24 | 1 3/4 | GB32DU28 | 2 | GB32DU32 | 2 1/2 | GB32DU40 | | |
| | 1.9969 | 2.1883 | 2.0037 | | | | | | | | | | | | | | |

"DU" BEARING - OVER 2"

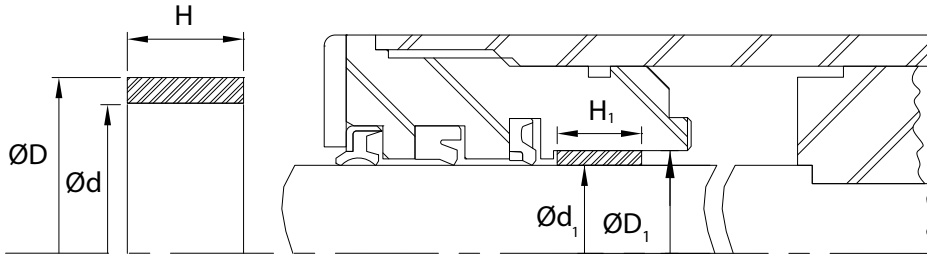
| Nominal Bearing Bore | Recommended | | Installed Bearing ID * | Bearing Length and Part Number | | | | | | | | | | | | | |
|----------------------|------------------|------------------|------------------------|--------------------------------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|--|--|
| | Shaft Dia. | Housing Bore | | 3 | 2 1/2 | 2 | 1 5/8 | 1 1/2 | 1 | 3/4 | 3/2 | 3 | 3/4 | 3/2 | | | |
| 2 1/8 | 2.1257 2.1239 | 2.3118 2.3130 | 2.1262 2.1326 | 3 | GB34DU48 | | | | | | | | | | | | |
| 2 1/4 | 2.2507 2.2489 | 2.4365 2.4377 | 2.2509 2.573 | 1 3/4 | GB36DU28 | 2 | GB36DU32 | 2 1/2 | GB36DU40 | 3 | GB36DU48 | 3 1/2 | GB36DU56 | 3 3/4 | GB36DU60 | | |
| 2 1/2 | 2.5011 2.4993 | 2.6869 2.6881 | 2.5013 2.5077 | 1 | GB40DU16 | 1 5/8 | GB40DU26 | 2 | GB40DU32 | 2 1/2 | GB40DU40 | 3 | GB40DU48 | 3 1/2 | GB40DU56 | | |
| 2 3/4 | 2.7500 2.7482 | 2.9358 2.9370 | 2.7502 2.7566 | 2 | GB44DU32 | 2 1/4 | GB44DU36 | 2 1/2 | GB44DU40 | 3 | GB44DU48 | 3 1/2 | GB44DU56 | 3 3/4 | GB44DU60 | | |
| 2 7/8 | 2.8752 2.8734 | 3.0610 3.0623 | 2.8754 2.8819 | 2 | GB46DU32 | 2 1/4 | GB46DU36 | 2 1/2 | GB46DU40 | 3 | GB46DU48 | 3 1/2 | GB46DU56 | 3 3/4 | GB46DU60 | | |
| 3 | 3.0000 2.9982 | 3.1858 3.1872 | 3.0002 3.0068 | 2 | GB48DU32 | 2 1/4 | GB48DU36 | 2 1/2 | GB48DU40 | 3 | GB48DU48 | 3 1/2 | GB48DU56 | 3 3/4 | GB48DU60 | | |
| 3 1/4 | 3.2500 3.2480 | 3.4358 3.4372 | 3.2502 3.2568 | 2 | GB52DU32 | 2 3/8 | GB52DU38 | 2 1/2 | GB52DU40 | 3 | GB52DU48 | 3 1/2 | GB52DU56 | 3 3/4 | GB52DU60 | | |
| 3 1/2 | 3.5000 3.4978 | 3.6858 3.6872 | 3.5002 3.5068 | 2 | GB56DU36 | 2 3/8 | GB56DU38 | 2 1/2 | GB56DU40 | 3 | GB56DU48 | 3 1/2 | GB56DU56 | 3 3/4 | GB56DU60 | | |
| 3 5/8 | 3.6250 3.6228 | 3.8108 3.8122 | 3.6252 3.6318 | 2 | GB58DU32 | 2 1/4 | GB58DU36 | 2 1/2 | GB58DU40 | 3 | GB58DU48 | 3/2 | GB58DU56 | 3 3/4 | GB58DU60 | | |
| 3 3/4 | 3.7500 3.7478 | 3.9358 3.9372 | 3.7502 3.7568 | 2 | GB60DU32 | 2 1/4 | GB60DU36 | 2 1/2 | GB60DU40 | 3 | GB60DU48 | 3 1/2 | GB60DU56 | 3 3/4 | GB60DU60 | | |
| 4 | 4.0000 3.9978 | 4.1858 4.1872 | 4.0002 4.0068 | 2 | GB64DU32 | 2 1/4 | GB64DU36 | 2 1/2 | GB64DU40 | 3 | GB64DU48 | 3 1/2 | GB64DU56 | 3 3/4 | GB64DU60 | | |
| 4 1/4 | 4.2500 4.2478 | 4.4358 4.4372 | 4.2502 4.2568 | 2 | GB68DU32 | 2 1/4 | GB68DU36 | 2 1/2 | GB68DU40 | 3 | GB68DU48 | 3 1/2 | GB68DU56 | 3 3/4 | GB68DU60 | | |
| 4 3/8 | 4.3750 4.3728 | 4.5608 4.5622 | 4.3752 4.3818 | 2 | GB70DU32 | 2 1/4 | GB70DU36 | 2 1/2 | GB70DU40 | 3 | GB70DU48 | 3 1/2 | GB70DU56 | 3 3/4 | GB70DU60 | | |
| 4 1/2 | 4.5000 4.4978 | 4.6858 4.6872 | 4.5002 4.5068 | 2 | GB72DU32 | 2 1/4 | GB72DU36 | 2 1/2 | GB72DU40 | 3 | GB72DU48 | 3 1/2 | GB72DU56 | 3 3/4 | GB72DU60 | | |
| 4 3/4 | 4.7500 4.7475 | 4.9358 4.9374 | 4.7502 4.7572 | 2 | GB76DU32 | 2 1/4 | GB76DU36 | 2 1/2 | GB76DU40 | 3 | GB76DU48 | 3 1/2 | GB76DU56 | 3 3/4 | GB76DU60 | | |
| 5 | 4.9986 4.9961 | 5.1844 5.1860 | 4.9988 5.0056 | 2 | GB80DU32 | 2 1/4 | GB80DU36 | 2 1/2 | GB80DU40 | 3 | GB80DU48 | 3 1/2 | GB80DU56 | 3 3/4 | GB80DU60 | | |
| 5 1/4 | 5.2500 5.2475 | 5.4358 5.4374 | 5.2502 5.2570 | 2 | GB84DU32 | 2 1/4 | GB84DU36 | 2 1/2 | GB84DU40 | 3 | GB84DU48 | 3 1/2 | GB84DU56 | 3 3/4 | GB84DU60 | | |
| 5 1/2 | 5.5000 4.4975 | 5.6858 5.6874 | 5.5002 5.5070 | 2 | GB88DU32 | 2 1/4 | GB88DU36 | 2 1/2 | GB88DU40 | 3 | GB88DU48 | 3 1/2 | GB88DU56 | 3 3/4 | GB88DU60 | | |
| 5 3/4 | 5.7500 5.7475 | 5.9358 5.9374 | 5.7502 5.7570 | 2 | GB92DU32 | 2 1/4 | GB92DU36 | 2 1/2 | GB92DU40 | 3 | GB92DU48 | 3 1/2 | GB92DU56 | 3 3/4 | GB92DU60 | | |
| 6 | 6.0000 5.9975 | 6.1858 6.1874 | 6.0002 6.0070 | 2 | GB96DU32 | 2 1/4 | GB96DU36 | 2 1/2 | GB96DU40 | 3 | GB96DU48 | 3 1/2 | GB96DU56 | 3 3/4 | GB96DU60 | | |
| 6 1/4 | 6.2500 6.2475 | 6.4358 6.4374 | 6.2502 6.2570 | 2 | GB100DU32 | 2 1/4 | GB100DU36 | 2 1/2 | GB100DU40 | 3 | GB100DU48 | 3 1/2 | GB100DU56 | 3 3/4 | GB100DU60 | | |
| 6 1/2 | 6.5000 6.2475 | 6.6858 6.6874 | 6.5002 6.5070 | 2 | GB104DU32 | 2 1/4 | GB104DU36 | 2 1/2 | GB104DU40 | 3 | GB104DU48 | 3 1/2 | GB104DU56 | 3 3/4 | GB104DU60 | | |
| 6 3/4 | 6.7500 6.7475 | 6.9358 6.9374 | 6.7502 6.7570 | 2 | GB108DU32 | 2 1/4 | GB108DU36 | 2 1/2 | GB108DU40 | 3 | GB108DU48 | 3 1/2 | GB108DU56 | 3 3/4 | GB108DU60 | | |



"DU" BEARINGS - Inch



| Standard Material | Temperature Range | Compressive Strength | Surface Speed |
|-------------------|--------------------------------------|--------------------------|--|
| BR.PTFE/ Steel | -328°F to +536°F -200°C to +280°C | 44 000 psi (3035 bar) | <8.2 ft/s (2.5 m/s) dry <16 ft/s (5 m/s) lubricated |



- **DU** selflubricating bearings offer very good wear and low friction performance over a wide range of loads, speeds and temperatures in dry running conditions.
- Suitable for lubricated applications.
- Suitable for linear, oscillating and rotating movements.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Nominal Rod Dia. | Nominal Bearing Dimensions | | |
|------------|------------------|----------------------------|-------|-------|
| | | d | D | H |
| GB02DU02 | 0.125 | 0.125 | 0.187 | 0.125 |
| GB02DU03 | 0.125 | 0.125 | 0.187 | 0.187 |
| GB025DU025 | 0.156 | 0.155 | 0.218 | 0.155 |
| GB025DU04 | 0.156 | 0.155 | 0.218 | 0.250 |
| GB03DU03 | 0.187 | 0.187 | 0.250 | 0.187 |
| GB03DU04 | 0.187 | 0.187 | 0.250 | 0.250 |
| GB03DU06 | 0.187 | 0.187 | 0.250 | 0.375 |
| GB04DU04 | 0.250 | 0.250 | 0.312 | 0.250 |
| GB04DU06 | 0.250 | 0.250 | 0.312 | 0.375 |
| GB05DU06 | 0.312 | 0.312 | 0.375 | 0.375 |
| GB05DU08 | 0.312 | 0.312 | 0.375 | 0.500 |
| GB06DU03 | 0.375 | 0.375 | 0.468 | 0.187 |
| GB06DU04 | 0.375 | 0.375 | 0.468 | 0.250 |
| GB06DU06 | 0.375 | 0.375 | 0.468 | 0.375 |
| GB06DU08 | 0.375 | 0.375 | 0.468 | 0.500 |
| GB06DU10 | 0.375 | 0.375 | 0.468 | 0.625 |
| GB06DU12 | 0.375 | 0.375 | 0.468 | 0.750 |
| GB07DU08 | 0.437 | 0.437 | 0.531 | 0.500 |
| GB07DU12 | 0.437 | 0.437 | 0.531 | 0.750 |
| GB08DU04 | 0.500 | 0.500 | 0.593 | 0.250 |
| GB08DU06 | 0.500 | 0.500 | 0.593 | 0.375 |
| GB08DU08 | 0.500 | 0.500 | 0.593 | 0.500 |

| Ref.Number | Nominal Rod Dia. | Nominal Bearing Dimensions | | |
|------------|------------------|----------------------------|-------|-------|
| | | d | D | H |
| GB08DU10 | 0.500 | 0.500 | 0.593 | 0.625 |
| GB08DU12 | 0.500 | 0.500 | 0.593 | 0.750 |
| GB08DU14 | 0.500 | 0.500 | 0.593 | 0.875 |
| GB09DU06 | 0.562 | 0.562 | 0.656 | 0.375 |
| GB09DU08 | 0.562 | 0.562 | 0.656 | 0.500 |
| GB09DU10 | 0.562 | 0.562 | 0.656 | 0.625 |
| GB09DU12 | 0.562 | 0.562 | 0.656 | 0.750 |
| GB10DU04 | 0.625 | 0.625 | 0.718 | 0.250 |
| GB10DU06 | 0.625 | 0.625 | 0.718 | 0.375 |
| GB10DU07 | 0.625 | 0.625 | 0.718 | 0.437 |
| GB10DU08 | 0.625 | 0.625 | 0.718 | 0.500 |
| GB10DU10 | 0.625 | 0.625 | 0.718 | 0.625 |
| GB10DU12 | 0.625 | 0.625 | 0.718 | 0.750 |
| GB10DU14 | 0.625 | 0.625 | 0.718 | 0.875 |
| GB10DU16 | 0.625 | 0.625 | 0.718 | 1.000 |
| GB11DU12 | 0.687 | 0.687 | 0.781 | 0.750 |
| GB11DU14 | 0.687 | 0.687 | 0.781 | 0.875 |
| GB12DU04 | 0.750 | 0.750 | 0.875 | 0.250 |
| GB12DU06 | 0.750 | 0.750 | 0.875 | 0.375 |
| GB12DU08 | 0.750 | 0.750 | 0.875 | 0.500 |
| GB12DU10 | 0.750 | 0.750 | 0.875 | 0.625 |
| GB12DU12 | 0.750 | 0.750 | 0.875 | 0.750 |

"DU" BEARINGS series - BR.PTFE/STEEL



| Ref.Number | Nominal Rod Dia. | Nominal Bearing Dimensions | | |
|------------|------------------|----------------------------|-------|-------|
| | | d | D | H |
| GB12DU16 | 0.750 | 0.750 | 0.875 | 1.000 |
| GB13DU12 | 0.812 | 0.812 | 0.937 | 0.750 |
| GB13DU18 | 0.812 | 0.812 | 0.937 | 1.125 |
| GB14DU04 | 0.875 | 0.875 | 1.000 | 0.250 |
| GB14DU06 | 0.875 | 0.875 | 1.000 | 0.375 |
| GB14DU10 | 0.875 | 0.875 | 1.000 | 0.625 |
| GB14DU12 | 0.875 | 0.875 | 1.000 | 0.750 |
| GB14DU14 | 0.875 | 0.875 | 1.000 | 0.875 |
| GB14DU16 | 0.875 | 0.875 | 1.000 | 1.000 |
| GB14DU20 | 0.875 | 0.875 | 1.000 | 1.250 |
| GB16DU06 | 1.000 | 1.000 | 1.125 | 0.375 |
| GB16DU08 | 1.000 | 1.000 | 1.125 | 0.500 |
| GB16DU10 | 1.000 | 1.000 | 1.125 | 0.625 |
| GB16DU12 | 1.000 | 1.000 | 1.125 | 0.750 |
| GB16DU16 | 1.000 | 1.000 | 1.125 | 1.000 |
| GB16DU20 | 1.000 | 1.000 | 1.125 | 1.250 |
| GB16DU24 | 1.000 | 1.000 | 1.125 | 1.500 |
| GB17DU14 | 1.062 | 1.062 | 1.187 | 0.875 |
| GB18DU06 | 1.125 | 1.125 | 1.281 | 0.375 |
| GB18DU10 | 1.125 | 1.125 | 1.281 | 0.625 |
| GB18DU12 | 1.125 | 1.125 | 1.281 | 0.750 |
| GB18DU16 | 1.125 | 1.125 | 1.281 | 1.000 |
| GB20DU06 | 1.250 | 1.250 | 1.406 | 0.375 |
| GB20DU08 | 1.250 | 1.250 | 1.406 | 0.500 |
| GB20DU10 | 1.250 | 1.250 | 1.406 | 0.625 |
| GB20DU12 | 1.250 | 1.250 | 1.406 | 0.750 |
| GB20DU14 | 1.250 | 1.250 | 1.406 | 0.875 |
| GB20DU16 | 1.250 | 1.250 | 1.406 | 1.000 |
| GB20DU20 | 1.250 | 1.250 | 1.406 | 1.250 |
| GB20DU28 | 1.250 | 1.250 | 1.406 | 1.750 |
| GB22DU12 | 1.375 | 1.375 | 1.531 | 0.750 |
| GB22DU16 | 1.375 | 1.375 | 1.531 | 1.000 |
| GB22DU24 | 1.375 | 1.375 | 1.531 | 1.500 |
| GB22DU28 | 1.375 | 1.375 | 1.531 | 1.750 |
| GB24DU06 | 1.500 | 1.500 | 1.656 | 0.375 |
| GB24DU08 | 1.500 | 1.500 | 1.656 | 0.500 |
| GB24DU12 | 1.500 | 1.500 | 1.656 | 0.750 |
| GB24DU16 | 1.500 | 1.500 | 1.656 | 1.000 |
| GB24DU18 | 1.500 | 1.500 | 1.656 | 1.125 |
| GB24DU20 | 1.500 | 1.500 | 1.656 | 1.250 |
| GB24DU24 | 1.500 | 1.500 | 1.656 | 1.500 |
| GB24DU32 | 1.500 | 1.500 | 1.656 | 2.000 |
| GB26DU16 | 1.625 | 1.625 | 1.781 | 1.000 |
| GB26DU24 | 1.625 | 1.625 | 1.781 | 1.500 |
| GB28DU08 | 1.750 | 1.750 | 1.937 | 0.500 |
| GB28DU12 | 1.750 | 1.750 | 1.937 | 0.750 |

| Ref.Number | Nominal Rod Dia. | Nominal Bearing Dimensions | | |
|------------|------------------|----------------------------|-------|-------|
| | | d | D | H |
| GB28DU16 | 1.750 | 1.750 | 1.937 | 1.000 |
| GB28DU20 | 1.750 | 1.750 | 1.937 | 1.250 |
| GB28DU24 | 1.750 | 1.750 | 1.937 | 1.500 |
| GB28DU32 | 1.750 | 1.750 | 1.937 | 2.000 |
| GB30DU06 | 1.875 | 1.875 | 2.062 | 0.375 |
| GB30DU12 | 1.875 | 1.875 | 2.062 | 0.750 |
| GB30DU16 | 1.875 | 1.875 | 2.062 | 1.000 |
| GB30DU36 | 1.875 | 1.875 | 2.062 | 2.250 |
| GB32DU08 | 2.000 | 2.000 | 2.187 | 0.500 |
| GB32DU10 | 2.000 | 2.000 | 2.187 | 0.625 |
| GB32DU16 | 2.000 | 2.000 | 2.187 | 1.000 |
| GB32DU24 | 2.000 | 2.000 | 2.187 | 1.500 |
| GB32DU28 | 2.000 | 2.000 | 2.187 | 1.750 |
| GB32DU32 | 2.000 | 2.000 | 2.187 | 2.000 |
| GB32DU40 | 2.000 | 2.000 | 2.187 | 2.500 |
| GB34DU12 | 2.125 | 2.125 | 2.312 | 0.750 |
| GB34DU48 | 2.125 | 2.125 | 2.312 | 3.000 |
| GB36DU12 | 2.250 | 2.250 | 2.437 | 0.750 |
| GB36DU16 | 2.250 | 2.250 | 2.437 | 1.000 |
| GB36DU24 | 2.250 | 2.250 | 2.437 | 1.500 |
| GB36DU28 | 2.250 | 2.250 | 2.437 | 1.750 |
| GB36DU32 | 2.250 | 2.250 | 2.437 | 2.000 |
| GB36DU40 | 2.250 | 2.250 | 2.437 | 2.500 |
| GB36DU48 | 2.250 | 2.250 | 2.437 | 3.000 |
| GB36DU60 | 2.250 | 2.250 | 2.437 | 3.750 |
| GB38DU28 | 2.375 | 2.375 | 2.562 | 1.750 |
| GB40DU08 | 2.500 | 2.500 | 2.688 | 0.500 |
| GB40DU16 | 2.500 | 2.500 | 2.687 | 1.000 |
| GB40DU20 | 2.500 | 2.500 | 2.687 | 1.250 |
| GB40DU24 | 2.500 | 2.500 | 2.687 | 1.500 |
| GB40DU26 | 2.500 | 2.500 | 2.687 | 1.625 |
| GB40DU32 | 2.500 | 2.500 | 2.687 | 2.000 |
| GB40DU36 | 2.500 | 2.500 | 2.687 | 2.250 |
| GB40DU40 | 2.500 | 2.500 | 2.687 | 2.500 |
| GB40DU48 | 2.500 | 2.500 | 2.687 | 3.000 |
| GB40DU56 | 2.500 | 2.500 | 2.687 | 3.500 |
| GB40DU64 | 2.500 | 2.500 | 2.687 | 4.000 |
| GB40DU72 | 2.500 | 2.500 | 2.687 | 4.500 |
| GB44DU10 | 2.750 | 2.750 | 2.937 | 0.625 |
| GB44DU12 | 2.750 | 2.750 | 2.937 | 0.750 |
| GB44DU16 | 2.750 | 2.750 | 2.937 | 1.000 |
| GB44DU28 | 2.750 | 2.750 | 2.937 | 1.750 |
| GB44DU32 | 2.750 | 2.750 | 2.937 | 2.000 |
| GB44DU36 | 2.750 | 2.750 | 2.937 | 2.250 |
| GB44DU40 | 2.750 | 2.750 | 2.937 | 2.500 |
| GB44DU48 | 2.750 | 2.750 | 2.937 | 3.000 |

"DU" BEARINGS series - BR.PTFE/STEEL

| Ref.Number | Nominal Rod Dia. | Nominal Bearing Dimensions | | |
|------------|------------------|----------------------------|-------|-------|
| | | d | D | H |
| GB44DU56 | 2.750 | 2.750 | 2.937 | 3.500 |
| GB46DU16 | 2.875 | 2.875 | 3.062 | 1.000 |
| GB46DU32 | 2.875 | 2.875 | 3.062 | 2.000 |
| GB46DU36 | 2.875 | 2.875 | 3.062 | 2.250 |
| GB46DU40 | 2.875 | 2.875 | 3.062 | 2.500 |
| GB46DU48 | 2.875 | 2.875 | 3.062 | 3.000 |
| GB46DU64 | 2.875 | 2.875 | 3.062 | 4.000 |
| GB46DU76 | 2.875 | 2.875 | 3.062 | 4.750 |
| GB46DU80 | 2.875 | 2.875 | 3.062 | 5.000 |
| GB48DU12 | 3.000 | 3.000 | 3.187 | 0.750 |
| GB48DU20 | 3.000 | 3.000 | 3.187 | 1.250 |
| GB48DU24 | 3.000 | 3.000 | 3.187 | 1.500 |
| GB48DU32 | 3.000 | 3.000 | 3.187 | 2.000 |
| GB48DU36 | 3.000 | 3.000 | 3.187 | 2.250 |
| GB48DU40 | 3.000 | 3.000 | 3.187 | 2.500 |
| GB48DU48 | 3.000 | 3.000 | 3.187 | 3.000 |
| GB48DU56 | 3.000 | 3.000 | 3.187 | 3.500 |
| GB48DU60 | 3.000 | 3.000 | 3.187 | 3.750 |
| GB48DU64 | 3.000 | 3.000 | 3.187 | 4.000 |
| GB48DU72 | 3.000 | 3.000 | 3.187 | 4.500 |
| GB52DU12 | 3.250 | 3.250 | 3.437 | 0.750 |
| GB52DU16 | 3.250 | 3.250 | 3.437 | 1.000 |
| GB52DU20 | 3.250 | 3.250 | 3.437 | 1.250 |
| GB52DU30 | 3.250 | 3.250 | 3.437 | 1.875 |
| GB52DU32 | 3.250 | 3.250 | 3.437 | 2.000 |
| GB52DU38 | 3.250 | 3.250 | 3.437 | 2.375 |
| GB52DU40 | 3.250 | 3.250 | 3.437 | 2.500 |
| GB52DU48 | 3.250 | 3.250 | 3.437 | 3.000 |
| GB52DU60 | 3.250 | 3.250 | 3.437 | 3.750 |
| GB52DU56 | 3.250 | 3.250 | 3.437 | 3.500 |
| GB52DU64 | 3.250 | 3.250 | 3.437 | 4.000 |
| GB54DU80 | 3.375 | 3.375 | 3.500 | 5.000 |
| GB56DU16 | 3.500 | 3.500 | 3.687 | 1.000 |
| GB56DU20 | 3.500 | 3.500 | 3.687 | 1.250 |
| GB56DU24 | 3.500 | 3.500 | 3.687 | 1.500 |
| GB56DU31 | 3.500 | 3.500 | 3.687 | 1.937 |
| GB56DU32 | 3.500 | 3.500 | 3.687 | 2.000 |
| GB56DU38 | 3.500 | 3.500 | 3.687 | 2.375 |
| GB56DU40 | 3.500 | 3.500 | 3.687 | 2.500 |
| GB56DU48 | 3.500 | 3.500 | 3.687 | 3.000 |
| GB56DU56 | 3.500 | 3.500 | 3.687 | 3.500 |
| GB56DU60 | 3.500 | 3.500 | 3.687 | 3.750 |
| GB56DU64 | 3.500 | 3.500 | 3.687 | 4.000 |
| GB56DU72 | 3.500 | 3.500 | 3.687 | 4.500 |
| GB56DU80 | 3.500 | 3.500 | 3.687 | 5.000 |
| GB58DU32 | 3.625 | 3.625 | 3.812 | 2.000 |

| Ref.Number | Nominal Rod Dia. | Nominal Bearing Dimensions | | |
|------------|------------------|----------------------------|-------|-------|
| | | d | D | H |
| GB58DU36 | 3.625 | 3.625 | 3.812 | 2.250 |
| GB58DU40 | 3.625 | 3.625 | 3.812 | 2.500 |
| GB58DU48 | 3.625 | 3.625 | 3.812 | 3.000 |
| GB58DU60 | 3.625 | 3.625 | 3.812 | 3.750 |
| GB58DU80 | 3.625 | 3.625 | 3.812 | 5.000 |
| GB60DU60 | 3.750 | 3.750 | 3.937 | 3.750 |
| GB60DU16 | 3.750 | 3.750 | 3.937 | 1.000 |
| GB60DU28 | 3.750 | 3.750 | 3.937 | 1.750 |
| GB60DU32 | 3.750 | 3.750 | 3.937 | 2.000 |
| GB60DU36 | 3.750 | 3.750 | 3.937 | 2.250 |
| GB60DU40 | 3.750 | 3.750 | 3.937 | 2.500 |
| GB60DU48 | 3.750 | 3.750 | 3.937 | 3.000 |
| GB60DU56 | 3.750 | 3.750 | 3.937 | 3.500 |
| GB60DU80 | 3.750 | 3.750 | 3.937 | 5.000 |
| GB64DU12 | 4.000 | 4.000 | 4.187 | 0.750 |
| GB64DU16 | 4.000 | 4.000 | 4.187 | 1.000 |
| GB64DU18 | 4.000 | 4.000 | 4.187 | 1.125 |
| GB64DU24 | 4.000 | 4.000 | 4.187 | 1.500 |
| GB48DU26 | 4.000 | 4.000 | 4.187 | 1.625 |
| GB64DU32 | 4.000 | 4.000 | 4.187 | 2.000 |
| GB64DU48 | 4.000 | 4.000 | 4.187 | 3.000 |
| GB64DU56 | 4.000 | 4.000 | 4.187 | 3.500 |
| GB64DU60 | 4.000 | 4.000 | 4.187 | 3.750 |
| GB64DU76 | 4.000 | 4.000 | 4.187 | 4.750 |
| GB64DU80 | 4.000 | 4.000 | 4.187 | 5.000 |
| GB64DU72 | 4.000 | 4.000 | 4.187 | 4.500 |
| GB68DU16 | 4.250 | 4.250 | 4.437 | 1.000 |
| GB68DU32 | 4.250 | 4.250 | 4.437 | 2.000 |
| GB68DU40 | 4.250 | 4.250 | 4.437 | 2.500 |
| GB68DU48 | 4.250 | 4.250 | 4.437 | 3.000 |
| GB68DU56 | 4.250 | 4.250 | 4.437 | 3.500 |
| GB68DU64 | 4.250 | 4.250 | 4.437 | 4.000 |
| GB68DU80 | 4.250 | 4.250 | 4.437 | 5.000 |
| GB70DU16 | 4.375 | 4.375 | 4.562 | 1.000 |
| GB70DU32 | 4.375 | 4.375 | 4.562 | 2.000 |
| GB70DU36 | 4.375 | 4.375 | 4.562 | 2.250 |
| GB70DU40 | 4.375 | 4.375 | 4.562 | 2.500 |
| GB70DU48 | 4.375 | 4.375 | 4.562 | 3.000 |
| GB70DU64 | 4.375 | 4.375 | 4.562 | 4.000 |
| GB72DU14 | 4.500 | 4.500 | 4.687 | 0.875 |
| GB72DU32 | 4.500 | 4.500 | 4.687 | 0.875 |
| GB72DU56 | 4.500 | 4.500 | 4.687 | 3.500 |
| GB72DU64 | 4.500 | 4.500 | 4.687 | 4.000 |
| GB72DU72 | 4.500 | 4.500 | 4.687 | 4.500 |
| GB74DU28 | 4.625 | 4.625 | 4.812 | 1.750 |
| GB74DU96 | 4.625 | 4.625 | 4.812 | 6.000 |

"DU" BEARINGS series - BR.PTFE/STEEL

| Ref.Number | Nominal Rod Dia. | Nominal Bearing Dimensions | | |
|------------|------------------|----------------------------|-------|-------|
| | | d | D | H |
| GB76DU17.9 | 4.750 | 4.750 | 4.937 | 1.119 |
| GB76DU30.4 | 4.750 | 4.750 | 4.937 | 1.900 |
| GB76DU32 | 4.750 | 4.750 | 4.937 | 2.000 |
| GB76DU36 | 4.750 | 4.750 | 4.937 | 2.250 |
| GB76DU56 | 4.750 | 4.750 | 4.937 | 3.500 |
| GB76DU60 | 4.750 | 4.750 | 4.937 | 3.750 |
| GB76DU64 | 4.750 | 4.750 | 4.937 | 4.000 |
| GB76DU72 | 4.750 | 4.750 | 4.937 | 4.500 |
| GB76DU76 | 4.750 | 4.750 | 4.937 | 4.750 |
| GB76DU80 | 4.750 | 4.750 | 4.937 | 5.000 |
| GB80DU18 | 5.000 | 5.000 | 5.187 | 1.125 |
| GB80DU32 | 5.000 | 5.000 | 5.187 | 2.000 |
| GB80DU48 | 5.000 | 5.000 | 5.187 | 3.000 |
| GB80DU40 | 5.000 | 5.000 | 5.187 | 3.500 |
| GB80DU60 | 5.000 | 5.000 | 5.187 | 3.750 |
| GB80DU64 | 5.000 | 5.000 | 5.187 | 4.000 |
| GB80DU80 | 5.000 | 5.000 | 5.187 | 5.000 |
| GB80DU20 | 5.000 | 5.000 | 5.187 | 1.250 |
| GB80DU72 | 5.000 | 5.000 | 5.187 | 4.500 |
| GB84DU32 | 5.250 | 5.250 | 5.437 | 2.000 |
| GB84DU48 | 5.250 | 5.250 | 5.437 | 3.000 |
| GB84DU60 | 5.250 | 5.250 | 5.437 | 3.750 |
| GB84DU64 | 5.250 | 5.250 | 5.437 | 4.000 |
| GB84DU72 | 5.250 | 5.250 | 5.437 | 4.500 |
| GB88DU32 | 5.500 | 5.500 | 5.687 | 2.000 |
| GB88DU40 | 5.500 | 5.500 | 5.687 | 2.500 |
| GB88DU48 | 5.500 | 5.500 | 5.687 | 3.000 |
| GB88DU56 | 5.500 | 5.500 | 5.687 | 3.500 |
| GB88DU60 | 5.500 | 5.500 | 5.687 | 3.750 |
| GB88DU64 | 5.500 | 5.500 | 5.687 | 4.000 |
| GB88DU72 | 5.500 | 5.500 | 5.687 | 4.500 |
| GB88DU80 | 5.500 | 5.500 | 5.687 | 5.000 |
| GB90DU64 | 5.625 | 5.625 | 5.812 | 4.000 |

| Ref.Number | Nominal Rod Dia. | Nominal Bearing Dimensions | | |
|------------|------------------|----------------------------|--------|-------|
| | | d | D | H |
| GB90DU72 | 5.625 | 5.625 | 5.812 | 4.500 |
| GB92DU32 | 5.750 | 5.750 | 5.937 | 2.000 |
| GB92DU48 | 5.750 | 5.750 | 5.937 | 3.000 |
| GB92DU64 | 5.750 | 5.750 | 5.937 | 4.000 |
| GB92DU80 | 5.750 | 5.750 | 5.937 | 5.000 |
| GB96DU16 | 6.000 | 6.000 | 6.187 | 1.000 |
| GB96DU22 | 6.000 | 6.000 | 6.187 | 1.375 |
| GB96DU24 | 6.000 | 6.000 | 6.187 | 1.500 |
| GB96DU29 | 6.000 | 6.000 | 6.187 | 1.812 |
| GB96DU32 | 6.000 | 6.000 | 6.187 | 2.000 |
| GB96DU48 | 6.000 | 6.000 | 6.187 | 3.000 |
| GB96DU56 | 6.000 | 6.000 | 6.187 | 3.500 |
| GB96DU60 | 6.000 | 6.000 | 6.187 | 3.750 |
| GB96DU64 | 6.000 | 6.000 | 6.187 | 4.000 |
| GB96DU80 | 6.000 | 6.000 | 6.187 | 5.000 |
| GB100DU32 | 6.250 | 6.250 | 6.437 | 2.000 |
| GB100DU48 | 6.250 | 6.250 | 6.437 | 3.000 |
| GB100DU56 | 6.250 | 6.250 | 6.437 | 3.500 |
| GB100DU64 | 6.250 | 6.250 | 6.437 | 4.000 |
| GB100DU80 | 6.250 | 6.250 | 6.437 | 5.000 |
| GB104DU27 | 6.500 | 6.500 | 6.687 | 1.687 |
| GB104DU52 | 6.500 | 6.500 | 6.687 | 3.250 |
| GB104DU64 | 6.500 | 6.500 | 6.687 | 4.000 |
| GB104DU72 | 6.500 | 6.500 | 6.687 | 4.500 |
| GB108DU32 | 6.750 | 6.750 | 6.937 | 2.000 |
| GB112DU20 | 7.000 | 7.000 | 7.187 | 1.250 |
| GB112DU48 | 7.000 | 7.000 | 7.187 | 3.000 |
| GB112DU72 | 7.000 | 7.000 | 7.187 | 4.500 |
| GB116DU26 | 7.250 | 7.250 | 7.437 | 1.625 |
| GB128DU29 | 8.000 | 8.000 | 8.187 | 1.812 |
| GB144DU32 | 9.000 | 9.000 | 9.187 | 2.000 |
| GB144DU38 | 9.000 | 9.000 | 9.187 | 2.375 |
| GB168DU48 | 10.500 | 10.500 | 10.656 | 3.000 |

G. ELEMENTS

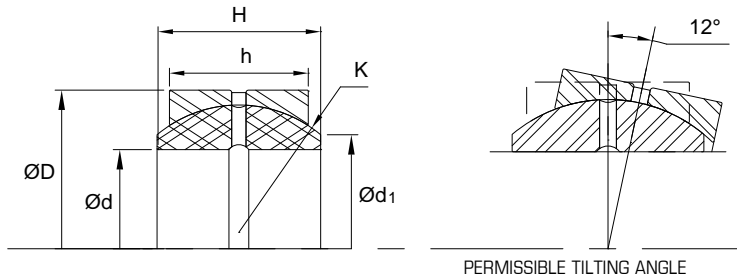


SBB - Spherical plain bearings - Inch



| Standard Material | Temperature Range |
|-----------------------|--------------------------------------|
| Carbon Chromium Steel | -58°F to +302°F (-50°C to +150°C) |

without seals



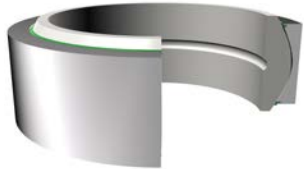
SBB-style Radial spherical plain bearings have an inner ring with a sphered convex outside surface and an outer ring with a correspondingly sphered but concave inside surface. Their design makes them particularly suitable for bearing arrangements where alignment movements between shaft and housing have to be accommodated, or where oscillating or recurrent tilting or slewing movements must be permitted at relatively slow sliding speeds.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Nominal Bearing Dimensions | | | | | Load ratings Pound-force (lbf) | | Weight | |
|-------------|----------------------------|-------|-------|-------|-------|-----------------------------------|---------|--------|--------|
| | d | dk | D | h | H | Dynamic | Static | kg | lbs |
| SBB08 | 0.500 | 0.709 | 0.875 | 0.375 | 0.437 | 2923 | 9217 | 0.022 | 0.048 |
| SBB10 | 0.625 | 0.906 | 1.062 | 0.469 | 0.547 | 4946 | 14613 | 0.036 | 0.079 |
| SBB12 | 0.750 | 1.083 | 1.250 | 0.562 | 0.656 | 6969 | 21357 | 0.053 | 0.117 |
| SBB14 | 0.875 | 1.260 | 1.437 | 0.656 | 0.765 | 9442 | 28551 | 0.085 | 0.187 |
| SBB16 | 1.000 | 1.417 | 1.625 | 0.750 | 0.875 | 12589 | 37318 | 0.121 | 0.267 |
| SBB20 | 1.250 | 1.772 | 2.000 | 0.937 | 1.093 | 19334 | 58450 | 0.230 | 0.507 |
| SBB22 | 1.375 | 1.929 | 2.187 | 1.031 | 1.187 | 22931 | 69691 | 0.350 | 0.772 |
| SBB24 | 1.500 | 2.165 | 2.437 | 1.125 | 1.312 | 28101 | 84303 | 0.420 | 0.926 |
| SBB28 | 1.750 | 2.520 | 2.812 | 1.312 | 1.531 | 38218 | 114653 | 0.640 | 1.410 |
| SBB32 | 2.000 | 2.874 | 3.187 | 1.500 | 1.750 | 50357 | 150622 | 0.930 | 2.050 |
| SBB36 | 2.250 | 3.228 | 3.562 | 1.687 | 1.969 | 62947 | 191088 | 1.300 | 2.866 |
| SBB40 | 2.500 | 3.583 | 3.937 | 1.875 | 2.187 | 79807 | 238297 | 1.850 | 4.079 |
| SBB44 | 2.750 | 3.937 | 4.375 | 2.062 | 2.406 | 16861 | 281011 | 2.400 | 5.291 |
| SBB48 | 3.000 | 4.331 | 4.750 | 2.250 | 2.625 | 112404 | 337213 | 3.100 | 6.834 |
| SBB52 | 3.250 | 4.685 | 5.125 | 2.437 | 2.844 | 131513 | 395664 | 3.800 | 8.378 |
| SBB56 | 3.500 | 5.039 | 5.500 | 2.625 | 3.062 | 152870 | 458610 | 4.800 | 10.582 |
| SBB60 | 3.750 | 5.394 | 5.875 | 2.812 | 3.281 | 175351 | 530549 | 5.800 | 12.787 |
| SBB64 | 4.000 | 5.748 | 6.250 | 3.000 | 3.500 | 202328 | 595744 | 7.000 | 15.432 |
| SBB72 | 4.500 | 6.457 | 7.000 | 3.375 | 3.937 | 251786 | 764350 | 9.800 | 21.605 |
| SBB80 | 5.000 | 7.205 | 7.750 | 3.750 | 4.375 | 314732 | 932957 | 13.500 | 29.762 |
| SBB96 | 6.000 | 8.150 | 8.750 | 4.125 | 4.750 | 388919 | 1169007 | 17.500 | 38.581 |

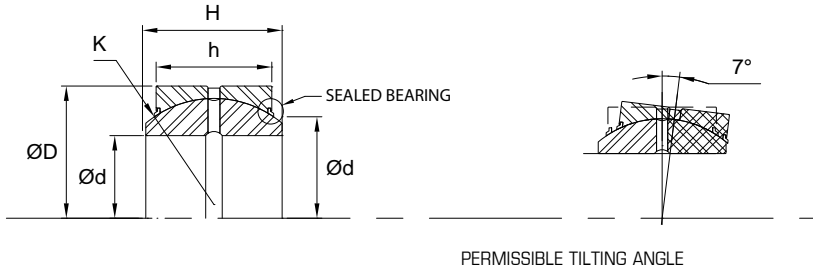


SBB-2RS - Spherical plain bearings - Inch



| Standard Material | Temperature Range |
|-----------------------|--------------------------------------|
| Carbon Chromium Steel | -22°F to +266°F (-30°C to +130°C) |

with seals



Similar to the **SSB-style**, the **2RS-style** incorporates seals on the outer race to prevent the ingress of harmful contaminants.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Nominal Bearing Dimensions | | | | | Load ratings Pound-force (lbf) | | Weight | |
|-------------|----------------------------|-------|-------|-------|-------|-----------------------------------|---------|--------|--------|
| | d | dk | D | h | H | Dynamic | Static | kg | lbs |
| SBB08-2RS | 0.500 | 0.709 | 0.875 | 0.375 | 0.437 | 2923 | 9217 | 0.022 | 0.048 |
| SBB10-2RS | 0.625 | 0.906 | 1.062 | 0.469 | 0.547 | 4946 | 14613 | 0.036 | 0.079 |
| SBB12-2RS | 0.750 | 1.083 | 1.250 | 0.562 | 0.656 | 6969 | 21357 | 0.053 | 0.117 |
| SBB14-2RS | 0.875 | 1.260 | 1.437 | 0.656 | 0.765 | 9442 | 28551 | 0.085 | 0.187 |
| SBB16-2RS | 1.000 | 1.417 | 1.625 | 0.750 | 0.875 | 12589 | 37318 | 0.121 | 0.267 |
| SBB20-2RS | 1.250 | 1.772 | 2.000 | 0.937 | 1.093 | 19334 | 58450 | 0.230 | 0.507 |
| SBB22-2RS | 1.375 | 1.929 | 2.187 | 1.031 | 1.187 | 22931 | 69691 | 0.350 | 0.772 |
| SBB24-2RS | 1.500 | 2.165 | 2.437 | 1.125 | 1.312 | 28101 | 84303 | 0.420 | 0.926 |
| SBB28-2RS | 1.750 | 2.520 | 2.812 | 1.312 | 1.531 | 38218 | 114653 | 0.640 | 1.410 |
| SBB32-2RS | 2.000 | 2.874 | 3.187 | 1.500 | 1.750 | 50357 | 150622 | 0.930 | 2.050 |
| SBB36-2RS | 2.250 | 3.228 | 3.562 | 1.687 | 1.969 | 62947 | 191088 | 1.300 | 2.866 |
| SBB40-2RS | 2.500 | 3.583 | 3.937 | 1.875 | 2.187 | 79807 | 238297 | 1.850 | 4.079 |
| SBB44-2RS | 2.750 | 3.937 | 4.375 | 2.062 | 2.406 | 16861 | 281011 | 2.400 | 5.291 |
| SBB48-2RS | 3.000 | 4.331 | 4.750 | 2.250 | 2.625 | 112404 | 337213 | 3.100 | 6.834 |
| SBB52-2RS | 3.250 | 4.685 | 5.125 | 2.437 | 2.844 | 131513 | 395664 | 3.800 | 8.378 |
| SBB56-2RS | 3.500 | 5.039 | 5.500 | 2.625 | 3.062 | 152870 | 458610 | 4.800 | 10.582 |
| SBB60-2RS | 3.750 | 5.394 | 5.875 | 2.812 | 3.281 | 175351 | 530549 | 5.800 | 12.787 |
| SBB64-2RS | 4.000 | 5.748 | 6.250 | 3.000 | 3.500 | 202328 | 595744 | 7.000 | 15.432 |
| SBB72-2RS | 4.500 | 6.811 | 7.000 | 3.562 | 4.156 | 251786 | 764350 | 9.800 | 21.605 |
| SBB76-2RS | 4.750 | 6.811 | 7.375 | 3.562 | 4.156 | 281011 | 843034 | 11.500 | 25.353 |
| SBB80-2RS | 5.000 | 7.205 | 7.750 | 3.750 | 4.375 | 314732 | 932957 | 13.500 | 29.762 |
| SBB96-2RS | 6.000 | 8.150 | 8.750 | 4.125 | 4.750 | 388919 | 1169007 | 17.500 | 38.581 |



Spherical plain bearings X-REF

| Ref. Number | Pin diameter | SKF | Torrington | RBC | INA-Elges | Internal Retaining Ring |
|-------------|--------------|------------|------------|-------|-----------|-------------------------|
| SBB08 | 0.500 | GEZ 008 ES | 5SF8 | B8-L | GE 12 Z0 | N1300-0087 |
| SBB10 | 0.625 | GEZ 010 ES | 6SF10 | B10-L | GE 15 Z0 | N1300-0162 |
| SBB12 | 0.750 | GEZ 012 ES | 7SF12 | B12-L | GE 19 Z0 | N1300-0125 |
| SBB14 | 0.875 | GEZ 014 ES | 8SF14 | B14-L | GE 22 Z0 | N1300-0143 |
| SBB16 | 1.000 | GEZ 100 ES | 10SF16 | B16-L | GE 25 Z0 | N1300-0162 |
| SBB20 | 1.250 | GEZ 104 ES | 12SF20 | B20-L | GE 31 Z0 | N1300-0200 |
| SBB22 | 1.375 | GEZ 106 ES | 13SF22 | B22-L | GE 34 Z0 | N1300-0218 |
| SBB24 | 1.500 | GEZ 108 ES | 15SF24 | B24-L | GE 38 Z0 | N1300-0244 |
| SBB28 | 1.750 | GEZ 112 ES | 17SF24 | B28-L | GE 28 Z0 | N1300-0281 |
| SBB32 | 2.000 | GEZ 200 ES | 20SF24 | B32-L | GE 32 Z0 | N1300-0315 |
| SBB36 | 2.250 | GEZ 204 ES | 22SF24 | B36-L | GE 36 Z0 | N1300-0356 |
| SBB40 | 2.500 | GEZ 208 ES | 25SF40 | B40-L | GE 63 Z0 | N1300-0393 |
| SBB44 | 2.750 | GEZ 212 ES | 27SF44 | B44-L | GE 69 Z0 | N1300-0433 |
| SBB48 | 3.000 | GEZ 300 ES | 30SF48 | B48-L | GE 76 Z0 | N1300-0475 |
| SBB52 | 3.250 | GEZ 304 ES | 32SF52 | B52-L | GE 82 Z0 | N1300-0512 |
| SBB56 | 3.500 | GEZ 308 ES | 35SF56 | B56-L | GE 88 Z0 | N1300-0550 |
| SBB60 | 3.750 | GEZ 312 ES | 37SBB60 | B60-L | GE 95 Z0 | N1300-0587 |
| SBB64 | 4.000 | GEZ 400 ES | 40SBB64 | B64-L | GE 101 Z0 | N1300-0625 |
| SBB72 | 4.500 | GEZ 408 ES | 45SFBB72 | B72-L | GE 114 Z0 | N1300-0700 |
| SBB80 | 5.000 | GEZ 500 ES | 50SBB80 | B80-L | GE 127 Z0 | N1300-0775 |
| SBB96 | 6.000 | GEZ 600 ES | 60SBB96 | B96-L | GE 152 Z0 | N1300-0875 |

For sealed bearings, add suffix as : -2RS

OTHER PROFILES ARE ALSO AVAILABLE ON REQUEST

Though this product offering contains a wide selection of commonly used parts in the marketplace, it is possible that you haven't found the exact part you were looking for.

We have many other seal profiles available on request, please do not hesitate to contact us and we will do our best to help you locate the required part.





G. ELEMENTS







| | | | |
|-------------|----------------------------|---|----|
| INFO | MATERIAL SELECTION | G | 2 |
| INFO | STATIC O'RING SEALING | G | 10 |
| INFO | DYNAMIC O'RING SEALING | G | 12 |
| ●■✕ | 2-XXX O'RINGS | G | 14 |
| INFO | TUBE FITTING BOSS SEALS | G | 24 |
| ● | 3-XXX O'RINGS | G | 25 |
| ●■✕ | O'RING CORD | G | 26 |
| ● | VULC. O'RINGS | G | 28 |
| ⌋ | 8-XXX BACK-UP RINGS | G | 29 |
| ■ | CONTOURED BACK-UP RINGS | G | 30 |
| ■ | BACK-UP RINGS URETHANE | G | 35 |
| ■ | BACK-UP RINGS TEFLON SOLID | G | 40 |
| ■ | BACK-UP RINGS TEFLON SPLIT | G | 45 |
| ■ | SERIE 8700 BACK-UP RINGS | G | 50 |

| | | | |
|-------------|-----------------------------|---|----|
| | ED - DIN CONNECTOR RINGS | G | 52 |
| | HEAD SEAL | G | 53 |
| ● | CAT O'RING KITS | G | 55 |
| ●▲● | CAT HOSE COUPLING SEALS | G | 56 |
| INFO | ORF AND SAE O'RING REF. | G | 57 |
| | SAE FLANGE SEAL | G | 58 |
| INFO | BONDED SEALS APPLICATIONS | G | 59 |
| INFO | BONDED SEAL REF. CHART | G | 60 |
| | BS400 | G | 61 |
| | BS400SC | G | 62 |
| | 600 | G | 63 |
| | 7500 | G | 64 |
| | PARKER ACCESSORIES | G | 66 |
| | O'RING KITS AND ACCESSORIES | G | 68 |

BASIC O'RING ELASTOMER

2.0 Elastomer

The basic core polymer of an elastometric compound is called a rubber, produced either as natural gum rubber in the wild, on commercial rubber plantations or manufactured synthetically by the chemical industry. Today, more than 32 synthetic rubbers are known, the most important ones being listed in Table 2-1 (on the following page).

Modern elastomeric sealing compounds generally contain 50 to 60% base polymer and are often describe simply as "rubber". The balance of an elastomer compound consists of various fillers, vulcanizing agents, accelerators, aging retardants and other chemical additives which modify and improve the basic physical properties of the base polymer to meet the particular requirements of a specific application.

Elastomers used in producing seals, and particularly, those used in O-rings, will usually provide reliable, leak-free function if fundamental design requirements are observed.

"Cross-linking" between the polymer chains is formed during the vulcanization process, see Figure 2-1. Cross-linking of the molecules changes the rubber from a plastic like material to an elastic material.

After vulcanisation, including any required "post-cure", an elastomer compound attains the physical properties required for a good sealing material. As with all chemical reactions temperature is responsible for the speed of reaction. Only when the ideal process temperature is constant during the

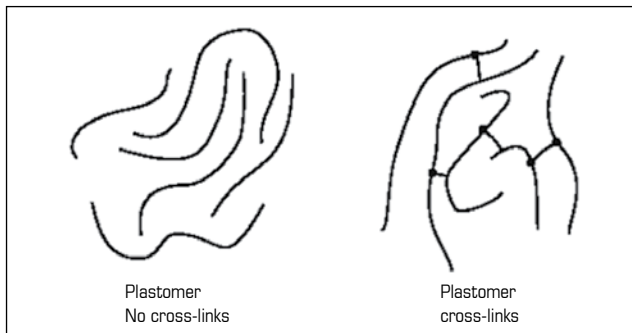


Figure 2-1 : Schematic Representation of polymer Chains

entire vulcanisation time, will the optimum degree of curing be reached. For this reason, the conditions of vulcanisation are closely controlled and recorded as part of the Parker quality assurance process.

2.1. Introduction to Elastomers

Before reviewing the available elastomers and their general properties it is necessary to fully understand the terms "polymer", "rubber", "elastomer" and "compound" as they are used in this handbook.

| Chemical Name | Abbreviation | |
|---|--------------|------------|
| | DIN/ISO 1629 | ASTM D1418 |
| M-Group (Saturated carbon molecules in main macro-molecule chain): | | |
| Ethylene Acrylate | ACM | ACM |
| Chlorosulfonated Polyethylene Rubber | - | AEM |
| Ethylene Propylene Rubber | CSM | CSM |
| Fluorocarbon Rubber | EPDM | EPDM |
| Tetrafluorethylene Propylene Copolymer | FEPDM | FKM |
| Perfluorinated Elastomer | - | FFKM |
| O-Group (with oxygen molcules in the main macro-molecule chain): | | |
| Epichlorohydrin Rubber | CO | CO |
| Epichlorohydrin Copolymer Rubber | ECO | ECO |
| R-Group (unsaturated hydrogen carbon chain): | | |
| Butadiene Rubber | BR | BR |
| Chloroprene Rubber | CR | CR |
| Isobutene Isoprene Rubber (Butyl Rubber) | IIR | IIR |
| Chlorobutyl Rubber | CIIR | CIIR |
| Isoprene Rubber | IR | IR |
| Nitrile Butadiene Rubber | NBR | NBR |
| Styrene Butadiene Rubber | SBR | SBR |
| Hydrogenated Nitrile | - | HNBR |
| Carboxylated Nitrile | XNBR | XNBR |
| Q-Group (with Silicone in the main chain): | | |
| Fluosilicone Rubber | FMQ | FVMQ |
| Methyl Phenyl Silicone Rubber | PMQ | PMQ |
| Methyl Phenyl Vinyl Silicone Rubber | PMVQ | PVMQ |
| Methyl Silicone Rubber | MQ | MQ |
| Methyl Vinyl Silicone Rubber | VMQ | VMQ |
| U-Group (with carbon, oxygen and nitrogen in the main chain): | | |
| Polyester Urethane | AU | AU |
| Polyester Urethane | EU | EU |





2.1.1 Polymer

A polymer is the "result of a chemical linking of molecules into a long chain-like structure". Both plastics and elastomers are classified as polymers. In this handbook polymers generally refers to a basic class of elastomer, members of which have similar chemical and physical properties.

O-rings are made from many polymers, but a few polymers account for the majority of O-rings produced, namely Nitrile, EPDM and Neoprene.

2.1.2 Rubber

Rubber like materials first produced from sources other than rubber trees were referred to as "synthetic rubber". This distinguished them from natural gum rubber. Since then, usage in the industry has broadened the meaning of the term "rubber" to include both natural as well as synthetic materials having rubber-like qualities. This handbook uses the broader meaning of the word "rubber".

2.1.3 Elastomer

Though "elastomer" is a synonymous with "rubber", it is formally defined as a "high molecular weight polymer that can be, or has been modified, to a state exhibiting little plastic flow and rapid, and nearly complete recovery from an extending or compressing force. "In most instances we call such material before modification "uncured" or "unprocessed" rubber or polymer.

When the basic high molecular weight polymer, without the addition of plasticizers or other diluents, is converted by appropriate means to an essentially non-plastic state and tested at room temperature, it usually meets the following requirements in order to be called an elastomer.

- A. It must not break when stretched approximately 100%.
- B. After being held for five minutes at 100% stretch, it must retract to within 10% of its original length within 5 minutes of release.

Note: Extremely high hardness/modulus materials generally do not exhibit these properties even though they are still considered elastomers.

The American Society of Testing and Materials (ASTM) uses these criteria to define the term "elastomer".

2.1.4 Compound

A compound is a mixture of base polymer and other chemical that form a finished rubber material. More precisely, a compound refers to a specific blend of chemical ingredients tailored for particular required characteristics to optimized performance in some specific service.

The basis of the compound development is the selection of the polymer type. There may be a dozen or more different ones to choose from. The rubber compounder may then add various reinforcing agents such as carbon black, curing or vulcanizing agents such as sulfur or peroxide, activators,

plasticizers, accelerators, antioxidants, antiozonants to the elastomer mixture to tailor it into a seal compound with its own distinct physical properties. Since compounders have thousands of compounding ingredients at their disposal, it seems reasonable to visualize two, three, or even one hundred-plus compounds having the same base elastomer, yet exhibiting marked performance differences in the O-ring seal.

The terms "compound" and "elastomer" are often used interchangeably in more general sense. This usage usually references a particular type or class of materials such as "nitrile compounds" or "butyl elastomers." Please remember that when one specific compound is under discussion in this handbook, it is a blend of various compounding ingredients (including one or more base elastomers) with its own individual characteristics and identification in the form of a unique compound number, for example, N0674-70 or V1164-75.

2.2 Basic Elastomers for O'ring Seals

The following paragraphs briefly review the various elastomers currently available for use in O-rings and other elastomeric seals. If any of the rubber terms used in the descriptions are confusing, consult the "Glossary of Seal and Rubber Terms" in the Appendix, Section X. Service recommendations mentioned in this section are necessarily abbreviated. For more comprehensive and specific information on this important subject, see the Fluid Compatibility Tables in Section VII.

2.2.1 Acrylonitrile-Butadiene (NBR)

Nitrile rubber (NBR) is the general term for acrylonitrile butadiene terpolymer. The acrylonitrile content of nitrile sealing compounds varies considerably (18% to 50%) and influences the physical properties of the finished material.

The higher the acrylonitrile content, the better the resistance to oil and fuel. At the same time, elasticity and resistance to compression set is adversely affected. In view of these opposing realities, a compromise is often drawn, and a medium acrylonitrile content selected. NBR has good mechanical properties when compared with other elastomers and high wear resistance. NBR is not resistant to weathering and ozone. See Figure 2-2. In view of these opposing realities, a compromise is again drawn and a medium acrylonitrile content selected.



Material Selection

Heat resistance

- Up to 100 °C (212 °F) with shorter life @ 121 °C (250 °F).

Cold Flexibility

- Depending on individual compound, between -34 °C and -57 °C (-30 °F and -70 °F)

Chemical resistance

- Aliphatic hydrocarbons (propane, butane, petroleum oil, mineral oil and grease, diesel fuel, fuel oils) vegetable, and mineral oils and greases.
- HFA, HFB, HFC fluids.
- Dilute acids, alkali and salt solutions at low temperatures.
- Water (special compounds up to 100 °C) (212 °F).

Not compatible with:

- Fuels of high aromatic content (for flex fuels a special compound must be used).
- Aromatic hydrocarbons (benzene).
- Chlorinated hydrocarbons (trichlorethylene).
- Polar solvents (ketone, acetone, acetic acid, ethylene-ester).
- Strong acids.
- Brake fluid with glycol base.
- Ozone, weather and atmospheric aging.

2.2.2 Carboxylated Nitrile (XNBR)

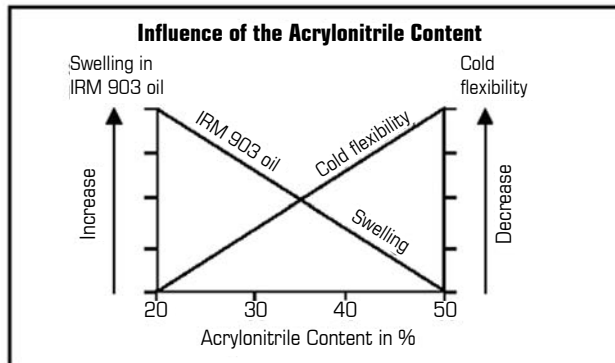


Figure 2-2 : Influence of the Acrylonitrile Content

Carboxylated Nitrile (XNBR) is a special type of nitrile polymer that exhibits enhanced tear and abrasion resistance. For this reason, XNBR base materials are often specified for dynamic applications such as rod seals and rod wipers.

Heat resistance

- Up to 100 °C (212 °F) with shorter life @ 121 °C (250 °F).

Cold Flexibility

- Depending on individual compound, between -18 °C and -48 °C (0 °F and -55 °F).

Chemical resistance

- Aliphatic hydrocarbons (propane, butane, petroleum oil, mineral oil and grease, Diesel, fuel, fuel oils) vegetable and mineral oil and greases.

Not compatible with:

- Fuels of high aromatic content (for flex fuels a special compound must be used).
- HFA, HFB, HFC fluids.
- Dilute acids, alkali and salt solutions at low temperatures.
- Water (special compounds up to 100 °C) (212 °F).

Not compatible with:

- Fuels of high aromatic content (for flex fuels a special compound must be used).
- Aromatic hydrocarbons (benzene).
- Chlorinated hydrocarbons (trichlorethylene).
- Polar solvents (ketone, acetone, acetic acid, ethylene-ester).
- Strong acids.
- Brake fluid with glycol base.

2.2.3 Ethylene Acrylate (AEM)

Ethylene acrylate is a mixed polymer of ethylene and methyl acrylate with the addition of a small amount of carboxylated curing monomer. Ethylene Acrylate rubber is not to be confused with ethyl acrylate rubber (ACM).

Heat resistance

- Up to 149 °C (300 °F) with shorter life up to 163 °C (325 °F).

Cold Flexibility

- Between -34 °C and -57 °C (-30 °F and -70 °F).

Chemical resistance

- Ozone.
- Oxidizing media.
- Moderate resistance to mineral oils.

Not compatible with:

- Ketones.
- Fuels.
- Brake fluids.



2.2.4. Ethylene Propylene Rubber (EPM, EPDM)

EPM is a copolymer of ethylene and propylene. Ethylene-propylene-diene rubber (EPDM) is produced using a third monomer and is particularly useful when sealing phosphate-ester hydraulic fluids and in brake systems that use fluids having a glycol base.

Heat resistance

- Up to 150 °C (302°F)(max. 204 °C (400°F) in water and/ or stream).

Cold Flexibility

- Down to approximately -57 °C (-70°F).

Chemical resistance

- Hot water and steam up to 149 °C (300 °F) with special compounds up to 204 °C (400 °F).
- Glycol based brake fluids up to 149 °C (300 °F).
- Many organic and inorganic acids.
- Cleaning agents, soda and potassium alkalis.
- Phosphate-ester based hydraulic fluids (HFD-R).
- Silicone oil and grease.
- Many polar solvents (alcohols, ketones, esters).
- Ozone, aging and water resistant.

Not compatible with:

- Mineral oil products (oil, grease and fuels).

2.2.5 Butyl Rubber

Butyl (isobutylene, isoprene rubber IIR) is produced by many companies in different types and varies widely in isoprene content. Isoprene is necessary for proper vulcanization. Butyl has a very low permeability rate and good electrical properties.

Heat resistance

- Up to approximately 121 °C (250°F).

Cold Flexibility

- Down to approximately -59 °C (-75°F).

Chemical resistance

- Hot water and steam up to 121 °C (250 °C)
- Brake fluids with glycol base.
- Many acids (see Fluid Compatibility Tables in Section VII).
- Salt solutions.
- Polar solvents, e.g. alcohols, ketones and esters.
- Poly-glycol based hydraulic fluids (HFC fluids) and phosphate-ester bases (HFD-R fluids).
- Silicone oil and grease.
- Ozone, aging and water resistant.

Not compatible with:

- Mineral oil and grease.
- Fuels.
- Chlorinated hydrocarbons.

2.2.6 Butadiene Rubber (BR)

Polybutadiene (BR) is mostly used in combination with other rubbers to improve cold flexibility and wear resistance. BR is primarily used in the tire industry, for some drive belts and conveyor belts and is not suitable as a sealing compound.

2.2.7 Chlorobutyl Rubber (CIIR)

Chlorobutyl (CIIR) is produced by chlorinating butyl polymer. Its chlorine content is approximately 1.1% to 1.3%. Apart from the properties of butyl rubber (IIR), Chlorobutyl (CIIR) shows improved compression set properties and can be compounded with other materials.

2.2.8 Chloroprene Rubber (CR)

Chloroprene was the first synthetic rubber developed commercially and exhibits generally good ozone, aging and chemical resistance. It has good mechanical properties over a wide temperature range.

Heat resistance

- Up to approximately 121 °C (250°F).

Cold Flexibility

- Down to approximately -40 °C (-40°F).

Chemical resistance

- Paraffin base mineral oil with low DPI, e.g. ASTM oil No. 1
- Silicone oil and grease.
- Water and water solvents at low temperatures.
- Refrigerants.
- Ammonia.
- Carbon dioxide.
- Improve ozone, weathering and aging resistance compared with NBR.

Limited compstibility

- Naphtalene based mineral oil (IRM 902 and IRM 903 oils).
- Low molecular aliphatic hydrocarbons (propane butane, fuel).
- Glycol based brake fluids.

Not compatible with:

- Aromatic hydrocarbons (benzene).
- Chlorinated hydrocarbons (trichloroethylene).
- Polar solvents (ketones, esters, acetones).



Material Selection

2.2.9 Chlorosulfonated Polyethylene (CSM)

The polyethylene polymer contains additional chlorine and sulfur groups. Chlorine gives the material resistance to flame and mineral oil and also improves the cold flexibility.

Heat resistance

- Up to 121 °C (250 °F).

Cold Flexibility

- Down to approximately -29 °C (-20 °F).

Chemical resistance

- Many acids.
- Many oxidizing media.
- Silicone oil and grease.
- Water and water solvents.
- Ozone, aging and weathering resistance.

Limited compatibility

- Low molecular aliphatic hydrocarbons (propane, butane, fuel).
- Mineral oil and grease.
- Limited swelling in aliphatic oils (ASTM oil No.1).
- High swelling in naphthene and aromatic base oils (IRM 902 and IRM 903 oils).
- Polar solvents (acetone, methyl ether, ketone, ethyl acetate, diethyl ether, dioxane).

Not compatible with:

- Aromatic hydrocarbons (benzene).
- Chlorinated hydrocarbons (trichloroethylene).

2.2.10 Epichlorohydrin (CO, ECO)

Epichlorohydrin is available in two types: the homopolymer (CO) and the copolymer (ECO). Both CO and ECO have good resistance to mineral oils, fuels and ozone. The high temperature is good. Compression set and the tendency to corrode metal sealing faces increase at 150 °C (302 °F). ECO has a good cold flexibility. CO has a high resistance to gas permeability.

Heat resistance

- Up to approximately 135 °C (275 °F).

Cold Flexibility

- Down to approximately -40 °C (-40 °F).

Chemical resistance

- Mineral oil and grease.
- Aliphatic hydrocarbons (propane, butane, fuel).
- Silicone oil and grease.
- Water at room temperature.
- Ozone, aging and weather resistant.

Not compatible with:

- Aromatic and chlorinated hydrocarbons.
- Ketones and esters.
- Non-flammable hydraulic fluids in the groups HFD-R and HFD-S.
- Glycol base brake fluids.

2.2.11 Fluorocarbon (FKM)

Fluorocarbon (FKM) has excellent resistance to high temperatures, ozone, oxygen, mineral oil, synthetic hydraulic fluids, fuels, aromatics and many organic solvents and chemicals. Low temperature resistance is normally not favorable and for static applications is limited to approximately -26 °C (-15 °C) although in certain situations it is suitable down to -40 °C (-40 °F). Underdynamic conditions, the lowest service temperature is between -15 °C and -18 °C (5 °F and 0 °F).

- Gas permeability is very low and similar to that of butyl rubber. Special FKM compounds exhibit an improved resistance to acids, fuels, water and steam.

Heat resistance

- Up to 204 °C (400 °F) and higher temperatures with shorter life expectancy.

Cold Flexibility

- Down to -26 °C, some to -40 °C (-15 °F, some to -40 °F).

Chemical resistance

- Mineral oil and grease, low swelling in ASTM oil N.1 and IRM 902 and IRM 903 oils.
- Non-flammable hydraulic fuels in the group HFD.
- Silicone oil and grease.
- Mineral and vegetable oil and grease.
- Aliphatic hydrocarbons (fuel, butane, propane, natural gas).
- Aromatic hydrocarbons (benzene, toluene).
- Chlorinated hydrocarbons (trichloroethylene and carbon tetrachloride).
- Fuels, also fuels with methanol content.
- High vacuum.
- Very good ozone, weather and aging resistance.

Not compatible with:

- Glycol and basic fluids.
- Ammonia gas, amines, alkalis.
- Superheated steam.
- Low molecular organic acids (formic and acetic acids).



2.2.12 Fluorosilicone (FVMQ)

FVMQ contains trifluoropropyl groups next to the methyl groups. The mechanical and physical properties are very similar to VMQ. However, FVMQ offers improved fuel and mineral oil resistance but poor hot air resistance when compared with VMQ.

Heat Resistance

- Up to 177°C (350°F) max.

Cold flexibility

- Down to approximately -73°C (-100°F).

Chemical resistance

- Aromatic mineral oils (IRM 903 oil).
- Fuels.
- Low molecular weight aromatic hydrocarbons (benzene, toluene).

2.2.13 Hydrogenated Nitrile (HNBR)

Hydrogenated nitrile is a synthetic polymer that results from the hydrogenation of nitrile rubber (NBR). In this process the molecular “double bonds” in the NBR primary polymer chain undergo a hydrogenation process and therefore the term “hydrogenated nitrile” (HNBR). The allowable temperature range extends to 149°C (300°F) with short periods at higher temperature possible. By following design guidelines effective sealing can be achieved at -32°C (-25°F) for static applications. For dynamic applications however, operating temperatures are limited to above -23°C (-10°F). HNBR compounds possess superior mechanical characteristics, particularly their high strength. For sealing applications up to approximately 149°C (300°F), this is an advantage as it prevents extrusion and wear.

Chemical Resistance

- Aliphatic hydrocarbons.
- Vegetable and animal fats and oils.
- HFA, HFB and HFC fluids.
- Dilute acids, bases and salt solutions at moderate temperatures.
- Water and steam up to 149°C (300°F).
- Ozone, aging and weathering.

Not compatible with:

- Chlorinated hydrocarbons.
- Polar solvents (ketone and ester).
- Strong acids.

2.2.14 Perfluoroelastomer (FFKM)

The name “perfluoroelastomer” is somewhat misleading. An actual perfluorinated material with a high molecular weight is polytetrafluoroethylene or PTFE. The molecular carbon chain is shielded by the chemical inertness of the large bonded

fluorine atoms. Perfluoroelastomer is produced by the copolymerization of tetrafluoroethylene (TFE) and a perfluorinated ether, e.g. perfluoromethylvinylether (PMVE).

The differing resistance to volume swell of the different perfluoroelastomers is due to the perfluorinated ether element, where the side-chain can consist of up to four perfluorinated carbon atoms. The extraordinary chemical resistance is partly due to the fluorine atoms shielding the carbon chain, and partially due to the vulcanization system. Parker Seal, in cooperation with a leading polymer manufacturer, has developed several such perfluorinated elastomer materials.

Parker Parofluor™ materials are being developed and manufactured in-house at Parker. In contrast to other perfluoroelastomer suppliers, where a polymer manufacturer will both produce and deliver the ready mixed compound or even supply the final vulcanized part. Parker will compound with the raw polymer and then manufacture the desired component. This allows the specific material properties to be jointly developed with the customer.

Heat resistance

- 232°C to 300°C (450°F to 572°F) depending on compound.

Cold flexibility

- -18°C to -26°C (0°F to -15°F).

Chemical resistance

- Aliphatic and aromatic hydrocarbons.
- Chlorinated hydrocarbons.
- Polar solvents (acetone, methylketone, ethylacetate, diethylether and dioxane).
- Inorganic and organic acids.
- Water and steam.
- High vacuum with minimal loss in weight.

Not compatible with:

- Fluorinated refrigerants (R11, 12, 13, 113, 114, etc.)

2.2.15 Polyacrylate (ACM)

ACM or simply acrylate rubber consists of polymerized ester and a curing monomer. Ethyl acrylate rubber has a good resistance to heat and mineral oil; on the other hand butyl acrylate has a better cold flexibility. Polyacrylate has a good resistance to mineral oil, oxygen and ozone even at high temperatures. The water compatibility and cold flexibility of ACM are significantly worse than with NBR.

Heat resistance

- Shortened lifetime up to approximately 177°C (350°F).

Cold flexibility

- Down to approximately -21°C (-5°F).

Chemical resistance

- Mineral oil (engine, gear box, ATF oil).
- Ozone, weather and aging resistance.

Not compatible with:

- Glycol based brake fluid.
- Aromatics and chlorinated hydrocarbons.
- Hot water, steam.
- Acids, alkalis, amines.

2.2.16 Polyurethane (AU, EU)

One must differentiate between polyester urethane (AU) and polyether urethane (EU). AU type urethanes exhibit better resistance to hydraulic fluids. Polyurethane elastomers, as a class, have excellent wear resistance, high tensile strength and high elasticity in comparison with any other elastomers. Permeability is good and comparable with butyl.

Heat resistance

- Up to approximately 82°C (180°F).

Cold flexibility

- Down to approximately -40°C (-40°F).

Chemical resistance

- Pure aliphatic hydrocarbons (propane, butane, fuel).
- Mineral oil and grease.
- Silicone oil and grease.
- Water up to 50°C (125°F) (EU type).
- Ozone and aging resistant.

Not compatible with:

- Ketones, esters, ethers, alcohols, glycols.
- Hot water, steam, alkalis, amines, acids.

2.2.17 Silicone Rubber (Q, MQ, VMQ, PVMQ)

The term silicone covers a large group of materials in which vinyl-methyl-silicone (VMQ) is often the central ingredient. Silicone elastomers as a group have relatively low tensile strength, poor tear and wear resistance. However, they have many useful properties as well. Silicones have good heat resistance up to 232°C (450°F), good cold flexibility down to -59°C (-75°F) and good ozone and weather resistance as well as good insulating and physiologically neutral properties.

Heat resistance

- Up to approximately 204°C (400°F).
(special compounds up to 232°C (450°F).

Cold flexibility

- Down to approximately -59°C to -54°C (-75°F to -65°F) with special compounds down to -115°C (-175°F).

Chemical resistance

- Engine and transmission oil (e.g. ASTM oil No.1).

- Animal and vegetable oil and grease.
- Brake fluid (non-petroleum base).
- Fire-resistant hydraulic fluid, HFD-R and HFD-S.
- High molecular weight chlorinated aromatic hydrocarbons (including flame-resistant insulators, and coolant for transformers).
- Moderate water resistance.
- Diluted salt solutions.
- Ozone, aging and weather resistant.

Not compatible with:

- Superheated water steam over 121°C (250°F).
- Acids and alkalis.
- Low molecular weight chlorinated hydrocarbons (trichloroethylene).
- Aromatic mineral oil.
- Hydrocarbon based fuels.
- Aromatic hydrocarbons (benzene, toluene).

2.2.18 Styrene-Butadiene (SBR)

SBR is probably better known under its old name Buna S and GRS (government rubber styrene). SBR was first produced under government control between 1930 and 1950 as a replacement for natural rubber. The basic monomers are butadiene and styrene, with styrene content approximately 23.5%. About one third of the world output of SBR is used in tire production. SBR is mostly used in seals for non-mineral oil based brake fluid applications.

Heat resistance

- Up to approximately 107°C (225°F).

Cold flexibility

- Down to approximately -57°C (-70°F).

Compatible with:

- Water, alcohol, glycol and certain ketones (acetone).
- Non-mineral oil based brake fluid.
- Silicone oil and grease.
- Diluted water solutions, weak acids.

Not compatible with:

- Mineral oils.
- Petroleum greases and fuels.
- Aliphatic hydrocarbons like benzene, toluene, and xylol.
- Chlorinated hydrocarbons such as chloroform, trichloroethylene and carbon tetrachloride.
- Oxidizing media like nitric acid, chromic acid, hydrogen peroxide, chlorine and bromine.

2.2.19 Tetrafluoroethylene-Propylene (AFLAS®)

This elastomer is a copolymer of tetrafluoroethylene (TFE) and propylene. Its chemical resistance is excellent across a wide range of aggressive media.

Heat resistance

- Up to approximately 232 °C (450 °F).

Cold flexibility

- Down to approximately -4 °C (25 °F).

Compatible with:

- Bases, Phosphate esters, amines, engine oils, steam, pulp and paper liquors.

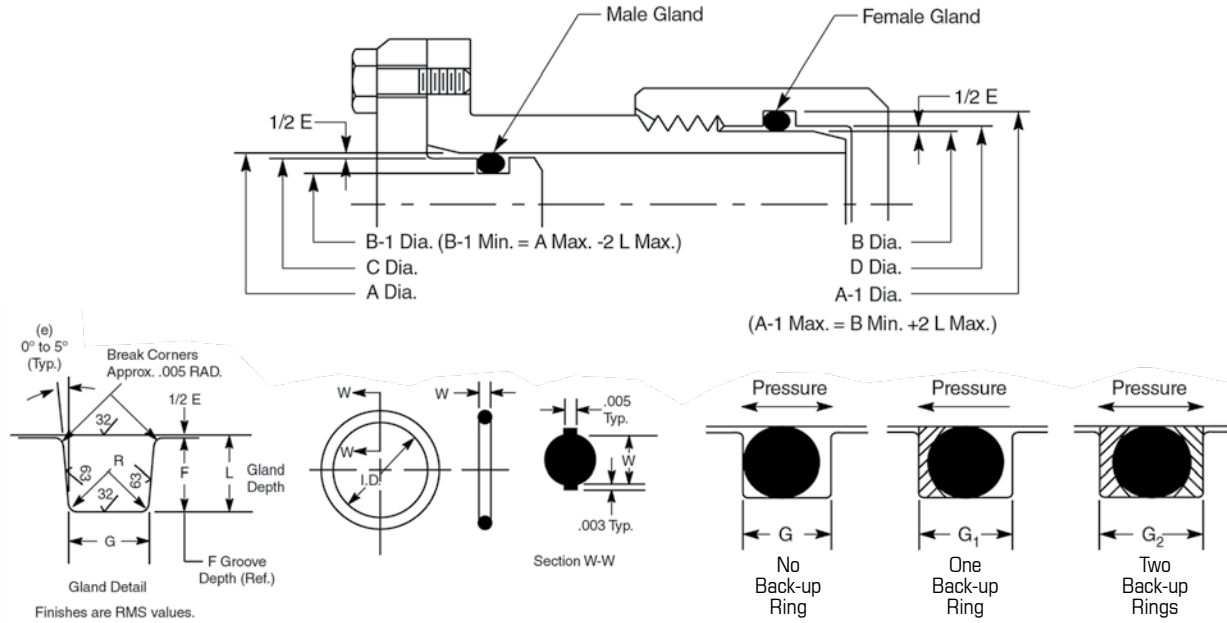
Not compatible with:

- Aromatic Fuels, ketones and carbon tetrachloride.



Static O'Ring Sealing

Industrial Static Seal Glands



Design Chart — For Industrial O'Ring Static Seal Glands

| O'Ring 2-Size AS568A | W Cross-Section | | L Gland depth | Squeeze | | E(a) Diametral Clearance | G-Groove Width | | | R Groove Radius | Max. Eccen- tricity(b) |
|----------------------------|--------------------|----------------|---------------------|--------------------|----------------|--------------------------------|---------------------------|---|--|-----------------------|------------------------------|
| | Nominal | Actual | | Actual | % | | No Back-Up Ring (G) | One Back-Up Ring (G) ₁ | No Back-Up Ring (G) ₂ | | |
| 004 through 050 | 1/16 | .070 ± .003 | .050 to .052 | .015 to .023 | 22 to 32 | .002 to .005 | .093 to .098 | .138 to .143 | .205 to .210 | .005 to .015 | .002 |
| 102 through 178 | 3/32 | .103 ± .003 | .081 to .083 | .017 to .025 | 17 to 24 | .002 to .005 | .140 to .145 | .171 to .176 | .238 to .243 | .005 to .015 | .002 |
| 201 through 284 | 1/8 | .139 ± .004 | .111 to .113 | .022 to .032 | 16 to 23 | .003 to .006 | .187 to .192 | .208 to .213 | .275 to .280 | .010 to .025 | .003 |
| 309 through 395 | 3/16 | .210 ± .005 | .170 to .173 | .032 to .045 | 15 to 21 | .003 to .006 | .281 to .286 | .311 to .316 | .410 to .415 | .020 to .035 | .004 |
| 425 through 475 | 1/4 | .275 ± .006 | .226 to .229 | .040 to .055 | 15 to 20 | .004 to .007 | .375 to .380 | .408 to .413 | .538 to .543 | .020 to .035 | .005 |

(a) Clearance (extrusion gap) must be held to minimum consistent with design requirements for temperature range variation.

(b) Total indicator reading between groove and adjacent bearing surface.

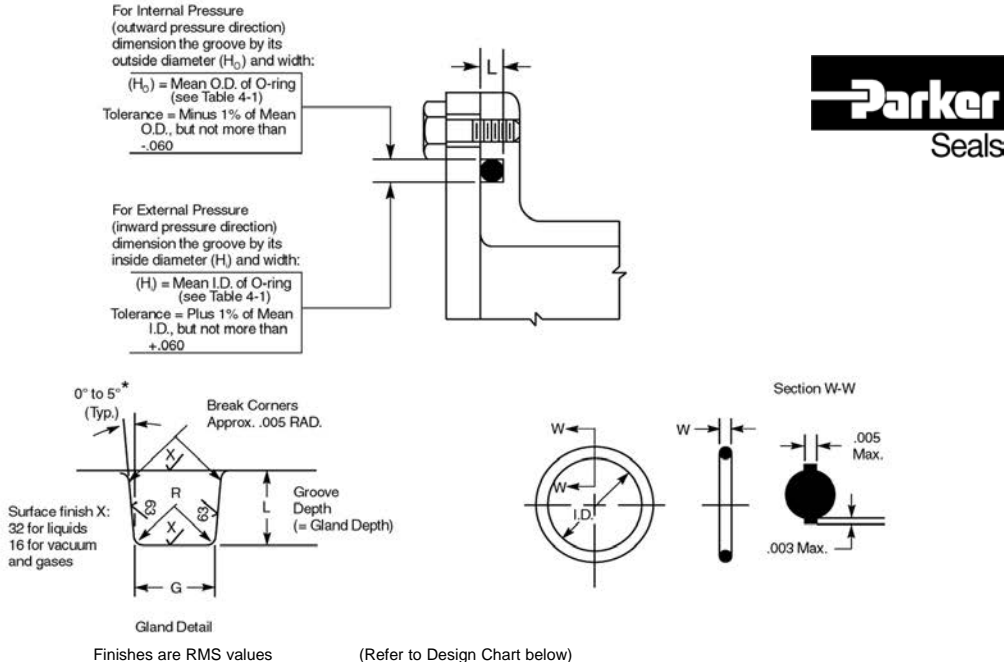
(c) Reduce maximum diametral clearance 50% when using silicone or fluorosilicone O'Rings.

(d) For ease of assembly, when Back-Up Rings are used, glands depth may be increased up to 5%.



Static O'Ring Sealing

Face Seal Glands



Design Chart — For O'Ring Face Seal Glands

These dimensions are intended primarily for face type O'Ring seals and low temperature applications.

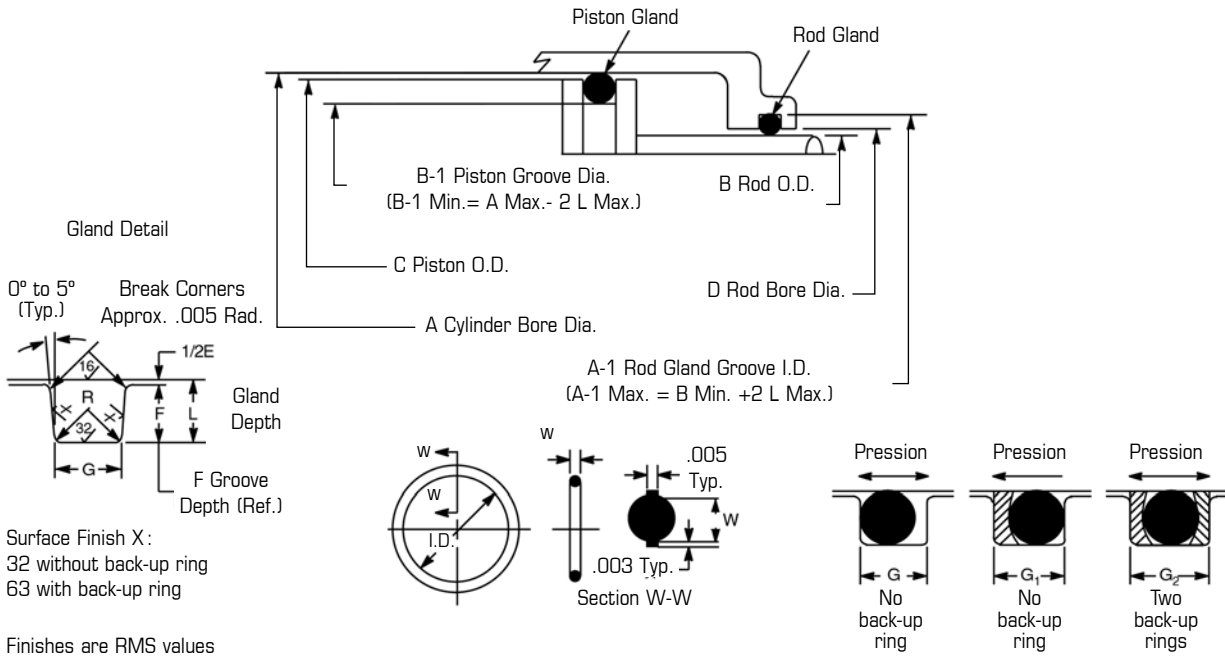
| O'Ring Size Parker No.2 | W Cross-Section | | L Gland depth | Squeeze | | G-Groove Width | | R Groove Radius |
|----------------------------|-----------------|----------------|--------------------|--------------------|----------------|--------------------|--------------------|--------------------|
| | Nominal | Actual | | Actual | % | Liquids | Vaccum and Gases | |
| 004 through 050 | 1/16 | .070 ± .003 | .050 to .054 | .013 to .023 | 19 to 32 | .101 to .107 | .084 to .089 | .005 to .015 |
| 102 through 178 | 3/32 | .103 ± .003 | .074 to .080 | .020 to .032 | 20 to 30 | .136 to .142 | .120 to .125 | .005 to .015 |
| 201 through 284 | 1/8 | .139 ± .004 | .101 to .107 | .028 to .042 | 20 to 30 | .177 to .187 | .158 to .164 | .010 to .025 |
| 309 through 395 | 3/16 | .210 ± .005 | .152 to .162 | .043 to .063 | 21 to 30 | .270 to .290 | .239 to .244 | .020 to .035 |
| 425 through 475 | 1/4 | .275 ± .006 | .201 to .211 | .058 to .080 | 21 to 29 | .342 to .362 | .309 to .314 | .020 to .035 |
| Special | 3/8 | .375 ± .007 | .276 to .286 | .082 to .106 | 22 to 28 | .475 to .485 | .419 to .424 | .030 to .045 |
| Special | 1/2 | .500 ± .008 | .370 to .380 | .112 to .138 | 22 to 27 | .638 to .645 | .560 to .565 | .030 to .045 |

O'RINGS



Dynamic O'Ring Sealing

Design Chart 5-2: For Industrial Reciprocating O'Ring Packing Glands



Design Chart 5-2 For Industrial Reciprocating O'Ring Packing Glands

| O'Ring 2-Size AS568A | W Cross-Section | | L Gland depth | Squeeze | | E(a) Diametral Clearance | G-Groove Width | | | R Groove Radius | Max. Eccen- tricity(b) |
|----------------------------|--------------------|---------------|---------------------|--------------------|----------------|--------------------------------|---------------------------|---|--|-----------------------|------------------------------|
| | Nominal | Actual | | Actual | % | | No Back-Up Ring (G) | One Back-Up Ring (G) ₁ | No Back-Up Ring (G) ₂ | | |
| 006 through 012 | 1/16 | .070 ±.003 | .055 to .057 | .010 to .018 | 15 to 25 | .002 to .005 | .093 to .098 | .138 to .143 | .205 to .210 | .005 to .015 | .002 |
| 104 through 116 | 3/32 | .103 ±.003 | .088 to .090 | .010 to .018 | 10 to 17 | .002 to .005 | .140 to .145 | .171 to .176 | .238 to .243 | .005 to .015 | .002 |
| 201 through 222 | 1/8 | .139 ±.004 | .121 to .123 | .012 to .022 | 9 to 16 | .003 to .006 | .187 to .192 | .208 to .213 | .275 to .280 | .010 to .025 | .003 |
| 309 through 349 | 3/16 | .210 ±.005 | .185 to .188 | .017 to .030 | 8 to 14 | .003 to .006 | .281 to .286 | .311 to .316 | .410 to .415 | .020 to .035 | .004 |
| 425 through 460 | 1/4 | .275 ±.006 | .237 to .240 | .029 to .044 | 11 to 16 | .004 to .007 | .375 to .380 | .408 to .413 | .538 to .543 | .020 to .035 | .005 |

(a) Clearance (extrusion gap) must be held to minimum consistent with design requirements for temperature range variation.

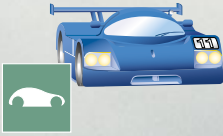
(b) Total indicator reading between groove and adjacent bearing surface.

Design Chart 5-2: Design Chart for Industrial Reciprocating O'Ring Packing Glands



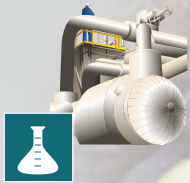
Applications

Parker O-rings are used in many applications and industries, including:



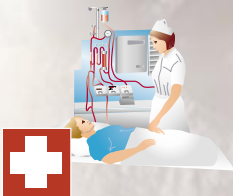
Transportation

- Brakes/ABS
- Cooling/air conditioning
- Fuel and diesel injection, spark plugs
- Quick connects, couplings, gear units
- Shock absorbers
- Steering systems
- Transmissions and radiator seals



Chemical Processing Industry (CPI)

- Equipment and components requiring extremely high chemical inertness at temperatures up to +320°C/+608°F



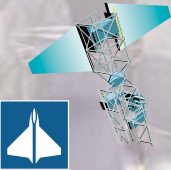
Medical

- Dialyzers
- Syringes, infusions
- USP Class VI and FDA "White Listed" formulations are available



Semiconductor Processing

- For wet, dry and thermal processes
- Parker UHP Processing: Parker uses totally enclosed and dedicated manufacturing areas for compounding, preparation, molding, cleaning and final packaging of o-rings in critical compounds for semiconductor processing applications



Aerospace

- Aircraft engines, wheels and brakes
- Control and actuation systems
- Fuel systems
- Space shuttle launch vehicles



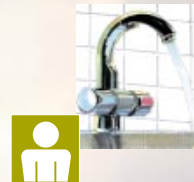
Energy/Oil Field

- Drilling
- Exploration
- Production
- Transportation



Fluid Power

- Accumulators
- Cylinders, valves
- Filters
- Fittings
- Pumps
- Rotary actuators



Consumer Products

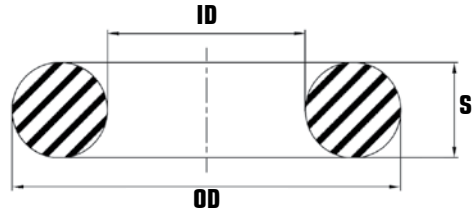
- Appliances
- Compounds meeting the requirements/recommendations: FDA, NSF, WRC, DVGW, BGA, KTW
- Heating/plumbing
- Sanitary equipment

Parker
Seals





O-RINGS



Series 2-XXX - O'Rings



Part Number Nomenclature

| | | |
|---|--------------|--|
|  | O'Rings | 2-XXX/Material Identification Ex: 2-001/N70 |
|  | BOSS O'Rings | 3-XXX/Material Identification Ex: 3-901/N70 |
|  | X-Rings | 4-XXX/Material Identification Ex: 4-001/QN70 |
|  | Square Rings | TS-XXX/Material Identification Ex: TS-001/N70 |

O'RINGS



| Material | Abbreviation | Duro | Color | Identification | Temperature Range * |
|-------------------------------|--------------|------------|-------------|----------------|--|
| Nitrile | NBR | 70 | Black | N70 | -40°F to +250°F (-40°C to +121°C) |
| Nitrile | NBR | 90 | Black | N90 | -40°F to +250°F (-40°C to +121°C) |
| Fluorocarbon | FPM/FKM | 75 | Brown/Black | V75B/V75 | -15°F to +400°F (-26°C to +205°C) |
| Fluorocarbon | FPM/FKM | 90 | Brown/Black | V90B/V90 | -15°F to +400°F (-26°C to +205°C) |
| Tetrafluoroethylene-Propylene | AFLAS | 75 | Black | AFLAS | 25°F to +450°F (-2°C to +230°C) |
| Ethylene Propylene | EPDM | 70 | Black | E70 | -70°F to +250°F (-57°C to +121°C) |
| Highly Saturated Nitrile | HSN/HNBR | 70 | Black | HSN70 | -40°F to +300°F (-40°C to +150°C) |
| Highly Saturated Nitrile | HSN/HNBR | 80 | Black | HSN80 | -40°F to +300°F (-40°C to +150°C) |
| Silicone | SI | 70 | Rust | S70 | -65°F to +450°F (-54°C to +232°C) |
| Polyurethane | AU | 90 | Black/Clear | U90 | -60°F to +250°F (-51°C to +121°C) |
| Polytetrafluoroethylene | PTFE | 55 Shore D | White | TF | -320°F to +450°F (-196°C to +232°C) |

Please note that material choices are not necessarily available for all profiles and minimum purchases may apply. Other materials are available upon request.

* The temperature range is for general purpose materials. A range of high performance materials is also available on request.

(001...043) Series 2-XXX - O'Rings

CROSS REFERENCE TABLE

| Ref. Number | AS 568A Uniform Dash Number | NOMINAL SIZE Inches | | | STANDARD-O-RING-SIZE Inches Actual Per AS 568A | | | | Basic Volume (Cu.In) | METRIC-O-RING SIZE Millimeters Actual Per AS 568A | | | | Ref. Number |
|-------------|-----------------------------|---------------------|--------|------|--|----------|-------|----------|----------------------|---|----------|------|----------|-------------|
| | | ID | OD | W | ID | Tol. +/- | W | Tol. +/- | | ID | Tol. +/- | W | Tol. +/- | |
| | | | | | | | | | | | | | | |
| 2-001 | -001 | 1/32 | 3/32 | 1/32 | 0.029 | .004 | 0.040 | .003 | 0.000 | 0.74 | .100 | 1.02 | .080 | 2-001 |
| 2-002 | -002 | 3/64 | 9/64 | 3/64 | 0.042 | | 0.050 | | 0.001 | 1.07 | | 1.27 | | 2-002 |
| 2-003 | -003 | 1/16 | 3/16 | 1/16 | 0.056 | ↓ | 0.060 | | 0.001 | 1.42 | ↓ | 1.52 | | 2-003 |
| 2-004 | -004 | 5/64 | 13/64 | 1/16 | 0.070 | .005 | 0.070 | | 0.002 | 1.78 | .130 | 1.78 | | 2-004 |
| 2-005 | -005 | 3/32 | 7/32 | 1/16 | 0.101 | | 0.070 | | 0.002 | 2.57 | | 1.78 | | 2-005 |
| 2-006 | -006 | 1/8 | 1/4 | 1/16 | 0.114 | | 0.070 | | 0.002 | 2.90 | | 1.78 | | 2-006 |
| 2-007 | -007 | 5/32 | 9/32 | 1/16 | 0.145 | | 0.070 | | 0.003 | 3.68 | | 1.78 | | 2-007 |
| 2-008 | -008 | 3/16 | 5/16 | 1/16 | 0.176 | | 0.070 | | 0.003 | 4.47 | | 1.78 | | 2-008 |
| 2-009 | -009 | 7/32 | 11/32 | 1/16 | 0.208 | | 0.070 | | 0.003 | 5.28 | | 1.78 | | 2-009 |
| 2-010 | -010 | 1/4 | 3/8 | 1/16 | 0.239 | | 0.070 | | 0.004 | 6.07 | | 1.78 | | 2-010 |
| 2-011 | -011 | 5/16 | 7/16 | 1/16 | 0.301 | | 0.070 | | 0.005 | 7.65 | | 1.78 | | 2-011 |
| 2-012 | -012 | 3/8 | 1/2 | 1/16 | 0.364 | | 0.070 | | 0.005 | 9.25 | | 1.78 | | 2-012 |
| 2-013 | -013 | 7/16 | 9/16 | 1/16 | 0.426 | | 0.070 | | 0.006 | 10.82 | | 1.78 | | 2-013 |
| 2-014 | -014 | 1/2 | 5/8 | 1/16 | 0.489 | ↓ | 0.070 | | 0.007 | 12.42 | ↓ | 1.78 | | 2-014 |
| 2-015 | -015 | 9/16 | 11/16 | 1/16 | 0.551 | .007 | 0.070 | | 0.008 | 14.00 | .180 | 1.78 | | 2-015 |
| 2-016 | -016 | 5/8 | 3/4 | 1/16 | 0.614 | .009 | 0.070 | | 0.008 | 15.60 | .230 | 1.78 | | 2-016 |
| 2-017 | -017 | 11/16 | 13/16 | 1/16 | 0.676 | | 0.070 | | 0.009 | 17.17 | | 1.78 | | 2-017 |
| 2-018 | -018 | 3/4 | 7/8 | 1/16 | 0.739 | | 0.070 | | 0.010 | 18.77 | | 1.78 | | 2-018 |
| 2-019 | -019 | 13/16 | 15/16 | 1/16 | 0.801 | | 0.070 | | 0.011 | 20.35 | | 1.78 | | 2-019 |
| 2-020 | -020 | 7/8 | 1 | 1/16 | 0.864 | | 0.070 | | 0.011 | 21.95 | | 1.78 | | 2-020 |
| 2-021 | -021 | 15/16 | 1 1/16 | 1/16 | 0.926 | | 0.070 | | 0.012 | 23.52 | ↓ | 1.78 | | 2-021 |
| 2-022 | -022 | 1 | 1 1/8 | 1/16 | 0.989 | .010 | 0.070 | | 0.013 | 25.12 | .250 | 1.78 | | 2-022 |
| 2-023 | -023 | 1 1/16 | 1 3/16 | 1/16 | 1.051 | | 0.070 | | 0.014 | 26.70 | | 1.78 | | 2-023 |
| 2-024 | -024 | 1 1/8 | 1 1/4 | 1/16 | 1.114 | ↓ | 0.070 | | 0.014 | 28.30 | ↓ | 1.78 | | 2-024 |
| 2-025 | -025 | 1 3/16 | 1 5/16 | 1/16 | 1.176 | .011 | 0.070 | | 0.015 | 29.87 | .280 | 1.78 | | 2-025 |
| 2-026 | -026 | 1 1/4 | 1 3/8 | 1/16 | 1.239 | | 0.070 | | 0.016 | 31.47 | | 1.78 | | 2-026 |
| 2-027 | -027 | 1 5/16 | 1 7/16 | 1/16 | 1.301 | ↓ | 0.070 | | 0.017 | 33.05 | ↓ | 1.78 | | 2-027 |
| 2-028 | -028 | 1 3/8 | 1 1/2 | 1/16 | 1.364 | .013 | 0.070 | | 0.017 | 34.65 | .330 | 1.78 | | 2-028 |
| 2-029 | -029 | 1 1/2 | 1 5/8 | 1/16 | 1.489 | | 0.070 | | 0.019 | 37.82 | | 1.78 | | 2-029 |
| 2-030 | -030 | 1 5/8 | 1 3/4 | 1/16 | 1.614 | ↓ | 0.070 | | 0.020 | 41.00 | ↓ | 1.78 | | 2-030 |
| 2-031 | -031 | 1 3/4 | 1 7/8 | 1/16 | 1.739 | .015 | 0.070 | | 0.022 | 44.17 | .380 | 1.78 | | 2-031 |
| 2-032 | -032 | 1 7/8 | 2 | 1/16 | 1.864 | | 0.070 | | 0.023 | 47.35 | | 1.78 | | 2-032 |
| 2-033 | -033 | 2 | 2 1/8 | 1/16 | 1.989 | .018 | 0.070 | | 0.025 | 50.52 | .460 | 1.78 | | 2-033 |
| 2-034 | -034 | 2 1/8 | 2 1/4 | 1/16 | 2.114 | | 0.070 | | 0.026 | 53.70 | | 1.78 | | 2-034 |
| 2-035 | -035 | 2 1/4 | 2 3/8 | 1/16 | 2.239 | ↓ | 0.070 | | 0.028 | 56.87 | ↓ | 1.78 | | 2-035 |
| 2-036 | -036 | 2 3/8 | 2 1/2 | 1/16 | 2.364 | | 0.070 | | 0.029 | 60.05 | | 1.78 | | 2-036 |
| 2-037 | -037 | 2 1/2 | 2 5/8 | 1/16 | 2.489 | ↓ | 0.070 | | 0.031 | 63.22 | ↓ | 1.78 | | 2-037 |
| 2-038 | -038 | 2 5/8 | 2 3/4 | 1/16 | 2.614 | .020 | 0.070 | | 0.032 | 66.40 | .510 | 1.78 | | 2-038 |
| 2-039 | -039 | 2 3/4 | 2 7/8 | 1/16 | 2.739 | | 0.070 | | 0.034 | 69.57 | | 1.78 | | 2-039 |
| 2-040 | -040 | 2 7/8 | 3 | 1/16 | 2.864 | ↓ | 0.070 | | 0.036 | 72.75 | ↓ | 1.78 | | 2-040 |
| 2-041 | -041 | 3 | 3 1/8 | 1/16 | 2.989 | .024 | 0.070 | | 0.037 | 75.92 | .610 | 1.78 | | 2-041 |
| 2-042 | -042 | 3 1/4 | 3 3/8 | 1/16 | 3.239 | | 0.070 | | 0.040 | 82.27 | | 1.78 | | 2-042 |
| 2-043 | -043 | 3 1/2 | 3 5/8 | 1/16 | 3.489 | ↓ | 0.070 | ↓ | 0.043 | 88.62 | ↓ | 1.78 | ↓ | 2-043 |

O'RINGS



Series 2-XXX - O'Rings (044....137)

CROSS REFERENCE TABLE

| Ref. Number | AS 568A Uniform Dash Number | NOMINAL SIZE Inches | | | STANDARD-O-RING-SIZE Inches Actual Per AS 568A | | | | Basic Volume (Cu.In) | METRIC-O-RING SIZE Millimeters Actual Per AS 568A | | | | Ref. Number |
|-------------|-----------------------------|---------------------|---------|------|--|----------|-------|----------|----------------------|---|----------|------|----------|-------------|
| | | ID | OD | W | ID | Tol. +/- | W | Tol. +/- | | ID | Tol. +/- | W | Tol. +/- | |
| | | | | | | | | | | | | | | |
| 2-044 | -044 | 3 3/4 | 3 7/8 | 1/16 | 3.739 | .027 | 0.070 | .003 | 0.046 | 94.97 | .690 | 1.78 | .080 | 2-044 |
| 2-045 | -045 | 4 | 4 1/8 | 1/16 | 3.989 | | 0.070 | | 0.049 | 101.32 | | 1.78 | | 2-045 |
| 2-046 | -046 | 4 1/4 | 4 3/8 | 1/16 | 4.239 | .030 | 0.070 | | 0.052 | 107.67 | .760 | 1.78 | | 2-046 |
| 2-047 | -047 | 4 1/2 | 4 5/8 | 1/16 | 4.489 | | 0.070 | | 0.055 | 114.02 | | 1.78 | | 2-047 |
| 2-048 | -048 | 4 3/4 | 4 7/8 | 1/16 | 4.739 | | 0.070 | | 0.058 | 120.37 | | 1.78 | | 2-048 |
| 2-049 | -049 | 5 | 5 1/8 | 1/16 | 4.989 | .037 | 0.070 | | 0.061 | 126.72 | .940 | 1.78 | | 2-049 |
| 2-050 | -050 | 5 1/4 | 5 3/8 | 1/16 | 5.239 | | 0.070 | | 0.064 | 133.07 | | 1.78 | | 2-050 |
| 2-102 | -102 | 1/16 | 1/4 | 3/32 | 0.049 | .005 | 0.103 | | 0.004 | 1.24 | .130 | 2.62 | | 2-102 |
| 2-103 | -103 | 3/32 | 9/32 | 3/32 | 0.081 | | 0.103 | | 0.005 | 2.06 | | 2.62 | | 2-103 |
| 2-104 | -104 | 1/8 | 5/16 | 3/32 | 0.112 | | 0.103 | | 0.006 | 2.84 | | 2.62 | | 2-104 |
| 2-105 | -105 | 5/32 | 11/32 | 3/32 | 0.143 | | 0.103 | | 0.006 | 3.63 | | 2.62 | | 2-105 |
| 2-106 | -106 | 3/16 | 3/8 | 3/32 | 0.174 | | 0.103 | | 0.007 | 4.42 | | 2.62 | | 2-106 |
| 2-107 | -107 | 7/32 | 13/32 | 3/32 | 0.206 | | 0.103 | | 0.008 | 5.23 | | 2.62 | | 2-107 |
| 2-108 | -108 | 1/4 | 7/16 | 3/32 | 0.237 | | 0.103 | | 0.009 | 6.02 | | 2.62 | | 2-108 |
| 2-109 | -109 | 5/16 | 1/2 | 3/32 | 0.299 | | 0.103 | | 0.011 | 7.59 | | 2.62 | | 2-109 |
| 2-110 | -110 | 3/8 | 9/16 | 3/32 | 0.362 | | 0.103 | | 0.012 | 9.19 | | 2.62 | | 2-110 |
| 2-111 | -111 | 7/16 | 5/8 | 3/32 | 0.424 | | 0.103 | | 0.014 | 10.77 | | 2.62 | | 2-111 |
| 2-112 | -112 | 1/2 | 11/16 | 3/32 | 0.487 | | 0.103 | | 0.015 | 12.37 | | 2.62 | | 2-112 |
| 2-113 | -113 | 9/16 | 3/4 | 3/32 | 0.549 | .007 | 0.103 | | 0.017 | 13.94 | .180 | 2.62 | | 2-113 |
| 2-114 | -114 | 5/8 | 13/16 | 3/32 | 0.612 | .009 | 0.103 | | 0.019 | 15.54 | .230 | 2.62 | | 2-114 |
| 2-115 | -115 | 11/16 | 7/8 | 3/32 | 0.674 | | 0.103 | | 0.020 | 17.12 | | 2.62 | | 2-115 |
| 2-116 | -116 | 3/4 | 15/16 | 3/32 | 0.737 | | 0.103 | | 0.022 | 18.72 | | 2.62 | | 2-116 |
| 2-117 | -117 | 13/16 | 1 | 3/32 | 0.799 | .010 | 0.103 | | 0.024 | 20.30 | .250 | 2.62 | | 2-117 |
| 2-118 | -118 | 7/8 | 1 1/16 | 3/32 | 0.862 | | 0.103 | | 0.025 | 21.89 | | 2.62 | | 2-118 |
| 2-119 | -119 | 15/16 | 1 1/8 | 3/32 | 0.924 | | 0.103 | | 0.027 | 23.47 | | 2.62 | | 2-119 |
| 2-120 | -120 | 1 | 1 3/16 | 3/32 | 0.987 | | 0.103 | | 0.029 | 25.07 | | 2.62 | | 2-120 |
| 2-121 | -121 | 1 1/16 | 1 1/4 | 3/32 | 1.049 | | 0.103 | | 0.030 | 26.64 | | 2.62 | | 2-121 |
| 2-122 | -122 | 1 1/8 | 1 5/16 | 3/32 | 1.112 | | 0.103 | | 0.032 | 28.24 | | 2.62 | | 2-122 |
| 2-123 | -123 | 1 3/16 | 1 3/8 | 3/32 | 1.174 | .012 | 0.103 | | 0.033 | 29.82 | .300 | 2.62 | | 2-123 |
| 2-124 | -124 | 1 1/4 | 1 7/16 | 3/32 | 1.237 | | 0.103 | | 0.035 | 31.42 | | 2.62 | | 2-124 |
| 2-125 | -125 | 1 5/16 | 1 1/2 | 3/32 | 1.299 | | 0.103 | | 0.037 | 32.99 | | 2.62 | | 2-125 |
| 2-126 | -126 | 1 3/8 | 1 9/16 | 3/32 | 1.362 | | 0.103 | | 0.038 | 34.59 | | 2.62 | | 2-126 |
| 2-127 | -127 | 1 7/16 | 1 5/8 | 3/32 | 1.424 | | 0.103 | | 0.040 | 36.17 | | 2.62 | | 2-127 |
| 2-128 | -128 | 1 1/2 | 1 11/16 | 3/32 | 1.487 | | 0.103 | | 0.042 | 37.77 | | 2.62 | | 2-128 |
| 2-129 | -129 | 1 9/16 | 1 3/4 | 3/32 | 1.549 | .015 | 0.103 | | 0.043 | 39.34 | .380 | 2.62 | | 2-129 |
| 2-130 | -130 | 1 5/8 | 1 13/16 | 3/32 | 1.612 | | 0.103 | | 0.045 | 40.94 | | 2.62 | | 2-130 |
| 2-131 | -131 | 1 11/16 | 1 7/8 | 3/32 | 1.674 | | 0.103 | | 0.047 | 42.52 | | 2.62 | | 2-131 |
| 2-132 | -132 | 1 3/4 | 1 15/16 | 3/32 | 1.737 | | 0.103 | | 0.048 | 44.12 | | 2.62 | | 2-132 |
| 2-133 | -133 | 1 13/16 | 2 | 3/32 | 1.799 | | 0.103 | | 0.050 | 45.69 | | 2.62 | | 2-133 |
| 2-134 | -134 | 1 7/8 | 2 1/16 | 3/32 | 1.862 | | 0.103 | | 0.051 | 47.29 | | 2.62 | | 2-134 |
| 2-135 | -135 | 1 15/16 | 2 1/8 | 3/32 | 1.925 | .017 | 0.103 | | 0.053 | 48.90 | .430 | 2.62 | | 2-135 |
| 2-136 | -136 | 2 | 2 3/16 | 3/32 | 1.987 | | 0.103 | | 0.055 | 50.47 | | 2.62 | | 2-136 |
| 2-137 | -137 | 2 1/16 | 2 1/4 | 3/32 | 2.050 | | 0.103 | | 0.056 | 52.07 | | 2.62 | | 2-137 |

O'RINGS



(138...202) Series 2-xxx - O'Rings

CROSS REFERENCE TABLE

| Ref. Number | AS 568A Uniform Dash Number | NOMINAL SIZE Inches | | | STANDARD-O-RING-SIZE Inches Actual Per AS 568A | | | | Basic Volume (Cu.In) | METRIC-O-RING SIZE Millimeters Actual Per AS 568A | | | | Ref. Number |
|-------------|-----------------------------|---------------------|---------|------|--|----------|-------|----------|----------------------|---|----------|------|----------|-------------|
| | | ID | OD | W | ID | Tol. +/- | W | Tol. +/- | | ID | Tol. +/- | W | Tol. +/- | |
| | | | | | | | | | | | | | | |
| 2-138 | -138 | 2 1/8 | 2 5/16 | 3/32 | 2.112 | | 0.103 | .003 | 0.058 | 53.64 | | 2.62 | .080 | 2-138 |
| 2-139 | -139 | 2 3/16 | 2 3/8 | 3/32 | 2.175 | .017 | 0.103 | | 0.060 | 55.25 | .430 | 2.62 | | 2-139 |
| 2-140 | -140 | 2 1/4 | 2 7/16 | 3/32 | 2.237 | | 0.103 | | 0.061 | 56.82 | | 2.62 | | 2-140 |
| 2-141 | -141 | 2 5/16 | 2 1/2 | 3/32 | 2.300 | | 0.103 | | 0.063 | 58.42 | .510 | 2.62 | | 2-141 |
| 2-142 | -142 | 2 3/8 | 2 9/16 | 3/32 | 2.362 | .020 | 0.103 | | 0.065 | 59.99 | | 2.62 | | 2-142 |
| 2-143 | -143 | 2 7/16 | 2 5/8 | 3/32 | 2.425 | | 0.103 | | 0.066 | 61.60 | | 2.62 | | 2-143 |
| 2-144 | -144 | 2 1/2 | 2 11/16 | 3/32 | 2.487 | | 0.103 | | 0.068 | 63.17 | | 2.62 | | 2-144 |
| 2-145 | -145 | 2 9/16 | 2 3/4 | 3/32 | 2.550 | | 0.103 | | 0.069 | 64.77 | | 2.62 | | 2-145 |
| 2-146 | -146 | 2 5/8 | 2 13/16 | 3/32 | 2.612 | | 0.103 | | 0.071 | 66.34 | | 2.62 | | 2-146 |
| 2-147 | -147 | 2 11/16 | 2 7/8 | 3/32 | 2.675 | .022 | 0.103 | | 0.073 | 67.95 | .560 | 2.62 | | 2-147 |
| 2-148 | -148 | 2 3/4 | 2 15/16 | 3/32 | 2.737 | | 0.103 | | 0.074 | 69.52 | | 2.62 | | 2-148 |
| 2-149 | -149 | 2 13/16 | 3 | 3/32 | 2.800 | | 0.103 | | 0.076 | 71.12 | | 2.62 | | 2-149 |
| 2-150 | -150 | 2 7/8 | 3 1/16 | 3/32 | 2.862 | | 0.103 | | 0.078 | 72.69 | | 2.62 | | 2-150 |
| 2-151 | -151 | 3 | 3 3/16 | 3/32 | 2.987 | .024 | 0.103 | | 0.081 | 75.87 | .610 | 2.62 | | 2-151 |
| 2-152 | -152 | 3 1/4 | 3 7/16 | 3/32 | 3.237 | | 0.103 | | 0.087 | 82.22 | | 2.62 | | 2-152 |
| 2-153 | -153 | 3 1/2 | 3 11/16 | 3/32 | 3.487 | | 0.103 | | 0.094 | 88.57 | | 2.62 | | 2-153 |
| 2-154 | -154 | 3 3/4 | 3 15/16 | 3/32 | 3.737 | .028 | 0.103 | | 0.101 | 94.92 | .710 | 2.62 | | 2-154 |
| 2-155 | -155 | 4 | 4 3/16 | 3/32 | 3.987 | | 0.103 | | 0.107 | 101.27 | | 2.62 | | 2-155 |
| 2-156 | -156 | 4 1/4 | 4 7/16 | 3/32 | 4.237 | .030 | 0.103 | | 0.114 | 107.62 | .760 | 2.62 | | 2-156 |
| 2-157 | -157 | 4 1/2 | 4 11/16 | 3/32 | 4.487 | | 0.103 | | 0.120 | 113.97 | | 2.62 | | 2-157 |
| 2-158 | -158 | 4 3/4 | 4 15/16 | 3/32 | 4.737 | | 0.103 | | 0.127 | 120.32 | | 2.62 | | 2-158 |
| 2-159 | -159 | 5 | 5 3/16 | 3/32 | 4.987 | .035 | 0.103 | | 0.133 | 126.67 | .890 | 2.62 | | 2-159 |
| 2-160 | -160 | 5 1/4 | 5 7/16 | 3/32 | 5.237 | | 0.103 | | 0.140 | 133.02 | | 2.62 | | 2-160 |
| 2-161 | -161 | 5 1/2 | 5 11/16 | 3/32 | 5.487 | | 0.103 | | 0.146 | 139.37 | | 2.62 | | 2-161 |
| 2-162 | -162 | 5 3/4 | 5 15/16 | 3/32 | 5.737 | | 0.103 | | 0.153 | 145.72 | | 2.62 | | 2-162 |
| 2-163 | -163 | 6 | 6 3/16 | 3/32 | 5.987 | | 0.103 | | 0.159 | 152.07 | | 2.62 | | 2-163 |
| 2-164 | -164 | 6 1/4 | 6 7/16 | 3/32 | 6.237 | .040 | 0.103 | | 0.166 | 158.42 | 1.02 | 2.62 | | 2-164 |
| 2-165 | -165 | 6 1/2 | 6 11/16 | 3/32 | 6.487 | | 0.103 | | 0.173 | 164.77 | | 2.62 | | 2-165 |
| 2-166 | -166 | 6 3/4 | 6 15/16 | 3/32 | 6.737 | | 0.103 | | 0.179 | 171.12 | | 2.62 | | 2-166 |
| 2-167 | -167 | 7 | 7 3/16 | 3/32 | 6.987 | | 0.103 | | 0.186 | 177.47 | | 2.62 | | 2-167 |
| 2-168 | -168 | 7 1/4 | 7 7/16 | 3/32 | 7.237 | .045 | 0.103 | | 0.192 | 183.82 | 1.14 | 2.62 | | 2-168 |
| 2-169 | -169 | 7 1/2 | 7 11/16 | 3/32 | 7.487 | | 0.103 | | 0.199 | 190.17 | | 2.62 | | 2-169 |
| 2-170 | -170 | 7 3/4 | 7 15/16 | 3/32 | 7.737 | | 0.103 | | 0.205 | 196.52 | | 2.62 | | 2-170 |
| 2-171 | -171 | 8 | 8 3/16 | 3/32 | 7.987 | | 0.103 | | 0.212 | 202.87 | | 2.62 | | 2-171 |
| 2-172 | -172 | 8 1/4 | 8 7/16 | 3/32 | 8.237 | .050 | 0.103 | | 0.218 | 209.22 | 1.27 | 2.62 | | 2-172 |
| 2-173 | -173 | 8 1/2 | 8 11/16 | 3/32 | 8.487 | | 0.103 | | 0.225 | 215.57 | | 2.62 | | 2-173 |
| 2-174 | -174 | 8 3/4 | 8 15/16 | 3/32 | 8.737 | | 0.103 | | 0.231 | 221.92 | | 2.62 | | 2-174 |
| 2-175 | -175 | 9 | 9 3/16 | 3/32 | 8.987 | | 0.103 | | 0.238 | 228.27 | | 2.62 | | 2-175 |
| 2-176 | -176 | 9 1/4 | 9 7/16 | 3/32 | 9.237 | .055 | 0.103 | | 0.245 | 234.62 | 1.40 | 2.62 | | 2-176 |
| 2-177 | -177 | 9 1/2 | 9 11/16 | 3/32 | 9.487 | | 0.103 | | 0.251 | 240.97 | | 2.62 | | 2-177 |
| 2-178 | -178 | 9 3/4 | 9 15/16 | 3/32 | 9.737 | | 0.103 | | 0.258 | 247.32 | | 2.62 | | 2-178 |
| 2-201 | -201 | 3/16 | 7/16 | 1/8 | 0.171 | | 0.139 | .004 | 0.015 | 4.34 | .130 | 3.53 | .100 | 2-201 |
| 2-202 | -202 | 1/4 | 1/2 | 1/8 | 0.234 | .005 | 0.139 | | 0.018 | 5.94 | | 3.53 | | 2-202 |

O'RINGS



Series 2-XXX - O'Rings (203...245)

CROSS REFERENCE TABLE

| Ref. Number | AS 568A Uniform Dash Number | NOMINAL SIZE Inches | | | STANDARD-O-RING-SIZE Inches Actual Per AS 568A | | | | Basic Volume (Cu.In) | METRIC-O-RING SIZE Millimeters Actual Per AS 568A | | | | Ref. Number |
|-------------|-----------------------------|---------------------|---------|-----|--|----------|-------|----------|----------------------|---|----------|------|----------|-------------|
| | | ID | OD | W | ID | Tol. +/- | W | Tol. +/- | | ID | Tol. +/- | W | Tol. +/- | |
| | | | | | | | | | | | | | | |
| 2-203 | -203 | 5/16 | 9/16 | 1/8 | 0.296 | .005 | 0.139 | .004 | 0.021 | 7.52 | .130 | 3.53 | .100 | 2-203 |
| 2-204 | -204 | 3/8 | 5/8 | 1/8 | 0.359 | | 0.139 | | 0.024 | 9.12 | | 3.53 | | 2-204 |
| 2-205 | -205 | 7/16 | 11/16 | 1/8 | 0.421 | | 0.139 | | 0.027 | 10.69 | | 3.53 | | 2-205 |
| 2-206 | -206 | 1/2 | 3/4 | 1/8 | 0.484 | ▼ | 0.139 | | 0.030 | 12.29 | ▼ | 3.53 | | 2-206 |
| 2-207 | -207 | 9/16 | 13/16 | 1/8 | 0.546 | .007 | 0.139 | | 0.033 | 13.87 | .690 | 3.53 | | 2-207 |
| 2-208 | -208 | 5/8 | 7/8 | 1/8 | 0.609 | .009 | 0.139 | | 0.036 | 15.47 | .230 | 3.53 | | 2-208 |
| 2-209 | -209 | 11/16 | 15/16 | 1/8 | 0.671 | .010 | 0.139 | | 0.039 | 17.04 | | 3.53 | | 2-209 |
| 2-210 | -210 | 3/4 | 1 | 1/8 | 0.734 | | 0.139 | | 0.042 | 18.64 | .250 | 3.53 | | 2-210 |
| 2-211 | -211 | 13/16 | 1 1/16 | 1/8 | 0.796 | | 0.139 | | 0.045 | 20.22 | | 3.53 | | 2-211 |
| 2-212 | -212 | 7/8 | 1 1/8 | 1/8 | 0.859 | | 0.139 | | 0.048 | 21.82 | | 3.53 | | 2-212 |
| 2-213 | -213 | 15/16 | 1 3/16 | 1/8 | 0.921 | | 0.139 | | 0.051 | 23.39 | | 3.53 | | 2-213 |
| 2-214 | -214 | 1 | 1 1/4 | 1/8 | 0.984 | | 0.139 | | 0.054 | 24.99 | | 3.53 | | 2-214 |
| 2-215 | -215 | 1 1/16 | 1 5/16 | 1/8 | 1.046 | ▼ | 0.139 | | 0.057 | 26.57 | ▼ | 3.53 | | 2-215 |
| 2-216 | -216 | 1 1/8 | 1 3/8 | 1/8 | 1.109 | .012 | 0.139 | | 0.060 | 28.17 | .300 | 3.53 | | 2-216 |
| 2-217 | -217 | 1 3/16 | 1 7/16 | 1/8 | 1.171 | | 0.139 | | 0.062 | 29.74 | | 3.53 | | 2-217 |
| 2-218 | -218 | 1 1/4 | 1 1/2 | 1/8 | 1.234 | | 0.139 | | 0.065 | 31.34 | | 3.53 | | 2-218 |
| 2-219 | -219 | 1 5/16 | 1 9/16 | 1/8 | 1.296 | | 0.139 | | 0.068 | 32.92 | | 3.53 | | 2-219 |
| 2-220 | -220 | 1 3/8 | 1 5/8 | 1/8 | 1.359 | | 0.139 | | 0.071 | 34.52 | | 3.53 | | 2-220 |
| 2-221 | -221 | 1 7/16 | 1 11/16 | 1/8 | 1.421 | ▼ | 0.139 | | 0.074 | 36.09 | ▼ | 3.53 | | 2-221 |
| 2-222 | -222 | 1 1/2 | 1 3/4 | 1/8 | 1.484 | .015 | 0.139 | | 0.077 | 37.69 | .380 | 3.53 | | 2-222 |
| 2-223 | -223 | 1 5/8 | 1 7/8 | 1/8 | 1.609 | | 0.139 | | 0.083 | 40.87 | | 3.53 | | 2-223 |
| 2-224 | -224 | 1 3/4 | 2 | 1/8 | 1.734 | ▼ | 0.139 | | 0.089 | 44.04 | ▼ | 3.53 | | 2-224 |
| 2-225 | -225 | 1 7/8 | 2 1/8 | 1/8 | 1.859 | .018 | 0.139 | | 0.095 | 47.22 | .460 | 3.53 | | 2-225 |
| 2-226 | -226 | 2 | 2 1/4 | 1/8 | 1.984 | | 0.139 | | 0.101 | 50.39 | | 3.53 | | 2-226 |
| 2-227 | -227 | 2 1/8 | 2 3/8 | 1/8 | 2.109 | ▼ | 0.139 | | 0.107 | 53.57 | ▼ | 3.53 | | 2-227 |
| 2-228 | -228 | 2 1/4 | 2 1/2 | 1/8 | 2.234 | .020 | 0.139 | | 0.113 | 56.74 | .510 | 3.53 | | 2-228 |
| 2-229 | -229 | 2 3/8 | 2 5/8 | 1/8 | 2.359 | | 0.139 | | 0.119 | 59.92 | | 3.53 | | 2-229 |
| 2-230 | -230 | 2 1/2 | 2 3/4 | 1/8 | 2.484 | | 0.139 | | 0.125 | 63.09 | | 3.53 | | 2-230 |
| 2-231 | -231 | 2 5/8 | 2 7/8 | 1/8 | 2.609 | ▼ | 0.139 | | 0.131 | 66.27 | ▼ | 3.53 | | 2-231 |
| 2-232 | -232 | 2 3/4 | 3 | 1/8 | 2.734 | .024 | 0.139 | | 0.137 | 69.44 | .610 | 3.53 | | 2-232 |
| 2-233 | -233 | 2 7/8 | 3 1/8 | 1/8 | 2.859 | | 0.139 | | 0.143 | 72.62 | | 3.53 | | 2-233 |
| 2-234 | -234 | 3 | 3 1/4 | 1/8 | 2.984 | | 0.139 | | 0.149 | 75.79 | | 3.53 | | 2-234 |
| 2-235 | -235 | 3 1/8 | 3 3/8 | 1/8 | 3.109 | | 0.139 | | 0.155 | 78.97 | | 3.53 | | 2-235 |
| 2-236 | -236 | 3 1/4 | 3 1/2 | 1/8 | 3.234 | | 0.139 | | 0.161 | 82.14 | | 3.53 | | 2-236 |
| 2-237 | -237 | 3 3/8 | 3 5/8 | 1/8 | 3.359 | | 0.139 | | 0.167 | 85.32 | | 3.53 | | 2-237 |
| 2-238 | -238 | 3 1/2 | 3 3/4 | 1/8 | 3.484 | ▼ | 0.139 | | 0.173 | 88.49 | ▼ | 3.53 | | 2-238 |
| 2-239 | -239 | 3 5/8 | 3 7/8 | 1/8 | 3.609 | .028 | 0.139 | | 0.179 | 91.67 | .710 | 3.53 | | 2-239 |
| 2-240 | -240 | 3 3/4 | 4 | 1/8 | 3.734 | | 0.139 | | 0.185 | 94.84 | | 3.53 | | 2-240 |
| 2-241 | -241 | 3 7/8 | 4 1/8 | 1/8 | 3.859 | | 0.139 | | 0.191 | 98.02 | | 3.53 | | 2-241 |
| 2-242 | -242 | 4 | 4 1/4 | 1/8 | 3.984 | | 0.139 | | 0.197 | 101.19 | | 3.53 | | 2-242 |
| 2-243 | -243 | 4 1/8 | 4 3/8 | 1/8 | 4.109 | ▼ | 0.139 | | 0.203 | 104.37 | ▼ | 3.53 | | 2-243 |
| 2-244 | -244 | 4 1/4 | 4 1/2 | 1/8 | 4.234 | .030 | 0.139 | | 0.209 | 107.54 | .760 | 3.53 | | 2-244 |
| 2-245 | -245 | 4 3/8 | 4 5/8 | 1/8 | 4.359 | | 0.139 | ▼ | 0.214 | 110.72 | | 3.53 | ▼ | 2-245 |

O'RINGS



(246...312) Series 2-XXX - O'Rings

CROSS REFERENCE TABLE

| Ref. Number | AS 568A Uniform Dash Number | NOMINAL SIZE Inches | | | STANDARD-O-RING-SIZE Inches Actual Per AS 568A | | | | Basic Volume (Cu.In) | METRIC-O-RING SIZE Millimeters Actual Per AS 568A | | | | Ref. Number |
|-------------|-----------------------------|---------------------|--------|------|--|----------|-------|----------|----------------------|---|----------|------|----------|-------------|
| | | ID | OD | W | ID | Tol. +/- | W | Tol. +/- | | ID | Tol. +/- | W | Tol. +/- | |
| | | | | | | | | | | | | | | |
| 2-246 | -246 | 4 1/2 | 4 3/4 | 1/8 | 4.484 | | 0.139 | | 0.220 | 113.89 | | 3.53 | | 2-246 |
| 2-247 | -247 | 4 5/8 | 4 7/8 | 1/8 | 4.609 | .030 | 0.139 | .004 | 0.226 | 117.07 | .760 | 3.53 | .100 | 2-247 |
| 2-248 | -248 | 4 3/4 | 5 | 1/8 | 4.734 | | 0.139 | | 0.232 | 120.24 | | 3.53 | | 2-248 |
| 2-249 | -249 | 4 7/8 | 5 1/8 | 1/8 | 4.859 | | 0.139 | | 0.238 | 123.42 | | 3.53 | | 2-249 |
| 2-250 | -250 | 5 | 5 1/4 | 1/8 | 4.984 | .035 | 0.139 | | 0.244 | 126.59 | .890 | 3.53 | | 2-250 |
| 2-251 | -251 | 5 1/8 | 5 3/8 | 1/8 | 5.109 | | 0.139 | | 0.250 | 129.77 | | 3.53 | | 2-251 |
| 2-252 | -252 | 5 1/4 | 5 1/2 | 1/8 | 5.234 | | 0.139 | | 0.256 | 132.94 | | 3.53 | | 2-252 |
| 2-253 | -253 | 5 3/8 | 5 5/8 | 1/8 | 5.359 | | 0.139 | | 0.262 | 136.12 | | 3.53 | | 2-253 |
| 2-254 | -254 | 5 1/2 | 5 3/4 | 1/8 | 5.484 | | 0.139 | | 0.268 | 139.29 | | 3.53 | | 2-254 |
| 2-255 | -255 | 5 5/8 | 5 7/8 | 1/8 | 5.609 | | 0.139 | | 0.274 | 142.47 | | 3.53 | | 2-255 |
| 2-256 | -256 | 5 3/4 | 6 | 1/8 | 5.734 | | 0.139 | | 0.280 | 145.64 | | 3.53 | | 2-256 |
| 2-257 | -257 | 5 7/8 | 6 1/8 | 1/8 | 5.859 | | 0.139 | | 0.286 | 148.82 | | 3.53 | | 2-257 |
| 2-258 | -258 | 6 | 6 1/4 | 1/8 | 5.984 | | 0.139 | | 0.292 | 151.99 | | 3.53 | | 2-258 |
| 2-259 | -259 | 6 1/4 | 6 1/2 | 1/8 | 6.234 | .040 | 0.139 | | 0.304 | 158.34 | 1.02 | 3.53 | | 2-259 |
| 2-260 | -260 | 6 1/2 | 6 3/4 | 1/8 | 6.484 | | 0.139 | | 0.316 | 164.69 | | 3.53 | | 2-260 |
| 2-261 | -261 | 6 3/4 | 7 | 1/8 | 6.734 | | 0.139 | | 0.328 | 171.04 | | 3.53 | | 2-261 |
| 2-262 | -262 | 7 | 7 1/4 | 1/8 | 6.984 | | 0.139 | | 0.340 | 177.39 | | 3.53 | | 2-262 |
| 2-263 | -263 | 7 1/4 | 7 1/2 | 1/8 | 7.234 | .045 | 0.139 | | 0.352 | 183.74 | 1.14 | 3.53 | | 2-263 |
| 2-264 | -264 | 7 1/2 | 7 3/4 | 1/8 | 7.484 | | 0.139 | | 0.363 | 190.09 | | 3.53 | | 2-264 |
| 2-265 | -265 | 7 3/4 | 8 | 1/8 | 7.734 | | 0.139 | | 0.375 | 196.40 | | 3.53 | | 2-265 |
| 2-266 | -266 | 8 | 8 1/4 | 1/8 | 7.984 | | 0.139 | | 0.387 | 202.79 | | 3.53 | | 2-266 |
| 2-267 | -267 | 8 1/4 | 8 1/2 | 1/8 | 8.234 | .050 | 0.139 | | 0.399 | 209.14 | 1.27 | 3.53 | | 2-267 |
| 2-268 | -268 | 8 1/2 | 8 3/4 | 1/8 | 8.484 | | 0.139 | | 0.411 | 215.49 | | 3.53 | | 2-268 |
| 2-269 | -269 | 8 3/4 | 9 | 1/8 | 8.734 | | 0.139 | | 0.423 | 221.84 | | 3.53 | | 2-269 |
| 2-270 | -270 | 9 | 9 1/4 | 1/8 | 8.984 | | 0.139 | | 0.435 | 228.19 | | 3.53 | | 2-270 |
| 2-271 | -271 | 9 1/4 | 9 1/2 | 1/8 | 9.234 | .055 | 0.139 | | 0.447 | 234.54 | 1.40 | 3.53 | | 2-271 |
| 2-272 | -272 | 9 1/2 | 9 3/4 | 1/8 | 9.484 | | 0.139 | | 0.459 | 240.89 | | 3.53 | | 2-272 |
| 2-273 | -273 | 9 3/4 | 10 | 1/8 | 9.734 | | 0.139 | | 0.471 | 247.24 | | 3.53 | | 2-273 |
| 2-274 | -274 | 10 | 10 1/4 | 1/8 | 9.984 | | 0.139 | | 0.483 | 253.59 | | 3.53 | | 2-274 |
| 2-275 | -275 | 10 1/2 | 10 3/4 | 1/8 | 10.484 | | 0.139 | | 0.506 | 266.29 | | 3.53 | | 2-275 |
| 2-276 | -276 | 11 | 11 1/4 | 1/8 | 10.984 | .065 | 0.139 | | 0.530 | 278.99 | 1.65 | 3.53 | | 2-276 |
| 2-277 | -277 | 11 1/2 | 11 3/4 | 1/8 | 11.484 | | 0.139 | | 0.554 | 291.69 | | 3.53 | | 2-277 |
| 2-278 | -278 | 12 | 12 1/4 | 1/8 | 11.984 | | 0.139 | | 0.578 | 304.39 | | 3.53 | | 2-278 |
| 2-279 | -279 | 13 | 13 1/4 | 1/8 | 12.984 | | 0.139 | | 0.626 | 329.79 | | 3.53 | | 2-279 |
| 2-280 | -280 | 14 | 14 1/4 | 1/8 | 13.984 | | 0.139 | | 0.673 | 355.19 | | 3.53 | | 2-280 |
| 2-281 | -281 | 15 | 15 1/4 | 1/8 | 14.984 | | 0.139 | | 0.721 | 380.59 | | 3.53 | | 2-281 |
| 2-282 | -282 | 16 | 16 1/4 | 1/8 | 15.955 | .075 | 0.139 | | 0.767 | 405.26 | 1.91 | 3.53 | | 2-282 |
| 2-283 | -283 | 17 | 17 1/4 | 1/8 | 16.955 | .080 | 0.139 | | 0.815 | 430.66 | 2.03 | 3.53 | | 2-283 |
| 2-284 | -284 | 18 | 18 1/4 | 1/8 | 17.955 | .085 | 0.139 | | 0.863 | 456.06 | 2.16 | 3.53 | | 2-284 |
| 2-309 | -309 | 7/16 | 13/16 | 3/16 | 0.412 | .005 | 0.210 | .005 | 0.068 | 10.46 | 1.30 | 5.33 | .130 | 2-309 |
| 2-310 | -310 | 1/2 | 7/8 | 3/16 | 0.475 | | 0.210 | | 0.075 | 12.07 | | 5.33 | | 2-310 |
| 2-311 | -311 | 9/16 | 15/16 | 3/16 | 0.537 | .007 | 0.210 | | 0.081 | 13.64 | 1.18 | 5.33 | | 2-311 |
| 2-312 | -312 | 5/8 | 1 | 3/16 | 0.600 | .009 | 0.210 | | 0.088 | 15.24 | .230 | 5.33 | | 2-312 |

O'RINGS



Series 2-XXX - O'Rings (313...355)

CROSS REFERENCE TABLE

| Ref. Number | AS 568A Uniform Dash Number | NOMINAL SIZE Inches | | | STANDARD-O-RING-SIZE Inches Actual Per AS 568A | | | | Basic Volume (Cu.In) | METRIC-O-RING SIZE Millimeters Actual Per AS 568A | | | | Ref. Number |
|-------------|-----------------------------|---------------------|--------|------|--|----------|-------|----------|----------------------|---|----------|------|----------|-------------|
| | | ID | OD | W | ID | Tol. +/- | W | Tol. +/- | | ID | Tol. +/- | W | Tol. +/- | |
| | | | | | | | | | | | | | | |
| 2-313 | -313 | 11/16 | 1 1/16 | 3/16 | 0.662 | .009 | 0.210 | .005 | 0.095 | 16.81 | .230 | 5.33 | .130 | 2-313 |
| 2-314 | -314 | 3/4 | 1 1/8 | 3/16 | 0.725 | .010 | 0.210 | | 0.102 | 18.42 | .250 | 5.33 | | 2-314 |
| 2-315 | -315 | 13/16 | 1 3/16 | 3/16 | 0.787 | | 0.210 | | 0.109 | 19.99 | | 5.33 | | 2-315 |
| 2-316 | -316 | 7/8 | 1 1/4 | 3/16 | 0.850 | | 0.210 | | 0.115 | 21.59 | | 5.33 | | 2-316 |
| 2-317 | -317 | 15/16 | 1 5/16 | 3/16 | 0.912 | | 0.210 | | 0.122 | 23.16 | | 5.33 | | 2-317 |
| 2-318 | -318 | 1 | 1 3/8 | 3/16 | 0.975 | | 0.210 | | 0.129 | 24.77 | | 5.33 | | 2-318 |
| 2-319 | -319 | 1 1/9 | 1 4/9 | 3/16 | 1.037 | ▼ | 0.210 | | 0.136 | 26.34 | ▼ | 5.33 | | 2-319 |
| 2-320 | -320 | 1 1/8 | 1 1/2 | 3/16 | 1.100 | .012 | 0.210 | | 0.143 | 27.94 | .300 | 5.33 | | 2-320 |
| 2-321 | -321 | 1 1/5 | 1 5/9 | 3/16 | 1.162 | | 0.210 | | 0.149 | 29.51 | | 5.33 | | 2-321 |
| 2-322 | -322 | 1 1/4 | 1 5/8 | 3/16 | 1.225 | | 0.210 | | 0.156 | 31.12 | | 5.33 | | 2-322 |
| 2-323 | -323 | 1 1/3 | 1 2/3 | 3/16 | 1.287 | | 0.210 | | 0.163 | 32.69 | | 5.33 | | 2-323 |
| 2-324 | -324 | 1 3/8 | 1 3/4 | 3/16 | 1.350 | ▼ | 0.210 | | 0.170 | 34.29 | ▼ | 5.33 | | 2-324 |
| 2-325 | -325 | 1 1/2 | 1 7/8 | 3/16 | 1.475 | .015 | 0.210 | | 0.183 | 37.47 | .380 | 5.33 | | 2-325 |
| 2-326 | -326 | 1 5/8 | 2 | 3/16 | 1.600 | | 0.210 | | 0.197 | 40.64 | | 5.33 | | 2-326 |
| 2-327 | -327 | 1 3/4 | 2 1/8 | 3/16 | 1.725 | | 0.210 | | 0.211 | 43.82 | | 5.33 | | 2-327 |
| 2-328 | -328 | 1 7/8 | 2 1/4 | 3/16 | 1.850 | ▼ | 0.210 | | 0.224 | 46.99 | ▼ | 5.33 | | 2-328 |
| 2-329 | -329 | 2 | 2 3/8 | 3/16 | 1.975 | .018 | 0.210 | | 0.238 | 50.17 | .460 | 5.33 | | 2-329 |
| 2-330 | -330 | 2 1/8 | 2 1/2 | 3/16 | 2.100 | | 0.210 | | 0.251 | 53.34 | | 5.33 | | 2-330 |
| 2-331 | -331 | 2 1/4 | 2 5/8 | 3/16 | 2.225 | | 0.210 | | 0.265 | 56.52 | | 5.33 | | 2-331 |
| 2-332 | -332 | 2 3/8 | 2 3/4 | 3/16 | 2.350 | ▼ | 0.210 | | 0.279 | 59.69 | ▼ | 5.33 | | 2-332 |
| 2-333 | -333 | 2 1/2 | 2 7/8 | 3/16 | 2.475 | .020 | 0.210 | | 0.292 | 62.87 | .510 | 5.33 | | 2-333 |
| 2-334 | -334 | 2 5/8 | 3 | 3/16 | 2.600 | | 0.210 | | 0.306 | 66.04 | | 5.33 | | 2-334 |
| 2-335 | -335 | 2 3/4 | 3 1/8 | 3/16 | 2.725 | | 0.210 | | 0.319 | 69.22 | | 5.33 | | 2-335 |
| 2-336 | -336 | 2 7/8 | 3 1/4 | 3/16 | 2.850 | ▼ | 0.210 | | 0.333 | 72.39 | ▼ | 5.33 | | 2-336 |
| 2-337 | -337 | 3 | 3 3/8 | 3/16 | 2.975 | .024 | 0.210 | | 0.347 | 75.57 | .610 | 5.33 | | 2-337 |
| 2-338 | -338 | 3 1/8 | 3 1/2 | 3/16 | 3.100 | | 0.210 | | 0.360 | 78.74 | | 5.33 | | 2-338 |
| 2-339 | -339 | 3 1/4 | 3 5/8 | 3/16 | 3.225 | | 0.210 | | 0.374 | 81.92 | | 5.33 | | 2-339 |
| 2-340 | -340 | 3 3/8 | 3 3/4 | 3/16 | 3.350 | | 0.210 | | 0.387 | 85.09 | | 5.33 | | 2-340 |
| 2-341 | -341 | 3 1/2 | 3 7/8 | 3/16 | 3.475 | ▼ | 0.210 | | 0.401 | 88.27 | ▼ | 5.33 | | 2-341 |
| 2-342 | -342 | 3 5/8 | 4 | 3/16 | 3.600 | .028 | 0.210 | | 0.415 | 91.44 | .710 | 5.33 | | 2-342 |
| 2-343 | -343 | 3 3/4 | 4 1/8 | 3/16 | 3.725 | | 0.210 | | 0.428 | 94.62 | | 5.33 | | 2-343 |
| 2-344 | -344 | 3 7/8 | 4 1/4 | 3/16 | 3.850 | | 0.210 | | 0.442 | 97.79 | | 5.33 | | 2-344 |
| 2-345 | -345 | 4 | 4 3/8 | 3/16 | 3.975 | | 0.210 | | 0.455 | 100.97 | | 5.33 | | 2-345 |
| 2-346 | -346 | 4 1/8 | 4 1/2 | 3/16 | 4.100 | ▼ | 0.210 | | 0.469 | 104.14 | ▼ | 5.33 | | 2-346 |
| 2-347 | -347 | 4 1/4 | 4 5/8 | 3/16 | 4.225 | .030 | 0.210 | | 0.483 | 107.32 | .760 | 5.33 | | 2-347 |
| 2-348 | -348 | 4 3/8 | 4 3/4 | 3/16 | 4.350 | | 0.210 | | 0.496 | 110.49 | | 5.33 | | 2-348 |
| 2-349 | -349 | 4 1/2 | 4 7/8 | 3/16 | 4.475 | | 0.210 | | 0.510 | 113.67 | | 5.33 | | 2-349 |
| 2-350 | -350 | 4 5/8 | 5 | 3/16 | 4.600 | | 0.210 | | 0.523 | 116.84 | | 5.33 | | 2-350 |
| 2-351 | -351 | 4 3/4 | 5 1/8 | 3/16 | 4.725 | | 0.210 | | 0.537 | 120.02 | | 5.33 | | 2-351 |
| 2-352 | -352 | 4 7/8 | 5 1/4 | 3/16 | 4.850 | ▼ | 0.210 | | 0.551 | 123.19 | ▼ | 5.33 | | 2-352 |
| 2-353 | -353 | 5 | 5 3/8 | 3/16 | 4.975 | .037 | 0.210 | | 0.564 | 126.37 | .940 | 5.33 | | 2-353 |
| 2-354 | -354 | 5 1/8 | 5 1/2 | 3/16 | 5.100 | | 0.210 | | 0.578 | 129.54 | | 5.33 | | 2-354 |
| 2-355 | -355 | 5 1/4 | 5 5/8 | 3/16 | 5.225 | ▼ | 0.210 | ▼ | 0.591 | 132.72 | ▼ | 5.33 | ▼ | 2-355 |

O'RINGS



(356...402) Series 2-XXX - O'Rings

CROSS REFERENCE TABLE

| Ref. Number | AS 568A Uniform Dash Number | NOMINAL SIZE Inches | | | STANDARD-O-RING-SIZE Inches Actual Per AS 568A | | | | Basic Volume (Cu.In) | METRIC-O-RING SIZE Millimeters Actual Per AS 568A | | | | Ref. Number |
|-------------|-----------------------------|---------------------|--------|------|--|----------|-------|----------|----------------------|---|----------|------|----------|-------------|
| | | ID | OD | W | ID | Tol. +/- | W | Tol. +/- | | ID | Tol. +/- | W | Tol. +/- | |
| | | | | | | | | | | | | | | |
| 2-356 | -356 | 5 3/8 | 5 3/4 | 3/16 | 5.350 | | 0.210 | | 0.605 | 135.89 | | 5.33 | | 2-356 |
| 2-357 | -357 | 5 1/2 | 5 7/8 | 3/16 | 5.475 | .037 | 0.210 | .005 | 0.619 | 139.07 | .940 | 5.33 | .130 | 2-357 |
| 2-358 | -358 | 5 5/8 | 6 | 3/16 | 5.600 | | 0.210 | | 0.632 | 142.24 | | 5.33 | | 2-358 |
| 2-359 | -359 | 5 3/4 | 6 1/8 | 3/16 | 5.725 | | 0.210 | | 0.646 | 145.42 | | 5.33 | | 2-359 |
| 2-360 | -360 | 5 7/8 | 6 1/4 | 3/16 | 5.850 | | 0.210 | | 0.659 | 148.59 | | 5.33 | | 2-360 |
| 2-361 | -361 | 6 | 6 3/8 | 3/16 | 5.975 | | 0.210 | | 0.673 | 151.77 | | 5.33 | | 2-361 |
| 2-362 | -362 | 6 1/4 | 6 5/8 | 3/16 | 6.225 | .040 | 0.210 | | 0.700 | 158.12 | 1.02 | 5.33 | | 2-362 |
| 2-363 | -363 | 6 1/2 | 6 7/8 | 3/16 | 6.475 | | 0.210 | | 0.727 | 164.47 | | 5.33 | | 2-363 |
| 2-364 | -364 | 6 3/4 | 7 1/8 | 3/16 | 6.725 | | 0.210 | | 0.755 | 170.82 | | 5.33 | | 2-364 |
| 2-365 | -365 | 7 | 7 3/8 | 3/16 | 6.975 | | 0.210 | | 0.782 | 177.17 | | 5.33 | | 2-365 |
| 2-366 | -366 | 7 1/4 | 7 5/8 | 3/16 | 7.225 | .045 | 0.210 | | 0.809 | 183.52 | 1.14 | 5.33 | | 2-366 |
| 2-367 | -367 | 7 1/2 | 7 7/8 | 3/16 | 7.475 | | 0.210 | | 0.836 | 189.87 | | 5.33 | | 2-367 |
| 2-368 | -368 | 7 3/4 | 8 1/8 | 3/16 | 7.725 | | 0.210 | | 0.863 | 196.22 | | 5.33 | | 2-368 |
| 2-369 | -369 | 8 | 8 3/8 | 3/16 | 7.975 | | 0.210 | | 0.891 | 202.57 | | 5.33 | | 2-369 |
| 2-370 | -370 | 8 1/4 | 8 5/8 | 3/16 | 8.225 | .050 | 0.210 | | 0.918 | 208.92 | 1.27 | 5.33 | | 2-370 |
| 2-371 | -371 | 8 1/2 | 8 7/8 | 3/16 | 8.475 | | 0.210 | | 0.945 | 215.27 | | 5.33 | | 2-371 |
| 2-372 | -372 | 8 3/4 | 9 1/8 | 3/16 | 8.725 | | 0.210 | | 0.972 | 221.62 | | 5.33 | | 2-372 |
| 2-373 | -373 | 9 | 9 3/8 | 3/16 | 8.975 | | 0.210 | | 0.999 | 227.97 | | 5.33 | | 2-373 |
| 2-374 | -374 | 9 1/4 | 9 5/8 | 3/16 | 9.225 | .055 | 0.210 | | 1.027 | 234.32 | 1.40 | 5.33 | | 2-374 |
| 2-375 | -375 | 9 1/2 | 9 7/8 | 3/16 | 9.475 | | 0.210 | | 1.054 | 240.67 | | 5.33 | | 2-375 |
| 2-376 | -376 | 9 3/4 | 10 1/8 | 3/16 | 9.725 | | 0.210 | | 1.081 | 247.02 | | 5.33 | | 2-376 |
| 2-377 | -377 | 10 | 10 3/8 | 3/16 | 9.975 | | 0.210 | | 1.108 | 253.37 | | 5.33 | | 2-377 |
| 2-378 | -378 | 10 1/2 | 10 7/8 | 3/16 | 10.475 | .060 | 0.210 | | 1.163 | 266.07 | 1.52 | 5.33 | | 2-378 |
| 2-379 | -379 | 11 | 11 3/8 | 3/16 | 10.975 | | 0.210 | | 1.217 | 278.77 | | 5.33 | | 2-379 |
| 2-380 | -380 | 11 1/2 | 11 7/8 | 3/16 | 11.475 | .065 | 0.210 | | 1.272 | 291.47 | 1.65 | 5.33 | | 2-380 |
| 2-381 | -381 | 12 | 12 3/8 | 3/16 | 11.975 | | 0.210 | | 1.326 | 304.17 | | 5.33 | | 2-381 |
| 2-382 | -382 | 13 | 13 3/8 | 3/16 | 12.975 | | 0.210 | | 1.435 | 329.57 | | 5.33 | | 2-382 |
| 2-383 | -383 | 14 | 14 3/8 | 3/16 | 13.975 | .070 | 0.210 | | 1.544 | 354.97 | 1.78 | 5.33 | | 2-383 |
| 2-384 | -384 | 15 | 15 3/8 | 3/16 | 14.975 | | 0.210 | | 1.652 | 380.37 | | 5.33 | | 2-384 |
| 2-385 | -385 | 16 | 16 3/8 | 3/16 | 15.955 | .075 | 0.210 | | 1.759 | 405.26 | 1.91 | 5.33 | | 2-385 |
| 2-386 | -386 | 17 | 17 3/8 | 3/16 | 16.955 | .080 | 0.210 | | 1.868 | 430.66 | 2.03 | 5.33 | | 2-386 |
| 2-387 | -387 | 18 | 18 3/8 | 3/16 | 17.955 | .085 | 0.210 | | 1.977 | 456.06 | 2.16 | 5.33 | | 2-387 |
| 2-388 | -388 | 19 | 19 3/8 | 3/16 | 18.955 | .090 | 0.210 | | 2.085 | 481.41 | 2.29 | 5.33 | | 2-388 |
| 2-389 | -389 | 20 | 20 3/8 | 3/16 | 19.955 | .095 | 0.210 | | 2.194 | 506.81 | 2.41 | 5.33 | | 2-389 |
| 2-390 | -390 | 21 | 21 3/8 | 3/16 | 20.955 | | 0.210 | | 2.303 | 532.21 | | 5.33 | | 2-390 |
| 2-391 | -391 | 22 | 22 3/8 | 3/16 | 21.955 | .100 | 0.210 | | 2.412 | 557.61 | 2.54 | 5.33 | | 2-391 |
| 2-392 | -392 | 23 | 23 3/8 | 3/16 | 22.940 | .105 | 0.210 | | 2.519 | 582.68 | 2.67 | 5.33 | | 2-392 |
| 2-393 | -393 | 24 | 24 3/8 | 3/16 | 23.940 | .110 | 0.210 | | 2.628 | 608.08 | 2.79 | 5.33 | | 2-393 |
| 2-394 | -394 | 25 | 25 3/8 | 3/16 | 24.940 | .115 | 0.210 | | 2.737 | 633.48 | 2.92 | 5.33 | | 2-394 |
| 2-395 | -395 | 26 | 26 3/8 | 3/16 | 25.940 | .120 | 0.210 | | 2.845 | 658.88 | 3.05 | 5.33 | | 2-395 |
| 2-400 | -401 | 1 3/8 | 1 7/8 | 1/4 | 1.350 | .012 | 0.275 | | 0.301 | 34.29 | .300 | 6.99 | | 2-400 |
| 2-401 | -402 | 1 1/2 | 2 | 1/4 | 1.475 | .015 | 0.275 | .006 | 0.324 | 37.47 | .380 | 6.99 | .150 | 2-401 |
| 2-402 | -402 | 1 5/8 | 2 1/8 | 1/4 | 1.600 | | 0.275 | | 0.348 | 40.64 | | 6.99 | | 2-402 |

O'RINGS



Series 2-XXX - O'Rings (403...445)

CROSS REFERENCE TABLE

| Ref. Number | AS 568A Uniform Dash Number | NOMINAL SIZE Inches | | | STANDARD-O-RING-SIZE Inches Actual Per AS 568A | | | | Basic Volume (Cu.In) | METRIC-O-RING SIZE Millimeters Actual Per AS 568A | | | | Ref. Number |
|-------------|-----------------------------|---------------------|-------|-----|--|----------|-------|----------|----------------------|---|----------|------|----------|-------------|
| | | ID | OD | W | ID | Tol. +/- | W | Tol. +/- | | ID | Tol. +/- | W | Tol. +/- | |
| | | | | | | | | | | | | | | |
| 2-403 | -403 | 1 3/4 | 2 1/4 | 1/4 | 1.725 | .015 | 0.275 | .006 | 0.371 | 43.82 | .380 | 6.99 | .150 | 2-403 |
| 2-404 | -404 | 1 7/8 | 2 3/8 | 1/4 | 1.850 | | 0.275 | | 0.394 | 46.99 | | 6.99 | | 2-404 |
| 2-405 | -405 | 2 | 2 1/2 | 1/4 | 1.975 | .018 | 0.275 | | 0.417 | 50.17 | .460 | 6.99 | | 2-405 |
| 2-406 | -406 | 2 1/8 | 2 5/8 | 1/4 | 2.100 | | 0.275 | | 0.441 | 53.34 | | 6.99 | | 2-406 |
| 2-407 | -407 | 2 1/4 | 2 3/4 | 1/4 | 2.225 | | 0.275 | | 0.464 | 56.52 | | 6.99 | | 2-407 |
| 2-408 | -408 | 2 3/8 | 2 7/8 | 1/4 | 2.350 | | 0.275 | | 0.487 | 59.69 | | 6.99 | | 2-408 |
| 2-409 | -409 | 2 1/2 | 3 | 1/4 | 2.475 | .020 | 0.275 | | 0.511 | 62.87 | .510 | 6.99 | | 2-409 |
| 2-410 | -410 | 2 5/8 | 3 1/8 | 1/4 | 2.600 | | 0.275 | | 0.534 | 66.04 | | 6.99 | | 2-410 |
| 2-411 | -411 | 2 3/4 | 3 1/4 | 1/4 | 2.725 | | 0.275 | | 0.557 | 69.22 | | 6.99 | | 2-411 |
| 2-412 | -412 | 2 7/8 | 3 3/8 | 1/4 | 2.850 | | 0.275 | | 0.581 | 72.39 | | 6.99 | | 2-412 |
| 2-413 | -413 | 3 | 3 1/2 | 1/4 | 2.975 | .024 | 0.275 | | 0.604 | 75.57 | .610 | 6.99 | | 2-413 |
| 2-414 | -414 | 3 1/8 | 3 5/8 | 1/4 | 3.100 | | 0.275 | | 0.627 | 78.74 | | 6.99 | | 2-414 |
| 2-415 | -415 | 3 1/4 | 3 3/4 | 1/4 | 3.225 | | 0.275 | | 0.651 | 81.92 | | 6.99 | | 2-415 |
| 2-416 | -416 | 3 3/8 | 3 7/8 | 1/4 | 3.350 | | 0.275 | | 0.674 | 85.09 | | 6.99 | | 2-416 |
| 2-417 | -417 | 3 1/2 | 4 | 1/4 | 3.475 | | 0.275 | | 0.697 | 88.27 | | 6.99 | | 2-417 |
| 2-418 | -418 | 3 5/8 | 4 1/8 | 1/4 | 3.600 | .028 | 0.275 | | 0.721 | 91.44 | .710 | 6.99 | | 2-418 |
| 2-419 | -419 | 3 3/4 | 4 1/4 | 1/4 | 3.725 | | 0.275 | | 0.744 | 94.62 | | 6.99 | | 2-419 |
| 2-420 | -420 | 3 7/8 | 4 3/8 | 1/4 | 3.850 | | 0.275 | | 0.767 | 97.79 | | 6.99 | | 2-420 |
| 2-421 | -421 | 4 | 4 1/2 | 1/4 | 3.975 | | 0.275 | | 0.791 | 100.97 | | 6.99 | | 2-421 |
| 2-422 | -422 | 4 1/8 | 4 5/8 | 1/4 | 4.100 | | 0.275 | | 0.814 | 104.14 | | 6.99 | | 2-422 |
| 2-423 | -423 | 4 1/4 | 4 3/4 | 1/4 | 4.225 | .030 | 0.275 | | 0.837 | 107.32 | .760 | 6.99 | | 2-423 |
| 2-424 | -424 | 4 3/8 | 4 7/8 | 1/4 | 4.350 | | 0.275 | | 0.861 | 110.49 | | 6.99 | | 2-424 |
| 2-425 | -425 | 4 1/2 | 5 | 1/4 | 4.475 | .033 | 0.275 | | 0.886 | 113.67 | .840 | 6.99 | | 2-425 |
| 2-426 | -426 | 4 5/8 | 5 1/8 | 1/4 | 4.600 | | 0.275 | | 0.910 | 116.84 | | 6.99 | | 2-426 |
| 2-427 | -427 | 4 3/4 | 5 1/4 | 1/4 | 4.725 | | 0.275 | | 0.933 | 120.02 | | 6.99 | | 2-427 |
| 2-428 | -428 | 4 7/8 | 5 3/8 | 1/4 | 4.850 | | 0.275 | | 0.956 | 123.19 | | 6.99 | | 2-428 |
| 2-429 | -429 | 5 | 5 1/2 | 1/4 | 4.975 | .037 | 0.275 | | 0.980 | 126.37 | .940 | 6.99 | | 2-429 |
| 2-430 | -430 | 5 1/8 | 5 5/8 | 1/4 | 5.100 | | 0.275 | | 1.003 | 129.54 | | 6.99 | | 2-430 |
| 2-431 | -431 | 5 1/4 | 5 3/4 | 1/4 | 5.225 | | 0.275 | | 1.026 | 132.72 | | 6.99 | | 2-431 |
| 2-432 | -432 | 5 3/8 | 5 7/8 | 1/4 | 5.350 | | 0.275 | | 1.050 | 135.89 | | 6.99 | | 2-432 |
| 2-433 | -433 | 5 1/2 | 6 | 1/4 | 5.475 | | 0.275 | | 1.073 | 139.07 | | 6.99 | | 2-433 |
| 2-434 | -434 | 5 5/8 | 6 1/8 | 1/4 | 5.600 | | 0.275 | | 1.096 | 142.24 | | 6.99 | | 2-434 |
| 2-435 | -435 | 5 3/4 | 6 1/4 | 1/4 | 5.725 | | 0.275 | | 1.120 | 145.42 | | 6.99 | | 2-435 |
| 2-436 | -436 | 5 7/8 | 6 3/8 | 1/4 | 5.850 | | 0.275 | | 1.143 | 148.59 | | 6.99 | | 2-436 |
| 2-437 | -437 | 6 | 6 1/2 | 1/4 | 5.975 | | 0.275 | | 1.166 | 151.77 | | 6.99 | | 2-437 |
| 2-438 | -438 | 6 1/4 | 6 3/4 | 1/4 | 6.225 | .040 | 0.275 | | 1.213 | 158.12 | 1.02 | 6.99 | | 2-438 |
| 2-439 | -439 | 6 1/2 | 7 | 1/4 | 6.475 | | 0.275 | | 1.260 | 164.47 | | 6.99 | | 2-439 |
| 2-440 | -440 | 6 3/4 | 7 1/4 | 1/4 | 6.725 | | 0.275 | | 1.306 | 170.82 | | 6.99 | | 2-440 |
| 2-441 | -441 | 7 | 7 1/2 | 1/4 | 6.975 | | 0.275 | | 1.353 | 177.17 | | 6.99 | | 2-441 |
| 2-442 | -442 | 7 1/4 | 7 3/4 | 1/4 | 7.225 | .045 | 0.275 | | 1.400 | 183.52 | 1.14 | 6.99 | | 2-442 |
| 2-443 | -443 | 7 1/2 | 8 | 1/4 | 7.475 | | 0.275 | | 1.446 | 189.87 | | 6.99 | | 2-443 |
| 2-444 | -444 | 7 3/4 | 8 1/4 | 1/4 | 7.725 | | 0.275 | | 1.493 | 196.22 | | 6.99 | | 2-444 |
| 2-445 | -445 | 8 | 8 1/2 | 1/4 | 7.975 | | 0.275 | | 1.539 | 202.57 | | 6.99 | | 2-445 |

O'RINGS



(446...475) Series 2-XXX - O'Rings

CROSS REFERENCE TABLE

| Ref. Number | AS 568A Uniform Dash Number | NOMINAL SIZE Inches | | | STANDARD-O-RING-SIZE Inches Actual Per AS 568A | | | | Basic Volume (Cu.In) | METRIC-O-RING SIZE Millimeters Actual Per AS 568A | | | | Ref. Number | | |
|-------------|-----------------------------|---------------------|--------|-----|--|----------|-------|------|----------------------|---|------|----------|------|-------------|---|----------|
| | | ID | OD | W | ID | Tol. +/- | | W | | Tol. +/- | ID | Tol. +/- | | | W | Tol. +/- |
| | | | | | | | | | | | | | | | | |
| 2-446 | -446 | 8 1/2 | 9 | 1/4 | 8.475 | .055 | 0.275 | .006 | 1.633 | 215.27 | 1.40 | 6.99 | .150 | 2-446 | | |
| 2-447 | -447 | 9 | 9 1/2 | 1/4 | 8.975 | | 0.275 | | 1.726 | 227.97 | | 6.99 | | 2-447 | | |
| 2-448 | -448 | 9 1/2 | 10 | 1/4 | 9.475 | | 0.275 | | 1.819 | 240.67 | | 6.99 | | 2-448 | | |
| 2-449 | -449 | 10 | 10 1/2 | 1/4 | 9.975 | | 0.275 | | 1.913 | 253.37 | | 6.99 | | 2-449 | | |
| 2-450 | -450 | 10 1/2 | 11 | 1/4 | 10.475 | .060 | 0.275 | | 2.006 | 266.07 | 1.52 | 6.99 | | 2-450 | | |
| 2-451 | -451 | 11 | 11 1/2 | 1/4 | 10.975 | | 0.275 | | 2.099 | 278.77 | | 6.99 | | 2-451 | | |
| 2-452 | -452 | 11 1/2 | 12 | 1/4 | 11.475 | | 0.275 | | 2.193 | 291.47 | | 6.99 | | 2-452 | | |
| 2-453 | -453 | 12 | 12 1/2 | 1/4 | 11.975 | | 0.275 | | 2.286 | 304.17 | | 6.99 | | 2-453 | | |
| 2-454 | -454 | 12 1/2 | 13 | 1/4 | 12.475 | | 0.275 | | 2.379 | 316.87 | | 6.99 | | 2-454 | | |
| 2-455 | -455 | 13 | 13 1/2 | 1/4 | 12.975 | | 0.275 | | 2.472 | 329.57 | | 6.99 | | 2-455 | | |
| 2-456 | -456 | 13 1/2 | 14 | 1/4 | 13.475 | .070 | 0.275 | | 2.566 | 342.27 | 1.78 | 6.99 | | 2-456 | | |
| 2-457 | -457 | 14 | 14 1/2 | 1/4 | 13.975 | | 0.275 | | 2.659 | 354.97 | | 6.99 | | 2-457 | | |
| 2-458 | -458 | 14 1/2 | 15 | 1/4 | 14.475 | | 0.275 | | 2.752 | 367.67 | | 6.99 | | 2-458 | | |
| 2-459 | -459 | 15 | 15 1/2 | 1/4 | 14.975 | | 0.275 | | 2.846 | 380.37 | | 6.99 | | 2-459 | | |
| 2-460 | -460 | 15 1/2 | 16 | 1/4 | 15.475 | | 0.275 | | 2.939 | 393.07 | | 6.99 | | 2-460 | | |
| 2-461 | -461 | 16 | 16 1/2 | 1/4 | 15.955 | .075 | 0.275 | | 3.029 | 405.26 | 1.91 | 6.99 | | 2-461 | | |
| 2-462 | -462 | 16 1/2 | 17 | 1/4 | 16.455 | | 0.275 | | 3.122 | 417.96 | | 6.99 | | 2-462 | | |
| 2-463 | -463 | 17 | 17 1/2 | 1/4 | 16.955 | .080 | 0.275 | | 3.215 | 430.66 | 2.03 | 6.99 | | 2-463 | | |
| 2-464 | -464 | 17 1/2 | 18 | 1/4 | 17.455 | .085 | 0.275 | | 3.308 | 443.36 | 2.16 | 6.99 | | 2-464 | | |
| 2-465 | -465 | 18 | 18 1/2 | 1/4 | 17.955 | | 0.275 | | 3.402 | 456.06 | | 6.99 | | 2-465 | | |
| 2-466 | -466 | 18 1/2 | 19 | 1/4 | 18.455 | | 0.275 | | 3.495 | 468.76 | | 6.99 | | 2-466 | | |
| 2-467 | -467 | 19 | 19 1/2 | 1/4 | 18.955 | .090 | 0.275 | | 3.588 | 481.46 | 2.29 | 6.99 | | 2-467 | | |
| 2-468 | -468 | 19 1/2 | 20 | 1/4 | 19.455 | | 0.275 | | 3.682 | 494.16 | | 6.99 | | 2-468 | | |
| 2-469 | -469 | 20 | 20 1/2 | 1/4 | 19.955 | .095 | 0.275 | | 3.775 | 506.86 | 2.41 | 6.99 | | 2-469 | | |
| 2-470 | -470 | 21 | 21 1/2 | 1/4 | 20.955 | | 0.275 | | 3.962 | 532.26 | | 6.99 | | 2-470 | | |
| 2-471 | -471 | 22 | 22 1/2 | 1/4 | 21.955 | .100 | 0.275 | | 4.148 | 557.66 | 2.54 | 6.99 | | 2-471 | | |
| 2-472 | -472 | 23 | 23 1/2 | 1/4 | 22.940 | .105 | 0.275 | | 4.332 | 582.68 | 2.67 | 6.99 | | 2-472 | | |
| 2-473 | -473 | 24 | 24 1/2 | 1/4 | 23.940 | .110 | 0.275 | | 4.519 | 608.08 | 2.79 | 6.99 | | 2-473 | | |
| 2-474 | -474 | 25 | 25 1/2 | 1/4 | 24.940 | .115 | 0.275 | | 4.705 | 633.48 | 2.92 | 6.99 | | 2-474 | | |
| 2-475 | -475 | 26 | 26 1/2 | 1/4 | 25.940 | .120 | 0.275 | | 4.892 | 658.88 | 3.05 | 6.99 | | 2-475 | | |

O'RINGS

Markets segments we are servicing



Power Tools



Power Transmission



Pulp & Paper



Railway



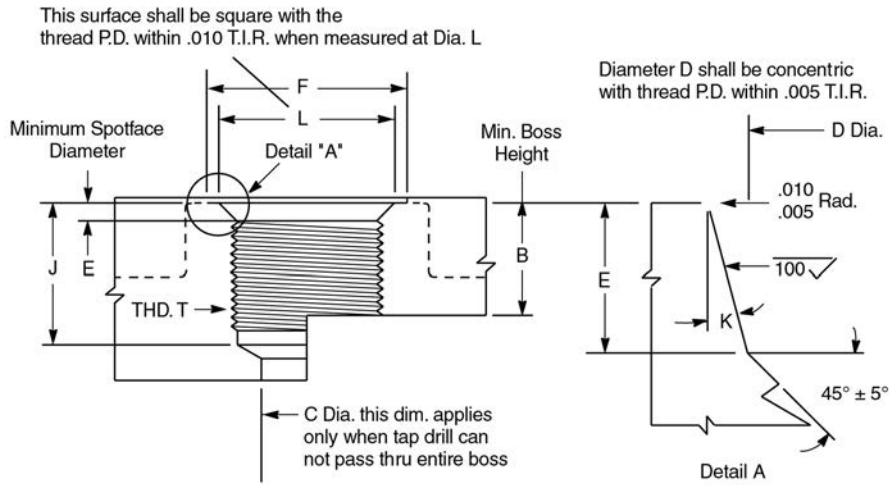
Recreational



Truck & Bus Tier

Tube Fitting Boss Seals

Tube Fitting Boss Seals



Finished tapered counterbore (Detail A) shall be free from longitudinal and spiral tool marks.
Annular tool marks up to 100 micro-inches maximum will be permissible.

Boss Dimensions for Industrial Straight Thread Tube Fittings

| Parker O'Ring Size No. | Actual O'Ring Dimensions | | Tube OD | Thread T | | B Min. Thread Depth | C Min. | D +.005 -.000 | E +.015 -.000 | F Min. | J Min. | K ±1° | L ±1° |
|------------------------|--------------------------|--------------|---------|-----------|--------|---------------------|--------|------------------|------------------|--------|--------|-------|-------|
| | W | ID | | | | | | | | | | | |
| 3-902 | .064 ± .003 | .239 ± .005 | 1/8 | 5/16-24 | UNF-2B | .390 | .062 | .358 | .074 | .672 | .468 | 12° | .438 |
| 3-903 | .064 ± .003 | .301 ± .005 | 3/16 | 3/8-24 | | .390 | .125 | .421 | .074 | .750 | .468 | 12° | .500 |
| 3-904 | .072 ± .003 | .351 ± .005 | 1/4 | 7/16-20 | | .454 | .172 | .487 | .093 | .828 | .547 | 12° | .563 |
| 3-905 | .072 ± .003 | .414 ± .005 | 5/16 | 1/2-20 | | .454 | .234 | .550 | .093 | .960 | .547 | 12° | .625 |
| 3-906 | .078 ± .003 | .468 ± .005 | 3/8 | 9/16-18 | | .500 | .297 | .616 | .097 | .906 | .609 | 12° | .688 |
| 3-908 | .087 ± .003 | .644 ± .009 | 1/2 | 3/4-16 | | .562 | .391 | .811 | .100 | 1.188 | .688 | 15° | .875 |
| 3-910 | .097 ± .003 | .755 ± .009 | 5/8 | 7/8-14 | UN-2B | .656 | .484 | .942 | .100 | 1.344 | .781 | 15° | 1.000 |
| 3-912 | .116 ± .004 | .924 ± .009 | 3/4 | 1 1/16-12 | | .750 | .609 | 1.148 | .130 | 1.625 | .906 | 15° | 1.250 |
| 3-913 | .116 ± .004 | .986 ± .010 | 13/16 | | | | | | | | | | |
| 3-914 | .116 ± .004 | 1.047 ± .010 | 7/8 | 1 3/16-12 | | .750 | .719 | 1.273 | .130 | 1.765 | .906 | 15° | 1.375 |
| 3-916 | .116 ± .004 | 1.171 ± .010 | 1 | 1 5/16-12 | | .750 | .844 | 1.398 | .130 | 1.910 | .906 | 15° | 1.500 |
| 3-918 | .116 ± .004 | 1.355 ± .012 | 1 1/8 | | | | | | | | | | |
| 3-920 | .118 ± .004 | 1.455 ± .014 | 1 1/4 | 1 5/8-12 | | .750 | 1.078 | 1.713 | .132 | 2.270 | .906 | 15° | 1.875 |
| 3-924 | .118 ± .004 | 1.720 ± .014 | 1 1/2 | 1 7/8-12 | | .750 | 1.312 | 1.962 | .132 | 2.560 | .906 | 15° | 2.125 |
| 3-932 | .118 ± .004 | 2.337 ± .018 | 2 | 2 1/2-2 | .750 | 1.781 | 2.587 | .132 | 3.480 | .906 | 15° | 2.750 | |

Boss Dimensions for Industrial Straight Thread Tube Fitting O'Ring Gaskets Per SAE J1926 and MS16142

O'RINGS



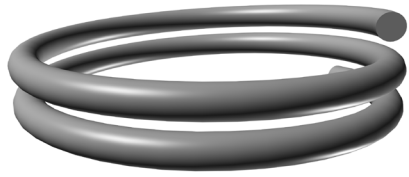
Series 3-XXX - O'Rings

| Ref. Number | AS 568A Uniform Dash Number | Tube OD | STANDARD-O-RING-SIZE Inches Actual Per AS 568A | | | | Cross Section Area (Sq. In) | METRIC-O-RING SIZE Millimeters Actual Per AS 568A | | | | Ref. Number |
|-------------|-----------------------------|---------|--|----------|-------|----------|-----------------------------|---|----------|------|----------|-------------|
| | | | ID | Tol. +/- | ID | Tol. +/- | | ID | Tol. +/- | W | Tol. +/- | |
| 3-901 | -901 | 3/32 | 0.185 | | 0.056 | | 0.0025 | 4.70 | | 1.42 | | 3-901 |
| 3-902 | -902 | 1/8 | 0.239 | .005 | 0.064 | .003 | 0.0034 | 6.07 | .130 | 1.63 | .080 | 3-902 |
| 3-903 | -903 | 3/16 | 0.301 | | 0.064 | | 0.0032 | 7.65 | | 1.63 | | 3-903 |
| 3-904 | -904 | 1/4 | 0.351 | | 0.072 | | 0.0041 | 8.92 | | 1.83 | | 3-904 |
| 3-905 | -905 | 5/16 | 0.414 | | 0.072 | | 0.0041 | 10.52 | | 1.83 | | 3-905 |
| 3-906 | -906 | 3/8 | 0.468 | ▼ | 0.078 | | 0.0048 | 11.89 | ▼ | 1.98 | | 3-906 |
| 3-907 | -907 | 7/16 | 0.530 | .007 | 0.082 | | 0.0053 | 13.46 | .180 | 2.08 | | 3-907 |
| 3-908 | -908 | 1/2 | 0.644 | .009 | 0.087 | | 0.0059 | 16.36 | .230 | 2.21 | | 3-908 |
| 3-909 | -909 | 9/16 | 0.706 | | 0.097 | | 0.0074 | 17.93 | | 2.46 | | 3-909 |
| 3-910 | -910 | 5/8 | 0.755 | ▼ | 0.097 | ▼ | 0.0074 | 19.18 | | 2.46 | ▼ | 3-910 |
| 3-911 | -911 | 11/16 | 0.863 | ▼ | 0.116 | .004 | 0.0106 | 21.92 | ▼ | 2.95 | .100 | 3-911 |
| 3-912 | -912 | 3/4 | 0.924 | ▼ | 0.116 | | 0.0106 | 23.47 | ▼ | 2.95 | | 3-912 |
| 3-913 | -913 | 13/16 | 0.986 | .010 | 0.116 | | 0.0106 | 25.04 | .260 | 2.95 | | 3-913 |
| 3-914 | -914 | 7/8 | 1.047 | | 0.116 | | 0.0106 | 26.59 | | 2.95 | | 3-914 |
| 3-916 | -916 | 1 | 1.171 | ▼ | 0.116 | | 0.0106 | 29.74 | | 2.95 | | 3-916 |
| 3-918 | -918 | 1 1/8 | 1.355 | .012 | 0.116 | | 0.0106 | 34.42 | .300 | 2.95 | | 3-918 |
| 3-920 | -920 | 1 1/4 | 1.475 | .014 | 0.118 | | 0.0109 | 37.47 | .360 | 3.00 | | 3-920 |
| 3-924 | -924 | 1 1/2 | 1.72 | | 0.118 | | 0.0109 | 43.69 | | 3.00 | | 3-924 |
| 3-928 | -928 | 1 3/4 | 2.09 | .018 | 0.118 | | 0.0109 | 53.09 | .460 | 3.00 | | 3-928 |
| 3-932 | -932 | 2 | 2.337 | | 0.118 | ▼ | 0.0109 | 59.36 | | 3.00 | ▼ | 3-932 |

O'RINGS



O'Ring Cord - Inch



| Standard Materials | Temperature Range |
|------------------------|--------------------------------------|
| Nitrile 70A | -30°F to +250°F (-34°C to +121°C) |
| Fluorocarbon 75A | -15°F to +400°F (-26°C to +205°C) |
| Ethylene Propylene 80A | -65°F to +300°F (-54°C to +149°C) |
| Silicone 70A | -70°F to +450°F (-57°C to +232°C) |

O'Ring cord is supplied as a continuously extruded profile. **O'Ring cord** can be used to manufacture custom O'Rings when no standard size is available. A wide variety of cross-sections and sizes are available.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

O'RINGS

| ● | | | | | | | | | | | | | | | |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| CROSS SECTION DIAMETER AVAILABLE | | | | | | | | | | | | | | | |
| 1/16" | 3/32" | | 1/8" | | 3/16" | | 1/4" | | 5/16" | 3/8" | 7/16" | 1/2" | 5/8" | 3/4" | 1" |
| .070" | .093" | .103" | .125" | .139" | .187" | .210" | .250" | .275" | .312" | .375" | .437" | .500" | .625" | .750" | 1.000" |
| TOL. | | | | | | | | | | | | | | | |
| ±.005 | ±.005 | ±.005 | ±.005 | ±.007 | ±.007 | ±.007 | ±.008 | ±.008 | ±.010 | ±.010 | ±.010 | ±.012 | ±.012 | ±.012 | ±.012 |

Quad-Ring Cord - Inch



| Standard Material | Temperature Range |
|-------------------|--------------------------------------|
| Nitrile 70A | -30°F to +250°F (-34°C to +121°C) |

Similar to the **O'Ring cord** in usage, the cross-section is a four-lobed style adding to stability in a groove.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| ✖ | | | | | | | | | | |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| CROSS SECTION DIAMETER AVAILABLE | | | | | | | | | | |
| 1/16" | 3/32" | 1/8" | 3/16" | 1/4" | 5/16" | 3/8" | 7/16" | 1/2" | 5/8" | 3/4" |
| .070" | .103" | .139" | .210" | .275" | .312" | .375" | .437" | .500" | .625" | .750" |
| TOL. | | | | | | | | | | |
| ±.005 | ±.005 | ±.007 | ±.007 | ±.008 | ±.010 | ±.010 | ±.010 | ±.012 | ±.012 | ±.016 |

Square-Ring Cord - Inch

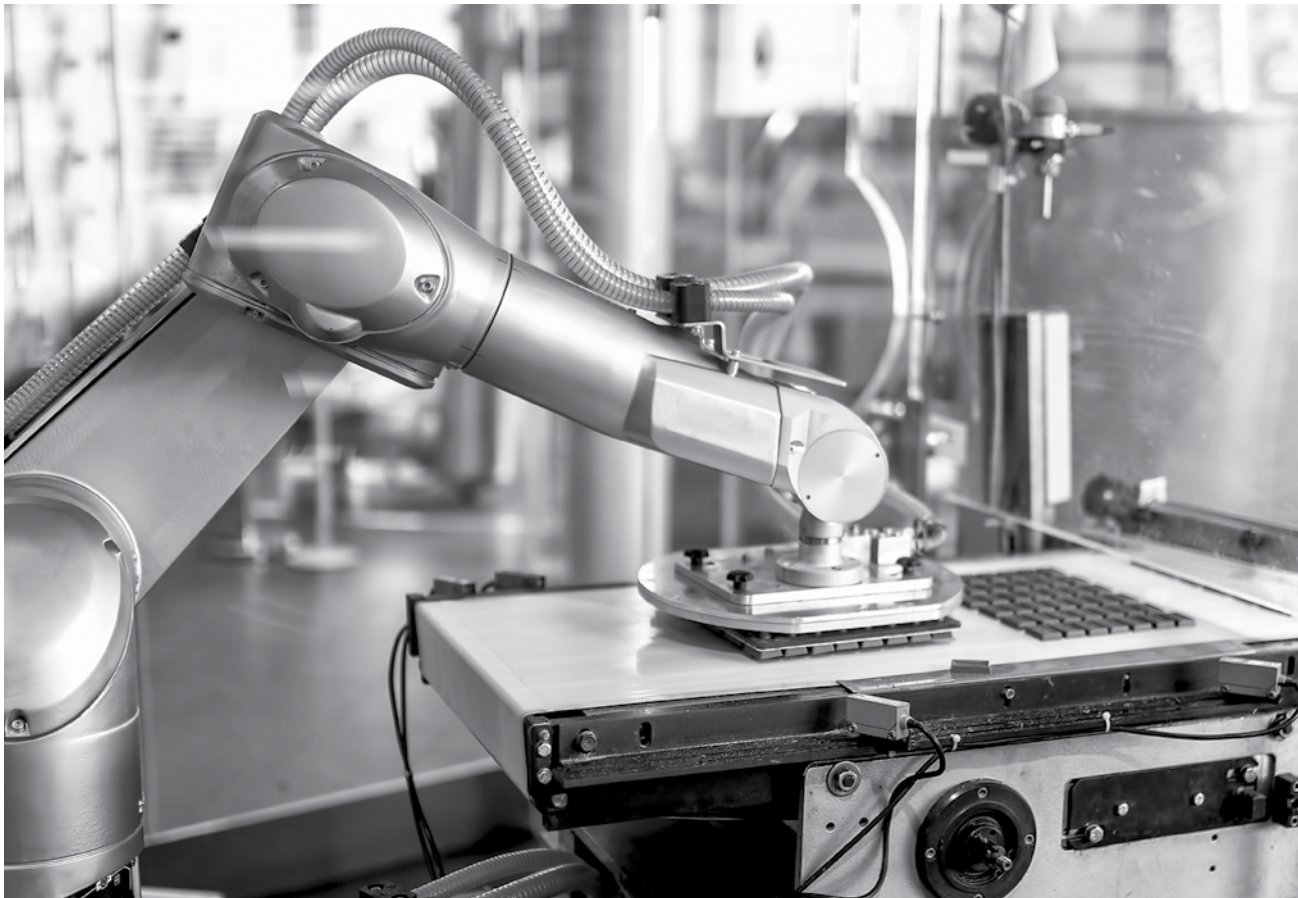


| Standard Materials | Temperature Range |
|--------------------|--------------------------------------|
| Nitrile 70A | -30°F to +250°F (-34°C to +121°C) |

Similar to the **O'Ring cord** in usage, the square section can also be used in non-critical applications as a flat gasket.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| CROSS SECTION DIAMETER AVAILABLE | | | | | | | | | |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 3/32" | 1/8" | 3/16" | 1/4" | 5/16" | 3/8" | 7/16" | 1/2" | 3/4" | 1" |
| .103" | .139" | .210" | .275" | .312" | .375" | .437" | .500" | .750" | 1.000" |



O'RINGS



Vulcanized O'Rings - Inch



| Standard Materials | Temperature Range |
|------------------------|--------------------------------------|
| Nitrile 70A | -30°F to +250°F (-34°C to +121°C) |
| Fluorocarbon 75A | -15°F to +400°F (-26°C to +205°C) |
| Ethylene Propylene 80A | -65°F to +450°F (-54°C to +232°C) |
| Silicone 70A | -70°F to +300°F (-57°C to +149°C) |

With the use of standard cord stock, **vulcanized O'Rings** offer you a dimensionally custom-made solid ring using a hot-bonded process. The splice-and-jointed area of the ring offers full flexibility and allows for a reliable sealing performance.

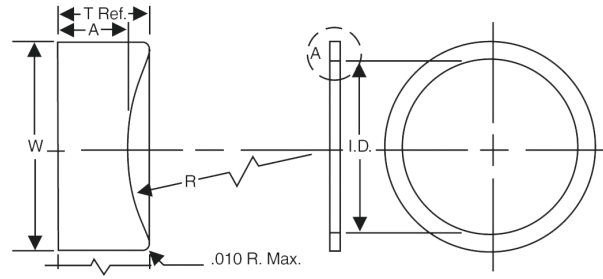
Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| CROSS SECTION DIAMETER AVAILABLE | | | | | | | | | | | | | | | | |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| NITRILE 70A | | | | | | | | | | | | | | | | |
| 1/16" | 3/32" | | 1/8" | | 3/16" | | 1/4" | | 5/16" | 3/8" | 7/16" | 1/2" | 9/16" | 5/8" | 3/4" | 1" |
| .070" | .093" | .103" | .125" | .139" | .187" | .210" | .250" | .275" | .312" | .375" | .437" | .500" | .562" | .625" | .750" | 1.000" |
| FLUOROCARBON 75A | | | | | | | | | | | | | | | | |
| 1/16" | 3/32" | | 1/8" | | 3/16" | | 1/4" | | 5/16" | 3/8" | 7/16" | 1/2" | 9/16" | 5/8" | 3/4" | 1" |
| .070" | .093" | .103" | .125" | .139" | .187" | .210" | .250" | .275" | .312" | .375" | .437" | .500" | .562" | .625" | .750" | 1.000" |
| ETHYLENE PROPYLENE 80A | | | | | | | | | | | | | | | | |
| 1/16" | 3/32" | | 1/8" | | 3/16" | | 1/4" | | 5/16" | | | | | | | |
| .070" | .093" | .103" | .125" | .139" | .187" | .210" | .250" | .275" | .312" | | | | | | | |
| SILICONE 70A | | | | | | | | | | | | | | | | |
| 1/16" | 3/32" | | 1/8" | | 3/16" | | 1/4" | | 5/16" | 3/8" | 7/16" | 1/2" | | 5/8" | 3/4" | |
| .070" | .093" | .103" | .125" | .139" | .187" | .210" | .250" | .275" | .312" | .375" | .437" | .500" | | .625" | .750" | |



Please note that material choices are not necessarily available for all profiles and minimum purchases may apply. Other materials are available upon request.

* The temperature range is for general purpose materials. A range of high performance materials is also available on request.

Series 8-XXX - O'Rings



Part Number Nomenclature

| | | |
|---|-------------------------|--|
|  | Contoured Back-up rings | 8-XXX/N90 Ex: 8-001/N90 |
|  | Back-up rings | 8-XXX/Material Identification Ex: 8-001/U |

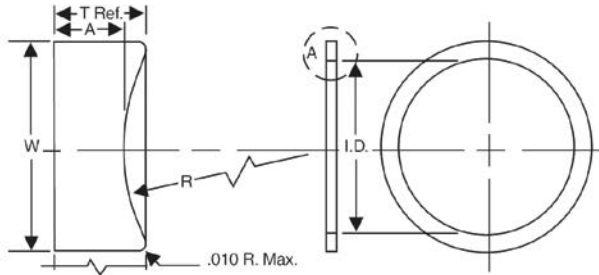
| Material | Abbreviation | Duro | Color | Identification | Temperature Range * |
|-------------------------|--------------|------|--------------|----------------|--|
| Nitrile | NBR | 90A | Black | N90 | -40 °F to +250 °F (-40 °C to +121 °C) |
| Polyurethane | AU | 95A | Black/Clear | U | -60 °F to +250 °F (-51 °C to +121 °C) |
| Polytetrafluoroethylene | PTFE | 55D | White | T | -320 °F to +450 °F (-196 °C to +232 °C) |
| Polymyte | TPE | 56D | Orange | P | -65 °F to +275 °F (-54 °C to +135 °C) |
| Hytrel | TPC-ET | 55D | Black/Orange | H | -60 °F to +275 °F (-51 °C to +135 °C) |



O'RINGS



Contoured Back-Up Rings - Inch



| Standard Material | Temperature Range |
|-------------------|--------------------------------------|
| Nitrile /N90 | -40°F to +250°F (-40°C to +121°C) |

Contoured Back-Up Rings are used primarily for service in petroleum-based fluids. The standard N90 compound provides the maximum benefits in **Back-Up Ring** service. Compounds for use in other fluids and for temperatures exceeding those listed above are available upon request.

Contoured Back-Up Rings will stretch up to 50% of their diameter and are easily installed. It is important to have sufficient groove width when using Contoured Back-Up Rings. Please refer to page G12 Of this catalogue to validate your dimensions when using one or two back-up rings.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

O'RINGS

| Dash No. | I.D. (in.) | Tol. ± | R ±.010 | T (Ref.) | A (in.) | Tol. ± | W (in.) | Tol. ± |
|----------|------------|--------|---------|----------|---------|--------|---------|--------|
| 8-004 | 0.096 | .005 | .087 | .049 | .045 | .003 | .053 | .003 |
| 8-005 | 0.127 | .005 | .087 | .049 | .045 | .003 | .053 | .003 |
| 8-006 | 0.140 | | .087 | .049 | .045 | | .053 | |
| 8-007 | 0.171 | | .087 | .049 | .045 | | .053 | |
| 8-008 | 0.202 | | .087 | .049 | .045 | | .053 | |
| 8-009 | 0.234 | | .087 | .049 | .045 | | .053 | |
| 8-010 | 0.265 | | .087 | .049 | .045 | | .053 | |
| 8-011 | 0.327 | | .087 | .049 | .045 | | .053 | |
| 8-012 | 0.390 | | .087 | .049 | .045 | | .053 | |
| 8-013 | 0.455 | | .087 | .049 | .045 | | .053 | |
| 8-014 | 0.518 | ↓ | .087 | .049 | .045 | | .053 | |
| 8-015 | 0.580 | .007 | .087 | .049 | .045 | | .053 | |
| 8-016 | 0.643 | .009 | .087 | .049 | .045 | | .053 | |
| 8-017 | 0.705 | .009 | .087 | .049 | .045 | | .053 | |
| 8-018 | 0.768 | | .087 | .049 | .045 | | .053 | |
| 8-019 | 0.830 | | .087 | .049 | .045 | | .053 | |
| 8-020 | 0.893 | | .087 | .049 | .045 | | .053 | |
| 8-021 | 0.955 | ↓ | .087 | .049 | .045 | | .053 | |
| 8-022 | 1.018 | .010 | .087 | .049 | .045 | | .053 | |
| 8-023 | 1.080 | .010 | .087 | .049 | .045 | | .053 | |
| 8-024 | 1.143 | ↓ | .087 | .049 | .045 | | .053 | |
| 8-025 | 1.205 | .011 | .087 | .049 | .045 | ↓ | .053 | ↓ |

| Dash No. | I.D. (in.) | Tol. ± | R ±.010 | T (Ref.) | A (in.) | Tol. ± | W (in.) | Tol. ± |
|----------|------------|--------|---------|----------|---------|--------|---------|--------|
| 8-026 | 1.268 | .011 | .087 | .049 | .045 | .003 | .053 | .003 |
| 8-027 | 1.330 | .011 | .087 | .049 | .045 | .003 | .053 | .003 |
| 8-028 | 1.393 | .013 | .087 | .049 | .045 | | .053 | |
| 8-029 | 1.518 | .013 | .087 | .049 | .045 | | .053 | |
| 8-030 | 1.643 | ↓ | .087 | .049 | .045 | | .053 | |
| 8-031 | 1.768 | .015 | .087 | .049 | .045 | | .053 | |
| 8-032 | 1.893 | .015 | .087 | .049 | .045 | | .053 | |
| 8-033 | 2.018 | .087 | .087 | .049 | .045 | | .053 | |
| 8-034 | 2.143 | .087 | .087 | .049 | .045 | | .053 | |
| 8-035 | 2.268 | ↓ | .087 | .049 | .045 | | .053 | |
| 8-036 | 2.393 | ↓ | .087 | .049 | .045 | | .053 | |
| 8-037 | 2.518 | ↓ | .087 | .049 | .045 | | .053 | |
| 8-038 | 2.643 | .020 | .087 | .049 | .045 | | .053 | |
| 8-039 | 2.768 | .020 | .087 | .049 | .045 | | .053 | |
| 8-040 | 2.893 | ↓ | .087 | .049 | .045 | | .053 | |
| 8-041 | 3.018 | .024 | .087 | .049 | .045 | | .053 | |
| 8-042 | 3.268 | .024 | .087 | .049 | .045 | | .053 | |
| 8-043 | 3.518 | ↓ | .087 | .049 | .045 | | .053 | |
| 8-044 | 3.768 | .027 | .087 | .049 | .045 | | .053 | |
| 8-045 | 4.018 | .027 | .087 | .049 | .045 | | .053 | |
| 8-046 | 4.268 | .030 | .087 | .049 | .045 | | .053 | |
| 8-047 | 4.518 | .030 | .087 | .049 | .045 | ↓ | .053 | ↓ |

Back-up Rings - NBR 90

O-RINGS



| Dash No. | I.D. (in.) | Tol. ± | R ±.010 | T (Ref.) | A (in.) | Tol. ± | W (in.) | Tol. ± |
|----------|------------|--------|---------|----------|---------|--------|---------|--------|
| 8-048 | 4.768 | 0.030 | .087 | .049 | .045 | .003 | .053 | .003 |
| 8-049 | 5.018 | .037 | .087 | .049 | .045 | | .053 | |
| 8-050 | 5.268 | | .087 | .049 | .045 | | .053 | |
| 8-102 | 0.077 | .005 | .129 | .053 | .045 | | .086 | |
| 8-103 | 0.109 | | .129 | .053 | .045 | | .086 | |
| 8-104 | 0.140 | | .129 | .053 | .045 | | .086 | |
| 8-105 | 0.171 | | .129 | .053 | .045 | | .086 | |
| 8-106 | 0.202 | | .129 | .053 | .045 | | .086 | |
| 8-107 | 0.234 | | .129 | .053 | .045 | | .086 | |
| 8-108 | 0.265 | | .129 | .053 | .045 | | .086 | |
| 8-109 | 0.327 | | .129 | .053 | .045 | | .086 | |
| 8-110 | 0.390 | | .129 | .053 | .045 | | .086 | |
| 8-111 | 0.452 | | .129 | .053 | .045 | | .086 | |
| 8-112 | 0.515 | ▼ | .129 | .053 | .045 | | .086 | |
| 8-113 | 0.577 | 0.007 | .129 | .053 | .045 | | .086 | |
| 8-114 | 0.64 | .009 | .129 | .053 | .045 | | .086 | |
| 8-115 | 0.702 | | .129 | .053 | .045 | | .086 | |
| 8-116 | 0.765 | ▼ | .129 | .053 | .045 | | .086 | |
| 8-117 | 0.831 | .010 | .129 | .053 | .045 | | .086 | |
| 8-118 | 0.893 | | .129 | .053 | .045 | | .086 | |
| 8-119 | 0.956 | | .129 | .053 | .045 | | .086 | |
| 8-120 | 1.018 | | .129 | .053 | .045 | | .086 | |
| 8-121 | 1.081 | | .129 | .053 | .045 | | .086 | |
| 8-122 | 1.143 | ▼ | .129 | .053 | .045 | | .086 | |
| 8-123 | 1.206 | .012 | .129 | .053 | .045 | | .086 | |
| 8-124 | 1.268 | | .129 | .053 | .045 | | .086 | |
| 8-125 | 1.331 | | .129 | .053 | .045 | | .086 | |
| 8-126 | 1.393 | | .129 | .053 | .045 | | .086 | |
| 8-127 | 1.456 | | .129 | .053 | .045 | | .086 | |
| 8-128 | 1.518 | ▼ | .129 | .053 | .045 | | .086 | |
| 8-129 | 1.581 | .015 | .129 | .053 | .045 | | .086 | |
| 8-130 | 1.643 | | .129 | .053 | .045 | | .086 | |
| 8-131 | 1.706 | | .129 | .053 | .045 | | .086 | |
| 8-132 | 1.768 | | .129 | .053 | .045 | | .086 | |
| 8-133 | 1.831 | | .129 | .053 | .045 | | .086 | |
| 8-134 | 1.893 | ▼ | .129 | .053 | .045 | | .086 | |
| 8-135 | 1.956 | .017 | .129 | .053 | .045 | | .086 | |
| 8-136 | 2.018 | | .129 | .053 | .045 | | .086 | |
| 8-137 | 2.081 | | .129 | .053 | .045 | | .086 | |
| 8-138 | 2.143 | | .129 | .053 | .045 | | .086 | |
| 8-139 | 2.206 | | .129 | .053 | .045 | | .086 | |
| 8-140 | 2.268 | ▼ | .129 | .053 | .045 | | .086 | |
| 8-141 | 2.331 | .020 | .129 | .053 | .045 | | .086 | |
| 8-142 | 2.393 | | .129 | .053 | .045 | | .086 | |
| 8-143 | 2.456 | | .129 | .053 | .045 | | .086 | |
| 8-144 | 2.518 | ▼ | .129 | .053 | .045 | ▼ | .086 | ▼ |

| Dash No. | I.D. (in.) | Tol. ± | R ±.010 | T (Ref.) | A (in.) | Tol. ± | W (in.) | Tol. ± |
|----------|------------|--------|---------|----------|---------|--------|---------|--------|
| 8-145 | 2.581 | .020 | .087 | .053 | .045 | .003 | .053 | .003 |
| 8-146 | 2.643 | | .087 | .053 | .045 | | .053 | |
| 8-147 | 2.706 | .022 | .087 | .053 | .045 | | .053 | |
| 8-148 | 2.768 | | .087 | .053 | .045 | | .053 | |
| 8-149 | 2.831 | | .087 | .053 | .045 | | .053 | |
| 8-150 | 2.893 | ▼ | .087 | .053 | .045 | | .053 | |
| 8-151 | 3.018 | .022 | .087 | .053 | .045 | | .053 | |
| 8-152 | 3.268 | | .087 | .053 | .045 | | .053 | |
| 8-153 | 3.518 | ▼ | .087 | .053 | .045 | | .053 | |
| 8-154 | 3.768 | .028 | .087 | .053 | .045 | | .053 | |
| 8-155 | 4.018 | | .087 | .053 | .045 | | .053 | |
| 8-156 | 4.268 | .030 | .087 | .053 | .045 | | .053 | |
| 8-157 | 4.518 | | .087 | .053 | .045 | | .053 | |
| 8-158 | 4.768 | ▼ | .087 | .053 | .045 | | .053 | |
| 8-159 | 5.018 | .030 | .087 | .053 | .045 | | .053 | |
| 8-160 | 5.268 | | .087 | .053 | .045 | | .053 | |
| 8-161 | 5.518 | | .087 | .053 | .045 | | .053 | |
| 8-162 | 5.768 | ▼ | .087 | .053 | .045 | | .053 | |
| 8-163 | 6.018 | 0.035 | .087 | .053 | .045 | | .053 | |
| 8-164 | 6.268 | .040 | .087 | .053 | .045 | | .053 | |
| 8-165 | 6.518 | | .087 | .053 | .045 | | .053 | |
| 8-166 | 6.768 | | .087 | .053 | .045 | | .053 | |
| 8-167 | 7.018 | ▼ | .087 | .053 | .045 | | .053 | |
| 8-168 | 7.268 | .045 | .087 | .053 | .045 | | .053 | |
| 8-169 | 7.518 | | .087 | .053 | .045 | | .053 | |
| 8-170 | 7.768 | | .087 | .053 | .045 | | .053 | |
| 8-171 | 8.018 | ▼ | .087 | .053 | .045 | | .053 | |
| 8-172 | 8.268 | .050 | .087 | .053 | .045 | | .053 | |
| 8-173 | 8.518 | | .087 | .053 | .045 | | .053 | |
| 8-174 | 8.768 | | .087 | .053 | .045 | | .053 | |
| 8-175 | 9.018 | ▼ | .087 | .053 | .045 | | .053 | |
| 8-176 | 9.268 | .055 | .087 | .053 | .045 | | .053 | |
| 8-177 | 9.518 | | .087 | .053 | .045 | | .053 | |
| 8-178 | 9.768 | ▼ | .129 | .053 | .045 | | .086 | ▼ |
| 8-201 | 0.202 | .005 | .174 | .050 | .040 | | .118 | .004 |
| 8-202 | 0.265 | | .174 | .050 | .040 | | .118 | |
| 8-203 | 0.327 | | .174 | .050 | .040 | | .118 | |
| 8-204 | 0.39 | | .174 | .050 | .040 | | .118 | |
| 8-205 | 0.455 | | .174 | .050 | .040 | | .118 | |
| 8-206 | 0.518 | ▼ | .174 | .050 | .040 | | .118 | |
| 8-207 | 0.58 | 0.007 | .174 | .050 | .040 | | .118 | |
| 8-208 | 0.643 | .009 | .174 | .050 | .040 | | .118 | |
| 8-209 | 0.705 | | .174 | .050 | .040 | | .118 | |
| 8-210 | 0.766 | .010 | .174 | .050 | .040 | | .118 | |
| 8-211 | 0.828 | | .174 | .050 | .040 | | .118 | |
| 8-212 | 0.891 | ▼ | .174 | .050 | .040 | ▼ | .118 | ▼ |

Back-up Rings - NBR 90

O-RINGS



| Dash No. | I.D. (in.) | Tol. ± | R ±.010 | T (Ref.) | A (in.) | Tol. ± | W (in.) | Tol. ± |
|----------|------------|--------|---------|----------|---------|--------|---------|--------|
| 8-213 | 0.953 | .010 | .174 | .050 | .040 | .003 | .118 | .004 |
| 8-214 | 1.016 | | .174 | .050 | .040 | | .118 | |
| 8-215 | 1.078 | ▼ | .174 | .050 | .040 | | .118 | |
| 8-216 | 1.141 | .012 | .174 | .050 | .040 | | .118 | |
| 8-217 | 1.203 | | .174 | .050 | .040 | .118 | | |
| 8-218 | 1.266 | | .174 | .050 | .040 | | .118 | |
| 8-219 | 1.334 | | .174 | .050 | .040 | | .118 | |
| 8-220 | 1.397 | | .174 | .050 | .040 | | .118 | |
| 8-221 | 1.459 | ▼ | .174 | .050 | .040 | | .118 | |
| 8-222 | 1.522 | .015 | .174 | .050 | .040 | | .118 | |
| 8-223 | 1.647 | | .174 | .050 | .040 | .118 | | |
| 8-224 | 1.772 | ▼ | .174 | .050 | .040 | | .118 | |
| 8-225 | 1.897 | .018 | .174 | .050 | .040 | | .118 | |
| 8-226 | 2.022 | | .174 | .050 | .040 | .118 | | |
| 8-227 | 2.147 | ▼ | .174 | .050 | .040 | | .118 | |
| 8-228 | 2.272 | .020 | .174 | .050 | .040 | | .118 | |
| 8-229 | 2.397 | | .174 | .050 | .040 | .118 | | |
| 8-230 | 2.522 | | .174 | .050 | .040 | | .118 | |
| 8-231 | 2.631 | ▼ | .174 | .050 | .040 | | .118 | |
| 8-232 | 2.756 | .024 | .174 | .050 | .040 | | .118 | |
| 8-233 | 2.881 | | .174 | .050 | .040 | .118 | | |
| 8-234 | 3.006 | | .174 | .050 | .040 | | .118 | |
| 8-235 | 3.131 | | .174 | .050 | .040 | | .118 | |
| 8-236 | 3.256 | | .174 | .050 | .040 | | .118 | |
| 8-237 | 3.381 | | .174 | .050 | .040 | | .118 | |
| 8-238 | 3.506 | ▼ | .174 | .050 | .040 | | .118 | |
| 8-239 | 3.631 | .028 | .174 | .050 | .040 | | .118 | |
| 8-240 | 3.756 | | .174 | .050 | .040 | .118 | | |
| 8-241 | 3.881 | | .174 | .050 | .040 | | .118 | |
| 8-242 | 4.006 | | .174 | .050 | .040 | | .118 | |
| 8-243 | 4.131 | ▼ | .174 | .050 | .040 | | .118 | |
| 8-244 | 4.256 | .030 | .174 | .050 | .040 | | .118 | |
| 8-245 | 4.381 | | .174 | .050 | .040 | .118 | | |
| 8-246 | 4.506 | | .174 | .050 | .040 | | .118 | |
| 8-247 | 4.631 | | .174 | .050 | .040 | | .118 | |
| 8-248 | 4.768 | ▼ | .174 | .050 | .040 | | .118 | |
| 8-249 | 4.893 | .035 | .174 | .050 | .040 | | .118 | |
| 8-250 | 5.018 | | .174 | .050 | .040 | .118 | | |
| 8-251 | 5.143 | | .174 | .050 | .040 | | .118 | |
| 8-252 | 5.268 | | .174 | .050 | .040 | | .118 | |
| 8-253 | 5.393 | | .174 | .050 | .040 | | .118 | |
| 8-254 | 5.518 | | .174 | .050 | .040 | | .118 | |
| 8-255 | 5.643 | | .174 | .050 | .040 | | .118 | |
| 8-256 | 5.768 | | .174 | .050 | .040 | | .118 | |
| 8-257 | 5.893 | | .174 | .050 | .040 | | .118 | |
| 8-258 | 6.018 | ▼ | .174 | .050 | .040 | ▼ | .118 | ▼ |

| Dash No. | I.D. (in.) | Tol. ± | R ±.010 | T (Ref.) | A (in.) | Tol. ± | W (in.) | Tol. ± |
|----------|------------|--------|---------|----------|---------|--------|---------|--------|
| 8-259 | 6.268 | .040 | .174 | .050 | .040 | .003 | .118 | .004 |
| 8-260 | 6.518 | | .174 | .050 | .040 | | .118 | |
| 8-261 | 6.768 | ▼ | .174 | .050 | .040 | | .118 | |
| 8-262 | 7.018 | ▼ | .174 | .050 | .040 | | .118 | |
| 8-263 | 7.268 | .045 | .174 | .050 | .040 | | .118 | |
| 8-264 | 7.518 | | .174 | .050 | .040 | .118 | | |
| 8-265 | 7.768 | | .174 | .050 | .040 | | .118 | |
| 8-266 | 8.018 | ▼ | .174 | .050 | .040 | | .118 | |
| 8-267 | 8.268 | .050 | .174 | .050 | .040 | | .118 | |
| 8-268 | 8.518 | | .174 | .050 | .040 | .118 | | |
| 8-269 | 8.768 | | .174 | .050 | .040 | | .118 | |
| 270 | 9.018 | ▼ | .174 | .050 | .040 | | .118 | |
| 271 | 9.268 | .055 | .174 | .050 | .040 | | .118 | |
| 272 | 9.518 | | .174 | .050 | .040 | .118 | | |
| 273 | 9.768 | | .174 | .050 | .040 | | .118 | |
| 274 | 10.018 | | .174 | .050 | .040 | | .118 | |
| 275 | 10.518 | ▼ | .174 | .050 | .040 | | .118 | |
| 276 | 11.018 | .065 | .174 | .050 | .040 | | .118 | |
| 277 | 11.518 | | .174 | .050 | .040 | .118 | | |
| 278 | 12.018 | | .174 | .050 | .040 | | .118 | |
| 279 | 13.018 | | .174 | .050 | .040 | | .118 | |
| 280 | 14.018 | | .174 | .050 | .040 | | .118 | |
| 281 | 15.018 | ▼ | .174 | .050 | .040 | | .118 | |
| 282 | 15.989 | .075 | .174 | .050 | .040 | | .118 | |
| 283 | 16.989 | .080 | .174 | .050 | .040 | ▼ | .118 | ▼ |
| 284 | 17.989 | .085 | .174 | .050 | .040 | .004 | .118 | .005 |
| 309 | 0.450 | .005 | .262 | .076 | .060 | | .183 | |
| 310 | 0.513 | | .262 | .076 | .060 | .183 | | |
| 311 | 0.575 | .007 | .262 | .076 | .060 | | .183 | |
| 312 | 0.638 | .009 | .262 | .076 | .060 | | .183 | |
| 313 | 0.700 | .009 | .262 | .076 | .060 | | .183 | |
| 314 | 0.763 | .010 | .262 | .076 | .060 | | .183 | |
| 315 | 0.825 | | .262 | .076 | .060 | .183 | | |
| 316 | 0.888 | | .262 | .076 | .060 | | .183 | |
| 317 | 0.950 | | .262 | .076 | .060 | | .183 | |
| 318 | 1.013 | | .262 | .076 | .060 | | .183 | |
| 319 | 1.075 | ▼ | .262 | .076 | .060 | | .183 | |
| 320 | 1.138 | .012 | .262 | .076 | .060 | | .183 | |
| 321 | 1.200 | | .262 | .076 | .060 | .183 | | |
| 322 | 1.263 | | .262 | .076 | .060 | | .183 | |
| 323 | 1.316 | | .262 | .076 | .060 | | .183 | |
| 324 | 1.388 | ▼ | .262 | .076 | .060 | | .183 | |
| 325 | 1.513 | .015 | .262 | .076 | .060 | | .183 | |
| 326 | 1.638 | | .262 | .076 | .060 | .183 | | |
| 327 | 1.763 | | .262 | .076 | .060 | | .183 | |
| 328 | 1.888 | ▼ | .262 | .076 | .060 | ▼ | .183 | ▼ |

Back-up Rings - NBR 90

| Dash No. | I.D. (in.) | Tol. ± | R ±.010 | T (Ref.) | A (in.) | Tol. ± | W (in.) | Tol. ± |
|----------|------------|--------|---------|----------|---------|--------|---------|--------|
| 329 | 2.013 | .018 | .262 | .076 | .060 | .004 | .183 | .005 |
| 8-330 | 2.138 | | .262 | .076 | .060 | | .183 | |
| 8-331 | 2.268 | | .262 | .076 | .060 | | .183 | |
| 8-332 | 2.393 | ▼ | .262 | .076 | .060 | | .183 | |
| 8-333 | 2.518 | .020 | .262 | .076 | .060 | | .183 | |
| 8-334 | 2.643 | | .262 | .076 | .060 | | .183 | |
| 8-335 | 2.768 | | .262 | .076 | .060 | | .183 | |
| 8-336 | 2.893 | ▼ | .262 | .076 | .060 | | .183 | |
| 8-337 | 3.018 | .024 | .262 | .076 | .060 | | .183 | |
| 8-338 | 3.143 | | .262 | .076 | .060 | | .183 | |
| 8-339 | 3.273 | | .262 | .076 | .060 | | .183 | |
| 8-340 | 3.398 | | .262 | .076 | .060 | | .183 | |
| 8-341 | 3.523 | ▼ | .262 | .076 | .060 | | .183 | |
| 8-342 | 3.648 | .028 | .262 | .076 | .060 | | .183 | |
| 8-343 | 3.773 | | .262 | .076 | .060 | | .183 | |
| 8-344 | 3.898 | | .262 | .076 | .060 | | .183 | |
| 8-345 | 4.028 | | .262 | .076 | .060 | | .183 | |
| 8-346 | 4.153 | ▼ | .262 | .076 | .060 | | .183 | |
| 8-347 | 4.278 | .030 | .262 | .076 | .060 | | .183 | |
| 8-348 | 4.403 | | .262 | .076 | .060 | | .183 | |
| 8-349 | 4.528 | | .262 | .076 | .060 | | .183 | |
| 8-350 | 4.653 | | .262 | .076 | .060 | | .183 | |
| 8-351 | 4.778 | | .262 | .076 | .060 | | .183 | |
| 8-352 | 4.903 | ▼ | .262 | .076 | .060 | | .183 | |
| 8-353 | 5.028 | .037 | .262 | .076 | .060 | | .183 | |
| 8-354 | 5.153 | | .262 | .076 | .060 | | .183 | |
| 8-355 | 5.278 | | .262 | .076 | .060 | | .183 | |
| 8-356 | 5.403 | | .262 | .076 | .060 | | .183 | |
| 8-357 | 5.528 | | .262 | .076 | .060 | | .183 | |
| 8-358 | 5.653 | | .262 | .076 | .060 | | .183 | |
| 8-359 | 5.778 | | .262 | .076 | .060 | | .183 | |
| 8-360 | 5.903 | | .262 | .076 | .060 | | .183 | |
| 8-361 | 6.028 | ▼ | .262 | .076 | .060 | | .183 | |
| 8-362 | 6.278 | .040 | .262 | .076 | .060 | | .183 | |
| 8-363 | 6.528 | | .262 | .076 | .060 | | .183 | |
| 8-364 | 6.778 | | .262 | .076 | .060 | | .183 | |
| 8-365 | 7.028 | ▼ | .262 | .076 | .060 | | .183 | |
| 8-366 | 7.278 | .045 | .262 | .076 | .060 | | .183 | |
| 8-367 | 7.528 | | .262 | .076 | .060 | | .183 | |
| 8-368 | 7.778 | | .262 | .076 | .060 | | .183 | |
| 8-369 | 8.028 | ▼ | .262 | .076 | .060 | | .183 | |
| 8-370 | 8.278 | .050 | .262 | .076 | .060 | | .183 | |
| 8-371 | 8.528 | | .262 | .076 | .060 | | .183 | |
| 8-372 | 8.778 | | .262 | .076 | .060 | | .183 | |
| 8-373 | 9.028 | ▼ | .262 | .076 | .060 | | .183 | |
| 8-374 | 9.278 | .055 | .262 | .076 | .060 | ▼ | .183 | ▼ |

| Dash No. | I.D. (in.) | Tol. ± | R ±.010 | T (Ref.) | A (in.) | Tol. ± | W (in.) | Tol. ± |
|----------|------------|--------|---------|----------|---------|--------|---------|--------|
| 8-375 | 9.528 | .018 | .262 | .076 | .060 | .003 | .183 | .003 |
| 8-376 | 9.778 | | .262 | .076 | .060 | | .183 | |
| 8-377 | 10.028 | ▼ | .262 | .076 | .060 | | .183 | |
| 8-378 | 10.528 | .060 | .262 | .076 | .060 | | .183 | |
| 8-379 | 11.028 | | .262 | .076 | .060 | | .183 | |
| 8-380 | 11.528 | .065 | .262 | .076 | .060 | | .183 | |
| 8-381 | 12.028 | | .262 | .076 | .060 | | .183 | |
| 8-382 | 13.028 | ▼ | .262 | .076 | .060 | | .183 | |
| 8-383 | 14.028 | .070 | .262 | .076 | .060 | | .183 | |
| 8-384 | 15.028 | | .262 | .076 | .060 | | .183 | |
| 8-385 | 16.008 | .075 | .262 | .076 | .060 | | .183 | |
| 8-386 | 17.008 | .080 | .262 | .076 | .060 | | .183 | |
| 8-387 | 18.008 | .085 | .262 | .076 | .060 | | .183 | |
| 8-388 | 19.006 | .090 | .262 | .076 | .060 | | .183 | |
| 8-389 | 20.006 | .095 | .262 | .076 | .060 | | .183 | |
| 8-390 | 21.006 | | .262 | .076 | .060 | | .183 | |
| 8-391 | 22.006 | .100 | .262 | .076 | .060 | | .183 | |
| 8-392 | 22.993 | .105 | .262 | .076 | .060 | | .183 | |
| 8-393 | 23.993 | .110 | .262 | .076 | .060 | | .183 | |
| 8-394 | 24.993 | .115 | .262 | .076 | .060 | | .183 | |
| 8-395 | 25.993 | .120 | .262 | .076 | .060 | ▼ | .183 | ▼ |
| 8-425 | 4.551 | .033 | .344 | .117 | .096 | .005 | .236 | .005 |
| 8-426 | 4.676 | | .344 | .117 | .096 | | .236 | |
| 8-427 | 4.801 | | .344 | .117 | .096 | | .236 | |
| 8-428 | 4.926 | ▼ | .344 | .117 | .096 | | .236 | |
| 8-429 | 5.051 | .037 | .344 | .117 | .096 | | .236 | |
| 8-430 | 5.176 | | .344 | .117 | .096 | | .236 | |
| 8-431 | 5.301 | | .344 | .117 | .096 | | .236 | |
| 8-432 | 5.426 | | .344 | .117 | .096 | | .236 | |
| 8-433 | 5.551 | | .344 | .117 | .096 | | .236 | |
| 8-434 | 5.676 | | .344 | .117 | .096 | | .236 | |
| 8-435 | 5.801 | | .344 | .117 | .096 | | .236 | |
| 8-436 | 5.926 | | .344 | .117 | .096 | | .236 | |
| 8-437 | 6.051 | ▼ | .344 | .117 | .096 | | .236 | |
| 8-438 | 6.274 | .040 | .344 | .117 | .096 | | .236 | |
| 8-439 | 6.524 | | .344 | .117 | .096 | | .236 | |
| 8-440 | 6.774 | | .344 | .117 | .096 | | .236 | |
| 8-441 | 7.024 | ▼ | .344 | .117 | .096 | | .236 | |
| 8-442 | 7.274 | .045 | .344 | .117 | .096 | | .236 | |
| 8-443 | 7.524 | | .344 | .117 | .096 | | .236 | |
| 8-444 | 7.774 | | .344 | .117 | .096 | | .236 | |
| 8-445 | 8.024 | ▼ | .344 | .117 | .096 | | .236 | |
| 8-446 | 8.524 | .055 | .344 | .117 | .096 | | .236 | |
| 8-447 | 9.024 | | .344 | .117 | .096 | | .236 | |
| 8-448 | 9.524 | | .344 | .117 | .096 | | .236 | |
| 8-449 | 10.024 | ▼ | .344 | .117 | .096 | ▼ | .236 | ▼ |

O-RINGS



Back-up Rings - NBR 90

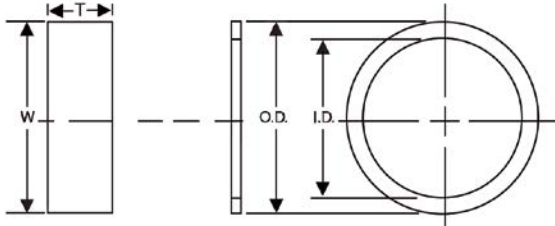
| Dash No. | I.D. (in.) | Tol. ± | R ±.010 | T (Ref.) | A (in.) | Tol. ± | W (in.) | Tol. ± |
|----------|------------|--------|---------|----------|---------|--------|---------|--------|
| 8-450 | 10.524 | .060 | .344 | .117 | .096 | .005 | .236 | .006 |
| 8-451 | 11.024 | | .344 | .117 | .096 | | .236 | |
| 8-452 | 11.524 | | .344 | .117 | .096 | | .236 | |
| 8-453 | 12.024 | | .344 | .117 | .096 | | .236 | |
| 8-454 | 12.524 | | .344 | .117 | .096 | | .236 | |
| 8-455 | 13.024 | ▼ | .344 | .117 | .096 | | .236 | |
| 8-456 | 13.524 | .070 | .344 | .117 | .096 | | .236 | |
| 8-457 | 14.024 | | .344 | .117 | .096 | | .236 | |
| 8-458 | 14.524 | | .344 | .117 | .096 | | .236 | |
| 8-459 | 15.024 | | .344 | .117 | .096 | | .236 | |
| 8-460 | 15.524 | ▼ | .344 | .117 | .096 | | .236 | |
| 8-461 | 16.004 | .075 | .344 | .117 | .096 | | .236 | |
| 8-462 | 16.504 | | .344 | .117 | .096 | ▼ | .236 | ▼ |

| Dash No. | I.D. (in.) | Tol. ± | R ±.010 | T (Ref.) | A (in.) | Tol. ± | W (in.) | Tol. ± |
|----------|------------|--------|---------|----------|---------|--------|---------|--------|
| 8-463 | 17.004 | 0.080 | .344 | .117 | .096 | .005 | .236 | .006 |
| 8-464 | 17.504 | .085 | .344 | .117 | .096 | | .236 | |
| 8-465 | 18.004 | ▼ | .344 | .117 | .096 | | .236 | |
| 8-466 | 18.504 | ▼ | .344 | .117 | .096 | | .236 | |
| 8-467 | 19.004 | .090 | .344 | .117 | .096 | | .236 | |
| 8-468 | 19.504 | | .344 | .117 | .096 | | .236 | |
| 8-469 | 20.004 | .095 | .344 | .117 | .096 | | .236 | |
| 8-470 | 21.004 | | .344 | .117 | .096 | | .236 | |
| 8-471 | 22.004 | 0.100 | .344 | .117 | .096 | | .236 | |
| 8-472 | 23.004 | 0.105 | .344 | .117 | .096 | | .236 | |
| 8-473 | 24.004 | 0.110 | .344 | .117 | .096 | | .236 | |
| 8-474 | 25.004 | 0.115 | .344 | .117 | .096 | | .236 | |
| 8-475 | 26.004 | 0.120 | .344 | .117 | .096 | ▼ | .236 | ▼ |

O'RINGS



Back-up Rings - Polyurethane - Inch



| Standard Material | Temperature Range | Surface Speed |
|--------------------|--------------------------------------|---------------------|
| Polyurethane /U | -60°F to +250°F (-51°C to +121°C) | < 1.6 ft/s (0.5m/s) |

Back-Up Rings are predominantly used in conjunction with **O'Rings** for both static and dynamic sealing applications. They prevent the **O'Ring** from extruding when it is subjected to high pressures, or when clearance gaps are excessive. Available in **95 Shore A Urethane** material, in a solid (endless) profile, easy to install

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Nominal Size | | Actual Dimensions | | | |
|-------------|--------------|--------|-------------------|----------|-------|----------|
| | ID | OD | T | Tol. +/- | W | Tol. +/- |
| 8-004 | 5/64 | 13/64 | 0.045 | .003 | 0.053 | .003 |
| 8-005 | 3/32 | 7/32 | 0.045 | | 0.053 | |
| 8-006 | 1/8 | 1/4 | 0.045 | | 0.053 | |
| 8-007 | 5/32 | 9/32 | 0.045 | | 0.053 | |
| 8-008 | 3/16 | 5/16 | 0.045 | | 0.053 | |
| 8-009 | 7/32 | 11/32 | 0.045 | | 0.053 | |
| 8-010 | 1/4 | 3/8 | 0.040 | | 0.053 | |
| 8-011 | 5/16 | 7/16 | 0.040 | | 0.053 | |
| 8-012 | 3/8 | 1/2 | 0.040 | | 0.053 | |
| 8-013 | 7/16 | 9/16 | 0.040 | | 0.053 | |
| 8-014 | 1/2 | 5/8 | 0.040 | | 0.053 | |
| 8-015 | 9/16 | 11/16 | 0.040 | | 0.053 | |
| 8-016 | 5/8 | 3/4 | 0.040 | | 0.053 | |
| 8-017 | 11/16 | 13/16 | 0.040 | | 0.053 | |
| 8-018 | 3/4 | 7/8 | 0.040 | | 0.053 | |
| 8-019 | 13/16 | 15/16 | 0.040 | | 0.053 | |
| 8-020 | 7/8 | 1 | 0.040 | | 0.053 | |
| 8-021 | 15/16 | 1 1/16 | 0.040 | | 0.053 | |
| 8-022 | 1 | 1 1/8 | 0.040 | | 0.053 | |
| 8-023 | 1 1/16 | 1 3/16 | 0.040 | | 0.053 | |
| 8-024 | 1 1/8 | 1 1/4 | 0.040 | | 0.053 | |
| 8-025 | 1 3/16 | 1 5/16 | 0.040 | ▼ | 0.053 | ▼ |

| Ref. Number | Nominal Size | | Actual Dimensions | | | |
|-------------|--------------|--------|-------------------|----------|-------|----------|
| | ID | OD | T | Tol. +/- | W | Tol. +/- |
| 8-026 | 1 1/4 | 1 3/8 | 0.040 | .003 | 0.053 | .003 |
| 8-027 | 1 5/16 | 1 7/16 | 0.040 | | 0.053 | |
| 8-028 | 1 3/8 | 1 1/2 | 0.040 | | 0.053 | |
| 8-029 | 1 1/2 | 1 5/8 | 0.040 | | 0.053 | |
| 8-030 | 1 5/8 | 1 3/4 | 0.040 | | 0.053 | |
| 8-031 | 1 3/4 | 1 7/8 | 0.040 | | 0.053 | |
| 8-032 | 1 7/8 | 2 | 0.040 | | 0.053 | |
| 8-033 | 2 | 2 1/8 | 0.040 | | 0.053 | |
| 8-034 | 2 1/8 | 2 1/4 | 0.040 | | 0.053 | |
| 8-035 | 2 1/4 | 2 3/8 | 0.040 | | 0.053 | |
| 8-036 | 2 3/8 | 2 1/2 | 0.040 | | 0.053 | |
| 8-037 | 2 1/2 | 2 5/8 | 0.040 | | 0.053 | |
| 8-038 | 2 5/8 | 2 3/4 | 0.040 | | 0.053 | |
| 8-039 | 2 3/4 | 2 7/8 | 0.040 | | 0.053 | |
| 8-040 | 2 7/8 | 3 | 0.040 | | 0.053 | |
| 8-041 | 3 | 3 1/8 | 0.040 | | 0.053 | |
| 8-042 | 3 1/4 | 3 3/8 | 0.040 | | 0.053 | |
| 8-043 | 3 1/2 | 3 5/8 | 0.040 | | 0.053 | |
| 8-044 | 3 3/4 | 3 7/8 | 0.040 | | 0.053 | |
| 8-045 | 4 | 4 1/8 | 0.040 | | 0.053 | |
| 8-046 | 4 1/4 | 4 3/8 | 0.040 | | 0.053 | |
| 8-047 | 4 1/2 | 4 5/8 | 0.040 | ▼ | 0.053 | ▼ |



Back-up Rings - AU

O'RINGS



| Ref. Number | Nominal Size | | Actual Dimensions | | | |
|-------------|--------------|---------|-------------------|----------|-------|----------|
| | ID | OD | T | Tol. +/- | W | Tol. +/- |
| 8-048 | 4 3/4 | 4 7/8 | 0.040 | .003 | 0.053 | .003 |
| 8-049 | 5 | 5 1/8 | 0.040 | | 0.053 | |
| 8-050 | 5 1/4 | 5 3/8 | 0.040 | | 0.053 | |
| 8-102 | 1/16 | 1/4 | 0.045 | | 0.053 | |
| 8-103 | 3/32 | 9/32 | 0.045 | | 0.053 | |
| 8-104 | 1/8 | 5/16 | 0.500 | | 0.053 | |
| 8-105 | 5/32 | 11/32 | 0.045 | | 0.053 | |
| 8-106 | 3/16 | 3/8 | 0.045 | | 0.053 | |
| 8-107 | 7/32 | 13/32 | 0.045 | | 0.053 | |
| 8-108 | 1/4 | 7/16 | 0.040 | | 0.053 | |
| 8-109 | 5/16 | 1/2 | 0.040 | | 0.053 | |
| 8-110 | 3/8 | 9/16 | 0.040 | | 0.053 | |
| 8-111 | 7/16 | 5/8 | 0.040 | | 0.086 | |
| 8-112 | 1/2 | 11/16 | 0.040 | | 0.086 | |
| 8-113 | 9/16 | 3/4 | 0.040 | | 0.086 | |
| 8-114 | 5/8 | 13/16 | 0.040 | | 0.086 | |
| 8-115 | 11/16 | 7/8 | 0.040 | | 0.086 | |
| 8-116 | 3/4 | 15/16 | 0.040 | | 0.086 | |
| 8-117 | 13/16 | 1 | 0.040 | | 0.086 | |
| 8-118 | 7/8 | 1 1/16 | 0.040 | | 0.086 | |
| 8-119 | 15/16 | 1 1/8 | 0.040 | | 0.086 | |
| 8-120 | 1 | 1 3/16 | 0.040 | | 0.086 | |
| 8-121 | 1 1/16 | 1 1/4 | 0.040 | | 0.086 | |
| 8-122 | 1 1/8 | 1 5/16 | 0.040 | | 0.086 | |
| 8-123 | 1 3/16 | 1 3/8 | 0.040 | | 0.086 | |
| 8-124 | 1 1/4 | 1 7/16 | 0.040 | | 0.086 | |
| 8-125 | 1 5/16 | 1 1/2 | 0.040 | | 0.086 | |
| 8-126 | 1 3/8 | 1 9/16 | 0.040 | | 0.086 | |
| 8-127 | 1 7/16 | 1 5/8 | 0.040 | | 0.086 | |
| 8-128 | 1 1/2 | 1 11/16 | 0.040 | | 0.086 | |
| 8-129 | 1 9/16 | 1 3/4 | 0.040 | | 0.086 | |
| 8-130 | 1 5/8 | 1 13/16 | 0.040 | | 0.086 | |
| 8-131 | 1 11/16 | 1 7/8 | 0.040 | | 0.086 | |
| 8-132 | 1 3/4 | 1 15/16 | 0.040 | | 0.086 | |
| 8-133 | 1 13/16 | 2 | 0.040 | | 0.086 | |
| 8-134 | 1 7/8 | 2 1/16 | 0.040 | | 0.086 | |
| 8-135 | 1 15/16 | 2 1/8 | 0.040 | | 0.086 | |
| 8-136 | 2 | 2 3/16 | 0.040 | | 0.086 | |
| 8-137 | 2 1/16 | 2 1/4 | 0.040 | | 0.086 | |
| 8-138 | 2 1/8 | 2 5/16 | 0.040 | | 0.086 | |
| 8-139 | 2 3/16 | 2 3/8 | 0.040 | | 0.086 | |
| 8-140 | 2 1/4 | 2 7/16 | 0.040 | | 0.086 | |
| 8-141 | 2 5/16 | 2 1/2 | 0.040 | | 0.086 | |
| 8-142 | 2 3/8 | 2 9/16 | 0.040 | | 0.086 | |
| 8-143 | 2 7/16 | 2 5/8 | 0.040 | | 0.086 | |
| 8-144 | 2 1/2 | 2 11/16 | 0.040 | ▼ | 0.086 | ▼ |

| Ref. Number | Nominal Size | | Actual Dimensions | | | |
|-------------|--------------|---------|-------------------|----------|-------|----------|
| | ID | OD | T | Tol. +/- | W | Tol. +/- |
| 8-145 | 2 9/16 | 2 3/4 | 0.040 | .003 | 0.086 | .003 |
| 8-146 | 2 5/8 | 2 13/16 | 0.040 | | 0.086 | |
| 8-147 | 2 11/16 | 2 7/8 | 0.040 | | 0.086 | |
| 8-148 | 2 3/4 | 2 15/16 | 0.040 | | 0.086 | |
| 8-149 | 2 13/16 | 3 | 0.040 | | 0.086 | |
| 8-150 | 2 7/8 | 3 1/16 | 0.040 | | 0.086 | |
| 8-151 | 3 | 3 3/16 | 0.040 | | 0.086 | |
| 8-152 | 3 1/4 | 3 7/16 | 0.040 | | 0.086 | |
| 8-153 | 3 1/2 | 3 11/16 | 0.040 | | 0.086 | |
| 8-154 | 3 3/4 | 3 15/16 | 0.040 | | 0.086 | |
| 8-155 | 4 | 4 3/16 | 0.040 | | 0.086 | |
| 8-156 | 4 1/4 | 4 7/16 | 0.040 | | 0.086 | |
| 8-157 | 4 1/2 | 4 11/16 | 0.040 | | 0.086 | |
| 8-158 | 4 3/4 | 4 15/16 | 0.040 | | 0.086 | |
| 8-159 | 5 | 5 3/16 | 0.040 | | 0.086 | |
| 8-160 | 5 1/4 | 5 7/16 | 0.040 | | 0.086 | |
| 8-161 | 5 1/2 | 5 11/16 | 0.040 | | 0.086 | |
| 8-162 | 5 3/4 | 5 15/16 | 0.040 | | 0.086 | |
| 8-163 | 6 | 6 3/16 | 0.040 | | 0.086 | |
| 8-164 | 6 1/4 | 6 7/16 | 0.040 | | 0.086 | |
| 8-165 | 6 1/2 | 6 11/16 | 0.040 | | 0.086 | |
| 8-166 | 6 3/4 | 6 15/16 | 0.040 | | 0.086 | |
| 8-167 | 7 | 7 3/16 | 0.040 | | 0.086 | |
| 8-168 | 7 1/4 | 7 7/16 | 0.040 | | 0.086 | |
| 8-169 | 7 1/2 | 7 11/16 | 0.040 | | 0.086 | |
| 8-170 | 7 3/4 | 7 15/16 | 0.040 | | 0.086 | |
| 8-171 | 8 | 8 3/16 | 0.040 | | 0.086 | |
| 8-172 | 8 1/4 | 8 7/16 | 0.040 | | 0.086 | |
| 8-173 | 8 1/2 | 8 11/16 | 0.040 | | 0.086 | |
| 8-174 | 8 3/4 | 8 15/16 | 0.040 | | 0.086 | |
| 8-175 | 9 | 9 3/16 | 0.040 | | 0.086 | |
| 8-176 | 9 1/4 | 9 7/16 | 0.040 | | 0.086 | |
| 8-177 | 9 1/2 | 9 11/16 | 0.040 | | 0.086 | |
| 8-178 | 9 3/4 | 9 15/16 | 0.040 | ▼ | 0.086 | ▼ |
| 8-201 | 3/16 | 7/16 | 0.040 | .003 | 0.118 | .004 |
| 8-202 | 1/4 | 1/2 | 0.040 | | 0.118 | |
| 8-203 | 5/16 | 9/16 | 0.040 | | 0.118 | |
| 8-204 | 3/8 | 5/8 | 0.040 | | 0.118 | |
| 8-205 | 7/16 | 11/16 | 0.040 | | 0.118 | |
| 8-206 | 1/2 | 3/4 | 0.040 | | 0.118 | |
| 8-207 | 9/16 | 13/16 | 0.040 | | 0.118 | |
| 8-208 | 5/8 | 7/8 | 0.040 | | 0.118 | |
| 8-209 | 11/16 | 15/16 | 0.040 | | 0.118 | |
| 8-210 | 3/4 | 1 | 0.040 | | 0.118 | |
| 8-211 | 13/16 | 1 1/16 | 0.040 | | 0.118 | |
| 8-212 | 7/8 | 1 1/8 | 0.040 | ▼ | 0.118 | ▼ |

Back-up Rings - AU

| Ref. Number | Nominal Size | | Actual Dimensions | | | |
|-------------|--------------|---------|-------------------|----------|-------|----------|
| | ID | OD | T | Tol. +/- | W | Tol. +/- |
| 8-213 | 15/16 | 1 3/16 | 0.040 | .003 | 0.118 | .003 |
| 8-214 | 1 | 1 1/4 | 0.040 | | 0.118 | |
| 8-215 | 1 1/16 | 1 5/16 | 0.040 | | 0.118 | |
| 8-216 | 1 1/8 | 1 3/8 | 0.040 | | 0.118 | |
| 8-217 | 1 3/16 | 1 7/16 | 0.040 | | 0.118 | |
| 8-218 | 1 1/4 | 1 1/2 | 0.040 | | 0.118 | |
| 8-219 | 1 5/16 | 1 9/16 | 0.040 | | 0.118 | |
| 8-220 | 1 3/8 | 1 5/8 | 0.040 | | 0.118 | |
| 8-221 | 1 7/16 | 1 11/16 | 0.040 | | 0.118 | |
| 8-222 | 1 1/2 | 1 3/4 | 0.040 | | 0.118 | |
| 8-223 | 1 5/8 | 1 7/8 | 0.040 | | 0.118 | |
| 8-224 | 1 3/4 | 2 | 0.040 | | 0.118 | |
| 8-225 | 1 7/8 | 2 1/8 | 0.040 | | 0.118 | |
| 8-226 | 2 | 2 1/4 | 0.040 | | 0.118 | |
| 8-227 | 2 1/8 | 2 3/8 | 0.040 | | 0.118 | |
| 8-228 | 2 1/4 | 2 1/2 | 0.040 | | 0.118 | |
| 8-229 | 2 3/8 | 2 5/8 | 0.040 | | 0.118 | |
| 8-230 | 2 1/2 | 2 3/4 | 0.040 | | 0.118 | |
| 8-231 | 2 5/8 | 2 7/8 | 0.040 | | 0.118 | |
| 8-232 | 2 3/4 | 3 | 0.040 | | 0.118 | |
| 8-233 | 2 7/8 | 3 1/8 | 0.040 | | 0.118 | |
| 8-234 | 3 | 3 1/4 | 0.040 | | 0.118 | |
| 8-235 | 3 1/8 | 3 3/8 | 0.040 | | 0.118 | |
| 8-236 | 3 1/4 | 3 1/2 | 0.040 | | 0.118 | |
| 8-237 | 3 3/8 | 3 5/8 | 0.040 | | 0.118 | |
| 8-238 | 3 1/2 | 3 3/4 | 0.040 | | 0.118 | |
| 8-239 | 3 5/8 | 3 7/8 | 0.040 | | 0.118 | |
| 8-240 | 3 3/4 | 4 | 0.040 | | 0.118 | |
| 8-241 | 3 7/8 | 4 1/8 | 0.040 | | 0.118 | |
| 8-242 | 4 | 4 1/4 | 0.040 | | 0.118 | |
| 8-243 | 4 1/8 | 4 3/8 | 0.040 | | 0.118 | |
| 8-244 | 4 1/4 | 4 1/2 | 0.040 | | 0.118 | |
| 8-245 | 4 3/8 | 4 5/8 | 0.040 | | 0.118 | |
| 8-246 | 4 1/2 | 4 3/4 | 0.040 | | 0.118 | |
| 8-247 | 4 5/8 | 4 7/8 | 0.040 | | 0.118 | |
| 8-248 | 4 3/4 | 5 | 0.040 | | 0.118 | |
| 8-249 | 4 7/8 | 5 1/8 | 0.040 | | 0.118 | |
| 8-250 | 5 | 5 1/4 | 0.040 | | 0.118 | |
| 8-251 | 5 1/8 | 5 3/8 | 0.040 | | 0.118 | |
| 8-252 | 5 1/4 | 5 1/2 | 0.040 | | 0.118 | |
| 8-253 | 5 3/8 | 5 5/8 | 0.040 | | 0.118 | |
| 8-254 | 5 1/2 | 5 3/4 | 0.040 | | 0.118 | |
| 8-255 | 5 5/8 | 5 7/8 | 0.040 | | 0.118 | |
| 8-256 | 5 3/4 | 6 | 0.040 | | 0.118 | |
| 8-257 | 5 7/8 | 6 1/8 | 0.040 | | 0.118 | |
| 8-258 | 6 | 6 1/4 | 0.040 | ▼ | 0.118 | ▼ |

| Ref. Number | Nominal Size | | Actual Dimensions | | | |
|-------------|--------------|---------|-------------------|----------|-------|----------|
| | ID | OD | T | Tol. +/- | W | Tol. +/- |
| 8-259 | 6 1/4 | 6 1/2 | 0.040 | .003 | 0.118 | .003 |
| 8-260 | 6 1/2 | 6 3/4 | 0.040 | | 0.118 | |
| 8-261 | 6 3/4 | 7 | 0.040 | | 0.118 | |
| 8-262 | 7 | 7 1/4 | 0.040 | | 0.118 | |
| 8-263 | 7 1/4 | 7 1/2 | 0.040 | | 0.118 | |
| 8-264 | 7 1/2 | 7 3/4 | 0.040 | | 0.118 | |
| 8-265 | 7 3/4 | 8 | 0.040 | | 0.118 | |
| 8-266 | 8 | 8 1/4 | 0.040 | | 0.118 | |
| 8-267 | 8 1/4 | 8 1/2 | 0.040 | | 0.118 | |
| 8-268 | 8 1/2 | 8 3/4 | 0.040 | | 0.118 | |
| 8-269 | 8 3/4 | 9 | 0.040 | | 0.118 | |
| 8-270 | 9 | 9 1/4 | 0.040 | | 0.118 | |
| 8-271 | 9 1/4 | 9 1/2 | 0.040 | | 0.118 | |
| 8-272 | 9 1/2 | 9 3/4 | 0.040 | | 0.118 | |
| 8-273 | 9 3/4 | 10 | 0.040 | | 0.118 | |
| 8-274 | 10 | 10 1/4 | 0.040 | | 0.118 | |
| 8-275 | 10 1/2 | 10 3/4 | 0.040 | | 0.118 | |
| 8-276 | 11 | 11 1/4 | 0.040 | | 0.118 | |
| 8-277 | 11 1/2 | 11 3/4 | 0.040 | | 0.118 | |
| 8-278 | 12 | 12 1/4 | 0.040 | | 0.118 | |
| 8-279 | 13 | 13 1/4 | 0.040 | | 0.118 | |
| 8-280 | 14 | 14 1/4 | 0.040 | | 0.118 | |
| 8-281 | 15 | 15 1/4 | 0.040 | | 0.118 | |
| 8-282 | 16 | 16 1/4 | 0.040 | | 0.118 | |
| 8-283 | 17 | 17 1/4 | 0.040 | | 0.118 | |
| 8-284 | 18 | 18 1/4 | 0.040 | ▼ | 0.118 | ▼ |
| 8-309 | 7/16 | 13/16 | 0.055 | .004 | 0.183 | .005 |
| 8-310 | 1/2 | 7/8 | 0.055 | | 0.183 | |
| 8-311 | 9/16 | 15/16 | 0.055 | | 0.183 | |
| 8-312 | 5/8 | 1 | 0.055 | | 0.183 | |
| 8-313 | 11/16 | 1 1/16 | 0.055 | | 0.183 | |
| 8-314 | 3/4 | 1 1/8 | 0.055 | | 0.183 | |
| 8-315 | 13/16 | 1 3/16 | 0.055 | | 0.183 | |
| 8-316 | 7/8 | 1 1/4 | 0.055 | | 0.183 | |
| 8-317 | 15/16 | 1 5/16 | 0.055 | | 0.183 | |
| 8-318 | 1 | 1 3/8 | 0.055 | | 0.183 | |
| 8-319 | 1 1/16 | 1 7/16 | 0.055 | | 0.183 | |
| 8-320 | 1 1/8 | 1 1/2 | 0.055 | | 0.183 | |
| 8-321 | 1 3/16 | 1 9/16 | 0.055 | | 0.183 | |
| 8-322 | 1 1/4 | 1 5/8 | 0.055 | | 0.183 | |
| 8-323 | 1 5/16 | 1 11/16 | 0.055 | | 0.183 | |
| 8-324 | 1 3/8 | 1 3/4 | 0.055 | | 0.183 | |
| 8-325 | 1 1/2 | 1 7/8 | 0.055 | | 0.183 | |
| 8-326 | 1 5/8 | 2 | 0.055 | | 0.183 | |
| 8-327 | 1 3/4 | 2 1/8 | 0.055 | | 0.183 | |
| 8-328 | 1 7/8 | 2 1/4 | 0.055 | ▼ | 0.183 | ▼ |

O'RINGS



Back-up Rings - AU

O'RINGS



| Ref. Number | Nominal Size | | Actual Dimensions | | | |
|-------------|--------------|-------|-------------------|----------|-------|----------|
| | ID | OD | T | Tol. +/- | W | Tol. +/- |
| 8-329 | 2 | 2 3/8 | 0.055 | .004 | 0.183 | .005 |
| 8-330 | 2 1/8 | 2 1/2 | 0.055 | | 0.183 | |
| 8-331 | 2 1/4 | 2 5/8 | 0.055 | | 0.183 | |
| 8-332 | 2 3/8 | 2 3/4 | 0.055 | | 0.183 | |
| 8-333 | 2 1/2 | 2 7/8 | 0.055 | | 0.183 | |
| 8-334 | 2 5/8 | 3 | 0.055 | | 0.183 | |
| 8-335 | 2 3/4 | 3 1/8 | 0.055 | | 0.183 | |
| 8-336 | 2 7/8 | 3 1/4 | 0.055 | | 0.183 | |
| 8-337 | 3 | 3 3/8 | 0.055 | | 0.183 | |
| 8-338 | 3 1/8 | 3 1/2 | 0.055 | | 0.183 | |
| 8-339 | 3 1/4 | 3 5/8 | 0.055 | | 0.183 | |
| 8-340 | 3 3/8 | 3 3/4 | 0.055 | | 0.183 | |
| 8-341 | 3 1/2 | 3 7/8 | 0.055 | | 0.183 | |
| 8-342 | 3 5/8 | 4 | 0.055 | | 0.183 | |
| 8-343 | 3 3/4 | 4 1/8 | 0.055 | | 0.183 | |
| 8-344 | 3 7/8 | 4 1/4 | 0.055 | | 0.183 | |
| 8-345 | 4 | 4 3/8 | 0.055 | | 0.183 | |
| 8-346 | 4 1/8 | 4 1/2 | 0.055 | | 0.183 | |
| 8-347 | 4 1/4 | 4 5/8 | 0.055 | | 0.183 | |
| 8-348 | 4 3/8 | 4 3/4 | 0.055 | | 0.183 | |
| 8-349 | 4 1/2 | 4 7/8 | 0.055 | | 0.183 | |
| 8-350 | 4 5/8 | 5 | 0.055 | | 0.183 | |
| 8-351 | 4 3/4 | 5 1/8 | 0.055 | | 0.183 | |
| 8-352 | 4 7/8 | 5 1/4 | 0.055 | | 0.183 | |
| 8-353 | 5 | 5 3/8 | 0.055 | | 0.183 | |
| 8-354 | 5 1/8 | 5 1/2 | 0.055 | | 0.183 | |
| 8-355 | 5 1/4 | 5 5/8 | 0.055 | | 0.183 | |
| 8-356 | 5 3/8 | 5 3/4 | 0.055 | | 0.183 | |
| 8-357 | 5 1/2 | 5 7/8 | 0.055 | | 0.183 | |
| 8-358 | 5 5/8 | 6 | 0.055 | | 0.183 | |
| 8-359 | 5 3/4 | 6 1/8 | 0.055 | | 0.183 | |
| 8-360 | 5 7/8 | 6 1/4 | 0.055 | | 0.183 | |
| 8-361 | 6 | 6 3/8 | 0.055 | | 0.183 | |
| 8-362 | 6 1/4 | 6 5/8 | 0.055 | | 0.183 | |
| 8-363 | 6 1/2 | 6 7/8 | 0.055 | | 0.183 | |
| 8-364 | 6 3/4 | 7 1/8 | 0.055 | | 0.183 | |
| 8-365 | 7 | 7 3/8 | 0.055 | | 0.183 | |
| 8-366 | 7 1/4 | 7 5/8 | 0.055 | | 0.183 | |
| 8-367 | 7 1/2 | 7 7/8 | 0.055 | | 0.183 | |
| 8-368 | 7 3/4 | 8 1/8 | 0.055 | | 0.183 | |
| 8-369 | 8 | 8 3/8 | 0.055 | | 0.183 | |
| 8-370 | 8 1/4 | 8 5/8 | 0.055 | | 0.183 | |
| 8-371 | 8 1/2 | 8 7/8 | 0.055 | | 0.183 | |
| 8-372 | 8 3/4 | 9 1/8 | 0.055 | | 0.183 | |
| 8-373 | 9 | 9 3/8 | 0.055 | | 0.183 | |
| 8-374 | 9 1/4 | 9 5/8 | 0.055 | ▼ | 0.183 | ▼ |

| Ref. Number | Nominal Size | | Actual Dimensions | | | |
|-------------|--------------|--------|-------------------|----------|-------|----------|
| | ID | OD | T | Tol. +/- | W | Tol. +/- |
| 8-375 | 9 1/2 | 9 7/8 | 0.055 | .004 | 0.183 | .005 |
| 8-376 | 9 3/4 | 10 1/8 | 0.055 | | 0.183 | |
| 8-377 | 10 | 10 3/8 | 0.055 | | 0.183 | |
| 8-378 | 10 1/2 | 10 7/8 | 0.055 | | 0.183 | |
| 8-379 | 11 | 11 3/8 | 0.055 | | 0.183 | |
| 8-380 | 11 1/2 | 11 7/8 | 0.055 | | 0.183 | |
| 8-381 | 12 | 12 3/8 | 0.055 | | 0.183 | |
| 8-382 | 13 | 13 3/8 | 0.055 | | 0.183 | |
| 8-383 | 14 | 14 3/8 | 0.055 | | 0.183 | |
| 8-384 | 15 | 15 3/8 | 0.055 | | 0.183 | |
| 8-385 | 16 | 16 3/8 | 0.055 | | 0.183 | |
| 8-386 | 17 | 17 3/8 | 0.055 | | 0.183 | |
| 8-387 | 18 | 18 3/8 | 0.055 | | 0.183 | |
| 8-388 | 19 | 19 3/8 | 0.055 | | 0.183 | |
| 8-389 | 20 | 20 3/8 | 0.055 | | 0.183 | |
| 8-390 | 21 | 21 3/8 | 0.055 | | 0.183 | |
| 8-391 | 22 | 22 3/8 | 0.055 | | 0.183 | |
| 8-392 | 23 | 23 3/8 | 0.055 | | 0.183 | |
| 8-393 | 24 | 24 3/8 | 0.055 | | 0.183 | |
| 8-394 | 25 | 25 3/8 | 0.055 | | 0.183 | |
| 8-395 | 26 | 26 3/8 | 0.055 | ▼ | 0.183 | ▼ |
| 8-400 | 1 3/8 | 1 7/8 | 0.085 | .005 | 0.236 | .006 |
| 8-401 | 1 1/2 | 2 | 0.085 | | 0.236 | |
| 8-402 | 1 5/8 | 2 1/8 | 0.085 | | 0.236 | |
| 8-403 | 1 3/4 | 2 1/4 | 0.085 | | 0.236 | |
| 8-404 | 1 7/8 | 2 3/8 | 0.085 | | 0.236 | |
| 8-405 | 2 | 2 1/2 | 0.085 | | 0.236 | |
| 8-406 | 2 1/8 | 2 5/8 | 0.085 | | 0.236 | |
| 8-407 | 2 1/4 | 2 3/4 | 0.085 | | 0.236 | |
| 8-408 | 2 3/8 | 2 7/8 | 0.085 | | 0.236 | |
| 8-409 | 2 1/2 | 3 | 0.085 | | 0.236 | |
| 8-410 | 2 5/8 | 3 1/8 | 0.085 | | 0.236 | |
| 8-411 | 2 3/4 | 3 1/4 | 0.085 | | 0.236 | |
| 8-412 | 2 7/8 | 3 3/8 | 0.085 | | 0.236 | |
| 8-413 | 3 | 3 1/2 | 0.085 | | 0.236 | |
| 8-414 | 3 1/8 | 3 5/8 | 0.085 | | 0.236 | |
| 8-415 | 3 1/4 | 3 3/4 | 0.085 | | 0.236 | |
| 8-416 | 3 3/8 | 3 7/8 | 0.085 | | 0.236 | |
| 8-417 | 3 1/2 | 4 | 0.085 | | 0.236 | |
| 8-418 | 3 5/8 | 4 1/8 | 0.085 | | 0.236 | |
| 8-419 | 3 3/4 | 4 1/4 | 0.085 | | 0.236 | |
| 8-420 | 3 7/8 | 4 3/8 | 0.085 | | 0.236 | |
| 8-421 | 4 | 4 1/2 | 0.085 | | 0.236 | |
| 8-422 | 4 1/8 | 4 5/8 | 0.085 | | 0.236 | |
| 8-423 | 4 1/4 | 4 3/4 | 0.085 | | 0.236 | |
| 8-424 | 4 3/8 | 4 7/8 | 0.085 | ▼ | 0.236 | ▼ |

Back-up Rings - AU

| Ref. Number | Nominal Size | | Actual Dimensions | | | |
|-------------|--------------|--------|-------------------|----------|-------|----------|
| | ID | OD | T | Tol. +/- | W | Tol. +/- |
| 8-425 | 4 1/2 | 5 | 0.085 | .005 | 0.236 | .006 |
| 8-426 | 4 5/8 | 5 1/8 | 0.085 | | 0.236 | |
| 8-427 | 4 3/4 | 5 1/4 | 0.085 | | 0.236 | |
| 8-428 | 4 7/8 | 5 3/8 | 0.085 | | 0.236 | |
| 8-429 | 5 | 5 1/2 | 0.085 | | 0.236 | |
| 8-430 | 5 1/8 | 5 5/8 | 0.085 | | 0.236 | |
| 8-431 | 5 1/4 | 5 3/4 | 0.085 | | 0.236 | |
| 8-432 | 5 3/8 | 5 7/8 | 0.085 | | 0.236 | |
| 8-433 | 5 1/2 | 6 | 0.085 | | 0.236 | |
| 8-434 | 5 5/8 | 6 1/8 | 0.085 | | 0.236 | |
| 8-435 | 5 3/4 | 6 1/4 | 0.085 | | 0.236 | |
| 8-436 | 5 7/8 | 6 3/8 | 0.085 | | 0.236 | |
| 8-437 | 6 | 6 1/2 | 0.085 | | 0.236 | |
| 8-438 | 6 1/4 | 6 3/4 | 0.085 | | 0.236 | |
| 8-439 | 6 1/2 | 7 | 0.085 | | 0.236 | |
| 8-440 | 6 3/4 | 7 1/4 | 0.085 | | 0.236 | |
| 8-441 | 7 | 7 1/2 | 0.085 | | 0.236 | |
| 8-442 | 7 1/4 | 7 3/4 | 0.085 | | 0.236 | |
| 8-443 | 7 1/2 | 8 | 0.085 | | 0.236 | |
| 8-444 | 7 3/4 | 8 1/4 | 0.085 | | 0.236 | |
| 8-445 | 8 | 8 1/2 | 0.085 | | 0.236 | |
| 8-446 | 8 1/2 | 9 | 0.085 | | 0.236 | |
| 8-447 | 9 | 9 1/2 | 0.085 | | 0.236 | |
| 8-448 | 9 1/2 | 10 | 0.085 | | 0.236 | |
| 8-449 | 10 | 10 1/2 | 0.085 | | 0.236 | |
| 8-450 | 10 1/2 | 11 | 0.085 | ▼ | 0.236 | ▼ |

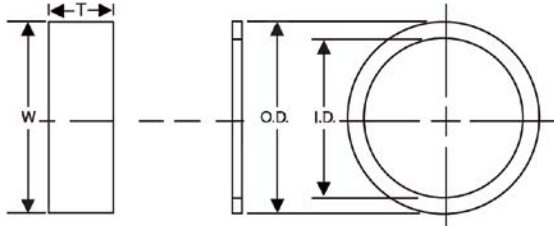
| Ref. Number | Nominal Size | | Actual Dimensions | | | |
|-------------|--------------|--------|-------------------|----------|-------|----------|
| | ID | OD | T | Tol. +/- | W | Tol. +/- |
| 8-451 | 11 | 11 1/2 | 0.085 | .005 | 0.236 | .006 |
| 8-452 | 11 1/2 | 12 | 0.085 | | 0.236 | |
| 8-453 | 12 | 12 1/2 | 0.085 | | 0.236 | |
| 8-454 | 12 1/2 | 13 | 0.085 | | 0.236 | |
| 8-455 | 13 | 13 1/2 | 0.085 | | 0.236 | |
| 8-456 | 13 1/2 | 14 | 0.085 | | 0.236 | |
| 8-457 | 14 | 14 1/2 | 0.085 | | 0.236 | |
| 8-458 | 14 1/2 | 15 | 0.085 | | 0.236 | |
| 8-459 | 15 | 15 1/2 | 0.085 | | 0.236 | |
| 8-460 | 15 1/2 | 16 | 0.085 | | 0.236 | |
| 8-461 | 16 | 16 1/2 | 0.085 | | 0.236 | |
| 8-462 | 16 1/2 | 17 | 0.085 | | 0.236 | |
| 8-463 | 17 | 17 1/2 | 0.085 | | 0.236 | |
| 8-464 | 17 1/2 | 18 | 0.085 | | 0.236 | |
| 8-465 | 18 | 18 1/2 | 0.085 | | 0.236 | |
| 8-466 | 18 1/2 | 19 | 0.085 | | 0.236 | |
| 8-467 | 19 | 19 1/2 | 0.085 | | 0.236 | |
| 8-468 | 19 1/2 | 20 | 0.085 | | 0.236 | |
| 8-469 | 20 | 20 1/2 | 0.085 | | 0.236 | |
| 8-470 | 21 | 21 1/2 | 0.085 | | 0.236 | |
| 8-471 | 22 | 22 1/2 | 0.085 | | 0.236 | |
| 8-472 | 23 | 23 1/2 | 0.085 | | 0.236 | |
| 8-473 | 24 | 24 1/2 | 0.085 | | 0.236 | |
| 8-474 | 25 | 25 1/2 | 0.085 | | 0.236 | |
| 8-475 | 26 | 26 1/2 | 0.085 | ▼ | 0.236 | ▼ |



O'RINGS



Back-up Rings - PTFE SOLID MS27595 - Inch



| Standard Material | Temperature Range | Surface Speed |
|-------------------|---------------------------------------|---------------------|
| V.PTFE SD/T | 320°F to +450°F (-196°C to +232°C) | < 1.6 ft/s (0.5m/s) |

Back-Up Rings are predominantly used in conjunction with **O'Rings** for both static and dynamic sealing applications. They prevent the **O'Ring** from extruding when it is subjected to high pressures, or when clearance gaps are excessive. Available in virgin **PTFE**, may require re-sizing if stretched to install.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

O'RINGS



| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|--------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-001 | 1/32 | 3/32 | 0.041 | .003 | 0.030 | .002 | 0.040 | .002 |
| 8-002 | 3/64 | 9/64 | 0.054 | | 0.040 | | 0.045 | |
| 8-003 | 1/16 | 3/16 | 0.068 | ↓ | 0.047 | ↓ | 0.045 | |
| 8-004 | 5/64 | 13/64 | 0.080 | .001 | 0.055 | .001 | 0.050 | |
| 8-005 | 3/32 | 7/32 | 0.111 | | 0.055 | | 0.050 | |
| 8-006 | 1/8 | 1/4 | 0.125 | | 0.055 | | 0.050 | |
| 8-007 | 5/32 | 9/32 | 0.156 | | 0.055 | | 0.050 | |
| 8-008 | 3/16 | 5/16 | 0.187 | | 0.055 | | 0.050 | |
| 8-009 | 7/32 | 11/32 | 0.219 | | 0.055 | | 0.050 | |
| 8-010 | 1/4 | 3/8 | 0.250 | | 0.055 | | 0.050 | |
| 8-011 | 5/16 | 7/16 | 0.312 | | 0.055 | | 0.050 | |
| 8-012 | 3/8 | 1/2 | 0.375 | | 0.055 | | 0.050 | |
| 8-013 | 7/16 | 9/16 | 0.440 | | 0.055 | | 0.050 | |
| 8-014 | 1/2 | 5/8 | 0.503 | | 0.055 | | 0.050 | |
| 8-015 | 9/16 | 11/16 | 0.565 | | 0.055 | | 0.050 | |
| 8-016 | 5/8 | 3/4 | 0.628 | | 0.055 | | 0.050 | |
| 8-017 | 11/16 | 13/16 | 0.690 | | 0.055 | | 0.050 | |
| 8-018 | 3/4 | 7/8 | 0.753 | | 0.055 | | 0.050 | |
| 8-019 | 13/16 | 15/16 | 0.815 | | 0.055 | | 0.050 | |
| 8-020 | 7/8 | 1 | 0.881 | ↓ | 0.055 | | 0.050 | |
| 8-021 | 15/16 | 1 1/16 | 0.943 | .002 | 0.055 | | 0.050 | |
| 8-022 | 1 | 1 1/8 | 1.006 | | 0.055 | ↓ | 0.050 | ↓ |

| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|--------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-023 | 1 1/16 | 1 3/16 | 1.068 | .002 | 0.055 | .001 | 0.050 | .002 |
| 8-024 | 1 1/8 | 1 1/4 | 1.131 | | 0.055 | | 0.050 | |
| 8-025 | 1 3/16 | 1 5/16 | 1.193 | | 0.055 | | 0.050 | |
| 8-026 | 1 1/4 | 1 3/8 | 1.256 | | 0.055 | | 0.050 | |
| 8-027 | 1 5/16 | 1 7/16 | 1.318 | | 0.055 | | 0.050 | |
| 8-028 | 1 3/8 | 1 1/2 | 1.381 | ↓ | 0.055 | ↓ | 0.050 | |
| 8-029 | 1 1/2 | 1 5/8 | 1.508 | .003 | 0.055 | .002 | 0.050 | |
| 8-030 | 1 5/8 | 1 3/4 | 1.633 | | 0.055 | | 0.050 | |
| 8-031 | 1 3/4 | 1 7/8 | 1.758 | | 0.055 | | 0.050 | |
| 8-032 | 1 7/8 | 2 | 1.883 | | 0.055 | | 0.050 | |
| 8-033 | 2 | 2 1/8 | 2.088 | | 0.055 | | 0.050 | |
| 8-034 | 2 1/8 | 2 1/4 | 2.133 | | 0.055 | | 0.050 | |
| 8-035 | 2 1/4 | 2 3/8 | 2.258 | | 0.055 | | 0.050 | |
| 8-036 | 2 3/8 | 2 1/2 | 2.383 | | 0.055 | | 0.050 | |
| 8-037 | 2 1/2 | 2 5/8 | 2.508 | | 0.055 | | 0.050 | |
| 8-038 | 2 5/8 | 2 3/4 | 2.633 | | 0.055 | | 0.050 | |
| 8-039 | 2 3/4 | 2 7/8 | 2.758 | | 0.055 | | 0.050 | |
| 8-040 | 2 7/8 | 3 | 2.883 | | 0.055 | | 0.050 | |
| 8-041 | 3 | 3 1/8 | 3.008 | | 0.055 | | 0.050 | |
| 8-042 | 3 1/4 | 3 3/8 | 3.258 | | 0.055 | | 0.050 | |
| 8-043 | 3 1/2 | 3 5/8 | 3.508 | | 0.055 | | 0.050 | |
| 8-044 | 3 3/4 | 3 7/8 | 3.758 | ↓ | 0.055 | ↓ | 0.050 | ↓ |

Back-up Rings PTFE SOLID MS27595

| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|---------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-045 | 4 | 4 1/8 | 4.008 | .003 | 0.055 | .002 | 0.050 | .002 |
| 8-046 | 4 1/4 | 4 3/8 | 4.258 | | 0.055 | | 0.050 | |
| 8-047 | 4 1/2 | 4 5/8 | 4.508 | | 0.055 | | 0.050 | |
| 8-048 | 4 3/4 | 4 7/8 | 4.758 | | 0.055 | | 0.050 | |
| 8-049 | 5 | 5 1/8 | 5.008 | | 0.055 | | 0.050 | |
| 8-050 | 5 1/4 | 5 3/8 | 5.258 | | 0.055 | | 0.050 | |
| 8-102 | 1/16 | 1/4 | 0.063 | | 0.088 | | 0.050 | |
| 8-103 | 3/32 | 9/32 | 0.095 | | 0.088 | | 0.050 | |
| 8-104 | 1/8 | 5/16 | 0.126 | | 0.088 | | 0.050 | |
| 8-105 | 5/32 | 11/32 | 0.157 | | 0.088 | | 0.050 | |
| 8-106 | 3/16 | 3/8 | 0.188 | | 0.088 | | 0.050 | |
| 8-107 | 7/32 | 13/32 | 0.220 | | 0.088 | | 0.050 | |
| 8-108 | 1/4 | 7/16 | 0.251 | | 0.088 | | 0.050 | |
| 8-109 | 5/16 | 1/2 | 0.313 | | 0.088 | | 0.050 | |
| 8-110 | 3/8 | 9/16 | 0.374 | .001 | 0.088 | .001 | 0.050 | |
| 8-111 | 7/16 | 5/8 | 0.437 | | 0.088 | | 0.050 | |
| 8-112 | 1/2 | 11/16 | 0.499 | | 0.088 | | 0.050 | |
| 8-113 | 9/16 | 3/4 | 0.562 | | 0.088 | | 0.050 | |
| 8-114 | 5/8 | 13/16 | 0.624 | | 0.088 | | 0.050 | |
| 8-115 | 11/16 | 7/8 | 0.687 | | 0.088 | | 0.050 | |
| 8-116 | 3/4 | 15/16 | 0.749 | | 0.088 | | 0.050 | |
| 8-117 | 13/16 | 1 | 0.815 | | 0.088 | | 0.050 | |
| 8-118 | 7/8 | 1 1/16 | 0.877 | | 0.088 | | 0.050 | |
| 8-119 | 15/16 | 1 1/8 | 0.940 | | 0.088 | | 0.050 | |
| 8-120 | 1 | 1 3/16 | 1.002 | | 0.088 | | 0.050 | |
| 8-121 | 1 1/16 | 1 1/4 | 1.065 | .002 | 0.088 | | 0.050 | |
| 8-122 | 1 1/8 | 1 5/16 | 1.127 | | 0.088 | | 0.050 | |
| 8-123 | 1 3/16 | 1 3/8 | 1.190 | | 0.088 | | 0.050 | |
| 8-124 | 1 1/4 | 1 7/16 | 1.252 | | 0.088 | | 0.050 | |
| 8-125 | 1 5/16 | 1 1/2 | 1.315 | | 0.088 | | 0.050 | |
| 8-126 | 1 3/8 | 1 9/16 | 1.377 | | 0.088 | | 0.050 | |
| 8-127 | 1 7/16 | 1 5/8 | 1.440 | | 0.088 | | 0.050 | |
| 8-128 | 1 1/2 | 1 11/16 | 1.502 | | 0.088 | | 0.050 | |
| 8-129 | 1 9/16 | 1 3/4 | 1.565 | | 0.088 | | 0.050 | |
| 8-130 | 1 5/8 | 1 13/16 | 1.629 | | 0.088 | | 0.050 | |
| 8-131 | 1 11/16 | 1 7/8 | 1.691 | | 0.088 | | 0.050 | |
| 8-132 | 1 3/4 | 1 15/16 | 1.754 | | 0.088 | | 0.050 | |
| 8-133 | 1 13/16 | 2 | 1.816 | | 0.088 | | 0.050 | |
| 8-134 | 1 7/8 | 2 1/16 | 1.879 | | 0.088 | | 0.050 | |
| 8-135 | 1 15/16 | 2 1/8 | 1.942 | | 0.088 | | 0.050 | |
| 8-136 | 2 | 2 3/16 | 2.004 | | 0.088 | | 0.050 | |
| 8-137 | 2 1/16 | 2 1/4 | 2.067 | | 0.088 | | 0.050 | |
| 8-138 | 2 1/8 | 2 5/16 | 2.129 | | 0.088 | | 0.050 | |
| 8-139 | 2 3/16 | 2 3/8 | 2.192 | | 0.088 | | 0.050 | |
| 8-140 | 2 1/4 | 2 7/16 | 2.254 | | 0.088 | | 0.050 | |
| 8-141 | 2 5/16 | 2 1/2 | 2.317 | | 0.088 | | 0.050 | |

| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|---------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-142 | 2 3/8 | 2 9/16 | 2.379 | .002 | 0.088 | .001 | 0.050 | .003 |
| 8-143 | 2 7/16 | 2 5/8 | 2.442 | | 0.088 | | 0.050 | |
| 8-144 | 2 1/2 | 2 11/16 | 2.504 | | 0.088 | | 0.050 | |
| 8-145 | 2 9/16 | 2 3/4 | 2.567 | | 0.088 | | 0.050 | |
| 8-146 | 2 5/8 | 2 13/16 | 2.629 | | 0.088 | | 0.050 | |
| 8-147 | 2 11/16 | 2 7/8 | 2.692 | | 0.088 | | 0.050 | |
| 8-148 | 2 3/4 | 2 15/16 | 2.754 | | 0.088 | | 0.050 | |
| 8-149 | 2 13/16 | 3 | 2.817 | | 0.088 | | 0.050 | |
| 8-150 | 2 7/8 | 3 1/16 | 2.881 | .003 | 0.088 | .002 | 0.050 | |
| 8-151 | 3 | 3 3/16 | 3.006 | | 0.088 | | 0.050 | |
| 8-152 | 3 1/4 | 3 7/16 | 3.256 | | 0.088 | | 0.050 | |
| 8-153 | 3 1/2 | 3 11/16 | 3.506 | | 0.088 | | 0.050 | |
| 8-154 | 3 3/4 | 3 15/16 | 3.756 | | 0.088 | | 0.050 | |
| 8-155 | 4 | 4 3/16 | 4.006 | | 0.088 | | 0.050 | |
| 8-156 | 4 1/4 | 4 7/16 | 4.256 | | 0.088 | | 0.050 | |
| 8-157 | 4 1/2 | 4 11/16 | 4.506 | | 0.088 | | 0.050 | |
| 8-158 | 4 3/4 | 4 15/16 | 4.756 | | 0.088 | | 0.050 | |
| 8-159 | 5 | 5 3/16 | 5.006 | | 0.088 | | 0.050 | |
| 8-160 | 5 1/4 | 5 7/16 | 5.256 | | 0.088 | | 0.050 | |
| 8-161 | 5 1/2 | 5 11/16 | 5.506 | | 0.088 | | 0.050 | |
| 8-162 | 5 3/4 | 5 15/16 | 5.756 | | 0.088 | | 0.050 | |
| 8-163 | 6 | 6 3/16 | 6.006 | | 0.088 | | 0.050 | |
| 8-164 | 6 1/4 | 6 7/16 | 6.256 | | 0.088 | | 0.050 | |
| 8-165 | 6 1/2 | 6 11/16 | 6.506 | | 0.088 | | 0.050 | |
| 8-166 | 6 3/4 | 6 15/16 | 6.756 | | 0.088 | | 0.050 | |
| 8-167 | 7 | 7 3/16 | 7.006 | | 0.088 | | 0.050 | |
| 8-168 | 7 1/4 | 7 7/16 | 7.256 | | 0.088 | | 0.050 | |
| 8-169 | 7 1/2 | 7 11/16 | 7.506 | | 0.088 | | 0.050 | |
| 8-170 | 7 3/4 | 7 15/16 | 7.756 | | 0.088 | | 0.050 | |
| 8-171 | 8 | 8 3/16 | 8.006 | | 0.088 | | 0.050 | |
| 8-172 | 8 1/4 | 8 7/16 | 8.256 | .005 | 0.088 | | 0.050 | |
| 8-173 | 8 1/2 | 8 11/16 | 8.506 | | 0.088 | | 0.050 | |
| 8-174 | 8 3/4 | 8 15/16 | 8.756 | | 0.088 | | 0.050 | |
| 8-175 | 9 | 9 3/16 | 9.006 | | 0.088 | | 0.050 | |
| 8-176 | 9 1/4 | 9 7/16 | 9.256 | | 0.088 | | 0.050 | |
| 8-177 | 9 1/2 | 9 11/16 | 9.506 | | 0.088 | | 0.050 | |
| 8-178 | 9 3/4 | 9 15/16 | 9.756 | | 0.088 | | 0.050 | |
| 8-201 | 3/16 | 7/16 | 0.193 | .003 | 0.119 | | 0.050 | |
| 8-202 | 1/4 | 1/2 | 0.255 | | 0.119 | | 0.050 | |
| 8-203 | 5/16 | 9/16 | 0.318 | | 0.119 | | 0.050 | |
| 8-204 | 3/8 | 5/8 | 0.380 | | 0.119 | | 0.050 | |
| 8-205 | 7/16 | 11/16 | 0.443 | | 0.119 | | 0.050 | |
| 8-206 | 1/2 | 3/4 | 0.505 | | 0.119 | | 0.050 | |
| 8-207 | 9/16 | 13/16 | 0.568 | | 0.119 | | 0.050 | |
| 8-208 | 5/8 | 7/8 | 0.630 | | 0.119 | | 0.050 | |
| 8-209 | 11/16 | 15/16 | 0.693 | | 0.119 | | 0.050 | |

O-RINGS



Back-up Rings - PTFE SOLID MS27595

O'RINGS



| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|---------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-210 | 3/4 | 1 | 0.753 | .001 | 0.119 | .001 | 0.050 | .002 |
| 8-211 | 13/16 | 1 1/16 | 0.815 | | 0.119 | | 0.050 | |
| 8-212 | 7/8 | 1 1/8 | 0.878 | | 0.119 | | 0.050 | |
| 8-213 | 15/16 | 1 3/16 | 0.940 | ▼ | 0.119 | | 0.050 | |
| 8-214 | 1 | 1 1/4 | 1.003 | .002 | 0.119 | | 0.050 | |
| 8-215 | 1 1/16 | 1 5/16 | 1.065 | | 0.119 | | 0.050 | |
| 8-216 | 1 1/8 | 1 3/8 | 1.128 | | 0.119 | | 0.050 | |
| 8-217 | 1 3/16 | 1 7/16 | 1.190 | | 0.119 | | 0.050 | |
| 8-218 | 1 1/4 | 1 1/2 | 1.253 | | 0.119 | | 0.050 | |
| 8-219 | 1 5/16 | 1 9/16 | 1.315 | | 0.119 | | 0.050 | |
| 8-220 | 1 3/8 | 1 5/8 | 1.378 | | 0.119 | | 0.050 | |
| 8-221 | 1 7/16 | 1 11/16 | 1.440 | | 0.119 | | 0.050 | |
| 8-222 | 1 1/2 | 1 3/4 | 1.503 | | 0.119 | | 0.050 | |
| 8-223 | 1 5/8 | 1 7/8 | 1.629 | | 0.119 | | 0.050 | |
| 8-224 | 1 3/4 | 2 | 1.754 | | 0.119 | | 0.050 | |
| 8-225 | 1 7/8 | 2 1/8 | 1.880 | | 0.119 | | 0.050 | |
| 8-226 | 2 | 2 1/4 | 2.005 | | 0.119 | | 0.050 | |
| 8-227 | 2 1/8 | 2 3/8 | 2.130 | | 0.119 | | 0.050 | |
| 8-228 | 2 1/4 | 2 1/2 | 2.255 | | 0.119 | | 0.050 | |
| 8-229 | 2 3/8 | 2 5/8 | 2.380 | | 0.119 | | 0.050 | |
| 8-230 | 2 1/2 | 2 3/4 | 2.505 | | 0.119 | | 0.050 | |
| 8-231 | 2 5/8 | 2 7/8 | 2.630 | | 0.119 | | 0.050 | |
| 8-232 | 2 3/4 | 3 | 2.755 | | 0.119 | | 0.050 | |
| 8-233 | 2 7/8 | 3 1/8 | 2.880 | | 0.119 | | 0.050 | |
| 8-234 | 3 | 3 1/4 | 3.005 | | 0.119 | | 0.050 | |
| 8-235 | 3 1/8 | 3 3/8 | 3.130 | | 0.119 | | 0.050 | |
| 8-236 | 3 1/4 | 3 1/2 | 3.255 | | 0.119 | | 0.050 | |
| 8-237 | 3 3/8 | 3 5/8 | 3.380 | | 0.119 | | 0.050 | |
| 8-238 | 3 1/2 | 3 3/4 | 3.505 | | 0.119 | | 0.050 | |
| 8-239 | 3 5/8 | 3 7/8 | 3.630 | | 0.119 | | 0.050 | |
| 8-240 | 3 3/4 | 4 | 3.755 | | 0.119 | | 0.050 | |
| 8-241 | 3 7/8 | 4 1/8 | 3.880 | | 0.119 | | 0.050 | |
| 8-242 | 4 | 4 1/4 | 4.005 | | 0.119 | | 0.050 | |
| 8-243 | 4 1/8 | 4 3/8 | 4.130 | | 0.119 | | 0.050 | |
| 8-244 | 4 1/4 | 4 1/2 | 4.255 | | 0.119 | | 0.050 | |
| 8-245 | 4 3/8 | 4 5/8 | 4.380 | | 0.119 | | 0.050 | |
| 8-246 | 4 1/2 | 4 3/4 | 4.505 | | 0.119 | | 0.050 | |
| 8-247 | 4 5/8 | 4 7/8 | 4.630 | ▼ | 0.119 | ▼ | 0.050 | ▼ |
| 8-248 | 4 3/4 | 5 | 4.757 | .003 | 0.119 | .001 | 0.050 | +.002 |
| 8-249 | 4 7/8 | 5 1/8 | 4.882 | | 0.119 | | 0.050 | -.005 |
| 8-250 | 5 | 5 1/4 | 5.007 | | 0.119 | | 0.050 | |
| 8-251 | 5 1/8 | 5 3/8 | 5.132 | | 0.119 | | 0.050 | |
| 8-252 | 5 1/4 | 5 1/2 | 5.257 | | 0.119 | | 0.050 | |
| 8-253 | 5 3/8 | 5 5/8 | 5.382 | | 0.119 | | 0.050 | |
| 8-254 | 5 1/2 | 5 3/4 | 5.507 | | 0.119 | | 0.050 | |
| 8-255 | 5 5/8 | 5 7/8 | 5.632 | ▼ | 0.119 | ▼ | 0.050 | ▼ |

| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|---------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-256 | 5 3/4 | 6 | 5.757 | .003 | 0.119 | .002 | 0.050 | +.002 |
| 8-257 | 5 7/8 | 6 1/8 | 5.882 | | 0.119 | | 0.050 | -.005 |
| 8-258 | 6 | 6 1/4 | 6.007 | | 0.119 | | 0.050 | |
| 8-259 | 6 1/4 | 6 1/2 | 6.257 | | 0.119 | | 0.050 | |
| 8-260 | 6 1/2 | 6 3/4 | 6.507 | | 0.119 | | 0.050 | |
| 8-261 | 6 3/4 | 7 | 6.757 | | 0.119 | | 0.050 | |
| 8-262 | 7 | 7 1/4 | 7.007 | | 0.119 | | 0.050 | |
| 8-263 | 7 1/4 | 7 1/2 | 7.257 | | 0.119 | | 0.050 | |
| 8-264 | 7 1/2 | 7 3/4 | 7.507 | | 0.119 | | 0.050 | |
| 8-265 | 7 3/4 | 8 | 7.757 | | 0.119 | | 0.050 | |
| 8-266 | 8 | 8 1/4 | 8.007 | ▼ | 0.119 | | 0.050 | |
| 8-267 | 8 1/4 | 8 1/2 | 8.257 | .005 | 0.119 | | 0.050 | |
| 8-268 | 8 1/2 | 8 3/4 | 8.507 | | 0.119 | | 0.050 | |
| 8-269 | 8 3/4 | 9 | 8.757 | | 0.119 | | 0.050 | |
| 8-270 | 9 | 9 1/4 | 9.007 | | 0.119 | | 0.050 | |
| 8-271 | 9 1/4 | 9 1/2 | 9.257 | | 0.119 | | 0.050 | |
| 8-272 | 9 1/2 | 9 3/4 | 9.507 | | 0.119 | | 0.050 | |
| 8-273 | 9 3/4 | 10 | 9.757 | | 0.119 | | 0.050 | |
| 8-274 | 10 | 10 1/4 | 10.007 | | 0.119 | | 0.050 | |
| 8-275 | 10 1/2 | 10 3/4 | 10.507 | | 0.119 | | 0.050 | |
| 8-276 | 11 | 11 1/4 | 11.007 | | 0.119 | | 0.050 | |
| 8-277 | 11 1/2 | 11 3/4 | 11.507 | | 0.119 | | 0.050 | |
| 8-278 | 12 | 12 1/4 | 12.007 | | 0.119 | | 0.050 | |
| 8-279 | 13 | 13 1/4 | 13.007 | | 0.119 | | 0.050 | |
| 8-280 | 14 | 14 1/4 | 14.007 | | 0.119 | | 0.050 | |
| 8-281 | 15 | 15 1/4 | 15.007 | | 0.119 | | 0.050 | |
| 8-282 | 16 | 16 1/4 | 16.007 | | 0.119 | | 0.050 | |
| 8-283 | 17 | 17 1/4 | 17.007 | | 0.119 | | 0.050 | |
| 8-284 | 18 | 18 1/4 | 18.007 | ▼ | 0.119 | | 0.050 | ▼ |
| 8-309 | 7/16 | 13/16 | 0.437 | .003 | 0.185 | | 0.073 | .002 |
| 8-310 | 1/2 | 7/8 | 0.499 | | 0.185 | | 0.073 | |
| 8-311 | 9/16 | 15/16 | 0.562 | | 0.185 | | 0.073 | |
| 8-312 | 5/8 | 1 | 0.624 | | 0.185 | | 0.073 | |
| 8-313 | 11/16 | 1 1/16 | 0.687 | | 0.185 | | 0.073 | |
| 8-314 | 3/4 | 1 1/8 | 0.749 | | 0.185 | | 0.073 | |
| 8-315 | 13/16 | 1 3/16 | 0.812 | | 0.185 | | 0.073 | |
| 8-316 | 7/8 | 1 1/4 | 0.874 | | 0.185 | | 0.073 | |
| 8-317 | 15/16 | 1 5/16 | 0.937 | | 0.185 | | 0.073 | |
| 8-318 | 1 | 1 3/8 | 0.999 | | 0.185 | | 0.073 | |
| 8-319 | 1 1/16 | 1 7/16 | 1.062 | | 0.185 | | 0.073 | |
| 8-320 | 1 1/8 | 1 1/2 | 1.124 | | 0.185 | | 0.073 | |
| 8-321 | 1 3/16 | 1 9/16 | 1.187 | | 0.185 | | 0.073 | |
| 8-322 | 1 1/4 | 1 5/8 | 1.249 | | 0.185 | | 0.073 | |
| 8-323 | 1 5/16 | 1 11/16 | 1.312 | | 0.185 | | 0.073 | |
| 8-324 | 1 3/8 | 1 3/4 | 1.374 | ▼ | 0.185 | ▼ | 0.073 | ▼ |
| 8-325 | 1 1/2 | 1 7/8 | 1.497 | .002 | 0.185 | .001 | 0.073 | ▼ |

Back-up Rings - PTFE SOLID MS27595



| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|-------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-326 | 1 5/8 | 2 | 1.622 | | 0.185 | | 0.073 | |
| 8-327 | 1 3/4 | 2 1/8 | 1.748 | .002 | 0.185 | .001 | 0.073 | .002 |
| 8-328 | 1 7/8 | 2 1/4 | 1.873 | | 0.185 | | 0.073 | |
| 8-329 | 2 | 2 3/8 | 1.998 | | 0.185 | | 0.073 | |
| 8-330 | 2 1/8 | 2 1/2 | 2.123 | | 0.185 | | 0.073 | |
| 8-331 | 2 1/4 | 2 5/8 | 2.248 | | 0.185 | | 0.073 | |
| 8-332 | 2 3/8 | 2 3/4 | 2.373 | | 0.185 | | 0.073 | |
| 8-333 | 2 1/2 | 2 7/8 | 2.498 | | 0.185 | | 0.073 | |
| 8-334 | 2 5/8 | 3 | 2.623 | | 0.185 | | 0.073 | |
| 8-335 | 2 3/4 | 3 1/8 | 2.748 | | 0.185 | | 0.073 | |
| 8-336 | 2 7/8 | 3 1/4 | 2.873 | | 0.185 | | 0.073 | |
| 8-337 | 3 | 3 3/8 | 2.998 | | 0.185 | | 0.073 | |
| 8-338 | 3 1/8 | 3 1/2 | 3.123 | | 0.185 | | 0.073 | |
| 8-339 | 3 1/4 | 3 5/8 | 3.248 | | 0.185 | | 0.073 | |
| 8-340 | 3 3/8 | 3 3/4 | 3.373 | | 0.185 | | 0.073 | |
| 8-341 | 3 1/2 | 3 7/8 | 3.498 | | 0.185 | | 0.073 | |
| 8-342 | 3 5/8 | 4 | 3.623 | | 0.185 | | 0.073 | |
| 8-343 | 3 3/4 | 4 1/8 | 3.748 | | 0.185 | | 0.073 | |
| 8-344 | 3 7/8 | 4 1/4 | 3.873 | | 0.185 | | 0.073 | |
| 8-345 | 4 | 4 3/8 | 3.998 | | 0.185 | | 0.073 | |
| 8-346 | 4 1/8 | 4 1/2 | 4.123 | | 0.185 | | 0.073 | |
| 8-347 | 4 1/4 | 4 5/8 | 4.248 | | 0.185 | | 0.073 | |
| 8-348 | 4 3/8 | 4 3/4 | 4.373 | | 0.185 | | 0.073 | |
| 8-349 | 4 1/2 | 4 7/8 | 4.498 | | 0.185 | | 0.073 | |
| 8-350 | 4 5/8 | 5 | 4.625 | | 0.185 | | 0.073 | |
| 8-351 | 4 3/4 | 5 1/8 | 4.750 | .003 | 0.185 | .002 | 0.073 | |
| 8-352 | 4 7/8 | 5 1/4 | 4.875 | | 0.185 | | 0.073 | |
| 8-353 | 5 | 5 3/8 | 5.000 | | 0.185 | | 0.073 | |
| 8-354 | 5 1/8 | 5 1/2 | 5.125 | | 0.185 | | 0.073 | |
| 8-355 | 5 1/4 | 5 5/8 | 5.250 | | 0.185 | | 0.073 | |
| 8-356 | 5 3/8 | 5 3/4 | 5.375 | | 0.185 | | 0.073 | |
| 8-357 | 5 1/2 | 5 7/8 | 5.500 | | 0.185 | | 0.073 | |
| 8-358 | 5 5/8 | 6 | 5.625 | | 0.185 | | 0.073 | |
| 8-359 | 5 3/4 | 6 1/8 | 5.750 | | 0.185 | | 0.073 | |
| 8-360 | 5 7/8 | 6 1/4 | 5.875 | | 0.185 | | 0.073 | |
| 8-361 | 6 | 6 3/8 | 6.000 | | 0.185 | | 0.073 | |
| 8-362 | 6 1/4 | 6 5/8 | 6.250 | | 0.185 | | 0.073 | |
| 8-363 | 6 1/2 | 6 7/8 | 6.500 | | 0.185 | | 0.073 | |
| 8-364 | 6 3/4 | 7 1/8 | 6.750 | | 0.185 | | 0.073 | |
| 8-365 | 7 | 7 3/8 | 7.000 | | 0.185 | | 0.073 | |
| 8-366 | 7 1/4 | 7 5/8 | 7.250 | | 0.185 | | 0.073 | |
| 8-367 | 7 1/2 | 7 7/8 | 7.500 | | 0.185 | | 0.073 | |
| 8-368 | 7 3/4 | 8 1/8 | 7.750 | | 0.185 | | 0.073 | |
| 8-369 | 8 | 8 3/8 | 8.000 | | 0.185 | | 0.073 | |
| 8-370 | 8 1/4 | 8 5/8 | 8.251 | | 0.185 | | 0.073 | |
| 8-371 | 8 1/2 | 8 7/8 | 8.501 | .005 | | | | |

| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|--------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-372 | 8 3/4 | 9 1/8 | 8.751 | | 0.185 | | 0.073 | |
| 8-373 | 9 | 9 3/8 | 9.001 | .005 | 0.185 | .002 | 0.073 | .002 |
| 8-374 | 9 1/4 | 9 5/8 | 9.251 | | 0.185 | | 0.073 | |
| 8-375 | 9 1/2 | 9 7/8 | 9.501 | | 0.185 | | 0.073 | |
| 8-376 | 9 3/4 | 10 1/8 | 9.751 | | 0.185 | | 0.073 | |
| 8-377 | 10 | 10 3/8 | 10.001 | | 0.185 | | 0.073 | |
| 8-378 | 10 1/2 | 10 7/8 | 10.251 | | 0.185 | | 0.073 | |
| 8-379 | 11 | 11 3/8 | 10.501 | | 0.185 | | 0.073 | |
| 8-380 | 11 1/2 | 11 7/8 | 10.751 | | 0.185 | | 0.073 | |
| 8-381 | 12 | 12 3/8 | 11.001 | | 0.185 | | 0.073 | |
| 8-382 | 13 | 13 3/8 | 11.251 | | 0.185 | | 0.073 | |
| 8-383 | 14 | 14 3/8 | 11.501 | | 0.185 | | 0.073 | |
| 8-384 | 15 | 15 3/8 | 11.751 | | 0.185 | | 0.073 | |
| 8-385 | 16 | 16 3/8 | 12.001 | | 0.185 | | 0.073 | |
| 8-386 | 17 | 17 3/8 | 12.251 | | 0.185 | | 0.073 | |
| 8-387 | 18 | 18 3/8 | 12.501 | | 0.185 | | 0.073 | |
| 8-388 | 19 | 19 3/8 | 12.751 | | 0.185 | | 0.073 | |
| 8-389 | 20 | 20 3/8 | 13.001 | | 0.185 | | 0.073 | |
| 8-390 | 21 | 21 3/8 | 13.251 | | 0.185 | | 0.073 | |
| 8-391 | 22 | 22 3/8 | 13.501 | | 0.185 | | 0.073 | |
| 8-392 | 23 | 23 3/8 | 13.751 | | 0.185 | | 0.073 | |
| 8-393 | 24 | 24 3/8 | 14.001 | | 0.185 | | 0.073 | |
| 8-394 | 25 | 25 3/8 | 14.251 | | 0.185 | | 0.073 | |
| 8-395 | 26 | 26 3/8 | 14.501 | | 0.185 | | 0.073 | |
| 8-400 | 1 3/8 | 1 7/8 | 1.379 | | 0.236 | | 0.108 | |
| 8-401 | 1 1/2 | 2 | 1.504 | .003 | 0.236 | | 0.108 | |
| 8-402 | 1 5/8 | 2 1/8 | 1.629 | | 0.236 | | 0.108 | |
| 8-403 | 1 3/4 | 2 1/4 | 1.754 | | 0.236 | | 0.108 | |
| 8-404 | 1 7/8 | 2 3/8 | 1.879 | | 0.236 | | 0.108 | |
| 8-405 | 2 | 2 1/2 | 2.004 | | 0.236 | | 0.108 | |
| 8-406 | 2 1/8 | 2 5/8 | 2.129 | | 0.236 | | 0.108 | |
| 8-407 | 2 1/4 | 2 3/4 | 2.254 | | 0.236 | | 0.108 | |
| 8-408 | 2 3/8 | 2 7/8 | 2.379 | | 0.236 | | 0.108 | |
| 8-409 | 2 1/2 | 3 | 2.504 | | 0.236 | | 0.108 | |
| 8-410 | 2 5/8 | 3 1/8 | 2.629 | | 0.236 | | 0.108 | |
| 8-411 | 2 3/4 | 3 1/4 | 2.754 | | 0.236 | | 0.108 | |
| 8-412 | 2 7/8 | 3 3/8 | 2.879 | | 0.236 | | 0.108 | |
| 8-413 | 3 | 3 1/2 | 3.004 | | 0.236 | | 0.108 | |
| 8-414 | 3 1/8 | 3 5/8 | 3.129 | | 0.236 | | 0.108 | |
| 8-415 | 3 1/4 | 3 3/4 | 3.254 | | 0.236 | | 0.108 | |
| 8-416 | 3 3/8 | 3 7/8 | 3.379 | | 0.236 | | 0.108 | |
| 8-417 | 3 1/2 | 4 | 3.504 | | 0.236 | | 0.108 | |
| 8-418 | 3 5/8 | 4 1/8 | 3.629 | | 0.236 | | 0.108 | |
| 8-419 | 3 3/4 | 4 1/4 | 3.754 | | 0.236 | | 0.108 | |
| 8-420 | 3 7/8 | 4 3/8 | 3.879 | | 0.236 | | 0.108 | |
| 8-421 | 4 | 4 1/2 | 4.004 | | 0.236 | | 0.108 | |

Back-up Rings - PTFE SOLID MS27595

O'RINGS

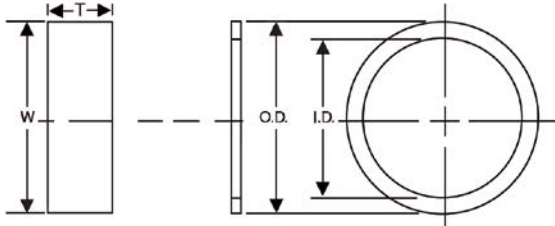


| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|-------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-422 | 4 1/8 | 4 5/8 | 4.129 | .003 | 0.236 | .002 | 0.108 | .002 |
| 8-423 | 4 1/4 | 4 3/4 | 4.254 | .003 | 0.236 | .002 | 0.108 | .002 |
| 8-424 | 4 3/8 | 4 7/8 | 4.379 | ↓ | 0.236 | ↓ | 0.108 | |
| 8-425 | 4 1/2 | 5 | 4.502 | .002 | 0.236 | .001 | 0.108 | |
| 8-426 | 4 5/8 | 5 1/8 | 4.627 | .002 | 0.236 | .001 | 0.108 | |
| 8-427 | 4 3/4 | 5 1/4 | 4.752 | | 0.236 | | 0.108 | |
| 8-428 | 4 7/8 | 5 3/8 | 4.877 | | 0.236 | | 0.108 | |
| 8-429 | 5 | 5 1/2 | 5.002 | | 0.236 | | 0.108 | |
| 8-430 | 5 1/8 | 5 5/8 | 5.127 | | 0.236 | | 0.108 | |
| 8-431 | 5 1/4 | 5 3/4 | 5.252 | | 0.236 | | 0.108 | |
| 8-432 | 5 3/8 | 5 7/8 | 5.377 | | 0.236 | | 0.108 | |
| 8-433 | 5 1/2 | 6 | 5.502 | | 0.236 | | 0.108 | |
| 8-434 | 5 5/8 | 6 1/8 | 5.627 | | 0.236 | | 0.108 | |
| 8-435 | 5 3/4 | 6 1/4 | 5.752 | | 0.236 | | 0.108 | |
| 8-436 | 5 7/8 | 6 3/8 | 5.877 | | 0.236 | | 0.108 | |
| 8-437 | 6 | 6 1/2 | 6.002 | | 0.236 | | 0.108 | |
| 8-438 | 6 1/4 | 6 3/4 | 6.252 | | 0.236 | | 0.108 | |
| 8-439 | 6 1/2 | 7 | 6.502 | | 0.236 | | 0.108 | |
| 8-440 | 6 3/4 | 7 1/4 | 6.752 | | 0.236 | | 0.108 | |
| 8-441 | 7 | 7 1/2 | 7.002 | | 0.236 | | 0.108 | |
| 8-442 | 7 1/4 | 7 3/4 | 7.252 | | 0.236 | | 0.108 | |
| 8-443 | 7 1/2 | 8 | 7.502 | | 0.236 | | 0.108 | |
| 8-444 | 7 3/4 | 8 1/4 | 7.752 | | 0.236 | | 0.108 | |
| 8-445 | 8 | 8 1/2 | 8.002 | ↓ | 0.236 | | 0.108 | |
| 8-446 | 8 1/2 | 9 | 8.502 | .003 | 0.236 | | 0.108 | |
| 8-447 | 9 | 9 1/2 | 9.002 | .003 | 0.236 | | 0.108 | |
| 8-448 | 9 1/2 | 10 | 9.502 | ↓ | 0.236 | ↓ | 0.108 | ↓ |

| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|--------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-449 | 10 | 10 1/2 | 10.002 | .003 | 0.236 | .001 | 0.108 | .002 |
| 8-450 | 10 1/2 | 11 | 10.502 | .003 | 0.236 | .001 | 0.108 | .002 |
| 8-451 | 11 | 11 1/2 | 11.002 | .004 | 0.236 | | 0.108 | |
| 8-452 | 11 1/2 | 12 | 11.502 | .004 | 0.236 | | 0.108 | |
| 8-453 | 12 | 12 1/2 | 12.002 | | 0.236 | | 0.108 | |
| 8-454 | 12 1/2 | 13 | 12.502 | | 0.236 | | 0.108 | |
| 8-455 | 13 | 13 1/2 | 13.002 | ↓ | 0.236 | | 0.108 | |
| 8-456 | 13 1/2 | 14 | 13.502 | .005 | 0.236 | | 0.108 | |
| 8-457 | 14 | 14 1/2 | 14.002 | .005 | 0.236 | | 0.108 | |
| 8-458 | 14 1/2 | 15 | 14.502 | | 0.236 | | 0.108 | |
| 8-459 | 15 | 15 1/2 | 15.002 | | 0.236 | | 0.108 | |
| 8-460 | 15 1/2 | 16 | 15.502 | | 0.236 | | 0.108 | |
| 8-461 | 16 | 16 1/2 | 16.005 | | 0.236 | | 0.108 | |
| 8-462 | 16 1/2 | 17 | 16.505 | | 0.236 | | 0.108 | |
| 8-463 | 17 | 17 1/2 | 17.005 | | 0.236 | | 0.108 | |
| 8-464 | 17 1/2 | 18 | 17.505 | | 0.236 | | 0.108 | |
| 8-465 | 18 | 18 1/2 | 18.005 | | 0.236 | | 0.108 | |
| 8-466 | 18 1/2 | 19 | 18.505 | | 0.236 | | 0.108 | |
| 8-467 | 19 | 19 1/2 | 19.005 | | 0.236 | | 0.108 | |
| 8-468 | 19 1/2 | 20 | 19.505 | | 0.236 | | 0.108 | |
| 8-469 | 20 | 20 1/2 | 20.005 | | 0.236 | | 0.108 | |
| 8-470 | 21 | 21 1/2 | 21.005 | | 0.236 | | 0.108 | |
| 8-471 | 22 | 22 1/2 | 22.005 | | 0.236 | | 0.108 | |
| 8-472 | 23 | 23 1/2 | 23.005 | | 0.236 | | 0.108 | |
| 8-473 | 24 | 24 1/2 | 24.005 | | 0.236 | | 0.108 | |
| 8-474 | 25 | 25 1/2 | 25.005 | | 0.236 | | 0.108 | |
| 8-475 | 26 | 26 1/2 | 26.005 | ↓ | 0.236 | ↓ | 0.108 | ↓ |



Back-up Rings - PTFE SPLIT MS28774 - Inch



| Standard Material | Temperature Range | Surface Speed |
|-------------------|---------------------------------------|---------------------|
| V.PTFE ST/T | 320°F to +450°F (-196°C to +232°C) | < 1.6 ft/s (0.5m/s) |

Back-Up Rings are predominantly used in conjunction with **O'Rings** for both static and dynamic sealing applications. They prevent the O'Ring from extruding when it is subjected to high pressures, or when clearance gaps are excessive. Available in virgin **PTFE**, split profile, easy to install.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|--------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-001 | 1/32 | 3/32 | 0.072 | .003 | 0.030 | .002 | 0.048 | .004 |
| 8-002 | 3/64 | 9/64 | 0.085 | | 0.038 | | 0.048 | |
| 8-003 | 1/16 | 3/16 | 0.097 | ↓ | 0.045 | ↓ | 0.048 | |
| 8-004 | 5/64 | 13/64 | 0.109 | .001 | 0.053 | .001 | 0.048 | |
| 8-005 | 3/32 | 7/32 | 0.124 | | 0.053 | | 0.048 | |
| 8-006 | 1/8 | 1/4 | 0.140 | | 0.053 | | 0.048 | |
| 8-007 | 5/32 | 9/32 | 0.171 | | 0.053 | | 0.048 | |
| 8-008 | 3/16 | 5/16 | 0.202 | | 0.053 | | 0.048 | |
| 8-009 | 7/32 | 11/32 | 0.234 | | 0.053 | | 0.048 | |
| 8-010 | 1/4 | 3/8 | 0.265 | | 0.053 | | 0.048 | |
| 8-011 | 5/16 | 7/16 | 0.327 | | 0.053 | | 0.048 | |
| 8-012 | 3/8 | 1/2 | 0.390 | | 0.053 | | 0.048 | |
| 8-013 | 7/16 | 9/16 | 0.455 | | 0.053 | | 0.048 | |
| 8-014 | 1/2 | 5/8 | 0.518 | | 0.053 | | 0.048 | |
| 8-015 | 9/16 | 11/16 | 0.580 | | 0.053 | | 0.048 | |
| 8-016 | 5/8 | 3/4 | 0.643 | | 0.053 | | 0.048 | |
| 8-017 | 11/16 | 13/16 | 0.705 | | 0.053 | | 0.048 | |
| 8-018 | 3/4 | 7/8 | 0.768 | | 0.053 | | 0.048 | |
| 8-019 | 13/16 | 15/16 | 0.830 | | 0.053 | | 0.048 | |
| 8-020 | 7/8 | 1 | 0.898 | | 0.053 | | 0.048 | |
| 8-021 | 15/16 | 1 1/16 | 0.960 | | 0.053 | | 0.048 | |
| 8-022 | 1 | 1 1/8 | 1.023 | ↓ | 0.053 | ↓ | 0.048 | ↓ |

| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|--------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-023 | 1 1/16 | 1 3/16 | 1.085 | .001 | 0.053 | .001 | 0.048 | .004 |
| 8-024 | 1 1/8 | 1 1/4 | 1.148 | | 0.053 | | 0.048 | |
| 8-025 | 1 3/16 | 1 5/16 | 1.210 | | 0.053 | | 0.048 | |
| 8-026 | 1 1/4 | 1 3/8 | 1.273 | | 0.053 | | 0.048 | |
| 8-027 | 1 5/16 | 1 7/16 | 1.335 | | 0.053 | | 0.048 | |
| 8-028 | 1 3/8 | 1 1/2 | 1.398 | ↓ | 0.053 | ↓ | 0.048 | |
| 8-029 | 1 1/2 | 1 5/8 | 1.525 | .003 | 0.053 | .002 | 0.048 | |
| 8-030 | 1 5/8 | 1 3/4 | 1.650 | | 0.053 | | 0.048 | |
| 8-031 | 1 3/4 | 1 7/8 | 1.775 | | 0.053 | | 0.048 | |
| 8-032 | 1 7/8 | 2 | 1.900 | | 0.053 | | 0.048 | |
| 8-033 | 2 | 2 1/8 | 2.025 | | 0.053 | | 0.048 | |
| 8-034 | 2 1/8 | 2 1/4 | 2.150 | | 0.053 | | 0.048 | |
| 8-035 | 2 1/4 | 2 3/8 | 2.275 | | 0.053 | | 0.048 | |
| 8-036 | 2 3/8 | 2 1/2 | 2.400 | | 0.053 | | 0.048 | |
| 8-037 | 2 1/2 | 2 5/8 | 2.525 | | 0.053 | | 0.048 | |
| 8-038 | 2 5/8 | 2 3/4 | 2.650 | | 0.053 | | 0.048 | |
| 8-039 | 2 3/4 | 2 7/8 | 2.775 | | 0.053 | | 0.048 | |
| 8-040 | 2 7/8 | 3 | 2.900 | | 0.053 | | 0.048 | |
| 8-041 | 3 | 3 1/8 | 3.025 | | 0.053 | | 0.048 | |
| 8-042 | 3 1/4 | 3 3/8 | 3.275 | | 0.053 | | 0.048 | |
| 8-043 | 3 1/2 | 3 5/8 | 3.525 | | 0.053 | | 0.048 | |
| 8-044 | 3 3/4 | 3 7/8 | 3.775 | ↓ | 0.053 | ↓ | 0.048 | ↓ |

O'RINGS



Back-up Rings - PTFE SPLIT MS28774

| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|---------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-045 | 4 | 4 1/8 | 4.025 | | 0.053 | | 0.048 | |
| 8-046 | 4 1/4 | 4 3/8 | 4.275 | .003 | 0.053 | .002 | 0.048 | .004 |
| 8-047 | 4 1/2 | 4 5/8 | 4.525 | | 0.053 | | 0.048 | |
| 8-048 | 4 3/4 | 4 7/8 | 4.775 | | 0.053 | | 0.048 | |
| 8-049 | 5 | 5 1/8 | 5.025 | | 0.053 | | 0.048 | |
| 8-050 | 5 1/4 | 5 3/8 | 5.275 | | 0.053 | | 0.048 | |
| 8-102 | 1/16 | 1/4 | 0.080 | | 0.086 | | 0.048 | |
| 8-103 | 3/32 | 9/32 | 0.111 | | 0.086 | | 0.048 | |
| 8-104 | 1/8 | 5/16 | 0.142 | | 0.086 | | 0.048 | |
| 8-105 | 5/32 | 11/32 | 0.173 | | 0.086 | | 0.048 | |
| 8-106 | 3/16 | 3/8 | 0.205 | | 0.086 | | 0.048 | |
| 8-107 | 7/32 | 13/32 | 0.236 | | 0.086 | | 0.048 | |
| 8-108 | 1/4 | 7/16 | 0.267 | | 0.086 | | 0.048 | |
| 8-109 | 5/16 | 1/2 | 0.330 | ▼ | 0.086 | ▼ | 0.048 | |
| 8-110 | 3/8 | 9/16 | 0.390 | .001 | 0.086 | .001 | 0.048 | |
| 8-111 | 7/16 | 5/8 | 0.452 | | 0.086 | | 0.048 | |
| 8-112 | 1/2 | 11/16 | 0.515 | | 0.086 | | 0.048 | |
| 8-113 | 9/16 | 3/4 | 0.577 | | 0.086 | | 0.048 | |
| 8-114 | 5/8 | 13/16 | 0.640 | | 0.086 | | 0.048 | |
| 8-115 | 11/16 | 7/8 | 0.702 | | 0.086 | | 0.048 | |
| 8-116 | 3/4 | 15/16 | 0.765 | | 0.086 | | 0.048 | |
| 8-117 | 13/16 | 1 | 0.832 | | 0.086 | | 0.048 | |
| 8-118 | 7/8 | 1 1/16 | 0.895 | | 0.086 | | 0.048 | |
| 8-119 | 15/16 | 1 1/8 | 0.957 | | 0.086 | | 0.048 | |
| 8-120 | 1 | 1 3/16 | 1.020 | | 0.086 | | 0.048 | |
| 8-121 | 1 1/16 | 1 1/4 | 1.082 | | 0.086 | | 0.048 | |
| 8-122 | 1 1/8 | 1 5/16 | 1.140 | | 0.086 | | 0.048 | |
| 8-123 | 1 3/16 | 1 3/8 | 1.207 | | 0.086 | | 0.048 | |
| 8-124 | 1 1/4 | 1 7/16 | 1.270 | | 0.086 | | 0.048 | |
| 8-125 | 1 5/16 | 1 1/2 | 1.332 | | 0.086 | | 0.048 | |
| 8-126 | 1 3/8 | 1 9/16 | 1.397 | | 0.086 | | 0.048 | |
| 8-127 | 1 7/16 | 1 5/8 | 1.459 | | 0.086 | | 0.048 | |
| 8-128 | 1 1/2 | 1 11/16 | 1.522 | | 0.086 | | 0.048 | |
| 8-129 | 1 9/16 | 1 3/4 | 1.584 | | 0.086 | | 0.048 | |
| 8-130 | 1 5/8 | 1 13/16 | 1.647 | | 0.086 | | 0.048 | |
| 8-131 | 1 11/16 | 1 7/8 | 1.709 | | 0.086 | | 0.048 | |
| 8-132 | 1 3/4 | 1 15/16 | 1.772 | | 0.086 | | 0.048 | |
| 8-133 | 1 13/16 | 2 | 1.834 | | 0.086 | | 0.048 | |
| 8-134 | 1 7/8 | 2 1/16 | 1.897 | | 0.086 | | 0.048 | |
| 8-135 | 1 15/16 | 2 1/8 | 1.959 | | 0.086 | | 0.048 | |
| 8-136 | 2 | 2 3/16 | 2.022 | | 0.086 | | 0.048 | |
| 8-137 | 2 1/16 | 2 1/4 | 2.084 | | 0.086 | | 0.048 | |
| 8-138 | 2 1/8 | 2 5/16 | 2.147 | | 0.086 | | 0.048 | |
| 8-139 | 2 3/16 | 2 3/8 | 2.209 | ▼ | 0.086 | | 0.048 | ▼ |
| 8-140 | 2 1/4 | 2 7/16 | 2.254 | .002 | 0.088 | | 0.050 | .002 |
| 8-141 | 2 5/16 | 2 1/2 | 2.317 | | 0.088 | ▼ | 0.050 | |

| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|---------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-142 | 2 3/8 | 2 9/16 | 2.379 | .002 | 0.088 | .001 | 0.050 | .002 |
| 8-143 | 2 7/16 | 2 5/8 | 2.442 | | 0.088 | | 0.050 | |
| 8-144 | 2 1/2 | 2 11/16 | 2.504 | | 0.088 | | 0.050 | |
| 8-145 | 2 9/16 | 2 3/4 | 2.567 | | 0.088 | | 0.050 | |
| 8-146 | 2 5/8 | 2 13/16 | 2.629 | | 0.088 | | 0.050 | |
| 8-147 | 2 11/16 | 2 7/8 | 2.692 | | 0.088 | | 0.050 | |
| 8-148 | 2 3/4 | 2 15/16 | 2.754 | | 0.088 | | 0.050 | |
| 8-149 | 2 13/16 | 3 | 2.817 | | 0.088 | ▼ | 0.050 | ▼ |
| 8-150 | 2 7/8 | 3 1/16 | 2.947 | | 0.086 | .002 | 0.048 | .004 |
| 8-151 | 3 | 3 3/16 | 3.197 | | 0.086 | | 0.048 | |
| 8-152 | 3 1/4 | 3 7/16 | 3.447 | | 0.086 | | 0.048 | |
| 8-153 | 3 1/2 | 3 11/16 | 3.697 | | 0.086 | | 0.048 | |
| 8-154 | 3 3/4 | 3 15/16 | 3.947 | | 0.086 | | 0.048 | |
| 8-155 | 4 | 4 3/16 | 4.197 | | 0.086 | | 0.048 | |
| 8-156 | 4 1/4 | 4 7/16 | 4.447 | | 0.086 | | 0.048 | |
| 8-157 | 4 1/2 | 4 11/16 | 4.697 | | 0.086 | | 0.048 | |
| 8-158 | 4 3/4 | 4 15/16 | 4.947 | | 0.086 | | 0.048 | |
| 8-159 | 5 | 5 3/16 | 5.197 | | 0.086 | | 0.048 | |
| 8-160 | 5 1/4 | 5 7/16 | 5.447 | | 0.086 | | 0.048 | |
| 8-161 | 5 1/2 | 5 11/16 | 5.697 | | 0.086 | | 0.048 | |
| 8-162 | 5 3/4 | 5 15/16 | 5.947 | | 0.086 | | 0.048 | |
| 8-163 | 6 | 6 3/16 | 6.197 | | 0.086 | | 0.048 | |
| 8-164 | 6 1/4 | 6 7/16 | 6.447 | | 0.086 | | 0.048 | |
| 8-165 | 6 1/2 | 6 11/16 | 6.697 | | 0.086 | | 0.048 | |
| 8-166 | 6 3/4 | 6 15/16 | 6.947 | | 0.086 | | 0.048 | |
| 8-167 | 7 | 7 3/16 | 7.197 | | 0.086 | | 0.048 | |
| 8-168 | 7 1/4 | 7 7/16 | 7.447 | | 0.086 | | 0.048 | |
| 8-169 | 7 1/2 | 7 11/16 | 7.697 | | 0.086 | | 0.048 | |
| 8-170 | 7 3/4 | 7 15/16 | 7.947 | | 0.086 | | 0.048 | |
| 8-171 | 8 | 8 3/16 | 8.197 | | 0.086 | | 0.048 | |
| 8-172 | 8 1/4 | 8 7/16 | 8.447 | | 0.086 | | 0.048 | |
| 8-173 | 8 1/2 | 8 11/16 | 8.697 | | 0.086 | | 0.048 | |
| 8-174 | 8 3/4 | 8 15/16 | 8.947 | | 0.086 | | 0.048 | |
| 8-175 | 9 | 9 3/16 | 9.197 | | 0.086 | | 0.048 | |
| 8-176 | 9 1/4 | 9 7/16 | 9.447 | | 0.086 | | 0.048 | |
| 8-177 | 9 1/2 | 9 11/16 | 9.697 | | 0.086 | | 0.048 | |
| 8-178 | 9 3/4 | 9 15/16 | 9.947 | ▼ | 0.086 | | 0.048 | |
| 8-201 | 3/16 | 7/16 | 0.196 | .003 | 0.119 | | 0.048 | |
| 8-202 | 1/4 | 1/2 | 0.258 | | 0.119 | | 0.048 | |
| 8-203 | 5/16 | 9/16 | 0.321 | | 0.119 | | 0.048 | |
| 8-204 | 3/8 | 5/8 | 0.383 | | 0.119 | | 0.048 | |
| 8-205 | 7/16 | 11/16 | 0.446 | | 0.119 | | 0.048 | |
| 8-206 | 1/2 | 3/4 | 0.508 | | 0.119 | | 0.048 | |
| 8-207 | 9/16 | 13/16 | 0.571 | | 0.119 | | 0.048 | |
| 8-208 | 5/8 | 7/8 | 0.633 | | 0.119 | | 0.048 | |
| 8-209 | 11/16 | 15/16 | 0.696 | ▼ | 0.119 | ▼ | 0.048 | ▼ |

O'RINGS



Back-up Rings - PTFE SPLIT MS28774

O'RINGS



| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|---------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-210 | 3/4 | 1 | 0.766 | .001 | 0.119 | .001 | 0.048 | .004 |
| 8-211 | 13/16 | 1 1/16 | 0.828 | | 0.119 | | 0.048 | |
| 8-212 | 7/8 | 1 1/8 | 0.891 | | 0.119 | | 0.048 | |
| 8-213 | 15/16 | 1 3/16 | 0.953 | | 0.119 | | 0.048 | |
| 8-214 | 1 | 1 1/4 | 1.016 | | 0.119 | | 0.048 | |
| 8-215 | 1 1/16 | 1 5/16 | 1.078 | | 0.119 | | 0.048 | |
| 8-216 | 1 1/8 | 1 3/8 | 1.141 | | 0.119 | | 0.048 | |
| 8-217 | 1 3/16 | 1 7/16 | 1.203 | | 0.119 | | 0.048 | |
| 8-218 | 1 1/4 | 1 1/2 | 1.266 | | 0.119 | | 0.048 | |
| 8-219 | 1 5/16 | 1 9/16 | 1.334 | | 0.119 | | 0.048 | |
| 8-220 | 1 3/8 | 1 5/8 | 1.397 | | 0.119 | | 0.048 | |
| 8-221 | 1 7/16 | 1 11/16 | 1.459 | | 0.119 | | 0.048 | |
| 8-222 | 1 1/2 | 1 3/4 | 1.522 | | 0.119 | | 0.048 | |
| 8-223 | 1 5/8 | 1 7/8 | 1.647 | | 0.119 | | 0.048 | |
| 8-224 | 1 3/4 | 2 | 1.772 | | 0.119 | | 0.048 | |
| 8-225 | 1 7/8 | 2 1/8 | 1.897 | | 0.119 | | 0.048 | |
| 8-226 | 2 | 2 1/4 | 2.022 | | 0.119 | | 0.048 | |
| 8-227 | 2 1/8 | 2 3/8 | 2.147 | | 0.119 | | 0.048 | |
| 8-228 | 2 1/4 | 2 1/2 | 2.272 | | 0.119 | | 0.048 | |
| 8-229 | 2 3/8 | 2 5/8 | 2.397 | | 0.119 | | 0.048 | |
| 8-230 | 2 1/2 | 2 3/4 | 2.522 | ▼ | 0.119 | | 0.048 | ▼ |
| 8-231 | 2 5/8 | 2 7/8 | 2.630 | .002 | 0.119 | | 0.050 | .002 |
| 8-232 | 2 3/4 | 3 | 2.755 | | 0.119 | | 0.050 | |
| 8-233 | 2 7/8 | 3 1/8 | 2.880 | | 0.119 | | 0.050 | |
| 8-234 | 3 | 3 1/4 | 3.005 | | 0.119 | | 0.050 | |
| 8-235 | 3 1/8 | 3 3/8 | 3.130 | | 0.119 | | 0.050 | |
| 8-236 | 3 1/4 | 3 1/2 | 3.255 | | 0.119 | | 0.050 | |
| 8-237 | 3 3/8 | 3 5/8 | 3.380 | | 0.119 | | 0.050 | |
| 8-238 | 3 1/2 | 3 3/4 | 3.505 | | 0.119 | | 0.050 | |
| 8-239 | 3 5/8 | 3 7/8 | 3.630 | | 0.119 | | 0.050 | |
| 8-240 | 3 3/4 | 4 | 3.755 | | 0.119 | | 0.050 | |
| 8-241 | 3 7/8 | 4 1/8 | 3.880 | | 0.119 | | 0.050 | |
| 8-242 | 4 | 4 1/4 | 4.005 | | 0.119 | | 0.050 | |
| 8-243 | 4 1/8 | 4 3/8 | 4.130 | | 0.119 | | 0.050 | |
| 8-244 | 4 1/4 | 4 1/2 | 4.255 | | 0.119 | | 0.050 | |
| 8-245 | 4 3/8 | 4 5/8 | 4.380 | | 0.119 | | 0.050 | |
| 8-246 | 4 1/2 | 4 3/4 | 4.505 | | 0.119 | | 0.050 | |
| 8-247 | 4 5/8 | 4 7/8 | 4.630 | ▼ | 0.119 | ▼ | 0.050 | ▼ |
| 8-248 | 4 3/4 | 5 | 4.758 | .003 | 0.119 | .002 | 0.048 | .004 |
| 8-249 | 4 7/8 | 5 1/8 | 4.883 | | 0.119 | | 0.048 | |
| 8-250 | 5 | 5 1/4 | 5.008 | | 0.119 | | 0.048 | |
| 8-251 | 5 1/8 | 5 3/8 | 5.133 | | 0.119 | | 0.048 | |
| 8-252 | 5 1/4 | 5 1/2 | 5.258 | | 0.119 | | 0.048 | |
| 8-253 | 5 3/8 | 5 5/8 | 5.383 | | 0.119 | | 0.048 | |
| 8-254 | 5 1/2 | 5 3/4 | 5.508 | | 0.119 | | 0.048 | |
| 8-255 | 5 5/8 | 5 7/8 | 5.633 | ▼ | 0.119 | ▼ | 0.048 | ▼ |

| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|---------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-256 | 5 3/4 | 6 | 5.758 | .003 | 0.119 | .002 | 0.048 | .004 |
| 8-257 | 5 7/8 | 6 1/8 | 5.883 | | 0.119 | | 0.048 | |
| 8-258 | 6 | 6 1/4 | 6.008 | | 0.119 | | 0.048 | |
| 8-259 | 6 1/4 | 6 1/2 | 6.258 | | 0.119 | | 0.048 | |
| 8-260 | 6 1/2 | 6 3/4 | 6.508 | | 0.119 | | 0.048 | |
| 8-261 | 6 3/4 | 7 | 6.758 | | 0.119 | | 0.048 | |
| 8-262 | 7 | 7 1/4 | 7.008 | | 0.119 | | 0.048 | |
| 8-263 | 7 1/4 | 7 1/2 | 7.258 | | 0.119 | | 0.048 | |
| 8-264 | 7 1/2 | 7 3/4 | 7.508 | | 0.119 | | 0.048 | |
| 8-265 | 7 3/4 | 8 | 7.758 | | 0.119 | | 0.048 | |
| 8-266 | 8 | 8 1/4 | 8.008 | | 0.119 | | 0.048 | |
| 8-267 | 8 1/4 | 8 1/2 | 8.258 | | 0.119 | | 0.048 | |
| 8-268 | 8 1/2 | 8 3/4 | 8.508 | | 0.119 | | 0.048 | |
| 8-269 | 8 3/4 | 9 | 8.758 | | 0.119 | | 0.048 | |
| 8-270 | 9 | 9 1/4 | 9.008 | | 0.119 | | 0.048 | |
| 8-271 | 9 1/4 | 9 1/2 | 9.258 | | 0.119 | | 0.048 | |
| 8-272 | 9 1/2 | 9 3/4 | 9.508 | | 0.119 | | 0.048 | |
| 8-273 | 9 3/4 | 10 | 9.758 | | 0.119 | | 0.048 | |
| 8-274 | 10 | 10 1/4 | 10.008 | | 0.119 | | 0.048 | |
| 8-275 | 10 1/2 | 10 3/4 | 10.508 | | 0.119 | | 0.048 | |
| 8-276 | 11 | 11 1/4 | 11.008 | | 0.119 | | 0.048 | |
| 8-277 | 11 1/2 | 11 3/4 | 11.508 | | 0.119 | | 0.048 | |
| 8-278 | 12 | 12 1/4 | 12.008 | | 0.119 | | 0.048 | |
| 8-279 | 13 | 13 1/4 | 13.008 | | 0.119 | | 0.048 | |
| 8-280 | 14 | 14 1/4 | 14.008 | | 0.119 | | 0.048 | |
| 8-281 | 15 | 15 1/4 | 15.008 | | 0.119 | | 0.048 | |
| 8-282 | 16 | 16 1/4 | 16.008 | | 0.119 | | 0.048 | |
| 8-283 | 17 | 17 1/4 | 17.008 | | 0.119 | | 0.048 | |
| 8-284 | 18 | 18 1/4 | 18.008 | ▼ | 0.119 | | 0.048 | ▼ |
| 8-309 | 7/16 | 13/16 | 0.453 | .003 | 0.183 | | 0.070 | .002 |
| 8-310 | 1/2 | 7/8 | 0.515 | | 0.183 | | 0.070 | |
| 8-311 | 9/16 | 15/16 | 0.578 | | 0.183 | | 0.070 | |
| 8-312 | 5/8 | 1 | 0.640 | | 0.183 | | 0.070 | |
| 8-313 | 11/16 | 1 1/16 | 0.703 | | 0.183 | | 0.070 | |
| 8-314 | 3/4 | 1 1/8 | 0.765 | | 0.183 | | 0.070 | |
| 8-315 | 13/16 | 1 3/16 | 0.828 | | 0.183 | | 0.070 | |
| 8-316 | 7/8 | 1 1/4 | 0.890 | | 0.183 | | 0.070 | |
| 8-317 | 15/16 | 1 5/16 | 0.953 | | 0.183 | | 0.070 | |
| 8-318 | 1 | 1 3/8 | 1.015 | | 0.183 | | 0.070 | |
| 8-319 | 1 1/16 | 1 7/16 | 1.078 | | 0.183 | | 0.070 | |
| 8-320 | 1 1/8 | 1 1/2 | 1.140 | | 0.183 | | 0.070 | |
| 8-321 | 1 3/16 | 1 9/16 | 1.203 | | 0.183 | | 0.070 | |
| 8-322 | 1 1/4 | 1 5/8 | 1.265 | | 0.183 | | 0.070 | |
| 8-323 | 1 5/16 | 1 11/16 | 1.328 | | 0.183 | | 0.070 | |
| 8-324 | 1 3/8 | 1 3/4 | 1.390 | ▼ | 0.183 | ▼ | 0.070 | ▼ |
| 8-325 | 1 1/2 | 1 7/8 | 1.513 | .002 | 0.183 | .001 | 0.070 | ▼ |

Back-up Rings - PTFE SPLIT MS28774

O'RINGS



| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|-------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-326 | 1 5/8 | 2 | 1.638 | .001 | 0.183 | .001 | 0.070 | .005 |
| 8-327 | 1 3/4 | 2 1/8 | 1.763 | | 0.183 | | 0.070 | |
| 8-328 | 1 7/8 | 2 1/4 | 1.888 | | 0.183 | | 0.070 | |
| 8-329 | 2 | 2 3/8 | 2.013 | | 0.183 | | 0.070 | |
| 8-330 | 2 1/8 | 2 1/2 | 2.138 | | 0.183 | | 0.070 | |
| 8-331 | 2 1/4 | 2 5/8 | 2.268 | | 0.183 | | 0.070 | |
| 8-332 | 2 3/8 | 2 3/4 | 2.393 | | 0.183 | | 0.070 | |
| 8-333 | 2 1/2 | 2 7/8 | 2.518 | | 0.183 | | 0.070 | |
| 8-334 | 2 5/8 | 3 | 2.643 | | 0.183 | | 0.070 | |
| 8-335 | 2 3/4 | 3 1/8 | 2.768 | | 0.183 | | 0.070 | |
| 8-336 | 2 7/8 | 3 1/4 | 2.893 | | 0.183 | | 0.070 | |
| 8-337 | 3 | 3 3/8 | 3.018 | | 0.183 | | 0.070 | |
| 8-338 | 3 1/8 | 3 1/2 | 3.143 | | 0.183 | | 0.070 | |
| 8-339 | 3 1/4 | 3 5/8 | 3.273 | | 0.183 | | 0.070 | |
| 8-340 | 3 3/8 | 3 3/4 | 3.398 | | 0.183 | | 0.070 | |
| 8-341 | 3 1/2 | 3 7/8 | 3.523 | | 0.183 | | 0.070 | |
| 8-342 | 3 5/8 | 4 | 3.648 | | 0.183 | | 0.070 | |
| 8-343 | 3 3/4 | 4 1/8 | 3.773 | | 0.183 | | 0.070 | |
| 8-344 | 3 7/8 | 4 1/4 | 3.898 | | 0.183 | | 0.070 | |
| 8-345 | 4 | 4 3/8 | 4.028 | | 0.183 | | 0.070 | |
| 8-346 | 4 1/8 | 4 1/2 | 4.153 | | 0.183 | | 0.070 | |
| 8-347 | 4 1/4 | 4 5/8 | 4.278 | | 0.183 | | 0.070 | |
| 8-348 | 4 3/8 | 4 3/4 | 4.403 | | 0.183 | | 0.070 | |
| 8-349 | 4 1/2 | 4 7/8 | 4.528 | | 0.183 | .002 | 0.070 | |
| 8-350 | 4 5/8 | 5 | 4.655 | .002 | 0.183 | | 0.070 | |
| 8-351 | 4 3/4 | 5 1/8 | 4.780 | | 0.183 | | 0.070 | |
| 8-352 | 4 7/8 | 5 1/4 | 4.905 | | 0.183 | | 0.070 | |
| 8-353 | 5 | 5 3/8 | 5.030 | | 0.183 | | 0.070 | |
| 8-354 | 5 1/8 | 5 1/2 | 5.155 | | 0.183 | | 0.070 | |
| 8-355 | 5 1/4 | 5 5/8 | 5.280 | | 0.183 | | 0.070 | |
| 8-356 | 5 3/8 | 5 3/4 | 5.405 | | 0.183 | | 0.070 | |
| 8-357 | 5 1/2 | 5 7/8 | 5.530 | | 0.183 | | 0.070 | |
| 8-358 | 5 5/8 | 6 | 5.655 | | 0.183 | | 0.070 | |
| 8-359 | 5 3/4 | 6 1/8 | 5.780 | | 0.183 | | 0.070 | |
| 8-360 | 5 7/8 | 6 1/4 | 5.905 | | 0.183 | | 0.070 | |
| 8-361 | 6 | 6 3/8 | 6.030 | | 0.183 | | 0.070 | |
| 8-362 | 6 1/4 | 6 5/8 | 6.280 | | 0.183 | | 0.070 | |
| 8-363 | 6 1/2 | 6 7/8 | 6.530 | | 0.183 | | 0.070 | |
| 8-364 | 6 3/4 | 7 1/8 | 6.780 | | 0.183 | | 0.070 | |
| 8-365 | 7 | 7 3/8 | 7.030 | | 0.183 | | 0.070 | |
| 8-366 | 7 1/4 | 7 5/8 | 7.280 | | 0.183 | | 0.070 | |
| 8-367 | 7 1/2 | 7 7/8 | 7.530 | | 0.183 | | 0.070 | |
| 8-368 | 7 3/4 | 8 1/8 | 7.780 | | 0.183 | | 0.070 | |
| 8-369 | 8 | 8 3/8 | 8.030 | | 0.183 | | 0.070 | |
| 8-370 | 8 1/4 | 8 5/8 | 8.280 | | 0.183 | | 0.070 | |
| 8-371 | 8 1/2 | 8 7/8 | 8.530 | | 0.183 | | 0.070 | |

| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|--------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-372 | 8 3/4 | 9 1/8 | 8.780 | .002 | 0.183 | .001 | 0.070 | .005 |
| 8-373 | 9 | 9 3/8 | 9.030 | | 0.183 | | 0.070 | |
| 8-374 | 9 1/4 | 9 5/8 | 9.280 | | 0.183 | | 0.070 | |
| 8-375 | 9 1/2 | 9 7/8 | 9.530 | | 0.183 | | 0.070 | |
| 8-376 | 9 3/4 | 10 1/8 | 9.780 | | 0.183 | | 0.070 | |
| 8-377 | 10 | 10 3/8 | 10.030 | | 0.183 | | 0.070 | |
| 8-378 | 10 1/2 | 10 7/8 | 10.530 | | 0.183 | | 0.070 | |
| 8-379 | 11 | 11 3/8 | 11.030 | | 0.183 | | 0.070 | |
| 8-380 | 11 1/2 | 11 7/8 | 11.530 | .003 | 0.183 | .002 | 0.070 | |
| 8-381 | 12 | 12 3/8 | 12.030 | | 0.183 | | 0.070 | |
| 8-382 | 13 | 13 3/8 | 13.030 | | 0.183 | | 0.070 | |
| 8-383 | 14 | 14 3/8 | 14.030 | | 0.183 | | 0.070 | |
| 8-384 | 15 | 15 3/8 | 15.030 | | 0.183 | | 0.070 | |
| 8-385 | 16 | 16 3/8 | 16.030 | | 0.183 | | 0.070 | |
| 8-386 | 17 | 17 3/8 | 17.030 | | 0.183 | | 0.070 | |
| 8-387 | 18 | 18 3/8 | 18.030 | | 0.183 | | 0.070 | |
| 8-388 | 19 | 19 3/8 | 19.030 | | 0.183 | | 0.070 | |
| 8-389 | 20 | 20 3/8 | 20.030 | | 0.183 | | 0.070 | |
| 8-390 | 21 | 21 3/8 | 21.030 | | 0.183 | | 0.070 | |
| 8-391 | 22 | 22 3/8 | 22.030 | | 0.183 | | 0.070 | |
| 8-392 | 23 | 23 3/8 | 23.030 | | 0.183 | | 0.070 | |
| 8-393 | 24 | 24 3/8 | 24.030 | | 0.183 | | 0.070 | |
| 8-394 | 25 | 25 3/8 | 25.030 | | 0.183 | | 0.070 | |
| 8-395 | 26 | 26 3/8 | 26.030 | | 0.183 | | 0.070 | |
| 8-400 | 1 3/8 | 1 7/8 | 1.426 | .001 | 0.236 | .001 | 0.105 | .005 |
| 8-401 | 1 1/2 | 2 | 1.551 | | 0.236 | | 0.105 | |
| 8-402 | 1 5/8 | 2 1/8 | 1.676 | | 0.236 | | 0.105 | |
| 8-403 | 1 3/4 | 2 1/4 | 1.801 | | 0.236 | | 0.105 | |
| 8-404 | 1 7/8 | 2 3/8 | 1.926 | | 0.236 | | 0.105 | |
| 8-405 | 2 | 2 1/2 | 2.051 | | 0.236 | | 0.105 | |
| 8-406 | 2 1/8 | 2 5/8 | 2.176 | | 0.236 | | 0.105 | |
| 8-407 | 2 1/4 | 2 3/4 | 2.301 | | 0.236 | | 0.105 | |
| 8-408 | 2 3/8 | 2 7/8 | 2.426 | | 0.236 | | 0.105 | |
| 8-409 | 2 1/2 | 3 | 2.551 | | 0.236 | | 0.105 | |
| 8-410 | 2 5/8 | 3 1/8 | 2.676 | | 0.236 | | 0.105 | |
| 8-411 | 2 3/4 | 3 1/4 | 2.801 | | 0.236 | | 0.105 | |
| 8-412 | 2 7/8 | 3 3/8 | 2.926 | | 0.236 | | 0.105 | |
| 8-413 | 3 | 3 1/2 | 3.051 | | 0.236 | | 0.105 | |
| 8-414 | 3 1/8 | 3 5/8 | 3.176 | | 0.236 | | 0.105 | |
| 8-415 | 3 1/4 | 3 3/4 | 3.301 | | 0.236 | | 0.105 | |
| 8-416 | 3 3/8 | 3 7/8 | 3.426 | | 0.236 | | 0.105 | |
| 8-417 | 3 1/2 | 4 | 3.551 | | 0.236 | | 0.105 | |
| 8-418 | 3 5/8 | 4 1/8 | 3.676 | | 0.236 | | 0.105 | |
| 8-419 | 3 3/4 | 4 1/4 | 3.801 | | 0.236 | | 0.105 | |
| 8-420 | 3 7/8 | 4 3/8 | 3.926 | | 0.236 | | 0.105 | |
| 8-421 | 4 | 4 1/2 | 4.051 | | 0.236 | | 0.105 | |

Back-up Rings - PTFE SPLIT MS28774

| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|-------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-422 | 4 1/8 | 4 5/8 | 4.176 | .001 | 0.236 | .001 | 0.105 | .005 |
| 8-423 | 4 1/4 | 4 3/4 | 4.301 | | 0.236 | | 0.105 | |
| 8-424 | 4 3/8 | 4 7/8 | 4.426 | | 0.236 | | 0.105 | |
| 8-425 | 4 1/2 | 5 | 4.551 | | 0.236 | | 0.105 | |
| 8-426 | 4 5/8 | 5 1/8 | 4.676 | | 0.236 | | 0.105 | |
| 8-427 | 4 3/4 | 5 1/4 | 4.801 | | 0.236 | | 0.105 | |
| 8-428 | 4 7/8 | 5 3/8 | 4.926 | | 0.236 | | 0.105 | |
| 8-429 | 5 | 5 1/2 | 5.051 | | 0.236 | | 0.105 | |
| 8-430 | 5 1/8 | 5 5/8 | 5.176 | | 0.236 | | 0.105 | |
| 8-431 | 5 1/4 | 5 3/4 | 5.301 | | 0.236 | | 0.105 | |
| 8-432 | 5 3/8 | 5 7/8 | 5.426 | | 0.236 | | 0.105 | |
| 8-433 | 5 1/2 | 6 | 5.551 | | 0.236 | | 0.105 | |
| 8-434 | 5 5/8 | 6 1/8 | 5.676 | | 0.236 | | 0.105 | |
| 8-435 | 5 3/4 | 6 1/4 | 5.801 | | 0.236 | | 0.105 | |
| 8-436 | 5 7/8 | 6 3/8 | 5.926 | | 0.236 | | 0.105 | |
| 8-437 | 6 | 6 1/2 | 6.051 | ▼ | 0.236 | | 0.105 | |
| 8-438 | 6 1/4 | 6 3/4 | 6.252 | .002 | 0.236 | | 0.105 | |
| 8-439 | 6 1/2 | 7 | 6.502 | | 0.236 | | 0.105 | |
| 8-440 | 6 3/4 | 7 1/4 | 6.752 | | 0.236 | | 0.105 | |
| 8-441 | 7 | 7 1/2 | 7.002 | | 0.236 | | 0.105 | |
| 8-442 | 7 1/4 | 7 3/4 | 7.252 | | 0.236 | | 0.105 | |
| 8-443 | 7 1/2 | 8 | 7.502 | | 0.236 | | 0.105 | |
| 8-444 | 7 3/4 | 8 1/4 | 7.752 | | 0.236 | | 0.105 | |
| 8-445 | 8 | 8 1/2 | 8.002 | ▼ | 0.236 | | 0.105 | |
| 8-446 | 8 1/2 | 9 | 8.502 | .003 | 0.236 | | 0.105 | |
| 8-447 | 9 | 9 1/2 | 9.002 | | 0.236 | | 0.105 | |
| 8-448 | 9 1/2 | 10 | 9.502 | ▼ | 0.236 | ▼ | 0.105 | ▼ |

| Ref. No. | Nominal Size | | Actual Dimensions | | | | | |
|----------|--------------|--------|-------------------|----------|-------|----------|-------|----------|
| | ID | OD | ID | Tol. +/- | W | Tol. +/- | T | Tol. +/- |
| 8-449 | 10 | 10 1/2 | 10.002 | .003 | 0.236 | .001 | 0.105 | .005 |
| 8-450 | 10 1/2 | 11 | 10.502 | | 0.236 | | 0.105 | |
| 8-451 | 11 | 11 1/2 | 11.002 | .004 | 0.236 | | 0.105 | |
| 8-452 | 11 1/2 | 12 | 11.502 | | 0.236 | | 0.105 | |
| 8-453 | 12 | 12 1/2 | 12.002 | | 0.236 | | 0.105 | |
| 8-454 | 12 1/2 | 13 | 12.502 | | 0.236 | | 0.105 | |
| 8-455 | 13 | 13 1/2 | 13.002 | ▼ | 0.236 | | 0.105 | |
| 8-456 | 13 1/2 | 14 | 13.502 | .005 | 0.236 | | 0.105 | |
| 8-457 | 14 | 14 1/2 | 14.002 | | 0.236 | | 0.105 | |
| 8-458 | 14 1/2 | 15 | 14.502 | | 0.236 | | 0.105 | |
| 8-459 | 15 | 15 1/2 | 15.002 | | 0.236 | | 0.105 | |
| 8-460 | 15 1/2 | 16 | 15.502 | | 0.236 | | 0.105 | |
| 8-461 | 16 | 16 1/2 | 16.026 | | 0.236 | | 0.105 | |
| 8-462 | 16 1/2 | 17 | 16.526 | | 0.236 | | 0.105 | |
| 8-463 | 17 | 17 1/2 | 17.026 | | 0.236 | | 0.105 | |
| 8-464 | 17 1/2 | 18 | 17.526 | | 0.236 | | 0.105 | |
| 8-465 | 18 | 18 1/2 | 18.026 | | 0.236 | | 0.105 | |
| 8-466 | 18 1/2 | 19 | 18.526 | | 0.236 | | 0.105 | |
| 8-467 | 19 | 19 1/2 | 19.026 | | 0.236 | | 0.105 | |
| 8-468 | 19 1/2 | 20 | 19.526 | | 0.236 | | 0.105 | |
| 8-469 | 20 | 20 1/2 | 20.026 | | 0.236 | | 0.105 | |
| 8-470 | 21 | 21 1/2 | 21.026 | | 0.236 | | 0.105 | |
| 8-471 | 22 | 22 1/2 | 22.026 | | 0.236 | | 0.105 | |
| 8-472 | 23 | 23 1/2 | 23.026 | | 0.236 | | 0.105 | |
| 8-473 | 24 | 24 1/2 | 24.026 | | 0.236 | | 0.105 | |
| 8-474 | 25 | 25 1/2 | 25.026 | | 0.236 | | 0.105 | |
| 8-475 | 26 | 26 1/2 | 26.026 | ▼ | 0.236 | ▼ | 0.105 | ▼ |

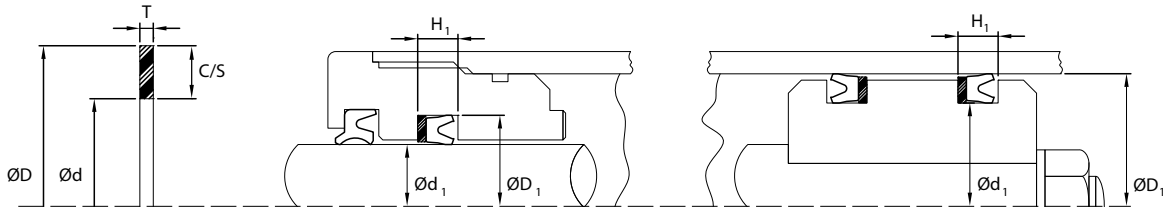
O'RINGS



8700 - Back-up Rings - Inch



| Standard Materials | Temperature Range |
|--------------------|--|
| Polymyte® SD/P | -65°F to +275°F (-54°C to +135°C) |
| V.PTFE SD/T | -320°F to +450°F (-196°C to +232°C) |



8700-style back-up rings provided added extrusion resistance to U-Cups and similar seals with only minimal increase in gland width. They are designed to increase the pressure rating of softer elastomeric materials when higher pressures may cause extrusion problems.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

O'RINGS

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | d | D | T |
| 870300187 | 0.187 | 0.375 | 0.062 |
| 870400187 | 0.187 | 0.437 | 0.062 |
| 870400250 | 0.250 | 0.500 | 0.062 |
| 870300312 | 0.312 | 0.500 | 0.062 |
| 870400312 | 0.312 | 0.562 | 0.062 |
| 870400375 | 0.375 | 0.625 | 0.062 |
| 870400437 | 0.437 | 0.687 | 0.062 |
| 870400500 | 0.500 | 0.750 | 0.062 |
| 870600500 | 0.500 | 0.875 | 0.062 |
| 870800500 | 0.500 | 1.000 | 0.062 |
| 870400562 | 0.562 | 0.812 | 0.062 |
| 870300625 | 0.625 | 0.812 | 0.062 |
| 870400625 | 0.625 | 0.875 | 0.062 |
| 870600625 | 0.625 | 1.000 | 0.062 |
| 870800625 | 0.625 | 1.125 | 0.062 |
| 870400687 | 0.687 | 0.937 | 0.062 |
| 870400750 | 0.750 | 1.000 | 0.062 |
| 870600750 | 0.750 | 1.125 | 0.062 |
| 870800750 | 0.750 | 1.250 | 0.062 |
| 870400812 | 0.812 | 1.062 | 0.062 |
| 870400875 | 0.875 | 1.125 | 0.062 |
| 870500875 | 0.875 | 1.187 | 0.062 |
| 870600875 | 0.875 | 1.250 | 0.062 |
| 870800875 | 0.875 | 1.375 | 0.062 |
| 870400937 | 0.937 | 1.187 | 0.062 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | d | D | T |
| 870500937 | 0.937 | 1.250 | 0.062 |
| 870401000 | 1.000 | 1.250 | 0.062 |
| 870501000 | 1.000 | 1.312 | 0.062 |
| 870601000 | 1.000 | 1.375 | 0.062 |
| 870801000 | 1.000 | 1.500 | 0.062 |
| 870501062 | 1.062 | 1.375 | 0.062 |
| 870401125 | 1.125 | 1.375 | 0.062 |
| 870501125 | 1.125 | 1.437 | 0.062 |
| 870501187 | 1.187 | 1.500 | 0.062 |
| 870501218 | 1.218 | 1.531 | 0.062 |
| 870401250 | 1.250 | 1.500 | 0.062 |
| 870501250 | 1.250 | 1.562 | 0.062 |
| 870801250 | 1.250 | 1.750 | 0.062 |
| 871201250 | 1.250 | 2.000 | 0.062 |
| 870501312 | 1.312 | 1.625 | 0.062 |
| 870501375 | 1.375 | 1.687 | 0.062 |
| 870601375 | 1.375 | 1.750 | 0.062 |
| 871001375 | 1.375 | 2.000 | 0.062 |
| 870501500 | 1.500 | 1.812 | 0.062 |
| 870601500 | 1.500 | 1.875 | 0.062 |
| 870801500 | 1.500 | 2.000 | 0.062 |
| 870601625 | 1.625 | 2.000 | 0.062 |
| 870601656 | 1.656 | 2.031 | 0.062 |
| 870601750 | 1.750 | 2.125 | 0.062 |
| 870801750 | 1.750 | 2.250 | 0.062 |

8700 series - Back-up Rings

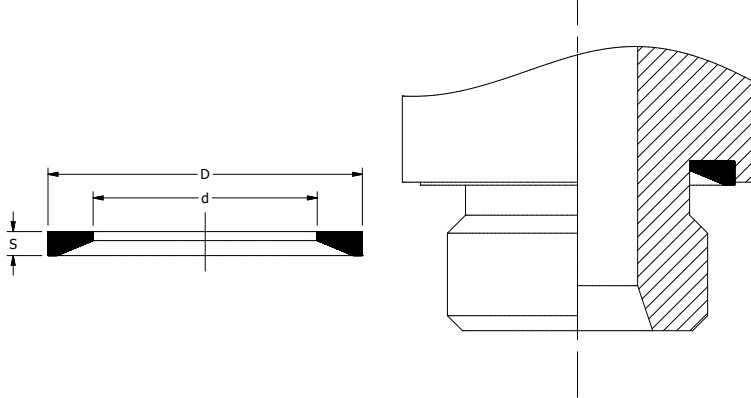
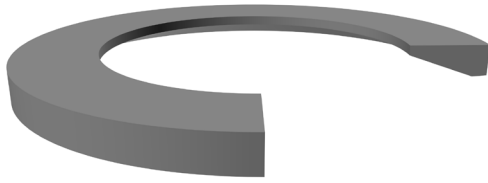
| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | d | D | T |
| 870601875 | 1.875 | 2.250 | 0.062 |
| 870701937 | 1.937 | 2.375 | 0.062 |
| 870602000 | 2.000 | 2.375 | 0.062 |
| 870802000 | 2.000 | 2.500 | 0.062 |
| 870602125 | 2.125 | 2.500 | 0.062 |
| 870602156 | 2.156 | 2.531 | 0.062 |
| 870602250 | 2.250 | 2.625 | 0.062 |
| 871202250 | 2.250 | 3.000 | 0.062 |
| 870602375 | 2.375 | 2.750 | 0.062 |
| 871002375 | 2.375 | 3.000 | 0.062 |
| 870602500 | 2.500 | 2.875 | 0.062 |
| 870702500 | 2.500 | 2.937 | 0.062 |
| 870802500 | 2.500 | 3.000 | 0.062 |
| 870702562 | 2.562 | 3.000 | 0.062 |
| 870602625 | 2.625 | 3.000 | 0.062 |
| 870702687 | 2.687 | 3.125 | 0.062 |
| 870602750 | 2.750 | 3.125 | 0.062 |
| 870702750 | 2.750 | 3.185 | 0.062 |
| 870802750 | 2.750 | 3.250 | 0.062 |
| 870602812 | 2.812 | 3.187 | 0.062 |
| 870702812 | 2.812 | 3.250 | 0.062 |
| 870602843 | 2.843 | 3.218 | 0.062 |
| 870702843 | 2.843 | 3.281 | 0.062 |
| 870602875 | 2.875 | 3.250 | 0.062 |
| 870902937 | 2.937 | 3.500 | 0.062 |
| 870603000 | 3.000 | 3.375 | 0.062 |
| 870703000 | 3.000 | 3.437 | 0.062 |
| 870803000 | 3.000 | 3.500 | 0.062 |
| 870703062 | 3.062 | 3.500 | 0.062 |
| 870603250 | 3.250 | 3.625 | 0.062 |
| 871203250 | 3.250 | 4.000 | 0.062 |
| 871003375 | 3.375 | 4.000 | 0.062 |
| 870603500 | 3.500 | 3.875 | 0.062 |
| 870803500 | 3.500 | 4.000 | 0.062 |
| 870803750 | 3.750 | 4.250 | 0.062 |
| 870803937 | 3.937 | 4.500 | 0.062 |
| 870604000 | 4.000 | 4.375 | 0.062 |
| 870804000 | 4.000 | 4.500 | 0.062 |
| 870804250 | 4.250 | 4.750 | 0.062 |
| 871204250 | 4.250 | 5.000 | 0.062 |
| 871004375 | 4.375 | 5.000 | 0.062 |
| 870904437 | 4.437 | 5.000 | 0.062 |
| 870804500 | 4.500 | 5.000 | 0.062 |
| 870804750 | 4.750 | 5.250 | 0.062 |
| 870904937 | 4.937 | 5.500 | 0.062 |
| 870805000 | 5.000 | 5.500 | 0.062 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | T |
| 870905000 | 5.000 | 5.562 | 0.062 |
| 871005125 | 5.125 | 5.750 | 0.062 |
| 871205250 | 5.250 | 6.000 | 0.062 |
| 871005375 | 5.375 | 6.000 | 0.062 |
| 870905437 | 5.437 | 6.000 | 0.062 |
| 870805500 | 5.500 | 6.000 | 0.062 |
| 871005500 | 5.500 | 6.125 | 0.062 |
| 871205500 | 5.500 | 6.250 | 0.062 |
| 870905937 | 5.937 | 6.500 | 0.062 |
| 870806000 | 6.000 | 6.500 | 0.062 |
| 871006000 | 6.000 | 6.625 | 0.062 |
| 871206250 | 6.250 | 7.000 | 0.062 |
| 871006375 | 6.375 | 7.000 | 0.062 |
| 870906437 | 6.437 | 7.000 | 0.062 |
| 870806500 | 6.500 | 7.000 | 0.062 |
| 871206500 | 6.500 | 7.250 | 0.062 |
| 870906937 | 6.937 | 7.500 | 0.062 |
| 871006968 | 6.968 | 7.593 | 0.062 |
| 870807000 | 7.000 | 7.500 | 0.062 |
| 871007000 | 7.000 | 7.625 | 0.062 |
| 871207000 | 7.000 | 7.750 | 0.062 |
| 871607000 | 7.000 | 8.000 | 0.062 |
| 871007375 | 7.375 | 8.000 | 0.062 |
| 870807500 | 7.500 | 8.000 | 0.062 |
| 871207500 | 7.500 | 8.250 | 0.062 |
| 870907937 | 7.937 | 8.500 | 0.062 |
| 870808000 | 8.000 | 8.500 | 0.062 |
| 871008000 | 8.000 | 8.625 | 0.062 |
| 871208000 | 8.000 | 8.750 | 0.062 |
| 871608000 | 8.000 | 9.000 | 0.062 |
| 871008500 | 8.500 | 9.125 | 0.062 |
| 871209000 | 9.000 | 9.750 | 0.062 |
| 871609000 | 9.000 | 10.000 | 0.062 |
| 871109312 | 9.312 | 10.000 | 0.062 |
| 871109343 | 9.343 | 10.031 | 0.062 |
| 871210000 | 10.000 | 10.750 | 0.062 |
| 871610000 | 10.000 | 11.000 | 0.062 |
| 871611000 | 11.000 | 12.000 | 0.062 |
| 871611031 | 11.031 | 12.031 | 0.062 |
| 871211250 | 11.250 | 12.000 | 0.062 |
| 871612000 | 12.000 | 13.000 | 0.062 |
| 871613000 | 13.000 | 14.000 | 0.062 |
| 871613031 | 13.062 | 14.062 | 0.062 |
| 871313187 | 13.187 | 14.000 | 0.062 |
| 871315218 | 15.218 | 16.031 | 0.062 |
| 871519093 | 19.093 | 20.031 | 0.062 |

O'RINGS



ED - DIN Connector Rings - Inch



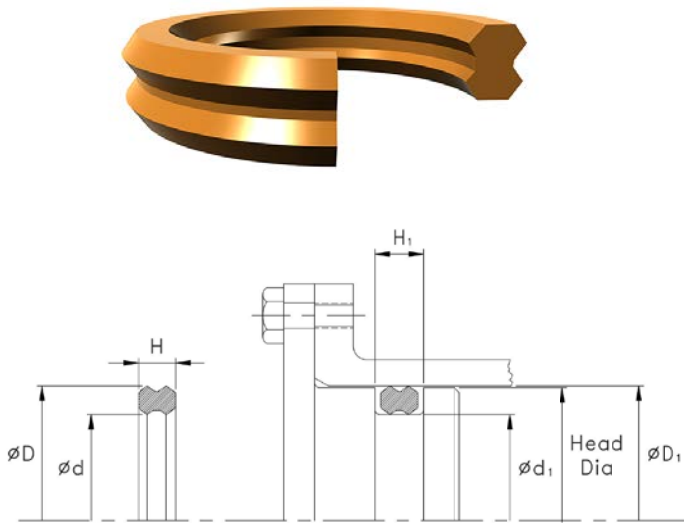
| Standard Materials | Temperature Range |
|--------------------------|--------------------------------------|
| Nitrile /N | -22°F to +212°F (-30°C to +100°C) |
| Fluorocarbon /V | -4°F to +392°F (-20°C to +200°C) |
| Optional Material | Temperature Range |
| Ethylene-Propylene /E | -49°F to +302°F (-45°C to +150°C) |

ED-Style sealing rings are mostly used to seal threaded tube connections and fittings. As torque is applied to the connector, the elastomeric seal material is compressed to form a positive sealing line, and its special geometry keeps it from twisting during installation.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Part Number | For Male Metric Thread | For Male Thread BSPP | D (mm) | d (mm) | S (mm) |
|-------------|------------------------|----------------------|--------|--------|--------|
| ED8X1X | M8 x 1 | | 9.90 | 6.50 | 1.00 |
| ED10X1X | M10 x 1 | G 1/8 A | 11.90 | 8.40 | 1.00 |
| ED12X1.5X | M12 x 1.5 | | 14.40 | 9.80 | 1.50 |
| ED14X1.5X | M14 X1.5 | G 1/4 A | 16.50 | 11.60 | 1.50 |
| ED16XX1.5X | M16 X 1.5 | | 18.90 | 13.80 | 1.50 |
| ED3/8X | | G 3/8 A | 18.90 | 14.70 | 1.50 |
| ED18X1.5X | M18 X 1.5 | | 20.90 | 15.70 | 1.50 |
| ED20X1.5X | M20 X 1.5 | | 22.90 | 17.80 | 1.50 |
| ED1/2X | | G 1/2 A | 23.90 | 18.50 | 1.50 |
| ED22X1.5X | M22 X 1.5 | | 24.30 | 19.60 | 1.50 |
| ED26X1.5X | M26 x 1.5 | G 3/4 A | 29.20 | 23.90 | 1.50 |
| ED26X1.5X | M27 X 2 | G 3/4 A | 29.20 | 23.90 | 1.50 |
| ED33X2X | M33 X 2 | G 1 A | 35.70 | 29.70 | 2.00 |
| ED42X2X | M42 X 2 | G 1 1/4 A | 45.80 | 38.80 | 2.00 |
| ED48X2X | M48 X2 | G 1 1/2 A | 50.70 | 44.70 | 2.00 |
| ED60X2X | | G 2 A | 56.30 | 67.00 | 3.20 |





| Standard Material | Temperature Range | Pressure Range |
|-------------------|---------------------------------|------------------------|
| Polyurethane | Low Extreme | |
| | -65°F (-54°C) | N/A |
| | Normal Operation | |
| | -40°F à +250°F (-40°C à +121°F) | ≤5000 psi (≤345 bar) |
| High Extreme | | |
| | +265°F (+129°C) | ≤10 000 psi (≤689 bar) |

Head seals are used in static applications as replacements to O'Ring/Back-up assemblies. High performance material and a symmetrical geometry greatly reduces the risk of installation damage and extrusion at higher pressures. This product offers an improved fit and a more stable profile once installed in the housing.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| GAP DIMENSION "G" | | | |
|--|----------------------|--------|----------------------|
| In order to avoid extrusion, the maximum pressure allowed depends on the fitting gap : | | | |
| Gap | Pressure | Gap | Pressure |
| 0.047" | ≤725 psi (≤50 bar) | 0.010" | ≤4350 psi (≤300 bar) |
| 0.031" | ≤1450 psi (≤100 bar) | 0.007" | ≤5800 psi (≤400 bar) |
| 0.016" | ≤2900 psi (≤200 bar) | 0.004" | ≤7250 psi (≤500 bar) |
| NB. For the Gap calculation, it is necessary to consider the elastic deformation of metal elements under pressure loads. | | | |



Head seal series - AU 92A

O'RINGS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|----------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | Head dia | Tol. | H1 | Tol. |
| HS12-039 | 2.875 | +0.002 -0.000 | 2.875 | 2.750 | 0.125 | 2.775 | +0.000 -0.002 | 2.865 | +0.002 -0.000 | 0.138 | +0.005 -0.000 |
| HS12-218 | 1.500 | | 1.500 | 1.250 | 0.187 | 1.278 | | 1.490 | | 0.208 | |
| HS12-222 | 1.750 | | 1.750 | 1.500 | 0.187 | 1.528 | | 1.740 | | 0.208 | |
| HS12-224 | 2.000 | | 2.000 | 1.750 | 0.187 | 1.778 | | 1.990 | | 0.208 | |
| HS12-226 | 2.250 | | 2.250 | 2.000 | 0.187 | 2.028 | | 2.240 | | 0.208 | |
| HS12-227 | 2.375 | | 2.375 | 2.125 | 0.187 | 2.153 | | 2.365 | | 0.208 | |
| HS12-228 | 2.500 | | 2.500 | 2.250 | 0.187 | 2.278 | | 2.497 | | 0.208 | |
| HS12-230 | 2.750 | | 2.750 | 2.500 | 0.187 | 2.528 | | 2.747 | | 0.208 | |
| HS12-232 | 3.000 | ▼ | 3.000 | 2.750 | 0.187 | 2.778 | | 2.997 | ▼ | 0.208 | |
| HS12-234 | 3.250 | +0.003 -0.000 | 3.250 | 3.000 | 0.187 | 3.028 | | 3.247 | +0.003 -0.000 | 0.208 | |
| HS12-235 | 3.375 | | 3.375 | 3.125 | 0.187 | 3.153 | | 3.372 | | 0.208 | |
| HS12-236 | 3.500 | | 3.500 | 3.250 | 0.187 | 3.278 | | 3.497 | | 0.208 | |
| HS12-238 | 3.750 | | 3.750 | 3.500 | 0.187 | 3.528 | | 3.747 | | 0.208 | |
| HS12-240 | 4.000 | | 4.000 | 3.750 | 0.187 | 3.778 | ▼ | 3.997 | | 0.208 | |
| HS12-242 | 4.250 | | 4.250 | 4.000 | 0.187 | 4.028 | +0.000 -0.003 | 4.247 | | 0.208 | |
| HS12-244 | 4.500 | | 4.500 | 4.250 | 0.187 | 4.278 | | 4.497 | | 0.208 | |
| HS12-246 | 4.750 | | 4.750 | 4.500 | 0.187 | 4.528 | ▼ | 4.747 | | 0.208 | |
| HS12-248 | 5.000 | | 5.000 | 4.750 | 0.187 | 4.778 | +0.000 -0.004 | 4.997 | | 0.208 | |
| HS12-250 | 5.250 | | 5.250 | 5.000 | 0.187 | 5.028 | | 5.247 | | 0.208 | |
| HS12-251 | 5.375 | | 5.375 | 5.125 | 0.187 | 5.153 | | 5.372 | | 0.208 | |
| HS12-252 | 5.500 | | 5.500 | 5.250 | 0.187 | 5.278 | | 5.497 | | 0.208 | |
| HS12-254 | 5.750 | | 5.750 | 5.500 | 0.187 | 5.528 | | 5.747 | | 0.208 | |
| HS12-256 | 6.000 | | 6.000 | 5.750 | 0.187 | 5.778 | | 5.997 | | 0.208 | |
| HS12-260 | 6.750 | ▼ | 6.750 | 6.500 | 0.187 | 6.528 | | 6.747 | ▼ | 0.208 | |
| HS12-268 | 8.750 | +0.004/-0.000 | 8.750 | 8.500 | 0.187 | 8.528 | ▼ | 8.747 | +0.004/-0.000 | 0.208 | |
| HS12-338 | 3.500 | +0.003 -0.000 | 3.500 | 3.125 | 0.281 | 3.160 | +0.000 -0.002 | 3.497 | +0.003 -0.000 | 0.311 | |
| HS12-342 | 4.000 | | 4.000 | 3.625 | 0.281 | 3.660 | | 3.997 | | 0.311 | |
| HS12-344 | 4.250 | | 4.250 | 3.875 | 0.281 | 3.910 | ▼ | 4.247 | | 0.311 | |
| HS12-346 | 4.500 | | 4.500 | 4.125 | 0.281 | 4.160 | +0.000 -0.003 | 4.497 | | 0.311 | |
| HS12-348 | 4.750 | | 4.750 | 4.375 | 0.281 | 4.410 | | 4.747 | | 0.311 | |
| HS12-350 | 5.000 | | 5.000 | 4.625 | 0.281 | 4.660 | +0.000 -0.004 | 4.997 | | 0.311 | |
| HS12-352 | 5.250 | | 5.250 | 4.875 | 0.281 | 4.910 | | 5.247 | | 0.311 | |
| HS12-353 | 5.375 | | 5.375 | 5.000 | 0.281 | 5.035 | | 5.372 | | 0.311 | |
| HS12-354 | 5.500 | | 5.500 | 5.125 | 0.281 | 5.160 | | 5.497 | | 0.311 | |
| HS12-356 | 5.750 | | 5.750 | 5.375 | 0.281 | 5.410 | | 5.747 | | 0.311 | |
| HS12-358 | 6.000 | | 6.000 | 5.625 | 0.281 | 5.660 | | 5.997 | | 0.311 | |
| HS12-360 | 6.250 | | 6.250 | 5.875 | 0.281 | 5.910 | | 6.247 | ▼ | 0.311 | |
| HS12-362 | 6.625 | ▼ | 6.625 | 6.250 | 0.281 | 6.285 | | 6.622 | +0.004 -0.000 | 0.311 | |
| HS12-366 | 7.625 | +0.004 -0.000 | 7.625 | 7.250 | 0.281 | 7.285 | | 7.622 | | 0.311 | |
| HS12-367 | 7.875 | | 7.875 | 7.500 | 0.281 | 7.535 | | 7.872 | | 0.311 | |
| HS12-371 | 8.875 | ▼ | 8.875 | 8.500 | 0.281 | 8.535 | ▼ | 8.872 | ▼ | 0.311 | ▼ |

CAT O'Ring Kits

| REF. NUMBER | DESCRIPTION | APPLICATION |
|-------------|---|---|
| RCAT-4C4782 | Nitrile O'Ring Kit for use with XT-3, O'Ring Face seal & O'Ring BOSS connections. 580 round cross section O'Rings in 32 different sizes, nitrile 90 duro. | SAE STOR fittings, SAE ORFS fittings, SAE CODE 61 flanges, SAE code 62 flanges |
| RCAT-4C4784 | Nitrile D'Ring kit for use with XT-5 & XT-6 Flange connections. 80 rectangular cross section D'Rings in 9 different sizes, nitrile 90 duro. | Cat Flanges |
| RCAT-4C5859 | Nitrile O'Ring kit for use with face seal hose coupling & adapter fittings. 120 round cross section O'Rings in 8 different sizes, nitrile 90 duro. | SAE ORFS fittings |
| RCAT-4C8253 | General purpose silicone O'Ring kit for use with hose couplings. Engines & transmissions. 149 round cross section O'Rings in 32 different sizes, silicone 70 duro. | Low-pressure, High-Temperature |
| RCAT-9S3135 | Nitrile O'Ring kit for use with code 61 & XT-3 hose couplings & flange fittings. 60 round cross section O'Rings in 6 different sizes, nitrile 90 duro. | SAE code 61 flanges, SAE code 62 flanges |

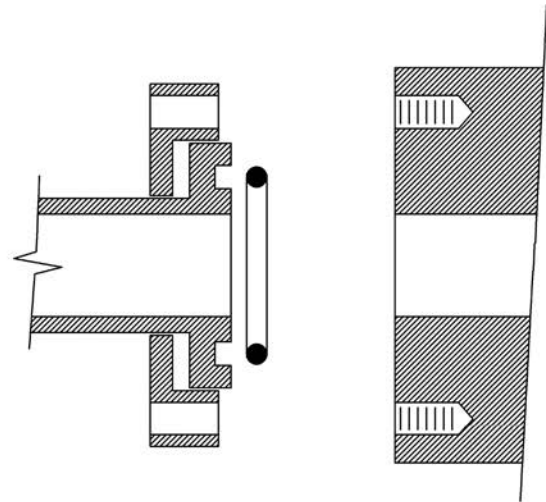
O'RINGS



CAT Hydraulic Hose Coupling Seals

O-RING STYLE

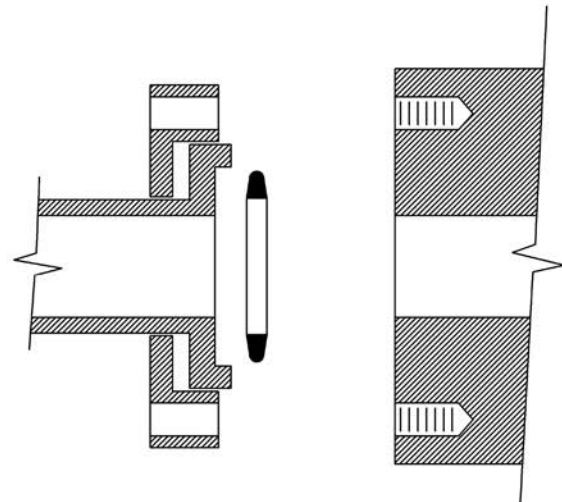
| Ref. Number | Nominal Hose Size |
|-------------|-------------------|
| RCAT-4J5140 | 0.500 |
| RCAT-4J5267 | 0.750 |
| RCAT-4J0520 | 1.000 |
| RCAT-4J0522 | 1.250 |
| RCAT-4J0524 | 1.500 |
| RCAT-4J0527 | 2.000 |



METAL BACK SEALS

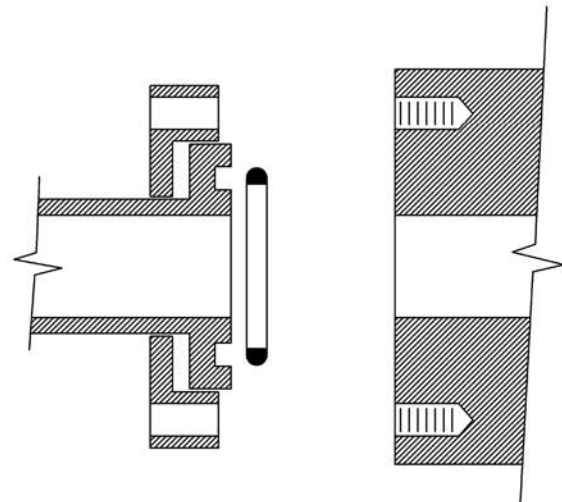
| Ref. Number | Nominal Hose Size |
|--------------|-------------------|
| RCAT-5J583* | 0.500 |
| RCAT-1P3702* | 0.750 |
| RCAT-6J3600* | 1.000 |
| RCAT-6J3625* | 1.250 |
| RCAT-6J3650* | 1.500 |
| RCAT-1J3708* | 2.000 |

* DISCONTINUED - REPLACED BY D-RING STYLE



D-RING STYLE

| Ref. Number | Nominal Hose Size |
|-------------|-------------------|
| RCAT-1P3700 | 0.500 |
| RCAT-1P3702 | 0.750 |
| RCAT-1P3703 | 1.000 |
| RCAT-1P3704 | 1.250 |
| RCAT-1P3705 | 1.500 |
| RCAT-1P3706 | MISC. |
| RCAT-1P3707 | MISC. |
| RCAT-1P3708 | MISC. |
| RCAT-1P3709 | 2.000 |



ORFS O'Ring reference

| Tube Fitting Part Number | Fitting Dash Size | End Size | | I.D. | | W | |
|--------------------------|-------------------|----------|--------------|-------|-------|-------|------|
| | | (in) | (mm) | (in) | (mm) | (in) | (mm) |
| 2-011 | 4 | 1/4 | 6.00 | 0.300 | 7.70 | 0.070 | 1.78 |
| 2-012 | 6 | 3/8 | 8, 10 | 0.360 | 9.30 | 0.070 | 1.78 |
| 2-014 | 8 | 1/2 | 12.00 | 0.490 | 12.40 | 0.070 | 1.78 |
| 2-016 | 10 | 5/8 | 14, 15, 16 | 0.610 | 15.60 | 0.070 | 1.78 |
| 2-018 | 12 | 3/4 | 18.00, 20.00 | 0.740 | 18.80 | 0.070 | 1.78 |
| 2-020 | 14 | 7/8 | 22.00 | 0.860 | 21.80 | 0.070 | 1.78 |
| 2-021 | 16 | 1 | 25.00 | 0.930 | 23.50 | 0.070 | 1.78 |
| 2-025 | 20 | 1 1/4 | 28, 30, 32 | 1.180 | 29.90 | 0.070 | 1.78 |
| 2-029 | 24 | 1 1/2 | 35.00, 38.00 | 1.490 | 37.80 | 0.070 | 1.78 |
| 2-035 | 32 | 2 | 50.00 | 1.930 | 49.00 | 0.100 | 2.54 |

SAE 4-Bolt Flange O'Ring reference

| Tube Fitting Part Number | Fitting Dash Size | W (in) | I.D. (in) |
|--------------------------|-------------------|--------|-----------|
| 2-210 | 8 | 0.139 | 0.734 |
| 2-214 | 12 | 0.139 | 0.984 |
| 2-219 | 16 | 0.139 | 1.296 |
| 2-222 | 20 | 0.139 | 1.484 |
| 2-225 | 24 | 0.139 | 1.859 |
| 2-228 | 32 | 0.139 | 2.234 |
| 2-232 | 40 | 0.139 | 2.734 |
| 2-237 | 48 | 0.139 | 3.359 |

Markets segments we are servicing



Aerospace



Agriculture



Appliances



Automotive OEM



Automotive Tier



Building Engineering



SAE Flanged seals

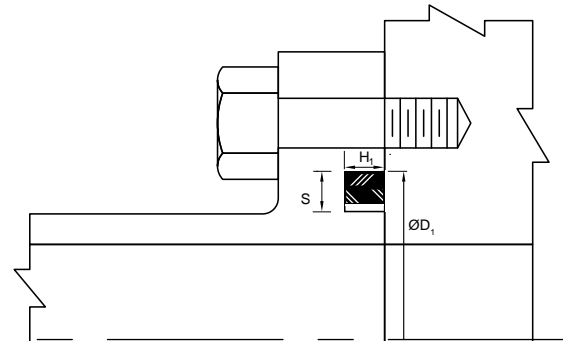


SFS



PFS

| Standard Material | Temperature Range | Pressure Range |
|--------------------|--------------------------------------|-------------------------|
| SFS : Polyurethane | -40°F to +195°F (-40°C to +90°C) | ≤3000 psi (≤206 bar) |
| PFS : Polyurethane | -40°F to +212°F (-40°C to +100°C) | ≤7250 psi (≤500 bar) |



SFS/PFS flange seals are designed to retrofit O-Rings on all 4-bolt flanges such as shown in SAE standard J518C Code 61/62. The polyurethane material offers extended service life, improved extrusion resistance and easy installation.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Ref.Number | References | | | Housing Dimensions | | | | | |
|------------|------------|-----------------|------------------|-----------------|--------------------|------------------|-------|------------------|-------|------------------|
| | | SAE Flange Size | Flange Dash Size | Replaces O'Ring | D1 | Tol. | S | Tol. | H1 | Tol. |
| SFS-8 | PFS-08 | 0.500 | -08 | -210 | 1.000 | +0.004 -0.004 | 0.165 | +0.010 -0.010 | 0.112 | +0.003 -0.003 |
| SFS-12 | PFS-12 | 0.750 | -12 | -214 | 1.252 | | 0.165 | | 0.112 | |
| SFS-16 | PFS-16 | 1.000 | -16 | -219 | 1.559 | | 0.165 | | 0.112 | |
| SFS-20 | PFS-20 | 1.250 | -20 | -222 | 1.752 | | 0.165 | | 0.112 | |
| SFS-24 | PFS-24 | 1.500 | -24 | -225 | 2.114 | | 0.165 | | 0.112 | |
| SFS-32 | PFS-32 | 2.000 | -32 | -228 | 2.496 | | 0.165 | | 0.112 | |
| SFS-40 | | 2.500 | -40 | -232 | 3.000 | | 0.165 | | 0.112 | |
| SFS-48 | | 3.000 | -48 | -237 | 3.618 | | 0.165 | | 0.112 | |
| SFS-56 | | 3.500 | -56 | -241 | 4.125 | | 0.165 | | 0.112 | |
| SFS-64 | | 4.000 | -64 | -245 | 4.637 | | 0.165 | | 0.112 | |

Markets segments we are servicing



Chemical



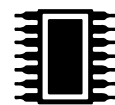
Commercial Marine



Construction



Distribution



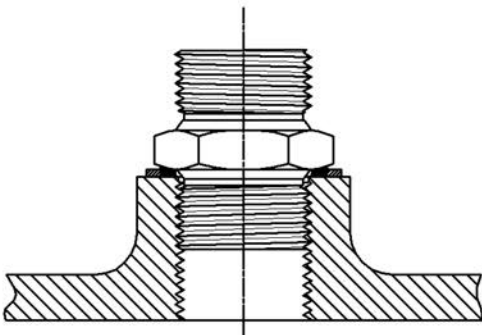
Electronics



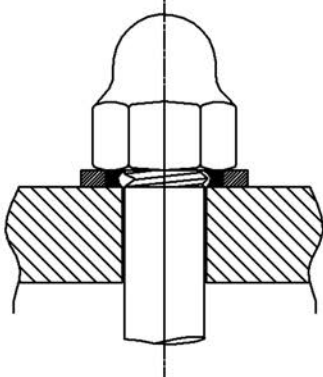
Energy



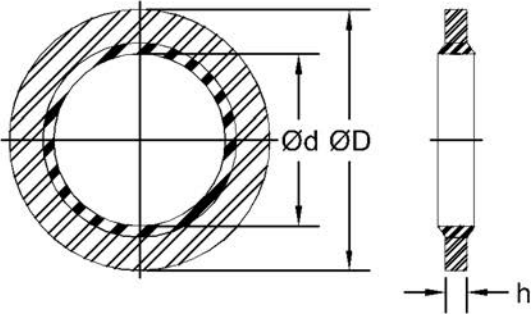
Bonded Seals - Typical Applications



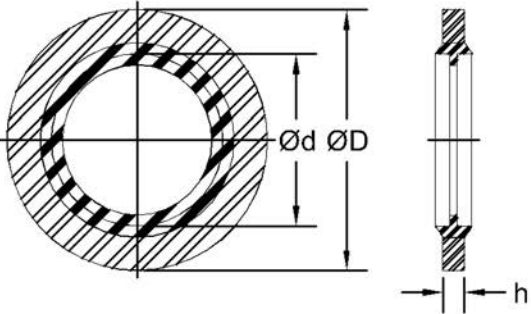
Union



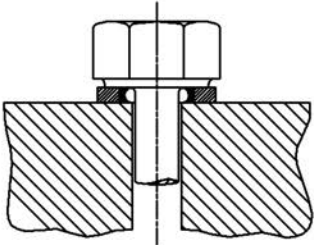
Dome Head



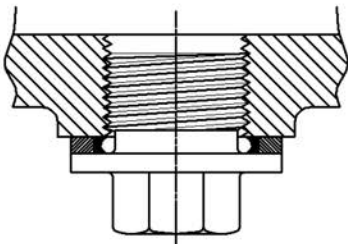
Standard



Self Centering



Bolt Head



Plug

O'RINGS



Bonded Seals - Reference Chart

O'RINGS

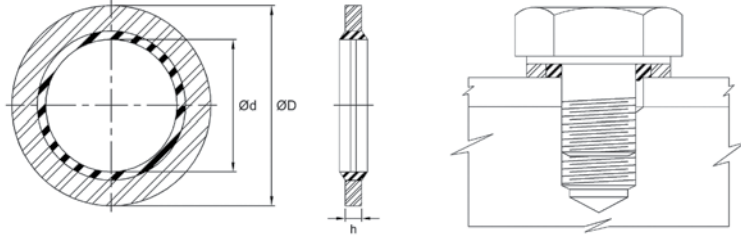


| Ref. Number | Nominal Size Bolt Dia. | | | d | | D | | h | | Minimum Bursting Pressure | |
|-------------|------------------------|--------|---------|-------------|-------------|-------------|-------------|------------------------------|-----------|---------------------------|------|
| | in | B.S.P. | mm | in | mm | in | mm | in | m | p.s.i. | bar |
| BS400001 | .110 | | 2.6 | .115/.125 | 2.92/3.18 | .250/.255 | 6.35/6.48 | .048/.054 in 1.22/1.37 mm | | 18100 | 1250 |
| BS400002 | .142 | | | .157/.167 | 3.99/4.24 | .286/.291 | 7.26/7.39 | | | 13000 | 900 |
| BS400003 | .185 | | | .200/.210 | 5.08/5.33 | .330/.335 | 8.38/8.51 | | | 11400 | 785 |
| BS400004 | 1/4 | | 6 | .265/.275 | 6.73/6.99 | .520/.525 | 13.21/13.34 | | | 21200 | 1460 |
| BS400005 | 1/4 | | | .270/.280 | 6.86/7.11 | .525/.530 | 13.34/13.46 | | | 14900 | 1025 |
| BS400006 | 5/16 | | | 3.22/.330 | 8.18/8.38 | .525/.530 | 13.34/13.46 | | | 14900 | 1025 |
| BS400007 | 5/16 | | 8 | .335/.345 | 8.51/8.76 | .560/.565 | 14.22/14.35 | ▼ | | 15100 | 1040 |
| BS400020 | 3/8 | 1/8 | | .403/.411 | 10.24/10.44 | .625/.630 | 15.88/16.00 | .080/.086 in 2.03/2.18 mm | | 13200 | 910 |
| BS400008 | .400 | | 10 | .438/.442 | 11.13/11.23 | .723/.727 | 18.36/18.47 | | | 17300 | 1190 |
| BS400009 | 7/16 | | 11 | .455/.465 | 11.56/11.81 | .750/.755 | 19.05/19.18 | | | 16400 | 1130 |
| BS400021 | 1/2 | 1/4 | 12 & 13 | .536/.544 | 13.61/13.82 | .810/.815 | 20.57/20.70 | | | 13600 | 935 |
| BS400010 | .560 | | 14 | .580/.590 | 14.73/14.99 | .875/.880 | 22.23/22.35 | | | 13700 | 940 |
| BS400022 | .600 | | | .618/.626 | 15.70/15.90 | .875/.880 | 22.23/22.35 | | | 11400 | 785 |
| BS400011 | 5/8 | | 16 | .645/.655 | 16.38/16.64 | 1.000/1.005 | 25.40/25.53 | | | 13700 | 940 |
| BS400023 | | 3/8 | 16 | .675/.683 | 17.15/17.35 | .937/.942 | 23.80/23.93 | ▼ | | 10900 | 750 |
| BS400012 | 11/16 | | | .710/.720 | 18.03/18.29 | 1.000/1.005 | 25.40/25.53 | .092/.102 in 2.34/2.60 mm | | 11400 | 785 |
| BS400024 | 3/4 | | 18 | .770/.778 | 19.56/19.76 | 1.060/1.065 | 26.92/27.05 | | | 10900 | 750 |
| BS400025 | 13/16 | 1/2 | 20 | .843/.851 | 21.41/21.62 | 1.125/1.130 | 28.58/28.70 | | | 1 | 690 |
| BS400026 | 7/8 | 5/8 | 22 | .920/.928 | 23.36/23.57 | 1.250/1.255 | 31.75/31.88 | | | 11000 | 755 |
| BS400013 | 15/16 | | | .950/.960 | 24.13/24.38 | 1.310/1.315 | 33.27/33.40 | | | 11100 | 760 |
| BS400027 | 1 | 3/4 | 24 & 26 | 1.060/1.068 | 26.92/27.13 | 1.375/1.380 | 34.93/35.05 | | | 9400 | 645 |
| BS400028 | 1 1/16 | | 27 | 1.090/1.100 | 27.69/27.94 | 1.520/1.525 | 38.61/38.74 | | | 11400 | 785 |
| BS400014 | 1 1/8 | | 28 | 1.150/1.160 | 29.21/29.46 | 1.440/1.445 | 36.58/36.70 | | | 7600 | 525 |
| BS400029 | 1 3/16 | 7/8 | 30 | 1.208/1.216 | 30.68/30.89 | 1.500/1.505 | 38.10/38.23 | ▼ | | 7700 | 530 |
| BS400015 | 1 1/4 | | | 1.280/1.290 | 32.51/32.77 | 1.630/1.635 | 41.40/41.53 | .128/.138 in 3.25/3.51 mm | | 6650 | 455 |
| BS400030 | 1 5/16 | 1 | 33 | 1.329/1.337 | 33.76/33.96 | 1.685/1.690 | 42.80/42.93 | | | 7000 | 480 |
| BS400031 | 1 5/16 | 1 | | 1.329/1.337 | 33.76/33.96 | 1.685/1.690 | 42.80/42.93 | .092/.102 | 2.34/2.60 | 7000 | 480 |
| BS400016 | 1 3/8 | | | 1.410/1.420 | 35.81/36.07 | 1.750/1.755 | 44.45/44.58 | | | 5900 | 405 |
| BS400017 | 1 1/2 | | 36 & 38 | 1.530/1.540 | 38.86/39.12 | 1.880/1.885 | 47.75/47.88 | | | 5800 | 400 |
| BS400032 | 1 5/8 | 1 1/4 | 39 & 42 | 1.685/1.693 | 42.80/43.00 | 2.062/2.067 | 52.38/52.50 | | | 5800 | 400 |
| BS400018 | 1 3/4 | | | 1.780/1.790 | 45.21/45.47 | 2.250/2.255 | 57.15/57.28 | | | 7700 | 530 |
| BS400033 | 1 7/8 | 1 1/2 | 45 | 1.902/1.910 | 48.31/48.51 | 2.307/2.312 | 58.60/58.72 | | | 5800 | 400 |
| BS400019 | 2 | | 48 | 2.030/2.040 | 51.56/51.82 | 2.500/2.505 | 63.50/63.63 | | | 6900 | 475 |
| BS400034 | 2 1/8 | 1 3/4 | 52 | 2.156/2.290 | 54.76/54.97 | 2.750/2.755 | 69.85/69.98 | | | 8300 | 570 |
| BS400035 | 2 1/4 | | 56 | 2.280/2.290 | 57.91/58.17 | 2.770/2.775 | 70.36/70.49 | | | 6300 | 430 |
| BS400036 | | 2 | | 2.380/2.390 | 60.45/60.72 | 2.875/2.880 | 73.03/73.15 | | | 6300 | 430 |
| BS400037 | 2 1/2 | | 60 | 2.530/2.540 | 64.26/64.52 | 3.060/3.065 | 77.72/77.85 | | | 6300 | 430 |
| BS400038 | | 2 1/4 | 64 | 2.620/2.630 | 66.55/66.80 | 3.130/3.135 | 79.50/79.63 | | | 6000 | 410 |
| BS400039 | | 2 1/8 | 68 | 2.990/3.000 | 75.95/76.20 | 3.555/3.560 | 90.17/90.30 | ▼ | | 6000 | 410 |

BS400 - Bonded Seal - Inch



| Standard Material | Temperature Range |
|----------------------|--------------------------------------|
| Carbon Steel/Nitrile | -30°F to +225°F (-34°C to +107°C) |



Bonded seals are used to seal off potential leak paths on bolts and other similar fasteners. They are designed to create a predetermined sealing line once the fastener has been tightened, as the rubber element will close off the clearance gap. **Bonded seals** are intended to take the place of an O'Ring in certain assemblies. By using a bonded seal, there is no need to a machine and O'Ring groove in the mating part.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | d | D | h |
| BS400001 | 0.115 | 0.250 | 0.048 |
| BS400002 | 0.157 | 0.286 | 0.048 |
| BS400003 | 0.200 | 0.330 | 0.048 |
| BS400004 | 0.265 | 0.520 | 0.048 |
| BS400005 | 0.270 | 0.525 | 0.048 |
| BS400006 | 0.322 | 0.525 | 0.048 |
| BS400007 | 0.335 | 0.560 | 0.048 |
| BS400008 | 0.438 | 0.723 | 0.080 |
| BS400009 | 0.455 | 0.750 | 0.080 |
| BS400010 | 0.580 | 0.875 | 0.080 |
| BS400011 | 0.645 | 1.000 | 0.080 |
| BS400012 | 0.710 | 1.000 | 0.092 |
| BS400013 | 0.950 | 1.310 | 0.092 |
| BS400014 | 1.150 | 1.440 | 0.092 |
| BS400015 | 1.280 | 1.630 | 0.128 |
| BS400016 | 1.410 | 1.750 | 0.128 |
| BS400017 | 1.530 | 1.880 | 0.128 |
| BS400018 | 1.780 | 2.250 | 0.128 |
| BS400019 | 2.030 | 2.500 | 0.128 |
| BS400020 | 2.403 | 0.625 | 0.080 |

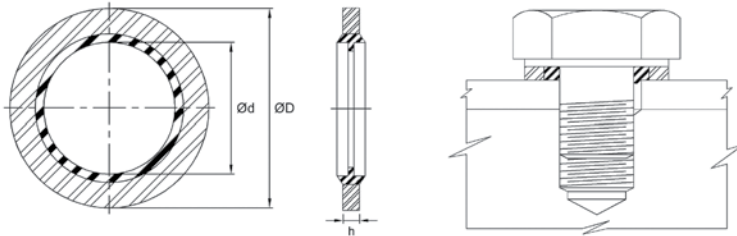
| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | d | D | h |
| BS400021 | 0.536 | 0.810 | 0.080 |
| BS400022 | 0.618 | 0.875 | 0.080 |
| BS400023 | 0.675 | 0.937 | 0.080 |
| BS400024 | 0.770 | 1.060 | 0.092 |
| BS400025 | 0.843 | 1.125 | 0.092 |
| BS400026 | 0.920 | 1.250 | 0.092 |
| BS400027 | 1.060 | 1.375 | 0.092 |
| BS400028 | 1.090 | 1.520 | 0.092 |
| BS400029 | 1.208 | 1.500 | 0.092 |
| BS400030 | 1.329 | 1.685 | 0.128 |
| BS400031 | 1.329 | 1.685 | 0.092 |
| BS400032 | 1.685 | 2.062 | 0.128 |
| BS400033 | 1.902 | 2.307 | 0.128 |
| BS400034 | 2.156 | 2.750 | 0.128 |
| BS400035 | 2.280 | 2.770 | 0.128 |
| BS400036 | 2.380 | 2.875 | 0.128 |
| BS400037 | 2.530 | 3.060 | 0.128 |
| BS400038 | 2.620 | 3.130 | 0.128 |
| BS400039 | 2.990 | 3.555 | 0.128 |



BS400SC series - Self Centering



| Standard Material | Temperature Range |
|----------------------|--------------------------------------|
| Carbon Steel/Nitrile | -30°F to +225°F (-34°C to +107°C) |



Bonded seals are used to seal off potential leak paths on bolts and other similar fasteners. They are designed to create a predetermined sealing line once the fastener has been tightened, as the rubber element will close off the clearance gap. **Bonded seals** are intended to take the place of an O'Ring in certain assemblies. By using a bonded seal, there is no need to a machine and O'Ring groove in the mating part.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

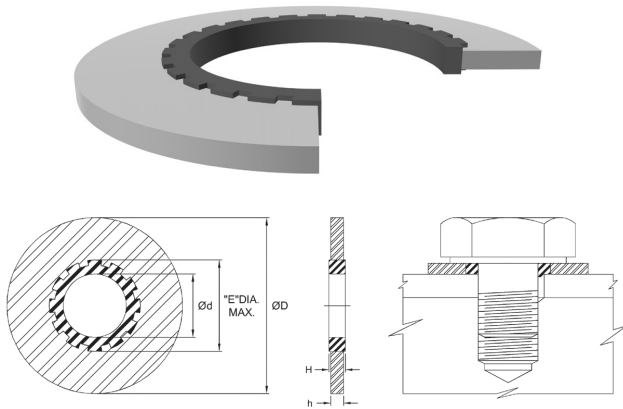
O'RINGS

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | d | D | h |
| BS400011SC | 0.650 | 1.000 | 0.080 |
| BS400012SC | 0.715 | 1.000 | 0.092 |
| BS400020SC | 0.403 | 0.625 | 0.080 |
| BS400021SC | 0.536 | 0.810 | 0.080 |
| BS400023SC | 0.675 | 0.937 | 0.080 |
| BS400025SC | 0.843 | 1.125 | 0.092 |
| BS400026SC | 0.920 | 1.250 | 0.092 |
| BS400027SC | 1.060 | 1.375 | 0.092 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | d | D | h |
| BS400029SC | 1.208 | 1.500 | 0.092 |
| BS400030SC | 1.329 | 1.685 | 0.128 |
| BS400031SC | 1.329 | 1.685 | 0.092 |
| BS400032SC | 1.685 | 2.062 | 0.128 |
| BS400033SC | 1.902 | 2.307 | 0.128 |
| BS400034SC | 2.156 | 2.750 | 0.128 |
| BS400036SC | 2.380 | 2.875 | 0.128 |
| BS400038SC | 2.620 | 3.130 | 0.128 |
| BS400039SC | 2.990 | 3.555 | 0.128 |



600 - Fastener Seal - Inch



| Standard Material | Temperature Range |
|-------------------------------|--------------------------------------|
| Zinc Plated Steel/ Nitrile | -30°F to +225°F (-34°C to +107°C) |

Fastener Seals are primarily used to seal bolts around the smooth area of the bolt shaft. They feature an elastomeric sealing element molded in place inside a metal retainer. It offers a one-piece sealing unit that avoids having to machine an O'Ring groove in the mating hardware.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Nominal Seal Dimensions | | |
|-----------------|-------------------------|-------|-------|
| | d | D | H |
| 600-001-6-1 | 0.130 | 0.385 | 0.040 |
| 600-001-8-1 | 0.156 | 0.385 | 0.040 |
| 600-001-10-1 | 0.180 | 0.443 | 0.050 |
| 600-001-100S-1 | 0.186 | 0.468 | 0.050 |
| 600-001-1/4-1 | 0.240 | 0.505 | 0.050 |
| 600-001-1/40S-2 | 0.245 | 0.531 | 0.050 |
| 600-001-5/16-1 | 0.301 | 0.603 | 0.050 |
| 600-001-3/8-1 | 0.364 | 0.666 | 0.050 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| 600-001-7/16-1 | 0.427 | 0.760 | 0.050 |
| 600-001-1/2-1 | 0.490 | 0.880 | 0.050 |
| 600-001-9/16-1 | 0.552 | 1.067 | 0.050 |
| 600-001-5/8-1 | 0.615 | 1.193 | 0.050 |
| 600-001-3/4-1 | 0.740 | 1.322 | 0.064 |
| 600-001-7/8-1 | 0.864 | 1.510 | 0.064 |
| 600-001-1-1 | 0.988 | 1.760 | 0.064 |



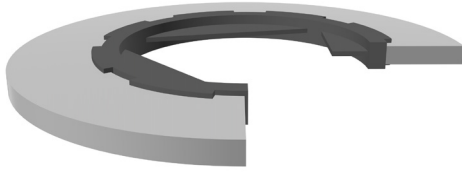
600 series - Fastener Seal

| Fastener size (Dash No) | Thread major diameter | d +/-0.010 | E Diameter Maximum | D +/-0.010 | h | H | Diametral Clearance |
|----------------------------|--------------------------|------------|-----------------------|------------|---------------|---------------|------------------------|
| -6 | 0.138 | 0.130 | 0.229 | 0.385 | .040 +/-0.004 | .050 +/-0.003 | 1/64 MAX. |
| -8 | 0.164 | 0.156 | 0.255 | 0.385 | .040 +/-0.004 | .050 +/-0.003 | 1/64 MAX. |
| -10 | 0.190 | 0.180 | 0.317 | 0.443 | .040 +/-0.004 | .050 +/-0.003 | 1/64 MAX. |
| -10 O.S. | 0.190 | 0.186 | 0.365 | 0.468 | .050 +/-0.005 | .072 +/-0.005 | 1/64 TO 1/32 |
| -1/4 | 0.250 | 0.240 | 0.381 | 0.505 | .050 +/-0.005 | .072 +/-0.005 | 1/64 MAX. |
| -1/4 O.S | 0.250 | 0.245 | 0.422 | 0.531 | .050 +/-0.005 | .072 +/-0.005 | 1/64 TO 1/32 |
| -5/16 | 0.312 | 0.301 | 0.488 | 0.603 | .050 +/-0.005 | .072 +/-0.005 | 1/64 TO 1/32 |
| -3/8 | 0.375 | 0.364 | 0.546 | 0.666 | .050 +/-0.005 | .072 +/-0.005 | 1/64 TO 1/32 |
| -7/16 | 0.438 | 0.427 | 0.618 | 0.760 | .050 +/-0.005 | .072 +/-0.005 | 1/64 TO 1/32 |
| -1/2 | 0.500 | 0.490 | 0.696 | 0.880 | .050 +/-0.005 | .072 +/-0.005 | 1/64 TO 1/32 |
| -9/16 | 0.562 | 0.552 | 0.759 | 1.067 | .050 +/-0.005 | .072 +/-0.005 | 1/64 TO 1/32 |
| -5/8 | 0.625 | 0.615 | 0.818 | 1.193 | .050 +/-0.005 | .072 +/-0.005 | 1/64 TO 1/32 |
| -3/4 | 0.750 | 0.740 | 0.982 | 1.322 | .064 +/-0.005 | .096 +/-0.005 | 1/64 TO 1/32 |
| -7/8 | 0.875 | 0.864 | 1.105 | 1.510 | .064 +/-0.005 | .096 +/-0.005 | 1/64 TO 1/32 |
| -1 | 1.000 | 0.988 | 1.234 | 1.760 | .064 +/-0.005 | .096 +/-0.005 | 1/64 TO 1/32 |

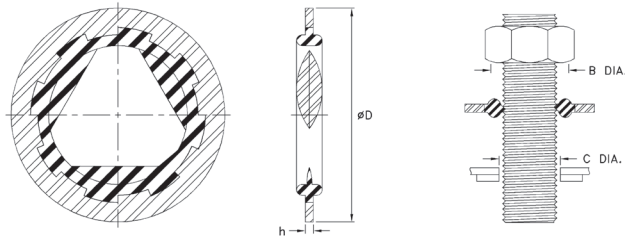
O'RINGS



7500 - Thread Seal - Inch



| Standard Material | Temperature Range |
|-------------------|--------------------------------------|
| Steel/Nitrile | -30°F to +225°F (-34°C to +107°C) |



Similar in design to the 600-series **Fastener Seal**, the **Thread Seal** features a triangular sealing element that allows it to seal anywhere along the threaded surface of the mating fastener.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | d | D | h |
| 7500-6 | | 0.406 | 0.051 |
| 7500-8 | | 0.406 | 0.051 |
| 7500-10 | | 0.469 | 0.051 |
| 7500-250 | | 0.562 | 0.051 |
| 7500-312 | | 0.687 | 0.064 |
| 7500-375 | | 0.750 | 0.064 |
| 7500-437 | | 0.906 | 0.078 |
| 7500-500 | | 1.000 | 0.078 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | d | D | h |
| 7500-562 | | 1.094 | 0.094 |
| 7500-625 | | 1.187 | 0.094 |
| 7500-750 | | 1.375 | 0.109 |
| 7500-875 | | 1.562 | 0.109 |
| 7500-1000 | | 1.750 | 0.120 |
| 7500-1125 | | 1.875 | 0.120 |
| 7500-1250 | | 2.000 | 0.120 |
| 7500-1375 | | 2.125 | 0.120 |
| 7500-1500 | | 2.250 | 0.120 |

Markets segments we are servicing



Truck Bus



Accumulators



Parker accessories

PARKER ACCESSORIES FOR O-RING USERS



Parker
Modular O'Ring Kit

The Benefits

- Reduce down time with the immediate availability of needed Parker O'Rings.
- Reduce labor costs... no longer will your mechanics and production personnel have lost time while the correct O'ring is located.
- Reduce costs by avoiding Minimum Order Charge usually involved in obtaining a single item.
- Save money... lost O'Rings are bought again and again.

The Contents

- 37 of the most popular Parker O'ring sizes.
- Over 500 O'Rings in our standard kit.
- Available with Parker O'Ring compounds are nitrile, ethylene propylene, fluorocarbon, silicone, fluorosilicone, or any other Parker compound.
- Many custom materials are available to suit your precise requirements (1).

The Kit

- Tough, high impact ABS plastic.
- Heavy duty design with reinforced hinges and metal hinge pins.
- EASY-TO-READ numbered plugs have ridges to prevent O'Rings from falling off.
- Large Cross-Reference Chart inside kit with nominal and actual dimensions of standard AS568A 2 dash O'Ring sizes.
- Internal locking system stays intact, unlike others which are easily broken.
- Easy accessibility of all O'Rings due to modular plug design.
- Built-in sizing blocks for checking cross-section of O'Ring. Plugs double as gauges for inside diameters (I.D.).

The Features

- All plugs are removable AND interchangeable.
- With in-use experience, Kit can be customized by user by ordering specific plugs to adjust kit inventory to actual needs.
- Easy inventory... all O-Rings are visible. Low inventory O-Rings are very apparent.
- CUSTOM KITS AVAILABLE – the concept of the Parker Modular O'Ring Kit, with its ease of interchangeability allows for customizing with special sizes and materials (1). Parker can also customize kits to your specifications by having the basic kit molded in your company colors with your logo and inside labels.



(1) minimum order requirements may apply depending on your individual specifications and order quantity.
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PARKER O-LUBE

Prolongs life of synthetic rubber seals

Parker O-lube is a barium base petroleum grease formulated to facilitate installation and extend service life of synthetic rubber O'Rings and seals.

A thin film of Parker O-Lube applied to the seal itself as well as the surfaces over which the seal will travel is suggested for best results.

Parker O-lube combines excellent surface adherence characteristics and lubricity with inherent water resistance.

This lubricant is especially recommended for low pressure pneumatic systems as well as reciprocating and low speed rotary or oscillating applications.

Parker O-lube is well suited for most sealing service within a -20°F to +300°F temperature range. Parker O-lube is NOT recommended for use in systems having micron filters or in contact with seal materials unsuited for petroleum oil service such as silicone, butyl or ethylene propylene. For these applications use of Parker Super O-Lube should be considered.

DO NOT USE IN SYSTEMS WHERE PURE OXYGEN IS PRESENT – FIRE OR EXPLOSION MAY RESULT.

PARKER SUPER O-LUBE

Prolongs life of synthetic rubber seals

Parker Super O-Lube is a silicone based lubricant intended to compliment Parker O-Lube in that it can be used with virtually any rubber polymer. Super O-Lube can also be used over a wider temperature range and in most cases will provide improved environmental protection to the elastomer. It is recommended that Super O-Lube be used sparingly as only a thin film is necessary for optimum results. This lubricant is useful with a variety of fluid media since it is quite inert. High pressure systems as well as vacuum uses are typical applications where Super-O-Lube is beneficial. Temperature range is -65°F to +400°F.

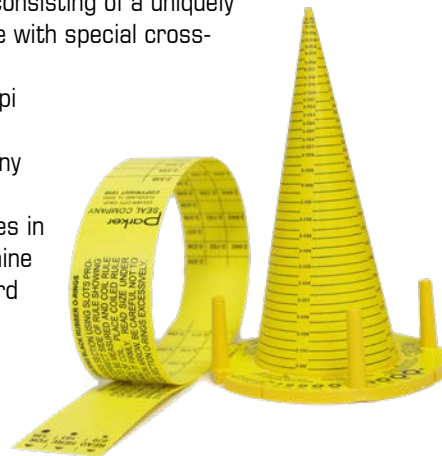
Parker Super O-Lube is non-toxic and non-irritating under normal conditions. It will not clog 30 micron filters and is unusually moisture resistant and adheres with unusual tenacity.



SEE NOTE (1)

PARKER O'RING SIZING GAUGES

The Parker Size Gauge for O'Rings is an exclusive Parker Seal Group device consisting of a uniquely marked plastic cone with special cross-section measuring base and separate pi tape. The device is used for checking any sample O'ring up to eight (8.000") inches in diameter to determine the nearest standard Parker Seal 2-dash size (corresponding to ARP568A standard series O'Rings).



NOTE: The device does not measure actual dimensions. Proper identifications and markings appear on the cone and tape, making the device easy to use. Available from your local Parker O'Ring Distributor.

PARKER O'RING INSTALLATION & EXTRACTION TOOLS

Parker O'Ring Installation and Extraction Tool Kits contain two unique double ended brass tools that help make life easier for the mechanic who must install or remove O'Rings from hydraulic or pneumatic cylinders or other equipment. Brass tools prevent damage to precision sealing surfaces. Complete with plastic pocket case and instruction sheet. Available from your local Parker O'Ring Distributor.



NOTE (1) Also available in smaller and larger containers on special orders. Contact your local Parker Seal Distributor for prices.



SEE NOTE (1)



Trousses de joints toriques et accessoires



SÉRIE PARKER

| N° de référence | Matériaux | Qté totale | Grandeurs |
|-----------------|-------------------------|------------|-----------|
| ORK-P-E0540 | ÉTHYLÈNE PROPYLÈNE 80 | 485 | 37 |
| ORK-P-N1470 | NITRILE 70 | 485 | 37 |
| ORK-P-N1490 | NITRILE 90 | 485 | 37 |
| ORK-P-S1224 | SILICONE 70 | 485 | 37 |
| ORK-P-V1475 | FLUOROCARBONE 75 (NOIR) | 485 | 37 |
| ORK-P-V1476 | FLUOROCARBONE 75 (BRUN) | 485 | 37 |
| ORK-P-V1411 | FLUOROCARBONE 90 (NOIR) | 485 | 37 |
| ORK-P-V1412 | FLUOROCARBONE 90 (BRUN) | 485 | 37 |
| ORK-P-N70 | NITRILE 70 | 485 | 37 |



SÉRIE COMPACTE

| N° de référence | Matériaux | Qté totale | Grandeur |
|-----------------|------------------------------|------------|----------|
| ORK-C-E70 | ÉTHYLÈNE PROPYLÈNE 70 | 375 | 30 |
| ORK-C-N70 | NITRILE 70 | 375 | 30 |
| ORK-C-N90 | NITRILE 90 | 375 | 30 |
| ORK-C-S70 | SILICONE 70 | 375 | 30 |
| ORK-C-V75 | FLUOROCARBONE 75 (NOIR) | 375 | 30 |
| ORK-C-V75B | FLUOROCARBONE 75 (BRUN) | 375 | 30 |
| ORK-C-V90 | FLUOROCARBONE 90 | 375 | 30 |
| QRK-C-N70 | JOINT QUADRILLOBE NITRILE 70 | 375 | 30 |



SÉRIE INDUSTRIELLE

| N° de référence | Matériaux | Qté totale | Grandeurs |
|-----------------|------------------------------|------------|-----------|
| ORK-IND-FREON | H. S. NITRILE 70 | 200 | 12 |
| ORK-IND-N70 | NITRILE 70 | 436 | 36 |
| ORK-IND-N90 | NITRILE 90 | 436 | 36 |
| ORK-IND-PTFE | PTFE VIERGE | 325 | 36 |
| ORK-IND-V75B | FLUOROCARBONE 75 | 435 | 36 |
| QRK-IND-N70 | JOINT QUADRILLOBE NITRILE 70 | 226 | 36 |



SÉRIE D'ENTREPÔT

| N° de référence | Matériaux | Qté totale | Grandeurs |
|-----------------|-------------------------|------------|-----------|
| ORK-WHSE-E70 | ÉTHYLÈNE PROPYLÈNE 80 | 1110 | 150 |
| ORK-WHSE-N70 | NITRILE 70 | 1110 | 150 |
| ORK-WHSE-N70 | NITRILE 90 | 1110 | 150 |
| ORK-WHSE-S70 | SILICONE 70 | 1110 | 150 |
| ORK-WHSE-V75 | FLUOROCARBONE 75 (NOIR) | 1110 | 150 |
| ORK-WHSE-V75B | FLUOROCARBONE 75 (BRUN) | 1110 | 150 |



SÉRIE BOSS

| N° de référence | Matériaux | Qté totale | Grandeurs |
|-----------------|------------------|------------|-----------|
| ORK-BOSS-N90D | NITRILE 90 | 212 | 20 |
| ORK-BOSS-V90 | FLUOROCARBONE 90 | 245 | 37 |

O'Ring kits and accessories



FLAT FACE SEAL SERIES

| Ref. Number | Material | Total Qty | Sizes |
|-------------|------------|-----------|-------|
| ORK-ORS-N90 | NITRILE 90 | 140 | 8 |



SAE 4-BOLTS FLANGE SERIES

| Ref. Number | Material | Total Qty | Sizes |
|-------------|-----------------|-----------|-------|
| ORK-ORF-N90 | NITRILE 90 | 50 | 8 |
| SAE-SFS-KIT | POLYURETHANE 95 | 40 | 8 |



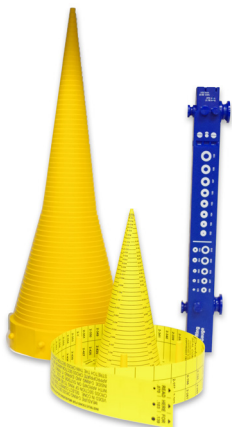
OSK SERIES

| Ref. Number | Material |
|-------------|------------------------------|
| ORK100-NBR | O-RING SPLICING KIT - NBR 70 |
| ORK100-FPM | O-RING SPLICING KIT - FPM 75 |



O-RING LUBRICANT

| Ref. Number | Material |
|-------------|---------------------------|
| SSLUBE-05 | SILICONE LUBRICANT 1/2 OZ |
| SSLUBE-20 | SILICONE LUBRICANT 2 OZ |



O-RING MEASURING TOOLS

| Ref. Number | Description |
|---------------------|----------------------|
| ORING-GAUGE/MD999 | MEASURING GAUGE |
| ORING-GAUGE/SC600 | SIZING CONE AND TAPE |
| ORING-GAUGE/SC600XL | SIZING CONE |



O'Rings kits and accessories



EXTRACTION TOOLS

| Ref. Number | Description |
|-------------|----------------------------|
| ET100 | PLASTIC O'RING PICK |
| ET500 | BRASS EXTRACTION KIT |
| ETKIT | EXTRACTION TOOL - HOOK KIT |



INSTALLATION TOOLS

| Ref. Number | Description |
|-------------|--|
| IT-100 | UP TO 1.000" - INSTALLATION TOOL - RED HANDLE |
| IT-150 | UP TO 1.500" - INSTALLATION TOOL - YELLOW HANDLE |
| IT-200 | UP TO 2.000" - INSTALLATION TOOL - BLUE HANDLE |
| IT-KIT-4PC | INSTALLATION TOOL - SET |

O'RINGS

OTHER PROFILES ARE ALSO AVAILABLE ON REQUEST

Though this product offering contains a wide selection of commonly used parts in the marketplace, it is possible that you haven't found the exact part you were looking for.

We have many other seal profiles available on request, please do not hesitate to contact us and we will do our best to help you locate the required part.
























O'RINGS



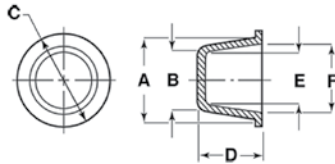
O'RINGS



| | | | |
|---|---------------------------------------|---|---|
|  | CAPS & PLUGS TAPERED | H | 2 |
|  | CAPS & PLUGS OR SERIES | H | 4 |
|  | CAPS & PLUGS BFP/ XP SERIES | H | 4 |
|  | CAPS & PLUGS T SERIES | H | 5 |
|  | CAPS & PLUGS TH SERIES | H | 5 |
|  | CAPS & PLUGS G SERIES | H | 6 |
|  | CAPS & PLUGS TP SERIES | H | 6 |
|  | CAPS & PLUGS TMO SERIES | H | 7 |
|  | ANTI-SEIZE | H | 8 |

| | | | |
|---|---------------------------------|---|----|
|  | LOCK NUTS | H | 9 |
|  | RETAINING RINGS N1300 | H | 11 |
|  | RETAINING RINGS N1400 | H | 12 |
|  | R.RINGS SELECTION GUIDE | H | 14 |
|  | RETAINING RINGS WH | H | 16 |
|  | RETAINING RINGS WHM | H | 18 |
|  | RETAINING RINGS WHT | H | 19 |
|  | RETAINING RINGS WS | H | 21 |
|  | RETAINING RINGS WSM | H | 23 |
|  | RETAINING RINGS WST | H | 24 |

Tapered Caps and Plugs



| Standard Material | Standard Color |
|--------------------------|----------------|
| Low density Polyethylene | Bleu |

Our selection of protective caps and plugs serves many different applications and industries. Guard pipes against contaminants, protect vital components during shipment and storage, and mask threads during finishing processes with our range of protection products. Most Essentra standard caps and plugs are in stock, ready for same shipping, and require no minimum quantity.

Protective Caps

Push fit caps are an efficient solution for protecting and masking components from dirt, moisture, and damage. Essentra carries a large selection of cost effective push fit caps suitable for many industries and applications. General purpose caps include, tapered caps, tubed caps, pipe caps, high temperature masking caps, and specialty push fit caps designed for use in the hydraulics industry.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

MISC.



| Ref. Number | Use as a plug | | | | Use as a cap | | | | Common uses/plugs | | | Common uses/caps | | | | | | |
|-------------|---------------|-------|-------|-------|--------------|-------|-------|-------|-------------------|-------|-------|------------------|---------|-----------------|---------------|---------|-----------------|---------------|
| | A | | B | | C | | D | | E | | F | | NPT/RSP | Standard Thread | Metric Thread | NPT/RSP | Standard Thread | Metric Thread |
| | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | | | | | | |
| CP-2 | 0.240 | 6.10 | 0.175 | 4.45 | 0.375 | 9.53 | 0.375 | 9.53 | 0.109 | 2.77 | 0.175 | 4.45 | - | - | M6 | - | - | M4 |
| CP-3 | 0.268 | 6.81 | 0.209 | 5.31 | 0.375 | 9.53 | 0.375 | 9.53 | 0.127 | 3.23 | 0.193 | 4.90 | - | - | M8 | - | - | M5-6 |
| CP-5 | 0.302 | 7.67 | 0.240 | 6.10 | 0.469 | 11.91 | 0.375 | 9.53 | 0.175 | 4.45 | 0.240 | 6.10 | - | 5/16" | - | - | - | - |
| CP-7 | 0.365 | 9.27 | 0.300 | 7.62 | 0.531 | 13.49 | 0.375 | 9.53 | 0.234 | 5.94 | 0.301 | 7.65 | - | 3/8" | - | - | 15/64" | - |
| CP-7-W | 0.365 | 9.27 | 0.300 | 7.62 | 0.680 | 17.27 | 0.375 | 9.53 | 0.234 | 5.94 | 0.301 | 7.65 | - | 3/8" | - | - | 15/64" | - |
| CP-7-S | 0.365 | 9.27 | 0.330 | 8.38 | 0.500 | 12.70 | 0.219 | 5.56 | 0.266 | 6.76 | 0.301 | 7.65 | - | 3/8" | - | - | - | - |
| CP-8 | 0.398 | 10.11 | 0.330 | 8.38 | 0.563 | 14.29 | 0.375 | 9.53 | 0.275 | 6.99 | 0.330 | 8.38 | 1/8" | - | - | M10 | - | M8 |
| CP-9 | 0.428 | 10.87 | 0.360 | 9.14 | 0.594 | 15.08 | 0.375 | 9.53 | 0.299 | 7.59 | 0.365 | 9.27 | - | 7/16" | - | - | - | - |
| CP-10 | 0.460 | 11.68 | 0.390 | 9.91 | 0.625 | 15.88 | 0.375 | 9.53 | 0.325 | 8.26 | 0.396 | 10.06 | - | - | M12 | 1/8" | 3/8" | M10 |
| CP-11 | 0.485 | 12.32 | 0.420 | 10.67 | 0.594 | 15.08 | 0.342 | 9.53 | 0.356 | 9.04 | 0.421 | 10.69 | 1/4" | 1/2" | - | 1/8" | - | - |
| CP-12 | 0.512 | 13.00 | 0.447 | 11.35 | 0.625 | 15.88 | 0.406 | 10.32 | 0.385 | 9.78 | 0.448 | 11.38 | - | - | M14 | - | 7/16" | - |
| CP-13 | 0.547 | 13.89 | 0.490 | 12.45 | 0.719 | 18.26 | 0.500 | 12.70 | 0.409 | 10.39 | 0.485 | 12.32 | - | 9/16" | - | - | 1/2" | M12 |
| CP-13-SP | 0.545 | 13.84 | 0.478 | 12.14 | 0.719 | 18.26 | 0.313 | 7.94 | 0.410 | 10.41 | 0.480 | 12.19 | - | 9/16" | - | - | 1/2" | - |
| CP-13-W | 0.547 | 13.89 | 0.478 | 12.14 | 0.875 | 22.23 | 0.500 | 12.70 | 0.409 | 10.39 | 0.485 | 12.32 | - | 9/16" | - | - | 1/2" | - |
| CP-16 | 0.620 | 15.75 | 0.531 | 13.49 | 0.750 | 19.05 | 0.500 | 12.70 | 0.468 | 11.89 | 0.555 | 14.10 | - | 5/8" | M16 | 1/4" | - | - |
| CP-17 | 0.634 | 16.10 | 0.550 | 13.97 | 0.781 | 19.84 | 0.500 | 12.70 | 0.485 | 12.32 | 0.568 | 14.43 | 3/8" | - | - | - | 9/16" | M14 |
| CP-18 | 0.675 | 17.15 | 0.580 | 14.99 | 0.875 | 22.23 | 0.531 | 13.49 | 0.520 | 13.21 | 0.605 | 15.37 | - | - | M18 | - | 5/8" | M16 |
| CP-21 | 0.728 | 18.49 | 0.641 | 16.28 | 0.875 | 22.23 | 0.500 | 12.70 | 0.575 | 14.61 | 0.665 | 16.89 | - | 3/4" | M18-20 | - | - | - |
| CP-22 | 0.754 | 19.15 | 0.675 | 17.15 | 0.875 | 22.23 | 0.625 | 15.88 | 0.615 | 15.62 | 0.690 | 17.53 | - | - | M20 | 3/8" | - | - |
| CP-23 | 0.785 | 19.94 | 0.690 | 17.53 | 0.938 | 23.81 | 0.625 | 15.88 | 0.625 | 15.88 | 0.724 | 18.39 | 1/2" | - | - | - | - | M18 |

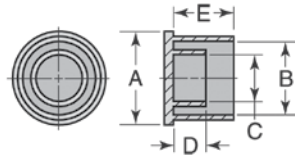
Tapered Caps and Plugs - Numbered series

| Ref. Number | Use as a plug | | | | Use as a cap | | | | Common uses/plugs | | | Common uses/caps | | | | | | |
|-------------|---------------|-------|-------|-------|--------------|-------|-------|-------|-------------------|-------|-------|------------------|---------|-----------------|---------------|---------|-----------------|---------------|
| | A | | B | | C | | D | | E | | F | | NPT/RSP | Standard Thread | Metric Thread | NPT/RSP | Standard Thread | Metric Thread |
| | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | | | | | | |
| CP-26 | 0.825 | 20.96 | 0.725 | 18.42 | 1.000 | 25.40 | 0.500 | 12.70 | 0.662 | 16.81 | 0.760 | 19.30 | - | - | M22 | - | 3/4" | - |
| CP-26-L | 0.825 | 20.96 | 0.725 | 18.42 | 0.970 | 24.64 | 0.590 | 14.99 | 0.662 | 16.81 | 0.760 | 19.30 | - | - | - | - | - | 3/4" |
| CP-27 | 0.848 | 21.54 | 0.750 | 19.05 | 1.031 | 26.19 | 0.625 | 15.88 | 0.686 | 17.42 | 0.777 | 19.74 | - | 7/8" | M22 | - | - | - |
| CP-28 | 0.910 | 23.11 | 0.802 | 20.37 | 1.094 | 27.78 | 0.750 | 19.05 | 0.725 | 18.42 | 0.846 | 21.49 | 5/8" | - | M24 | 1/2" | - | M20 |
| CP-29 | 0.931 | 23.65 | 0.820 | 20.83 | 1.125 | 28.58 | 0.625 | 15.88 | 0.754 | 19.15 | 0.868 | 22.05 | - | - | - | - | 7/8" | - |
| CP-30 | 0.973 | 24.71 | 0.856 | 21.74 | 1.125 | 28.58 | 0.750 | 19.05 | 0.758 | 19.51 | 0.906 | 23.01 | 3/4" | - | - | - | - | - |
| CP-31 | 0.975 | 24.77 | 0.870 | 22.10 | 1.125 | 28.58 | 0.625 | 15.88 | 0.804 | 20.42 | 0.920 | 23.37 | 3/4" | - | - | - | - | M22 |
| CP-35 | 1.040 | 26.42 | 0.895 | 22.73 | 1.140 | 29.37 | 0.750 | 19.05 | 0.832 | 21.13 | 0.975 | 24.77 | 3/4" | 1 1/16" | M26-27 | 5/8" | - | M24 |
| CP-40 | 1.091 | 27.71 | 0.966 | 24.54 | 1.250 | 31.75 | 0.750 | 19.05 | 0.902 | 22.91 | 1.025 | 26.04 | - | - | M27 | - | - | - |
| CP-41 | 1.145 | 29.08 | 1.002 | 25.45 | 1.313 | 33.34 | 0.750 | 19.05 | 0.938 | 23.83 | 1.079 | 27.41 | - | - | - | 3/4" | 1 1/16" | - |
| CP-42 | 1.230 | 31.24 | 1.110 | 28.19 | 1.516 | 38.50 | 0.750 | 19.05 | 1.038 | 26.37 | 1.180 | 29.97 | 7/8" | 1" | - | M25 | - | M27-M28 |
| CP-44 | 1.285 | 32.64 | 1.180 | 29.97 | 1.438 | 36.51 | 0.750 | 19.05 | 1.105 | 28.07 | 1.215 | 30.86 | 1" | 1 5/16" | M32-33 | 7/8" | - | M30 |
| CP-45 | 1.350 | 34.29 | 1.225 | 31.12 | 1.500 | 38.10 | 0.750 | 19.05 | 1.160 | 29.46 | 1.295 | 32.89 | - | - | M35-36 | - | - | M32-M33 |
| CP-46 | 1.350 | 34.29 | 1.235 | 31.37 | 1.500 | 38.10 | 0.750 | 19.05 | 1.140 | 28.96 | 1.295 | 32.89 | - | - | - | 1" | 1 5/16" | - |
| CP-49 | 1.465 | 37.21 | 1.311 | 33.30 | 1.625 | 41.28 | 0.750 | 19.05 | 1.249 | 31.72 | 1.400 | 35.56 | - | - | M36-38-39 | 1" | - | M35 |
| CP-53 | 1.600 | 40.64 | 1.450 | 36.83 | 1.750 | 44.45 | 0.750 | 19.05 | 1.385 | 35.18 | 1.535 | 38.99 | 1 1/4" | - | M39-40-42 | 1 1/8" | - | M38 |
| CP-54 | 1.602 | 40.69 | 1.520 | 38.61 | 1.750 | 44.45 | 0.750 | 19.05 | 1.456 | 36.98 | 1.537 | 39.04 | - | 1-5/8" | - | - | - | - |
| CP-55 | 1.673 | 42.49 | 1.560 | 39.62 | 1.875 | 47.63 | 0.750 | 19.05 | 1.497 | 38.02 | 1.620 | 41.15 | - | 1 3/4" | M54 | 1 1/4" | 1 5/8" | M39-40 |
| CP-56 | 1.750 | 44.45 | 1.606 | 40.79 | 1.938 | 49.21 | 0.750 | 19.05 | 1.568 | 39.83 | 1.685 | 42.80 | - | - | M45 | 1 1/4" | - | M42 |
| CP-57 | 1.870 | 47.50 | 1.735 | 44.07 | 2.031 | 51.60 | 0.750 | 19.05 | 1.675 | 42.55 | 1.820 | 46.23 | 1 1/2" | 1 7/8" | M48 | - | - | M45 |
| CP-58 | 1.958 | 49.73 | 1.806 | 45.87 | 2.125 | 53.98 | 1.000 | 25.40 | 1.745 | 44.32 | 1.893 | 48.08 | - | - | M48 | 1 1/2" | 1 7/8" | - |
| CP-60 | 2.020 | 51.31 | 1.846 | 46.89 | 2.125 | 53.98 | 1.000 | 25.40 | 1.785 | 45.34 | 1.938 | 49.23 | - | - | - | 1 1/2" | - | - |
| CP-62 | 2.085 | 52.96 | 1.902 | 48.31 | 2.250 | 57.15 | 1.000 | 25.40 | 1.839 | 46.71 | 2.015 | 51.18 | - | - | M52 | - | - | M48 |
| CP-66 | 2.253 | 57.23 | 2.062 | 52.37 | 2.438 | 61.91 | 1.031 | 26.20 | 2.000 | 50.80 | 2.175 | 55.25 | - | 2 1/4" | M55-56 | 1 3/4" | - | - |
| CP-67 | 2.355 | 59.82 | 2.156 | 54.76 | 2.625 | 66.68 | 1.000 | 25.40 | 2.084 | 52.93 | 2.288 | 58.12 | 2" | - | M58-60 | - | 2 1/4" | M58 |
| CP-68 | 2.279 | 57.90 | 2.224 | 56.50 | 2.500 | 63.50 | 0.500 | 12.70 | 2.150 | 54.60 | 2.221 | 56.41 | 2" | - | - | - | - | - |
| CP-71 | 2.485 | 63.12 | 2.300 | 58.42 | 2.625 | 66.68 | 1.000 | 25.40 | 2.235 | 56.77 | 2.400 | 60.96 | - | - | M60-62 | 2" | - | - |
| CP-73 | 2.605 | 66.17 | 2.395 | 60.83 | 2.625 | 66.68 | 1.000 | 25.40 | 2.331 | 59.21 | 2.541 | 64.54 | - | - | - | - | 2 1/2" | - |
| CP-78 | 2.805 | 71.25 | 2.645 | 67.18 | 3.000 | 76.20 | 0.500 | 12.70 | 2.580 | 65.53 | 2.725 | 69.22 | 2 1/2" | - | - | - | - | - |
| CP-81 | 3.000 | 76.20 | 2.720 | 69.09 | 3.125 | 79.38 | 1.000 | 25.40 | 2.626 | 66.70 | 2.950 | 74.93 | - | - | M75-76 | 2 1/2" | - | - |
| CP-82 | 2.980 | 75.69 | 2.850 | 72.39 | 3.250 | 82.55 | 0.750 | 19.05 | 2.785 | 70.74 | 2.920 | 74.17 | - | 3" | - | - | - | - |

MISC.



Tapered Caps and Plugs - OR series



| Standard Material | Standard Color |
|--------------------------|----------------|
| Low density Polyethylene | Blue |

| Ref. Number | To Fit Thread | A | | B | | C | | D | | E | |
|-------------|---------------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
| | | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm |
| CP-OR-4 | 9/16"-18 | 0.875 | 22.23 | 0.768 | 19.51 | 0.500 | 12.70 | 0.326 | 8.28 | 0.578 | 14.68 |
| CP-OR-6 | 11/16"-16 | 1.000 | 25.40 | 0.901 | 22.89 | 0.594 | 15.08 | 0.370 | 9.40 | 0.672 | 17.07 |
| CP-OR-8 | 13/16"-16 | 1.156 | 29.37 | 1.053 | 26.75 | 0.750 | 19.05 | 0.430 | 10.92 | 0.828 | 21.03 |
| CP-OR-10 | 1"-14 | 1.375 | 34.93 | 1.255 | 31.88 | 0.906 | 23.02 | 0.530 | 13.46 | 0.922 | 23.42 |
| CP-OR-12 | 1-3/16"-12 | 1.625 | 41.28 | 1.530 | 38.86 | 1.094 | 27.78 | 0.560 | 14.48 | 1.031 | 26.19 |
| CP-OR-16 | 1-7/16"-12 | 1.844 | 46.83 | 1.804 | 45.82 | 1.344 | 34.13 | 0.580 | 14.73 | 1.094 | 27.78 |
| CP-OR-20 | 1-11/16"-12 | 2.125 | 53.98 | 2.093 | 53.16 | 1.594 | 40.48 | 0.580 | 14.73 | 1.094 | 27.78 |
| CP-OR-24 | 2"-12 | 2.688 | 68.26 | 2.520 | 64.01 | 1.875 | 47.63 | 0.580 | 14.73 | 1.094 | 27.78 |

Tapered Caps and Plugs - BFP/XP series



| Standard Material | Standard Color | Specification |
|--------------------------|-------------------------------|---|
| Low density Polyethylene | 3000lb - Blue 6000lb - Red | Provided face coverage with lugs firmly positioned into bolt holes. |

| Used on 3000lb | Used on 6000lb |
|----------------|----------------|
| CP-BFP-1/2 | - |
| CP-BFP-3/4 | CP-XP-3/4 |
| CP-BFP-1 | CP-XP-1 |
| CP-BFP-1-1/4 | CP-XP-1-1/4 |
| CP-BFP-1-1/2 | CP-XP-1-1/2 |
| CP-BFP-2 | CP-XP-2 |
| CP-BFP-2-1/2 | |

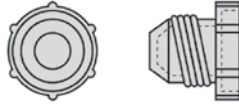
MISC.



Threaded Plugs - T series

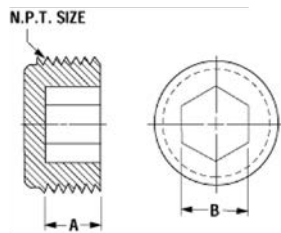


| Standard Material | Standard Color | Specification |
|--------------------------|----------------|--|
| Low density Polyethylene | Red | Conforms to Mil-C5501, with exceptions of Flare Angle variance of 2° |



| Reference Number | Tubing Size (inches) | SAE Thread Size | SAE/JIC Fitting Size |
|------------------|----------------------|-----------------|----------------------|
| CP-T-1 | 1/8 | 5/16"-24 | 2 |
| CP-T-2 | 3/16 | 3/8"-24 | 3 |
| CP-T-3 | 1/4 | 7/16"-20 | 4 |
| CP-T-4 | 5/16 | 1/2"-20 | 5 |
| CP-T-5 | 3/8 | 9/16"-18 | 6 |
| CP-T-7 | 1/2 | 3/4"-16 | 8 |
| CP-T-8 | 5/8 | 7/8"-14 | 10 |
| CP-T-9 | 3/4 | 1-1/16"-12 | 12 |
| CP-T-12 | 1 | 1-5/16"-12 | 16 |
| CP-MPN-261 | 1-1/4 | 1-5/8"-12 | 20 |

Threaded (npt) Plugs - TH series

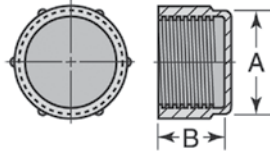


| Standard Material | Standard Color |
|---------------------------|---------------------------------------|
| High-density Polyethylene | Black - Applicable Spec; MIL-C-5501/5 |

| Reference Number | Plug NPT Thread Size | Dimensions | | | |
|------------------|----------------------|------------|-------|--------|-------|
| | | A | | B | |
| | | inches | mm | inches | mm |
| CP-TH-3 | 1/4 | 0.312 | 7.87 | 0.250 | 6.35 |
| CP-TH-5 | 3/8 | 0.375 | 9.65 | 0.312 | 7.87 |
| CP-TH-7 | 1/2 | 0.375 | 9.65 | 0.375 | 9.65 |
| CP-TH-9 | 3/4 | 0.500 | 12.70 | 0.557 | 14.22 |
| CP-TH-11 | 1 | 0.531 | 13.46 | 0.625 | 16.00 |



Threaded Cap - G series

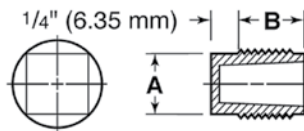


| Standard Material | Standard Color |
|--------------------------|----------------|
| Low density Polyethylene | Blue |

| Ref. Number | Standard Thread Size | Tubing O.D. Size | | A | | B | |
|-------------|----------------------|------------------|-------|--------|-------|--------|-------|
| | | inches | mm | inches | mm | inches | mm |
| CP-G-2 | 7/16" - 20 | 0.250 | 6.35 | 0.500 | 12.70 | 0.500 | 12.70 |
| CP-G-8 | 9/16" - 18 | 0.375 | 9.53 | 0.625 | 15.88 | 0.500 | 12.70 |
| CP-G-14 | 3/4" - 16 | 0.500 | 12.70 | 0.813 | 20.64 | 0.625 | 15.88 |
| CP-G-17 | 7/8" - 14 | 0.625 | 15.88 | 0.938 | 23.81 | 0.719 | 18.26 |
| CP-G-22 | 1 1/16" - 12 | 0.750 | 19.05 | 1.125 | 28.58 | 0.813 | 20.64 |
| CP-G-25 | 1 3/16" - 12 | 0.875 | 22.13 | 1.250 | 31.75 | 0.938 | 23.81 |
| CP-G-27 | 1 5/16" - 12 | 1.000 | 25.40 | 1.375 | 34.93 | 0.875 | 22.23 |

MISC.

Threaded (npt) Plugs - TP series



| Standard Material | Standard Color |
|---------------------------|----------------|
| High density Polyethylene | Blue |

| Ref. Number | Standard Thread Size | Dimensions | | | |
|-------------|----------------------|------------|-------|--------|-------|
| | | A | | B | |
| | | inches | mm | inches | mm |
| CP-TP-1 | 1/8" | 0.281 | 7.14 | 0.375 | 9.53 |
| CP-TP-3 | 1/4" | 0.375 | 9.53 | 0.437 | 11.11 |
| CP-TP-5 | 3/8" | 0.437 | 11.11 | 0.500 | 12.70 |
| CP-TP-7 | 1/2" | 0.562 | 14.29 | 0.562 | 14.29 |

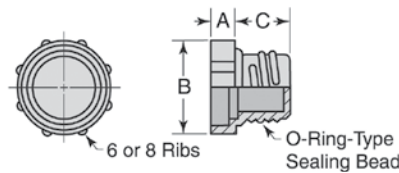
Threaded (npt) Plugs - TP series

| Ref. Number | Standard Thread Size | Dimensions | | | |
|-------------|----------------------|------------|-------|--------|-------|
| | | A | | B | |
| | | inches | mm | inches | mm |
| CP-TP-9 | 3/4" | 0.687 | 17.46 | 0.625 | 15.88 |
| CP-TP-11 | 1" | 0.750 | 19.05 | 0.375 | 9.53 |
| CP-TP-13 | 1 1/4" | 1.000 | 25.40 | 0.830 | 21.08 |
| CP-TP-15 | 1 1/2" | 1.250 | 31.75 | 0.830 | 21.08 |

Threaded Plugs - TMO series



| Standard Material | Couleur standard |
|--------------------------|------------------|
| Low density Polyethylene | Red |



| Ref. Number | Standard Thread Size | Tubing O.D. Size | | A | | B | |
|-------------|----------------------|------------------|-------|--------|-------|--------|------|
| | | inches | mm | inches | mm | inches | mm |
| CP-TMO-104 | 7/16" - 20 | 0.320 | 8.13 | 0.650 | 16.50 | 0.380 | 9.65 |
| CP-TMO-105 | 1/2" - 20 | 0.320 | 8.13 | 0.720 | 18.20 | 0.380 | 9.65 |
| CP-TMO-106 | 9/16" - 18 | 0.360 | 9.14 | 0.780 | 19.80 | 0.380 | 9.65 |
| CP-TMO-108 | 3/4" - 16 | 0.400 | 10.16 | 0.980 | 24.80 | 0.380 | 9.65 |
| CP-TMO-110 | 7/8" - 14 | 0.450 | 11.43 | 1.110 | 28.20 | 0.380 | 9.65 |
| CP-TMO-112 | 1-1/16" - 12 | 0.620 | 15.75 | 1.310 | 33.20 | 0.380 | 9.65 |
| CP-TMO-116 | 1-5/16" - 12 | 0.620 | 15.75 | 1.560 | 39.60 | 0.380 | 9.65 |
| CP-TMO-120 | 1-5/8" - 12 | 0.620 | 15.75 | 1.880 | 47.70 | 0.380 | 9.65 |

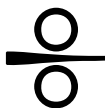
Markets segments we are servicing



Machine Tools



Material Handling



Metal Processing



Mining



Pharmaceutical



Power Generation



Anti-Seize



ND ANTI-SEIZE 907 HEAVY DUTY INDUSTRIAL LUBRICANT

MISC.

| Product | Properties & Uses | Color | Viscosity | Operating Temps | Lubricity |
|--|---|--------|--------------------------|---|-----------|
| ANTI-SEIZE 907 A ALUMINIUM/GRAPHITE | General, purpose lubricant. Resist seizing, galling, galvanic attack, excessive wear | Silver | 120 000 to 175 000 | -65 °F to -1600 °F (-54°C /+ 871 °C) | 0.16 |
| ANTI-SEIZE 907 C COPPER/GRAPHITE | General, purpose lubricant. Ideal for soft metal parts, plastics and nonmetallic | Copper | 120 000 to 175 000 | -65 °F to -1800 °F (-54 °C to +982 °C) | 0.16 |
| ANTI-SEIZE 907 N NICKEL/GRAPHITE | High temperature lubricant. Particularly suitable where different metals (such as brass and steel) come in contact | Silver | 500 000 to 750 000 | -65 °F to -2600 °F (-54 °C to 1427 °C) | 0.13 |



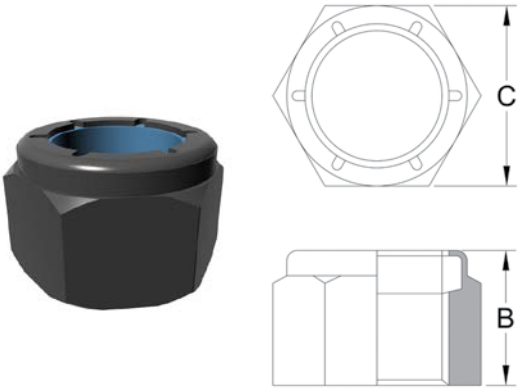
| Product | Description | Container Size |
|-----------|--------------------------------------|----------------|
| AS907A-08 | GENERAL PURPOSE - ALUMINIUM/GRAPHITE | 8 oz |
| AS907A-16 | GENERAL PURPOSE - ALUMINIUM/GRAPHITE | 16 oz |
| AS907C-08 | GENERAL PURPOSE - COPPER/GRAPHITE | 8 oz |
| AS907C-16 | GENERAL PURPOSE - COPPER/GRAPHITE | 16 oz |
| AS907N-08 | HIGH TEMPERATURE - NICKEL/GRAPHITE | 8 oz |
| AS907N-16 | HIGH TEMPERATURE - NICKEL/GRAPHITE | 16 oz |

NYLON INSERT LOCK NUTS

MATERIALS

- X53** Medium carbon steel heat treated
RC 26-30, Phos. and Oil
- X59** Medium carbon steel heat treated
RC 26-30, plain finish
- 43** 0.23 Max carbon steel, phos. and oil
- 59** Medium carbon steel, plain finish
- 51Y** Medium carbon steel, zinc plate, yellow

RCAT's are all X53's



| Ref.Number | Caterpillar® Reference | Thread Size | Dimensions | |
|-------------------|------------------------|-------------|------------|-------|
| | | | C | B |
| NUT-1216NE/59 | | 0.750 - 16 | 1.062 | 0.875 |
| NUT-1414NE/X59 | | 0.875 - 14 | 1.250 | 0.984 |
| | RCAT-1J5674 | 1.000 - 14 | 1.437 | 1.062 |
| NUT-1614NTE/51Y | | 1.000 - 14 | 1.437 | 0.547 |
| NUT-1614NTU/43 | | 1.000 - 14 | 1.625 | 0.891 |
| NUT-1812NE/X53 | | 1.125 - 12 | 1.625 | 1.172 |
| NUT-2012NE/X53 | | 1.250 - 12 | 1.812 | 1.391 |
| NUT-2012NTU/X53 | RCAT-2J6384 | 1.250 - 12 | 2.000 | 1.109 |
| | RCAT-6M5032 | 1.375 - 12 | 2.187 | 1.188 |
| NUT-2412NE/X53 | | 1.500 - 12 | 2.187 | 1.609 |
| NUT-2412NTU/X53 | RCAT-2J3950 | 1.500 - 12 | 2.375 | 1.313 |
| NUT-2812N4124/X53 | RCAT-5J5731 | 1.750 - 12 | 2.562 | 1.469 |
| NUT-2812NTU/X53 | RCAT-2J3247 | 1.750 - 12 | 2.750 | 1.469 |
| NUT-3012N4127/X53 | | 1.875 - 12 | 2.562 | 1.687 |

| Ref.Number | Caterpillar® Reference | Thread Size | Dimensions | |
|-------------------|------------------------|-------------|------------|-------|
| | | | C | B |
| NUT-3212NTU/X53 | RCAT-2J0564 | 2.000 - 12 | 3.125 | 1.672 |
| NUT-3212NU/X53 | RCAT-3J9545 | 2.000 - 12 | 3.125 | 2.406 |
| NUT-3216N4416/X53 | | 2.000 - 16 | 2.750 | 1.000 |
| NUT-3612NTU/X53 | RCAT-5J3488 | 2.250 - 12 | 3.500 | 1.938 |
| NUT-3612NU/X53 | RCAT-3J6899 | 2.250 - 12 | 3.500 | 2.813 |
| NUT-4012N6442/X53 | RCAT-3J9449 | 2.500 - 12 | 4.000 | 2.641 |
| NUT-4012NTU/X53 | RCAT-2J7686 | 2.500 - 12 | 4.000 | 2.187 |
| NUT-4412NTU/X53 | RCAT-4J6888 | 2.750 - 12 | 4.000 | 2.187 |
| NUT-4412NU/X53 | RCAT-4J8734 | 2.750 - 12 | 4.000 | 3.093 |
| NUT-5212N7250/X53 | RCAT-7J9250 | 3.250 - 12 | 4.500 | 3.125 |
| | RCAT-9X6017 | 3.750 - 12 | 5.250 | 3.525 |
| | RCAT-9X6018 | 4.000 - 12 | 5.562 | 3.725 |
| NUT-7212N1046/X53 | RCAT-3G5022 | 4.500 - 12 | 6.500 | 4.110 |

All manufacturer's names, part numbers and descriptions are use for reference purpose only. We do not imply that any part shown is the product of these manufacturers.



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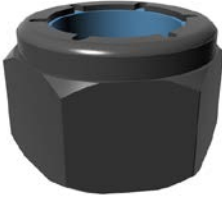
Lock Nuts

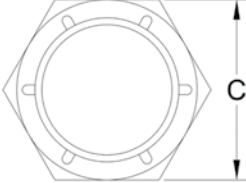
NYLON INSERT LOCK NUTS

1 - Grade 8/ heat-treated
2 - Blue nylon locking insert

MATERIALS :

X53 Medium carbon steel heat treated
RC 26-30, Phos. and Oil





C



B

Lock Nuts - Caterpillar® Ref.

| Ref.Number | Thread Size | Dimensions | |
|--------------|--------------------|------------|-------|
| | | C | B |
| RCAT-8T5065 | 30.00 - 3.5 | 46.00 | 30.00 |
| RCAT-8T3018 | 36.00 - 4 | 55.00 | 36.00 |
| RCAT-1475835 | 64.00 - 2 | 95.00 | 63.00 |
| RCAT-7Y4622 | 72.00 - 2 | 105.00 | 70.00 |
| RCAT-1232060 | 80.00 - 2 | 115.00 | 64.00 |
| RCAT-7Y4695 | 80.00 - 2 | 115.00 | 76.00 |

| Ref.Number | Thread Size | Dimensions | |
|--------------|-------------------|------------|--------|
| | | C | B |
| RCAT-1232112 | 90.00 - 2 | 130.00 | 76.00 |
| RCAT-7Y4956 | 90.00 - 2 | 130.00 | 84.00 |
| RCAT-0875385 | 95.00 - 2 | 135.00 | 88.00 |
| RCAT-1261971 | 100.00 - 2 | 146.00 | 88.00 |
| RCAT-1163513 | 105.00 - 2 | 150.00 | 97.00 |
| RCAT-1163516 | 120.00 - 2 | 170.00 | 108.00 |

Lock Nuts - Komatsu® Ref.

| Ref.Number | Thread Size | Dimensions | |
|-------------------|------------------|------------|-------|
| | | C | B |
| RKOM-07165/14547 | 45.00 - 3 | 70.00 | 45.00 |
| RKOM-07165/15252 | 52.00 - 3 | 80.00 | 52.00 |
| RKOM-07165/15860 | 58.00 - 4 | 85.00 | 60.00 |
| RKOM-707/68/10580 | 59.00 - 4 | 85.00 | 60.00 |

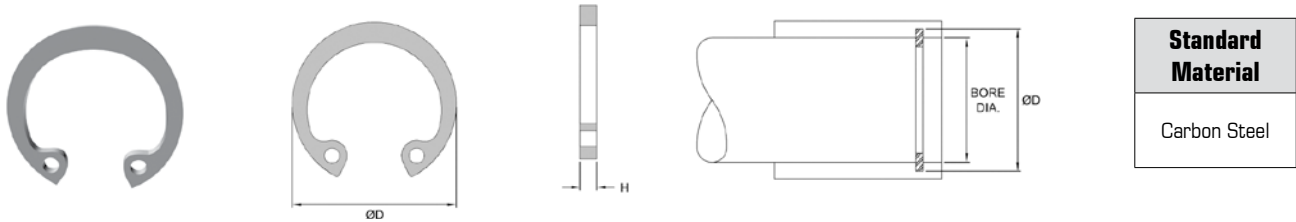
| Ref.Number | Thread Size | Dimensions | |
|-------------------|------------------|------------|-------|
| | | C | B |
| RKOM-175/63/52432 | 68.00 - 4 | 95.00 | 64.00 |
| RKOM-07165/16870 | 68.00 - 4 | 95.00 | 70.00 |
| RKOM-707/68/10680 | 68.00 - 4 | 95.00 | 70.00 |
| RKOM-07165/18583 | 85.00 - 4 | 115.00 | 83.00 |

All manufacturer's names, part numbers and descriptions are use for reference purpose only.
 We do not imply that any part shown is the product of these manufacturers.

MISC.



N1300 - Retaining rings - Internal



Retaining rings are precision engineered components that are designed to be applied on shafts or in bores and provide a shoulder that accurately positions, locates and retains other parts of an assembly.

Many different types of retaining rings have been developed over the years, each a solution to a specific problem. Different types of rings are available to solve issues such as: tolerance take-up, clearance diameter, thrust load capacity, flexible installation, rpm capacity, impact loading, non-removable lock-rings, groove-less-push-on fastening and radial installation.

Retaining rings work by creating a shoulder that can hold components in place. The retaining shoulder is created when the ring attaches itself to the bore or shaft, typically by snapping into a groove. Ordinarily (however not always) a groove is dug into the shaft or bore, and this groove becomes the seat for the retaining ring. Retaining rings are designed such that their contact diameter has some interference fit with the groove in which they fit. This creates a “snug” fit between the ring and groove.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | D | H |
| N1300-0037 | 0.375 | 0.415 | 0.025 |
| N1300-0043 | 0.437 | 0.482 | 0.025 |
| N1300-0050 | 0.500 | 0.548 | 0.035 |
| N1300-0056 | 0.562 | 0.620 | 0.035 |
| N1300-0062 | 0.625 | 0.694 | 0.035 |
| N1300-0068 | 0.687 | 0.763 | 0.035 |
| N1300-0075 | 0.750 | 0.831 | 0.035 |
| N1300-0081 | 0.812 | 0.901 | 0.042 |
| N1300-0087 | 0.875 | 0.971 | 0.042 |
| N1300-0093 | 0.937 | 1.041 | 0.042 |
| N1300-0100 | 1.000 | 1.111 | 0.042 |
| N1300-0102 | 1.023 | 1.136 | 0.042 |
| N1300-0106 | 1.062 | 1.180 | 0.050 |
| N1300-0112 | 1.125 | 1.249 | 0.050 |
| N1300-0118 | 1.187 | 1.319 | 0.050 |
| N1300-0125 | 1.250 | 1.388 | 0.050 |
| N1300-0131 | 1.312 | 1.456 | 0.050 |
| N1300-0137 | 1.375 | 1.526 | 0.050 |
| N1300-0143 | 1.437 | 1.596 | 0.050 |

| Ref.Number | Bore dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | D | H |
| N1300-0145 | 1.456 | 1.616 | 0.050 |
| N1300-0150 | 1.500 | 1.660 | 0.050 |
| N1300-0156 | 1.562 | 1.734 | 0.062 |
| N1300-0162 | 1.625 | 1.804 | 0.062 |
| N1300-0165 | 1.653 | 1.835 | 0.062 |
| N1300-0168 | 1.687 | 1.874 | 0.062 |
| N1300-0175 | 1.750 | 1.942 | 0.062 |
| N1300-0181 | 1.812 | 2.012 | 0.062 |
| N1300-0185 | 1.850 | 2.054 | 0.062 |
| N1300-0187 | 1.875 | 2.072 | 0.062 |
| N1300-0193 | 1.937 | 2.141 | 0.062 |
| N1300-0200 | 2.000 | 2.210 | 0.062 |
| N1300-0206 | 2.062 | 2.280 | 0.078 |
| N1300-0212 | 2.125 | 2.350 | 0.078 |
| N1300-0218 | 2.187 | 2.415 | 0.078 |
| N1300-0225 | 2.250 | 2.490 | 0.078 |
| N1300-0231 | 2.312 | 2.560 | 0.078 |
| N1300-0237 | 2.375 | 2.630 | 0.078 |
| N1300-0244 | 2.440 | 2.702 | 0.078 |

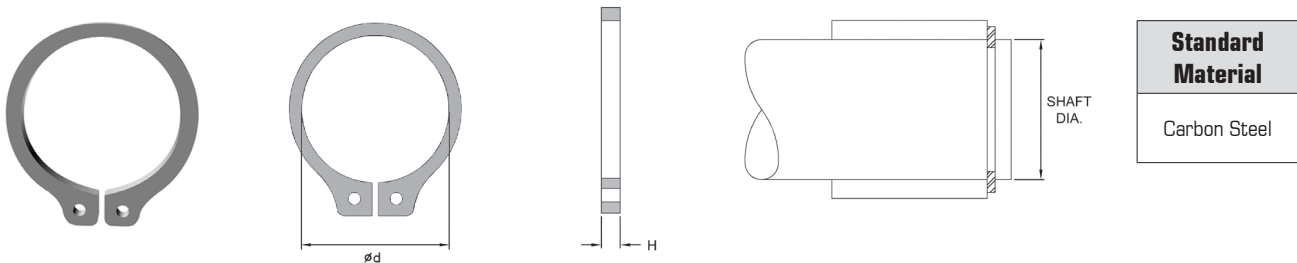
N1300 series - Retaining rings - Internal

| Ref.Number | Bore dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | D | H |
| N1300-0250 | 2.500 | 2.775 | 0.078 |
| N1300-0256 | 2.562 | 2.844 | 0.093 |
| N1300-0262 | 2.625 | 2.910 | 0.093 |
| N1300-0268 | 2.687 | 2.980 | 0.093 |
| N1300-0275 | 2.750 | 3.050 | 0.093 |
| N1300-0281 | 2.812 | 3.121 | 0.093 |
| N1300-0287 | 2.875 | 3.191 | 0.093 |
| N1300-0300 | 3.000 | 3.325 | 0.093 |
| N1300-0306 | 3.062 | 3.418 | 0.109 |
| N1300-0312 | 3.125 | 3.488 | 0.109 |
| N1300-0315 | 3.156 | 3.523 | 0.109 |
| N1300-0325 | 3.250 | 3.623 | 0.109 |
| N1300-0334 | 3.346 | 3.734 | 0.109 |
| N1300-0347 | 3.437 | 3.857 | 0.109 |
| N1300-0350 | 3.500 | 3.890 | 0.109 |
| N1300-0354 | 3.543 | 3.936 | 0.109 |
| N1300-0362 | 3.625 | 4.024 | 0.109 |
| N1300-0375 | 3.750 | 4.157 | 0.109 |
| N1300-0387 | 3.875 | 4.291 | 0.109 |
| N1300-0393 | 3.937 | 4.358 | 0.109 |
| N1300-0400 | 4.000 | 4.424 | 0.109 |
| N1300-0412 | 4.125 | 4.558 | 0.109 |
| N1300-0425 | 4.250 | 4.691 | 0.109 |
| N1300-0433 | 4.331 | 4.756 | 0.109 |
| N1300-0450 | 4.500 | 4.940 | 0.109 |

| N° de référence | Bore dia. | Free dia. | Thickness |
|-----------------|---------------|-----------|-----------|
| | | D | H |
| N1300-0462 | 4.625 | 5.076 | 0.109 |
| N1300-0475 | 4.750 | 5.213 | 0.109 |
| N1300-0500 | 5.000 | 5.485 | 0.109 |
| N1300-0525 | 5.250 | 5.770 | 0.125 |
| N1300-0537 | 5.375 | 5.910 | 0.125 |
| N1300-0550 | 5.500 | 6.066 | 0.125 |
| N1300-0575 | 5.750 | 6.336 | 0.125 |
| N1300-0600 | 6.000 | 6.620 | 0.125 |
| N1300-0625 | 6.250 | 6.895 | 0.156 |
| N1300-0650 | 6.500 | 7.170 | 0.156 |
| N1300-0662 | 6.625 | 7.308 | 0.156 |
| N1300-0675 | 6.750 | 7.445 | 0.156 |
| N1300-0700 | 7.000 | 7.720 | 0.156 |
| N1300-0725 | 7.250 | 7.995 | 0.187 |
| N1300-0750 | 7.500 | 8.270 | 0.187 |
| N1300-0775 | 7.750 | 8.545 | 0.187 |
| N1300-0800 | 8.000 | 8.820 | 0.187 |
| N1300-0825 | 8.250 | 9.095 | 0.187 |
| N1300-0850 | 8.500 | 9.285 | 0.187 |
| N1300-0875 | 8.750 | 9.558 | 0.187 |
| N1300-0900 | 9.000 | 9.830 | 0.187 |
| N1300-0925 | 9.250 | 10.102 | 0.187 |
| N1300-0950 | 9.500 | 10.375 | 0.187 |
| N1300-1000 | 10.000 | 10.920 | 0.187 |

MISC.

N1400 series - Retaining rings - External



| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | d | H |
| N1400-0012 | 0.125 | 0.112 | 0.010 |
| N1400-0015 | 0.156 | 0.142 | 0.010 |
| N1400-0018 | 0.187 | 0.168 | 0.015 |
| N1400-0019 | 0.197 | 0.179 | 0.015 |
| N1400-0021 | 0.219 | 0.196 | 0.015 |
| N1400-0023 | 0.236 | 0.215 | 0.015 |

| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | d | H |
| N1400-0025 | 0.250 | 0.225 | 0.025 |
| N1400-0027 | 0.276 | 0.250 | 0.025 |
| N1400-0028 | 0.281 | 0.256 | 0.025 |
| N1400-0031 | 0.312 | 0.281 | 0.025 |
| N1400-0037 | 0.375 | 0.338 | 0.025 |
| N1400-0043 | 0.437 | 0.395 | 0.025 |

N1400 series - Retaining rings - External

| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | d | H |
| N1400-0046 | 0.468 | 0.428 | 0.025 |
| N1400-0050 | 0.500 | 0.461 | 0.035 |
| N1400-0056 | 0.562 | 0.521 | 0.035 |
| N1400-0059 | 0.594 | 0.550 | 0.035 |
| N1400-0062 | 0.625 | 0.579 | 0.035 |
| N1400-0066 | 0.669 | 0.621 | 0.035 |
| N1400-0068 | 0.687 | 0.635 | 0.042 |
| N1400-0075 | 0.750 | 0.693 | 0.042 |
| N1400-0078 | 0.781 | 0.722 | 0.042 |
| N1400-0081 | 0.812 | 0.751 | 0.042 |
| N1400-0087 | 0.875 | 0.810 | 0.042 |
| N1400-0093 | 0.937 | 0.867 | 0.042 |
| N1400-0098 | 0.984 | 0.910 | 0.042 |
| N1400-0100 | 1.000 | 0.925 | 0.042 |
| N1400-0102 | 1.023 | 0.946 | 0.042 |
| N1400-0106 | 1.062 | 0.982 | 0.050 |
| N1400-0112 | 1.125 | 1.041 | 0.050 |
| N1400-0118 | 1.187 | 1.098 | 0.050 |
| N1400-0125 | 1.250 | 1.156 | 0.050 |
| N1400-0131 | 1.312 | 1.214 | 0.050 |
| N1400-0137 | 1.375 | 1.272 | 0.050 |
| N1400-0143 | 1.437 | 1.333 | 0.050 |
| N1400-0150 | 1.500 | 1.387 | 0.050 |
| N1400-0156 | 1.562 | 1.446 | 0.062 |
| N1400-0162 | 1.625 | 1.503 | 0.062 |
| N1400-0168 | 1.687 | 1.560 | 0.062 |
| N1400-0175 | 1.750 | 1.618 | 0.062 |
| N1400-0177 | 1.772 | 1.637 | 0.062 |
| N1400-0181 | 1.812 | 1.675 | 0.062 |
| N1400-0187 | 1.875 | 1.735 | 0.062 |
| N1400-0196 | 1.969 | 1.819 | 0.062 |
| N1400-0200 | 2.000 | 1.850 | 0.062 |
| N1400-0206 | 2.062 | 1.906 | 0.078 |
| N1400-0212 | 2.125 | 1.964 | 0.078 |
| N1400-0215 | 2.156 | 1.993 | 0.078 |
| N1400-0225 | 2.250 | 2.081 | 0.078 |
| N1400-0231 | 2.312 | 2.139 | 0.078 |
| N1400-0237 | 2.375 | 2.197 | 0.078 |
| N1400-0243 | 2.437 | 2.255 | 0.078 |

| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | d | H |
| N1400-0250 | 2.500 | 2.313 | 0.078 |
| N1400-0255 | 2.559 | 2.377 | 0.078 |
| N1400-0262 | 2.625 | 2.428 | 0.078 |
| N1400-0268 | 2.687 | 2.485 | 0.078 |
| N1400-0275 | 2.750 | 2.543 | 0.093 |
| N1400-0287 | 2.875 | 2.659 | 0.093 |
| N1400-0293 | 2.937 | 2.717 | 0.093 |
| N1400-0300 | 3.000 | 2.775 | 0.093 |
| N1400-0306 | 3.062 | 2.832 | 0.093 |
| N1400-0312 | 3.125 | 2.892 | 0.093 |
| N1400-0315 | 3.156 | 2.920 | 0.093 |
| N1400-0325 | 3.250 | 3.006 | 0.093 |
| N1400-0334 | 3.346 | 3.092 | 0.093 |
| N1400-0343 | 3.437 | 3.179 | 0.093 |
| N1400-0350 | 3.500 | 3.237 | 0.109 |
| N1400-0354 | 3.543 | 3.277 | 0.109 |
| N1400-0362 | 3.625 | 3.352 | 0.109 |
| N1400-0368 | 3.687 | 3.410 | 0.109 |
| N1400-0375 | 3.750 | 3.468 | 0.109 |
| N1400-0387 | 3.875 | 3.584 | 0.109 |
| N1400-0393 | 3.937 | 3.642 | 0.109 |
| N1400-0400 | 4.000 | 3.700 | 0.109 |
| N1400-0425 | 4.250 | 3.989 | 0.109 |
| N1400-0437 | 4.375 | 4.106 | 0.109 |
| N1400-0450 | 4.500 | 4.223 | 0.109 |
| N1400-0475 | 4.750 | 4.458 | 0.109 |
| N1400-0500 | 5.000 | 4.692 | 0.109 |
| N1400-0525 | 5.250 | 4.927 | 0.125 |
| N1400-0550 | 5.500 | 5.162 | 0.125 |
| N1400-0575 | 5.750 | 5.396 | 0.125 |
| N1400-0600 | 6.000 | 5.631 | 0.125 |
| N1400-0625 | 6.250 | 5.866 | 0.156 |
| N1400-0650 | 6.500 | 6.100 | 0.156 |
| N1400-0675 | 6.750 | 6.335 | 0.156 |
| N1400-0700 | 7.000 | 6.570 | 0.156 |
| N1400-0750 | 7.500 | 7.039 | 0.187 |
| N1400-0775 | 7.750 | 8.545 | 0.187 |
| N1400-0800 | 8.000 | 7.508 | 0.187 |
| N1400-0950 | 9.500 | 8.915 | 0.187 |

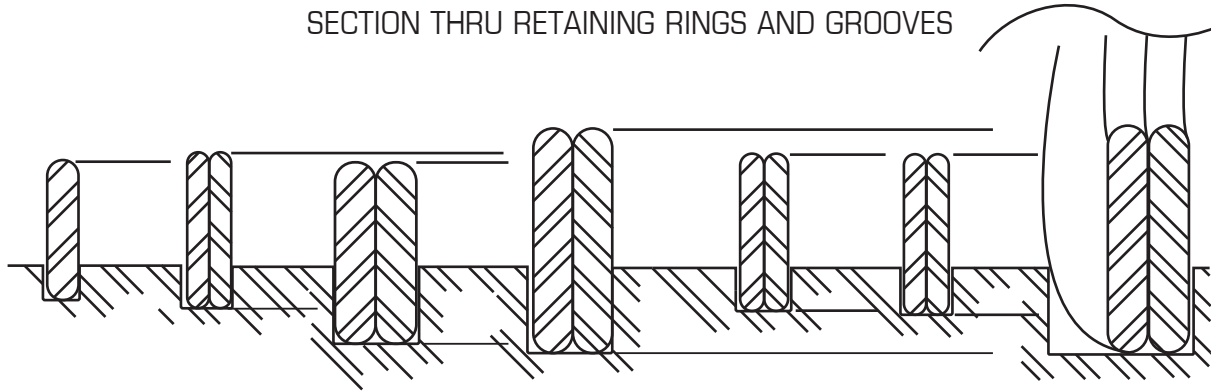
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Selection Guide

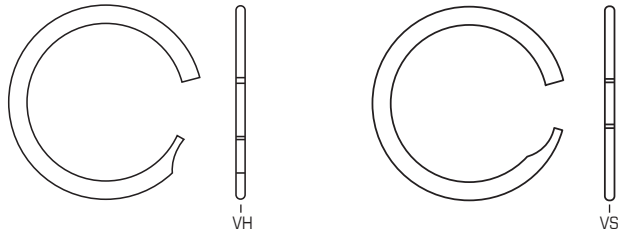
Relative proportions of retaining rings with same house bore or shaft dimension.

SECTION THRU RETAINING RINGS AND GROOVES



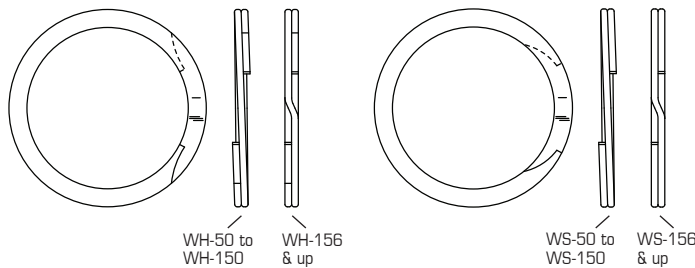
| VH & VS Light Duty Series | WH & WS Medium Duty Series | WHT & WST Medium Heavy Duty Series | WHM & WSM Heavy Duty Series | DNH & DNS DIN Metric Series | EH & ES Metric Aerospace Series | WHW & WSW WaveRing Series |
|------------------------------|-------------------------------|---------------------------------------|--------------------------------|--------------------------------|------------------------------------|------------------------------|
|------------------------------|-------------------------------|---------------------------------------|--------------------------------|--------------------------------|------------------------------------|------------------------------|

VH & VS Light Duty Series



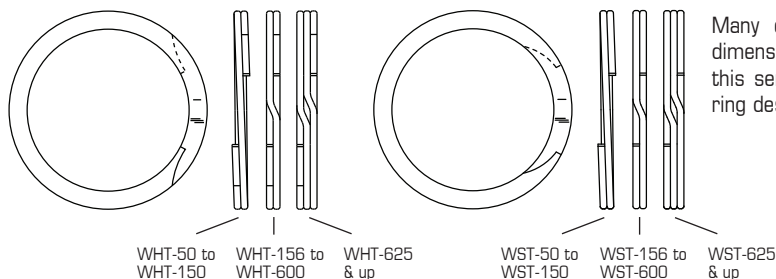
Single-turn retaining rings with narrow radial wall dimensions are recommended for light-duty, low clearance applications, or where axial positioning rather than load carrying is the principal function. Low-cost and easy to use, these rings are ideal for ball or roller bearing applications or other uses where thrust loads are moderate.

WH & WS Medium Duty Series



This popular series is cataloged in the greatest number of standard retaining ring sizes. Smalley WH and WS rings easily handle thrust loads imposed by light or medium series bearings. These rings are covered by military and aerospace specifications and are available in more sizes than any other Smalley series. Specify on purchase order if rings are to conform to military or aerospace standards.

WHT & WST Medium Heavy Duty Series

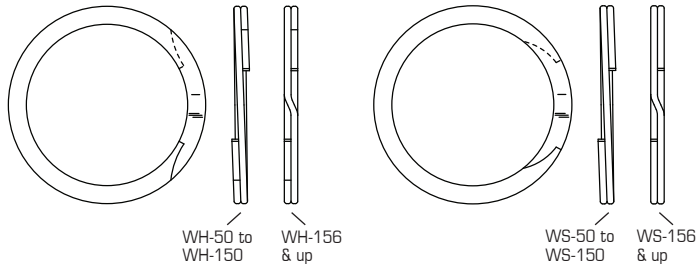


Many original equipment manufacturers have set groove dimensions specifically for these series. While easier to install, this series has load carrying ratings close to our heavy duty ring designs.

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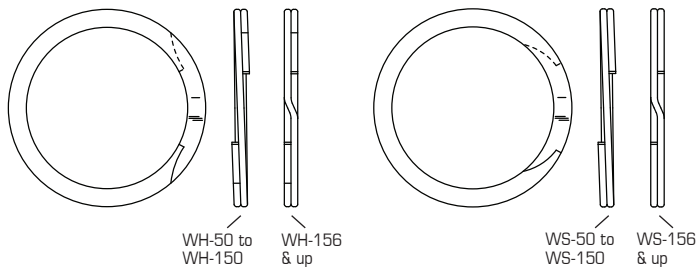


WHM & WSM Heavy Duty Series



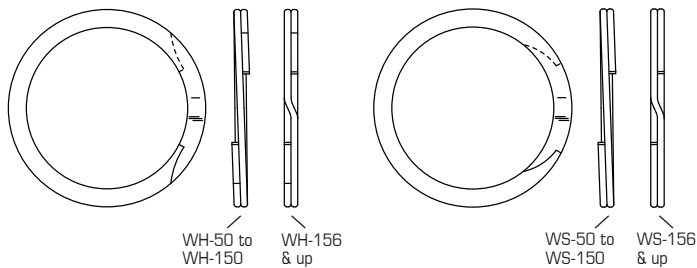
A major segment of Smalley manufacturing is in "special" or prototype retaining rings. Common Smalley specials include balanced, multi-turn (4, 5, 6 turns and more) and special ends in English and metric diameters from 3/8" to 84" and larger.

DNH & DNS DIN Metric Series



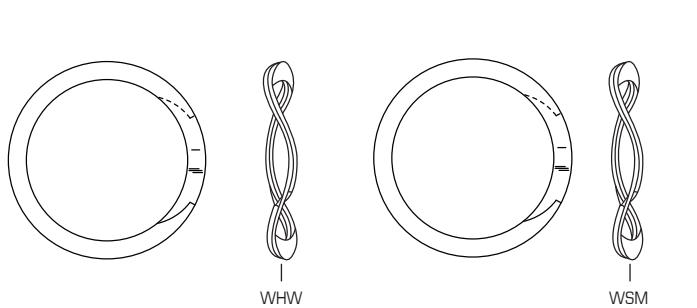
These DIN series retaining ring are Smalley's equivalent to the European or Hard metric retaining rings. With their 2-turn offset configuration, the rings will fit into the grooves established by DIN specifications. They are available in both internal and external sizes from 13 mm to 400mm and are offered standard in 302 stainless steel.

EH & ES Metric Aerospace Series



Metric retaining rings are Smalley's standard spiral retaining rings produced to Metric Aerospace specifications. They fit grooves specifically designed for 2-turn spiral rings and accommodate light duty through medium duty applications. Using 302 stainless or carbon steel, the external series fits shaft sizes from 12mm to 280mm. The internal series fits housings of the same dimensions.

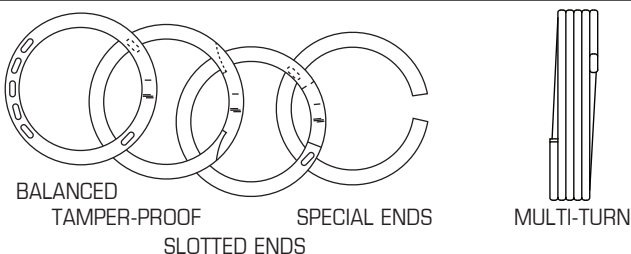
WaveRings®



The WaveRing is a spiral retaining ring with axial wave form. It acts like a standard retaining ring with the additional feature of compressibility. With the assembly under constant pressure, looseness and vibration is eliminated which reduces manufacturing costs. In addition, the WaveRing compensates for the overall length tolerance of stacked components by always maintaining a load on the assembly.

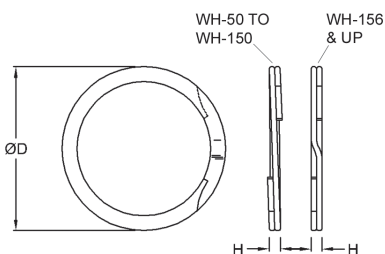
Designed to fit into a groove, the WaveRing applies pressure in two directions: against the groove wall and against the assembly components. Single, double or multiple turns in the WaveRing are possible as well as a choice of materials, including our standard. 17-7 PH stainless and carbon steel.

Special Retaining Rings



A major segment of Smalley manufacturing is in "special" or prototype retaining rings. Common Smalley specials include balanced, multi-turn (4, 5, 6 turns and more) and special ends in English and metric diameters from 3/8" to 84" and larger.

WH - Retaining rings - Internal



**Standard
Material**

Carbon Steel

| N° de référence | Bore dia. | Free dia. | Thickness |
|-----------------|--------------|-----------|-----------|
| | | D | H |
| WH-050 | 0.500 | 0.532 | 0.025 |
| WH-051 | 0.512 | 0.544 | 0.025 |
| WH-053 | 0.531 | 0.564 | 0.025 |
| WH-056 | 0.562 | 0.594 | 0.025 |
| WH-059 | 0.594 | 0.626 | 0.025 |
| WH-062 | 0.625 | 0.658 | 0.025 |
| WH-065 | 0.656 | 0.689 | 0.025 |
| WH-068 | 0.687 | 0.720 | 0.025 |
| WH-071 | 0.718 | 0.751 | 0.025 |
| WH-075 | 0.750 | 0.790 | 0.031 |
| WH-077 | 0.777 | 0.817 | 0.031 |
| WH-078 | 0.781 | 0.821 | 0.031 |
| WH-081 | 0.812 | 0.853 | 0.031 |
| WH-084 | 0.843 | 0.889 | 0.031 |
| WH-086 | 0.866 | 0.913 | 0.031 |
| WH-087 | 0.875 | 0.922 | 0.031 |
| WH-090 | 0.906 | 0.949 | 0.031 |
| WH-093 | 0.938 | 0.986 | 0.031 |
| WH-096 | 0.968 | 1.025 | 0.037 |
| WH-098 | 0.987 | 1.041 | 0.037 |
| WH-100 | 1.000 | 1.054 | 0.037 |
| WH-102 | 1.023 | 1.078 | 0.037 |
| WH-103 | 1.031 | 1.084 | 0.037 |
| WH-106 | 1.062 | 1.117 | 0.037 |
| WH-109 | 1.093 | 1.147 | 0.037 |
| WH-112 | 1.125 | 1.180 | 0.037 |
| WH-115 | 1.156 | 1.210 | 0.037 |
| WH-118 | 1.188 | 1.249 | 0.043 |
| WH-121 | 1.218 | 1.278 | 0.043 |
| WH-125 | 1.250 | 1.312 | 0.043 |
| WH-128 | 1.281 | 1.342 | 0.043 |
| WH-131 | 1.312 | 1.374 | 0.043 |
| WH-134 | 1.343 | 1.408 | 0.043 |
| WH-137 | 1.375 | 1.442 | 0.043 |
| WH-140 | 1.406 | 1.472 | 0.043 |
| WH-143 | 1.437 | 1.504 | 0.043 |
| WH-145 | 1.456 | 1.523 | 0.043 |
| WH-146 | 1.468 | 1.535 | 0.043 |
| WH-150 | 1.500 | 1.567 | 0.043 |

| N° de référence | Bore dia. | Free dia. | Thickness |
|-----------------|--------------|-----------|-----------|
| | | D | H |
| WH-156 | 1.562 | 1.634 | 0.049 |
| WH-157 | 1.574 | 1.649 | 0.049 |
| WH-162 | 1.625 | 1.701 | 0.049 |
| WH-165 | 1.653 | 1.730 | 0.049 |
| WH-168 | 1.687 | 1.768 | 0.049 |
| WH-175 | 1.750 | 1.834 | 0.049 |
| WH-181 | 1.813 | 1.894 | 0.049 |
| WH-185 | 1.850 | 1.937 | 0.049 |
| WH-187 | 1.875 | 1.960 | 0.049 |
| WH-193 | 1.938 | 2.025 | 0.049 |
| WH-200 | 2.000 | 2.091 | 0.049 |
| WH-204 | 2.047 | 2.138 | 0.049 |
| WH-206 | 2.062 | 2.154 | 0.049 |
| WH-212 | 2.125 | 2.217 | 0.049 |
| WH-216 | 2.165 | 2.260 | 0.049 |
| WH-218 | 2.188 | 2.284 | 0.049 |
| WH-225 | 2.250 | 2.347 | 0.049 |
| WH-231 | 2.312 | 2.413 | 0.049 |
| WH-237 | 2.375 | 2.476 | 0.049 |
| WH-243 | 2.437 | 2.543 | 0.049 |
| WH-244 | 2.440 | 2.546 | 0.049 |
| WH-250 | 2.500 | 2.606 | 0.049 |
| WH-253 | 2.531 | 2.641 | 0.049 |
| WH-256 | 2.562 | 2.673 | 0.049 |
| WH-262 | 2.625 | 2.736 | 0.049 |
| WH-267 | 2.677 | 2.789 | 0.049 |
| WH-268 | 2.688 | 2.803 | 0.049 |
| WH-275 | 2.750 | 2.865 | 0.049 |
| WH-281 | 2.813 | 2.929 | 0.049 |
| WH-283 | 2.834 | 2.954 | 0.049 |
| WH-287 | 2.875 | 2.995 | 0.049 |
| WH-293 | 2.937 | 3.058 | 0.049 |
| WH-295 | 2.952 | 3.073 | 0.049 |
| WH-300 | 3.000 | 3.122 | 0.061 |
| WH-306 | 3.062 | 3.186 | 0.061 |
| WH-312 | 3.125 | 3.251 | 0.061 |
| WH-314 | 3.149 | 3.276 | 0.061 |
| WH-318 | 3.187 | 3.311 | 0.061 |
| WH-325 | 3.250 | 3.379 | 0.061 |

MISC.



WH - Retaining rings - Internal

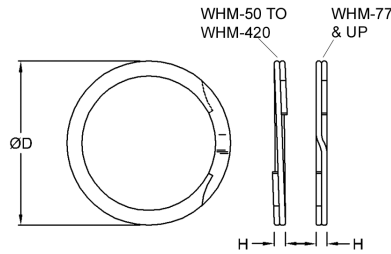
| N° de référence | Bore dia. | Free dia. | Thickness |
|-----------------|--------------|-----------|-----------|
| | | D | H |
| WH-331 | 3.312 | 3.446 | 0.061 |
| WH-334 | 3.346 | 3.479 | 0.061 |
| WH-337 | 3.375 | 3.509 | 0.061 |
| WH-343 | 3.437 | 3.574 | 0.061 |
| WH-350 | 3.500 | 3.636 | 0.061 |
| WH-354 | 3.543 | 3.684 | 0.061 |
| WH-356 | 3.562 | 3.703 | 0.061 |
| WH-362 | 3.625 | 3.769 | 0.061 |
| WH-368 | 3.687 | 3.832 | 0.061 |
| WH-374 | 3.740 | 3.885 | 0.061 |
| WH-375 | 3.750 | 3.894 | 0.061 |
| WH-381 | 3.812 | 3.963 | 0.061 |
| WH-387 | 3.875 | 4.025 | 0.061 |
| WH-393 | 3.938 | 4.089 | 0.061 |
| WH-400 | 4.000 | 4.157 | 0.061 |
| WH-406 | 4.063 | 4.222 | 0.061 |
| WH-412 | 4.125 | 4.284 | 0.061 |
| WH-418 | 4.188 | 4.347 | 0.061 |
| WH-425 | 4.250 | 4.416 | 0.061 |
| WH-431 | 4.312 | 4.479 | 0.061 |
| WH-433 | 4.330 | 4.497 | 0.061 |
| WH-437 | 4.375 | 4.505 | 0.061 |
| WH-443 | 4.437 | 4.611 | 0.061 |
| WH-450 | 4.500 | 4.674 | 0.061 |
| WH-452 | 4.527 | 4.701 | 0.061 |
| WH-456 | 4.562 | 4.737 | 0.061 |
| WH-462 | 4.625 | 4.803 | 0.072 |
| WH-468 | 4.687 | 4.867 | 0.072 |
| WH-472 | 4.724 | 4.903 | 0.072 |
| WH-475 | 4.750 | 4.930 | 0.072 |
| WH-481 | 4.812 | 4.993 | 0.072 |
| WH-487 | 4.875 | 5.055 | 0.072 |
| WH-492 | 4.921 | 5.102 | 0.072 |
| WH-493 | 4.937 | 5.122 | 0.072 |
| WH-500 | 5.000 | 5.185 | 0.072 |
| WH-511 | 5.118 | 5.304 | 0.072 |
| WH-512 | 5.125 | 5.311 | 0.072 |
| WH-525 | 5.250 | 5.436 | 0.072 |
| WH-537 | 5.375 | 5.566 | 0.072 |
| WH-550 | 5.500 | 5.693 | 0.072 |
| WH-551 | 5.511 | 5.703 | 0.072 |
| WH-562 | 5.625 | 5.818 | 0.072 |

| N° de référence | Bore dia. | Free dia. | Thickness |
|-----------------|---------------|-----------|-----------|
| | | D | H |
| WH-570 | 5.708 | 5.909 | 0.072 |
| WH-575 | 5.750 | 5.950 | 0.072 |
| WH-587 | 5.875 | 6.077 | 0.072 |
| WH-580 | 5.800 | 6.105 | 0.072 |
| WH-600 | 6.000 | 6.202 | 0.072 |
| WH-612 | 6.125 | 6.349 | 0.086 |
| WH-625 | 6.250 | 6.474 | 0.086 |
| WH-629 | 6.299 | 6.524 | 0.086 |
| WH-637 | 6.375 | 6.601 | 0.086 |
| WH-650 | 6.500 | 6.726 | 0.086 |
| WH-662 | 6.625 | 6.863 | 0.086 |
| WH-669 | 6.692 | 6.931 | 0.086 |
| WH-675 | 6.750 | 6.987 | 0.086 |
| WH-687 | 6.875 | 7.114 | 0.086 |
| WH-700 | 7.000 | 7.239 | 0.086 |
| WH-708 | 7.086 | 7.337 | 0.086 |
| WH-712 | 7.125 | 7.376 | 0.086 |
| WH-725 | 7.250 | 7.501 | 0.086 |
| WH-737 | 7.375 | 7.628 | 0.086 |
| WH-748 | 7.480 | 7.734 | 0.086 |
| WH-750 | 7.500 | 7.754 | 0.086 |
| WH-762 | 7.625 | 7.890 | 0.086 |
| WH-775 | 7.750 | 8.014 | 0.086 |
| WH-787 | 7.875 | 8.131 | 0.086 |
| WH-800 | 8.000 | 8.266 | 0.086 |
| WH-825 | 8.250 | 8.528 | 0.086 |
| WH-826 | 8.267 | 8.546 | 0.086 |
| WH-846 | 8.464 | 8.744 | 0.086 |
| WH-850 | 8.500 | 8.780 | 0.086 |
| WH-875 | 8.750 | 9.041 | 0.086 |
| WH-885 | 8.858 | 9.151 | 0.086 |
| WH-900 | 9.000 | 9.293 | 0.086 |
| WH-905 | 9.055 | 9.359 | 0.086 |
| WH-925 | 9.250 | 9.555 | 0.086 |
| WH-944 | 9.448 | 9.755 | 0.086 |
| WH-950 | 9.500 | 9.806 | 0.086 |
| WH-975 | 9.750 | 10.068 | 0.086 |
| WH-1000 | 10.000 | 10.320 | 0.086 |
| WH-1025 | 10.250 | 10.582 | 0.086 |
| WH-1050 | 10.500 | 10.834 | 0.086 |
| WH-1075 | 10.750 | 11.095 | 0.086 |
| WH-1100 | 11.000 | 11.347 | 0.086 |

MISC.



WHM - Retaining rings - Internal



Standard Material

Carbon Steel

MISC.



| Ref.Number | Bore dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | D | H |
| WHM-050 | 0.500 | 0.538 | 0.035 |
| WHM-051 | 0.512 | 0.550 | 0.035 |
| WHM-056 | 0.562 | 0.605 | 0.035 |
| WHM-062 | 0.625 | 0.675 | 0.035 |
| WHM-068 | 0.688 | 0.743 | 0.035 |
| WHM-075 | 0.750 | 0.807 | 0.035 |
| WHM-077 | 0.777 | 0.836 | 0.042 |
| WHM-081 | 0.812 | 0.873 | 0.042 |
| WHM-086 | 0.866 | 0.931 | 0.042 |
| WHM-087 | 0.875 | 0.943 | 0.042 |
| WHM-090 | 0.901 | 0.972 | 0.042 |
| WHM-093 | 0.938 | 1.013 | 0.042 |
| WHM-100 | 1.000 | 1.080 | 0.042 |
| WHM-102 | 1.023 | 1.105 | 0.042 |
| WHM-106 | 1.062 | 1.138 | 0.050 |
| WHM-112 | 1.125 | 1.205 | 0.050 |
| WHM-118 | 1.188 | 1.271 | 0.050 |
| WHM-125 | 1.250 | 1.339 | 0.050 |
| WHM-131 | 1.312 | 1.406 | 0.050 |
| WHM-137 | 1.375 | 1.471 | 0.050 |
| WHM-143 | 1.439 | 1.539 | 0.050 |
| WHM-145 | 1.456 | 1.559 | 0.050 |
| WHM-150 | 1.500 | 1.605 | 0.050 |
| WHM-156 | 1.562 | 1.675 | 0.062 |
| WHM-162 | 1.625 | 1.742 | 0.062 |
| WHM-165 | 1.653 | 1.772 | 0.062 |
| WHM-168 | 1.688 | 1.810 | 0.062 |
| WHM-175 | 1.750 | 1.876 | 0.062 |
| WHM-181 | 1.812 | 1.940 | 0.062 |
| WHM-185 | 1.850 | 1.981 | 0.062 |
| WHM-187 | 1.875 | 2.008 | 0.062 |
| WHM-193 | 1.938 | 2.075 | 0.062 |
| WHM-200 | 2.000 | 2.142 | 0.062 |
| WHM-206 | 2.062 | 2.201 | 0.078 |
| WHM-212 | 2.125 | 2.267 | 0.078 |
| WHM-218 | 2.188 | 2.334 | 0.078 |
| WHM-225 | 2.250 | 2.399 | 0.078 |
| WHM-231 | 2.312 | 2.467 | 0.078 |
| WHM-237 | 2.375 | 2.535 | 0.078 |

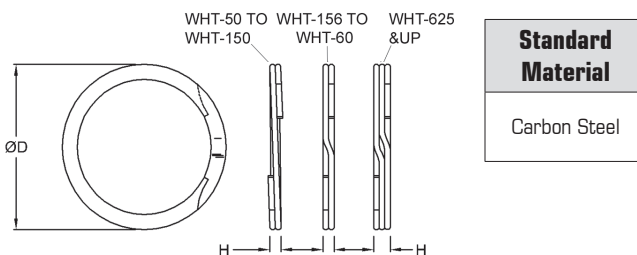
| Ref.Number | Bore dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | D | H |
| WHM-244 | 2.440 | 2.602 | 0.078 |
| WHM-250 | 2.500 | 2.667 | 0.078 |
| WHM-253 | 2.531 | 2.700 | 0.078 |
| WHM-256 | 2.562 | 2.733 | 0.093 |
| WHM-262 | 2.625 | 2.801 | 0.093 |
| WHM-268 | 2.688 | 2.868 | 0.093 |
| WHM-275 | 2.750 | 2.934 | 0.093 |
| WHM-281 | 2.813 | 3.001 | 0.093 |
| WHM-283 | 2.834 | 3.027 | 0.093 |
| WHM-287 | 2.875 | 3.072 | 0.093 |
| WHM-300 | 3.000 | 3.204 | 0.093 |
| WHM-306 | 3.062 | 3.271 | 0.111 |
| WHM-312 | 3.125 | 3.338 | 0.111 |
| WHM-315 | 3.157 | 3.371 | 0.111 |
| WHM-325 | 3.250 | 3.470 | 0.111 |
| WHM-334 | 3.346 | 3.571 | 0.111 |
| WHM-347 | 3.469 | 3.701 | 0.111 |
| WHM-350 | 3.500 | 3.736 | 0.111 |
| WHM-354 | 3.543 | 3.781 | 0.111 |
| WHM-356 | 3.562 | 3.802 | 0.111 |
| WHM-362 | 3.625 | 3.868 | 0.111 |
| WHM-375 | 3.750 | 4.002 | 0.111 |
| WHM-387 | 3.875 | 4.136 | 0.111 |
| WHM-393 | 3.938 | 4.203 | 0.111 |
| WHM-400 | 4.000 | 4.270 | 0.111 |
| WHM-412 | 4.125 | 4.369 | 0.111 |
| WHM-425 | 4.250 | 4.501 | 0.111 |
| WHM-433 | 4.330 | 4.588 | 0.111 |
| WHM-450 | 4.500 | 4.768 | 0.111 |
| WHM-462 | 4.625 | 4.899 | 0.111 |
| WHM-475 | 4.750 | 5.030 | 0.111 |
| WHM-500 | 5.000 | 5.297 | 0.111 |
| WHM-525 | 5.250 | 5.559 | 0.127 |
| WHM-537 | 5.375 | 5.690 | 0.127 |
| WHM-550 | 5.500 | 5.810 | 0.127 |
| WHM-575 | 5.750 | 6.062 | 0.127 |
| WHM-600 | 6.000 | 6.314 | 0.127 |
| WHM-625 | 6.250 | 6.576 | 0.156 |
| WHM-650 | 6.500 | 6.838 | 0.156 |

WHM - Retaining rings - Internal

| Ref.Number | Bore dia. | Free dia. | Thickness |
|------------|---------------|-----------|-----------|
| | | D | H |
| WHM-662 | 6.625 | 6.974 | 0.156 |
| WHM-675 | 6.750 | 7.105 | 0.156 |
| WHM-700 | 7.000 | 7.366 | 0.156 |
| WHM-725 | 7.250 | 7.628 | 0.187 |
| WHM-750 | 7.500 | 7.895 | 0.187 |
| WHM-775 | 7.750 | 8.157 | 0.187 |
| WHM-800 | 8.000 | 8.419 | 0.187 |
| WHM-825 | 8.250 | 8.680 | 0.187 |
| WHM-850 | 8.500 | 8.942 | 0.187 |
| WHM-875 | 8.750 | 9.209 | 0.187 |
| WHM-900 | 9.000 | 9.471 | 0.187 |
| WHM-925 | 9.250 | 9.737 | 0.187 |
| WHM-950 | 9.500 | 10.000 | 0.187 |
| WHM-975 | 9.750 | 10.260 | 0.187 |
| WHM-1000 | 10.000 | 10.523 | 0.187 |
| WHM-1025 | 10.250 | 10.786 | 0.187 |
| WHM-1050 | 10.500 | 11.047 | 0.187 |
| WHM-1075 | 10.750 | 11.313 | 0.187 |

| Ref.Number | Bore dia. | Free dia. | Thickness |
|------------|---------------|-----------|-----------|
| | | D | H |
| WHM-1100 | 11.000 | 11.575 | 0.187 |
| WHM-1125 | 11.250 | 11.838 | 0.187 |
| WHM-1150 | 11.500 | 12.102 | 0.187 |
| WHM-1175 | 11.750 | 12.365 | 0.187 |
| WHM-1200 | 12.000 | 12.628 | 0.187 |
| WHM-1225 | 12.250 | 12.891 | 0.187 |
| WHM-1250 | 12.500 | 13.154 | 0.187 |
| WHM-1275 | 12.750 | 13.417 | 0.187 |
| WHM-1300 | 13.000 | 13.680 | 0.187 |
| WHM-1325 | 13.250 | 13.943 | 0.187 |
| WHM-1350 | 13.500 | 14.207 | 0.187 |
| WHM-1375 | 13.750 | 14.470 | 0.187 |
| WHM-1400 | 14.000 | 14.732 | 0.187 |
| WHM-1425 | 14.250 | 14.995 | 0.187 |
| WHM-1450 | 14.500 | 15.259 | 0.187 |
| WHM-1475 | 14.750 | 15.522 | 0.187 |
| WHM-1500 | 15.000 | 15.785 | 0.187 |

WHT - Retaining rings - Internal



Standard Material
Carbon Steel

| Ref.Number | Bore dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | D | H |
| WHT-050 | 0.500 | 0.529 | 0.035 |
| WHT-051 | 0.512 | 0.541 | 0.035 |
| WHT-056 | 0.562 | 0.597 | 0.035 |
| WHT-062 | 0.625 | 0.665 | 0.035 |
| WHT-068 | 0.688 | 0.730 | 0.035 |
| WHT-075 | 0.750 | 0.796 | 0.035 |
| WHT-077 | 0.777 | 0.825 | 0.042 |
| WHT-081 | 0.812 | 0.864 | 0.042 |
| WHT-086 | 0.866 | 0.919 | 0.042 |
| WHT-087 | 0.875 | 0.929 | 0.042 |

| Ref.Number | Bore dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | D | H |
| WHT-090 | 0.901 | 0.957 | 0.042 |
| WHT-093 | 0.938 | 0.997 | 0.042 |
| WHT-100 | 1.000 | 1.063 | 0.042 |
| WHT-102 | 1.023 | 1.087 | 0.042 |
| WHT-106 | 1.062 | 1.129 | 0.050 |
| WHT-112 | 1.125 | 1.195 | 0.050 |
| WHT-118 | 1.188 | 1.260 | 0.050 |
| WHT-125 | 1.250 | 1.330 | 0.050 |
| WHT-131 | 1.312 | 1.395 | 0.050 |
| WHT-137 | 1.375 | 1.461 | 0.050 |

MISC.



WHT - Retaining rings - Internal

| Ref.Number | Bore dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | D | H |
| WHT-143 | 1.438 | 1.526 | 0.050 |
| WHT-145 | 1.456 | 1.546 | 0.050 |
| WHT-150 | 1.500 | 1.591 | 0.050 |
| WHT-156 | 1.562 | 1.659 | 0.062 |
| WHT-162 | 1.625 | 1.727 | 0.062 |
| WHT-165 | 1.653 | 1.757 | 0.062 |
| WHT-168 | 1.688 | 1.793 | 0.062 |
| WHT-175 | 1.750 | 1.853 | 0.062 |
| WHT-181 | 1.812 | 1.923 | 0.062 |
| WHT-185 | 1.850 | 1.963 | 0.062 |
| WHT-187 | 1.875 | 1.984 | 0.062 |
| WHT-193 | 1.938 | 2.054 | 0.062 |
| WHT-200 | 2.000 | 2.125 | 0.062 |
| WHT-206 | 2.062 | 2.190 | 0.078 |
| WHT-212 | 2.125 | 2.255 | 0.078 |
| WHT-218 | 2.188 | 2.321 | 0.078 |
| WHT-225 | 2.250 | 2.386 | 0.078 |
| WHT-231 | 2.312 | 2.457 | 0.078 |
| WHT-237 | 2.375 | 2.522 | 0.078 |
| WHT-244 | 2.440 | 2.588 | 0.078 |
| WHT-250 | 2.500 | 2.653 | 0.078 |
| WHT-253 | 2.531 | 2.687 | 0.078 |
| WHT-256 | 2.562 | 2.720 | 0.093 |
| WHT-262 | 2.625 | 2.785 | 0.093 |
| WHT-268 | 2.688 | 2.855 | 0.093 |
| WHT-275 | 2.750 | 2.921 | 0.093 |
| WHT-281 | 2.813 | 2.987 | 0.093 |
| WHT-283 | 2.834 | 3.009 | 0.093 |
| WHT-287 | 2.875 | 3.053 | 0.093 |
| WHT-300 | 3.000 | 3.188 | 0.093 |
| WHT-306 | 3.062 | 3.257 | 0.111 |
| WHT-312 | 3.125 | 3.318 | 0.111 |
| WHT-315 | 3.156 | 3.354 | 0.111 |
| WHT-325 | 3.250 | 3.450 | 0.111 |
| WHT-334 | 3.346 | 3.550 | 0.111 |
| WHT-347 | 3.469 | 3.683 | 0.111 |
| WHT-350 | 3.500 | 3.716 | 0.111 |

| Ref.Number | Bore dia. | Free dia. | Thickness |
|------------|---------------|-----------|-----------|
| | | D | H |
| WHT-354 | 3.543 | 3.761 | 0.111 |
| WHT-356 | 3.562 | 3.783 | 0.111 |
| WHT-362 | 3.625 | 3.849 | 0.111 |
| WHT-375 | 3.750 | 3.982 | 0.111 |
| WHT-387 | 3.875 | 4.115 | 0.111 |
| WHT-393 | 3.938 | 4.178 | 0.111 |
| WHT-400 | 4.000 | 4.248 | 0.111 |
| WHT-412 | 4.125 | 4.368 | 0.111 |
| WHT-425 | 4.250 | 4.500 | 0.111 |
| WHT-433 | 4.330 | 4.586 | 0.111 |
| WHT-450 | 4.500 | 4.768 | 0.111 |
| WHT-462 | 4.625 | 4.897 | 0.111 |
| WHT-475 | 4.750 | 5.028 | 0.111 |
| WHT-500 | 5.000 | 5.295 | 0.111 |
| WHT-525 | 5.250 | 5.559 | 0.127 |
| WHT-537 | 5.375 | 5.689 | 0.127 |
| WHT-550 | 5.500 | 5.810 | 0.127 |
| WHT-575 | 5.750 | 6.062 | 0.127 |
| WHT-600 | 6.000 | 6.314 | 0.127 |
| WHT-625 | 6.250 | 6.576 | 0.165 |
| WHT-650 | 6.500 | 6.837 | 0.165 |
| WHT-662 | 6.625 | 6.973 | 0.165 |
| WHT-675 | 6.750 | 7.104 | 0.165 |
| WHT-700 | 7.000 | 7.366 | 0.165 |
| WHT-725 | 7.250 | 7.628 | 0.189 |
| WHT-750 | 7.500 | 7.895 | 0.189 |
| WHT-775 | 7.750 | 8.156 | 0.189 |
| WHT-800 | 8.000 | 8.418 | 0.189 |
| WHT-825 | 8.250 | 8.680 | 0.189 |
| WHT-850 | 8.500 | 8.942 | 0.189 |
| WHT-875 | 8.750 | 9.209 | 0.189 |
| WHT-900 | 9.000 | 9.471 | 0.189 |
| WHT-925 | 9.250 | 9.736 | 0.189 |
| WHT-950 | 9.500 | 9.999 | 0.189 |
| WHT-975 | 9.750 | 10.260 | 0.189 |
| WHT-1000 | 10.000 | 10.552 | 0.189 |
| WHT-1050 | 10.500 | 11.036 | 0.189 |

MISC.



Markets segments we are servicing



Power Tools



Power Transmission



Pulp & Paper



Railway

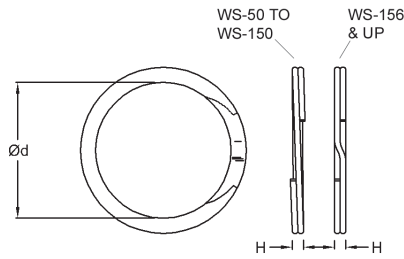


Recreational



Truck & Bus Tier

WS - Retaining rings - External



| |
|--------------------------|
| Standard Material |
| Carbon Steel |

| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | d | H |
| WS-050 | 0.500 | 0.467 | 0.025 |
| WS-053 | 0.531 | 0.498 | 0.025 |
| WS-055 | 0.551 | 0.518 | 0.025 |
| WS-056 | 0.562 | 0.529 | 0.025 |
| WS-059 | 0.594 | 0.561 | 0.025 |
| WS-062 | 0.625 | 0.585 | 0.025 |
| WS-065 | 0.656 | 0.617 | 0.025 |
| WS-066 | 0.669 | 0.629 | 0.025 |
| WS-068 | 0.687 | 0.647 | 0.025 |
| WS-071 | 0.718 | 0.679 | 0.025 |
| WS-075 | 0.750 | 0.710 | 0.031 |
| WS-078 | 0.781 | 0.741 | 0.031 |
| WS-081 | 0.812 | 0.771 | 0.031 |
| WS-084 | 0.843 | 0.803 | 0.031 |
| WS-087 | 0.875 | 0.828 | 0.031 |
| WS-090 | 0.906 | 0.860 | 0.031 |
| WS-093 | 0.937 | 0.889 | 0.031 |
| WS-096 | 0.968 | 0.916 | 0.037 |
| WS-098 | 0.984 | 0.930 | 0.037 |
| WS-100 | 1.000 | 0.946 | 0.037 |
| WS-102 | 1.023 | 0.968 | 0.037 |
| WS-103 | 1.031 | 0.978 | 0.037 |
| WS-106 | 1.062 | 1.007 | 0.037 |
| WS-109 | 1.093 | 1.040 | 0.037 |
| WS-112 | 1.125 | 1.070 | 0.037 |
| WS-115 | 1.156 | 1.102 | 0.037 |
| WS-118 | 1.188 | 1.127 | 0.043 |
| WS-121 | 1.218 | 1.159 | 0.043 |
| WS-125 | 1.250 | 1.188 | 0.043 |
| WS-128 | 1.281 | 1.221 | 0.043 |
| WS-131 | 1.312 | 1.251 | 0.043 |
| WS-134 | 1.343 | 1.282 | 0.043 |
| WS-137 | 1.375 | 1.308 | 0.043 |
| WS-140 | 1.406 | 1.340 | 0.043 |
| WS-143 | 1.437 | 1.370 | 0.043 |
| WS-146 | 1.468 | 1.402 | 0.043 |
| WS-150 | 1.500 | 1.433 | 0.043 |
| WS-156 | 1.562 | 1.490 | 0.049 |
| WS-157 | 1.575 | 1.503 | 0.049 |

| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | d | H |
| WS-162 | 1.625 | 1.549 | 0.049 |
| WS-168 | 1.687 | 1.610 | 0.049 |
| WS-175 | 1.750 | 1.673 | 0.049 |
| WS-177 | 1.771 | 1.690 | 0.049 |
| WS-181 | 1.813 | 1.730 | 0.049 |
| WS-187 | 1.875 | 1.789 | 0.049 |
| WS-193 | 1.938 | 1.844 | 0.049 |
| WS-196 | 1.969 | 1.882 | 0.049 |
| WS-200 | 2.000 | 1.909 | 0.049 |
| WS-206 | 2.062 | 1.971 | 0.049 |
| WS-212 | 2.125 | 2.029 | 0.049 |
| WS-215 | 2.156 | 2.060 | 0.049 |
| WS-216 | 2.165 | 2.070 | 0.049 |
| WS-218 | 2.188 | 2.092 | 0.049 |
| WS-225 | 2.250 | 2.153 | 0.049 |
| WS-231 | 2.312 | 2.211 | 0.049 |
| WS-236 | 2.362 | 2.261 | 0.049 |
| WS-237 | 2.375 | 2.273 | 0.049 |
| WS-243 | 2.437 | 2.331 | 0.049 |
| WS-250 | 2.500 | 2.394 | 0.049 |
| WS-255 | 2.559 | 2.449 | 0.049 |
| WS-256 | 2.562 | 2.452 | 0.049 |
| WS-262 | 2.625 | 2.514 | 0.049 |
| WS-268 | 2.688 | 2.572 | 0.049 |
| WS-275 | 2.750 | 2.635 | 0.049 |
| WS-281 | 2.813 | 2.696 | 0.049 |
| WS-287 | 2.875 | 2.755 | 0.049 |
| WS-293 | 2.937 | 2.817 | 0.049 |
| WS-295 | 2.952 | 2.831 | 0.049 |
| WS-300 | 3.000 | 2.877 | 0.061 |
| WS-306 | 3.062 | 2.938 | 0.061 |
| WS-312 | 3.125 | 3.000 | 0.061 |
| WS-314 | 3.149 | 3.023 | 0.061 |
| WS-318 | 3.187 | 3.061 | 0.061 |
| WS-325 | 3.250 | 3.121 | 0.061 |
| WS-331 | 3.312 | 3.180 | 0.061 |
| WS-334 | 3.343 | 3.210 | 0.061 |
| WS-337 | 3.375 | 3.242 | 0.061 |
| WS-343 | 3.437 | 3.301 | 0.061 |

MISC.

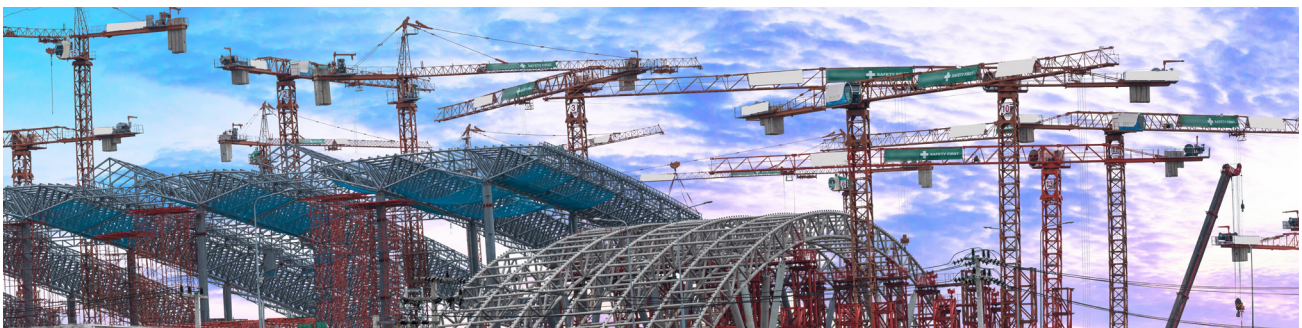


WS - Retaining rings - External

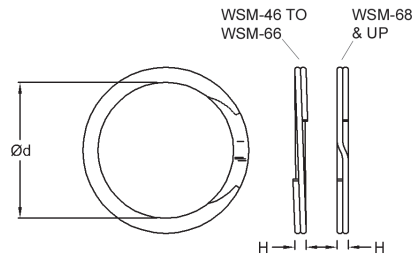
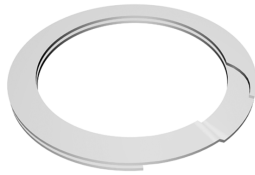
| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | d | H |
| WS-350 | 3.500 | 3.363 | 0.061 |
| WS-354 | 3.543 | 3.402 | 0.061 |
| WS-356 | 3.562 | 3.422 | 0.061 |
| WS-362 | 3.625 | 3.483 | 0.061 |
| WS-368 | 3.687 | 3.543 | 0.061 |
| WS-374 | 3.740 | 3.597 | 0.061 |
| WS-375 | 3.750 | 3.606 | 0.061 |
| WS-381 | 3.812 | 3.668 | 0.061 |
| WS-387 | 3.875 | 3.724 | 0.061 |
| WS-393 | 3.938 | 3.784 | 0.061 |
| WS-400 | 4.000 | 3.842 | 0.061 |
| WS-406 | 4.063 | 3.906 | 0.061 |
| WS-412 | 4.125 | 3.967 | 0.061 |
| WS-413 | 4.134 | 3.975 | 0.061 |
| WS-418 | 4.188 | 4.030 | 0.061 |
| WS-425 | 4.250 | 4.084 | 0.061 |
| WS-431 | 4.312 | 4.147 | 0.061 |
| WS-433 | 4.331 | 4.164 | 0.061 |
| WS-437 | 4.375 | 4.208 | 0.061 |
| WS-443 | 4.437 | 4.271 | 0.061 |
| WS-450 | 4.500 | 4.326 | 0.061 |
| WS-456 | 4.562 | 4.384 | 0.072 |
| WS-462 | 4.625 | 4.447 | 0.072 |
| WS-468 | 4.687 | 4.508 | 0.072 |
| WS-472 | 4.724 | 4.546 | 0.072 |
| WS-475 | 4.750 | 4.571 | 0.072 |
| WS-481 | 4.812 | 4.633 | 0.072 |
| WS-487 | 4.875 | 4.695 | 0.072 |
| WS-493 | 4.937 | 4.757 | 0.072 |
| WS-500 | 5.000 | 4.820 | 0.072 |
| WS-511 | 5.118 | 4.934 | 0.072 |
| WS-512 | 5.125 | 4.939 | 0.072 |
| WS-525 | 5.250 | 5.064 | 0.072 |
| WS-537 | 5.375 | 5.187 | 0.072 |
| WS-550 | 5.500 | 5.308 | 0.072 |

| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|---------------|-----------|-----------|
| | | d | H |
| WS-551 | 5.511 | 5.320 | 0.072 |
| WS-562 | 5.625 | 5.433 | 0.072 |
| WS-575 | 5.750 | 5.550 | 0.072 |
| WS-587 | 5.875 | 5.674 | 0.072 |
| WS-590 | 5.905 | 5.705 | 0.072 |
| WS-600 | 6.000 | 5.798 | 0.072 |
| WS-612 | 6.125 | 5.903 | 0.086 |
| WS-625 | 6.250 | 6.026 | 0.086 |
| WS-629 | 6.299 | 6.076 | 0.086 |
| WS-637 | 6.375 | 6.152 | 0.086 |
| WS-650 | 6.500 | 6.274 | 0.086 |
| WS-662 | 6.625 | 6.390 | 0.086 |
| WS-675 | 6.750 | 6.513 | 0.086 |
| WS-687 | 6.875 | 6.638 | 0.086 |
| WS-700 | 7.000 | 6.761 | 0.086 |
| WS-712 | 7.125 | 6.877 | 0.086 |
| WS-725 | 7.250 | 6.999 | 0.086 |
| WS-737 | 7.375 | 7.125 | 0.086 |
| WS-750 | 7.500 | 7.250 | 0.086 |
| WS-762 | 7.625 | 7.363 | 0.086 |
| WS-775 | 7.750 | 7.486 | 0.086 |
| WS-787 | 7.875 | 7.611 | 0.086 |
| WS-800 | 8.000 | 7.734 | 0.086 |
| WS-825 | 8.250 | 7.972 | 0.086 |
| WS-850 | 8.500 | 8.220 | 0.086 |
| WS-875 | 8.750 | 8.459 | 0.086 |
| WS-900 | 9.000 | 8.707 | 0.086 |
| WS-925 | 9.250 | 8.945 | 0.086 |
| WS-950 | 9.500 | 9.194 | 0.086 |
| WS-975 | 9.750 | 9.432 | 0.086 |
| WS-1000 | 10.000 | 9.680 | 0.086 |
| WS-1025 | 10.250 | 9.918 | 0.086 |
| WS-1050 | 10.500 | 10.166 | 0.086 |
| WS-1075 | 10.750 | 10.405 | 0.086 |
| WS-1100 | 11.000 | 10.653 | 0.086 |

MISC.



WSM - Retaining rings - External



Standard Material

Carbon Steel

| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | d | H |
| WSM-046 | 0.469 | 0.439 | 0.025 |
| WSM-050 | 0.500 | 0.464 | 0.035 |
| WSM-055 | 0.551 | 0.514 | 0.035 |
| WSM-056 | 0.562 | 0.525 | 0.035 |
| WSM-059 | 0.594 | 0.554 | 0.035 |
| WSM-062 | 0.625 | 0.583 | 0.035 |
| WSM-066 | 0.669 | 0.623 | 0.035 |
| WSM-068 | 0.688 | 0.641 | 0.042 |
| WSM-075 | 0.750 | 0.698 | 0.042 |
| WSM-078 | 0.781 | 0.727 | 0.042 |
| WSM-081 | 0.812 | 0.756 | 0.042 |
| WSM-087 | 0.875 | 0.814 | 0.042 |
| WSM-093 | 0.938 | 0.875 | 0.042 |
| WSM-098 | 0.984 | 0.919 | 0.042 |
| WSM-100 | 1.000 | 0.932 | 0.042 |
| WSM-102 | 1.023 | 0.953 | 0.042 |
| WSM-106 | 1.062 | 0.986 | 0.050 |
| WSM-112 | 1.125 | 1.047 | 0.050 |
| WSM-118 | 1.188 | 1.105 | 0.050 |
| WSM-125 | 1.250 | 1.163 | 0.050 |
| WSM-131 | 1.312 | 1.218 | 0.050 |
| WSM-137 | 1.375 | 1.277 | 0.050 |
| WSM-143 | 1.438 | 1.336 | 0.050 |
| WSM-150 | 1.500 | 1.385 | 0.050 |
| WSM-156 | 1.562 | 1.453 | 0.062 |
| WSM-162 | 1.625 | 1.513 | 0.062 |
| WSM-168 | 1.687 | 1.573 | 0.062 |
| WSM-175 | 1.750 | 1.633 | 0.062 |
| WSM-177 | 1.771 | 1.651 | 0.062 |
| WSM-181 | 1.812 | 1.690 | 0.062 |
| WSM-187 | 1.875 | 1.751 | 0.062 |
| WSM-196 | 1.969 | 1.838 | 0.062 |
| WSM-200 | 2.000 | 1.867 | 0.062 |
| WSM-206 | 2.062 | 1.932 | 0.078 |
| WSM-212 | 2.125 | 1.989 | 0.078 |
| WSM-215 | 2.156 | 2.018 | 0.078 |
| WSM-225 | 2.250 | 2.105 | 0.078 |
| WSM-231 | 2.312 | 2.163 | 0.078 |
| WSM-237 | 2.375 | 2.223 | 0.078 |

| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | d | H |
| WSM-243 | 2.437 | 2.283 | 0.078 |
| WSM-250 | 2.500 | 2.343 | 0.078 |
| WSM-255 | 2.559 | 2.402 | 0.078 |
| WSM-262 | 2.625 | 2.464 | 0.078 |
| WSM-268 | 2.687 | 2.523 | 0.078 |
| WSM-275 | 2.750 | 2.584 | 0.093 |
| WSM-287 | 2.875 | 2.702 | 0.093 |
| WSM-293 | 2.937 | 2.760 | 0.093 |
| WSM-300 | 3.000 | 2.818 | 0.093 |
| WSM-306 | 3.062 | 2.878 | 0.093 |
| WSM-312 | 3.125 | 2.936 | 0.093 |
| WSM-315 | 3.156 | 2.965 | 0.093 |
| WSM-325 | 3.250 | 3.054 | 0.093 |
| WSM-334 | 3.344 | 3.144 | 0.093 |
| WSM-343 | 3.437 | 3.234 | 0.093 |
| WSM-350 | 3.500 | 3.293 | 0.111 |
| WSM-354 | 3.543 | 3.333 | 0.111 |
| WSM-362 | 3.625 | 3.411 | 0.111 |
| WSM-368 | 3.687 | 3.469 | 0.111 |
| WSM-375 | 3.750 | 3.527 | 0.111 |
| WSM-387 | 3.875 | 3.647 | 0.111 |
| WSM-393 | 3.938 | 3.708 | 0.111 |
| WSM-400 | 4.000 | 3.765 | 0.111 |
| WSM-425 | 4.250 | 4.037 | 0.111 |
| WSM-437 | 4.375 | 4.161 | 0.111 |
| WSM-450 | 4.500 | 4.280 | 0.111 |
| WSM-475 | 4.750 | 4.518 | 0.111 |
| WSM-500 | 5.000 | 4.756 | 0.111 |
| WSM-525 | 5.250 | 4.995 | 0.127 |
| WSM-550 | 5.500 | 5.228 | 0.127 |
| WSM-575 | 5.750 | 5.466 | 0.127 |
| WSM-600 | 6.000 | 5.705 | 0.127 |
| WSM-625 | 6.250 | 5.938 | 0.156 |
| WSM-650 | 6.500 | 6.181 | 0.156 |
| WSM-675 | 6.750 | 6.410 | 0.156 |
| WSM-700 | 7.000 | 6.648 | 0.156 |
| WSM-725 | 7.250 | 6.891 | 0.156 |
| WSM-750 | 7.500 | 7.130 | 0.187 |
| WSM-775 | 7.750 | 7.368 | 0.187 |

MISC.

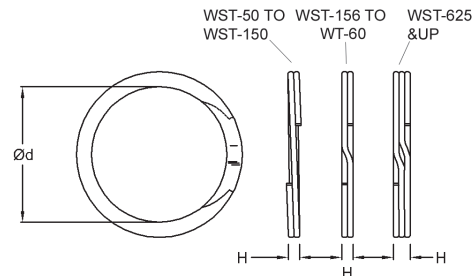


WSM - Retaining rings - External

| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|---------------|-----------|-----------|
| | | d | H |
| WSM-800 | 8.000 | 7.606 | 0.187 |
| WSM-825 | 8.250 | 7.845 | 0.187 |
| WSM-850 | 8.500 | 8.083 | 0.187 |
| WSM-875 | 8.750 | 8.324 | 0.187 |
| WSM-900 | 9.000 | 8.560 | 0.187 |
| WSM-925 | 9.250 | 8.798 | 0.187 |
| WSM-950 | 9.500 | 9.036 | 0.187 |
| WSM-975 | 9.750 | 9.275 | 0.187 |
| WSM-1000 | 10.000 | 9.508 | 0.187 |
| WSM-1025 | 10.250 | 9.745 | 0.187 |
| WSM-1050 | 10.500 | 9.984 | 0.187 |
| WSM-1075 | 10.750 | 10.221 | 0.187 |
| WSM-1100 | 11.000 | 10.459 | 0.187 |
| WSM-1125 | 11.250 | 10.692 | 0.187 |
| WSM-1150 | 11.500 | 10.934 | 0.187 |

| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|---------------|-----------|-----------|
| | | d | H |
| WSM-1175 | 11.750 | 11.171 | 0.187 |
| WSM-1200 | 12.000 | 11.410 | 0.187 |
| WSM-1225 | 12.250 | 11.647 | 0.187 |
| WSM-1250 | 12.500 | 11.885 | 0.187 |
| WSM-1275 | 12.750 | 12.124 | 0.187 |
| WSM-1300 | 13.000 | 12.361 | 0.187 |
| WSM-1325 | 13.250 | 12.598 | 0.187 |
| WSM-1350 | 13.500 | 12.837 | 0.187 |
| WSM-1375 | 13.750 | 13.074 | 0.187 |
| WSM-1400 | 14.000 | 13.311 | 0.187 |
| WSM-1425 | 14.250 | 13.548 | 0.187 |
| WSM-1450 | 14.500 | 13.787 | 0.187 |
| WSM-1475 | 14.750 | 14.024 | 0.187 |
| WSM-1500 | 15.000 | 14.262 | 0.187 |

WST - Retaining rings - External



Standard Material
Carbon Steel

| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | d | H |
| WST-046 | 0.469 | 0.436 | 0.024 |
| WST-050 | 0.500 | 0.469 | 0.035 |
| WST-055 | 0.551 | 0.518 | 0.035 |
| WST-056 | 0.562 | 0.529 | 0.035 |
| WST-059 | 0.594 | 0.559 | 0.035 |
| WST-062 | 0.625 | 0.590 | 0.035 |
| WST-066 | 0.669 | 0.630 | 0.035 |
| WST-068 | 0.688 | 0.648 | 0.042 |
| WST-075 | 0.750 | 0.708 | 0.042 |
| WST-078 | 0.781 | 0.738 | 0.042 |
| WST-081 | 0.812 | 0.768 | 0.042 |
| WST-087 | 0.875 | 0.827 | 0.042 |
| WST-093 | 0.938 | 0.886 | 0.042 |
| WST-098 | 0.984 | 0.934 | 0.042 |

| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | d | H |
| WST-100 | 1.000 | 0.947 | 0.042 |
| WST-102 | 1.023 | 0.969 | 0.042 |
| WST-106 | 1.062 | 1.005 | 0.050 |
| WST-112 | 1.125 | 1.064 | 0.050 |
| WST-118 | 1.188 | 1.126 | 0.050 |
| WST-125 | 1.250 | 1.184 | 0.050 |
| WST-131 | 1.312 | 1.240 | 0.050 |
| WST-137 | 1.375 | 1.298 | 0.050 |
| WST-143 | 1.438 | 1.359 | 0.050 |
| WST-150 | 1.500 | 1.419 | 0.050 |
| WST-156 | 1.562 | 1.476 | 0.062 |
| WST-162 | 1.625 | 1.537 | 0.062 |
| WST-168 | 1.687 | 1.598 | 0.062 |
| WST-175 | 1.750 | 1.657 | 0.062 |

MISC.



WST - Retaining rings- Externe

| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|--------------|-----------|-----------|
| | | d | H |
| WST-177 | 1.771 | 1.676 | 0.062 |
| WST-181 | 1.812 | 1.714 | 0.062 |
| WST-187 | 1.875 | 1.774 | 0.062 |
| WST-196 | 1.969 | 1.864 | 0.062 |
| WST-200 | 2.000 | 1.894 | 0.062 |
| WST-206 | 2.062 | 1.955 | 0.078 |
| WST-212 | 2.125 | 2.012 | 0.078 |
| WST-215 | 2.156 | 2.041 | 0.078 |
| WST-225 | 2.250 | 2.129 | 0.078 |
| WST-231 | 2.312 | 2.188 | 0.078 |
| WST-237 | 2.375 | 2.248 | 0.078 |
| WST-243 | 2.437 | 2.307 | 0.078 |
| WST-250 | 2.500 | 2.366 | 0.078 |
| WST-255 | 2.559 | 2.432 | 0.078 |
| WST-262 | 2.625 | 2.485 | 0.078 |
| WST-268 | 2.687 | 2.545 | 0.078 |
| WST-275 | 2.750 | 2.604 | 0.093 |
| WST-287 | 2.875 | 2.722 | 0.093 |
| WST-293 | 2.937 | 2.780 | 0.093 |
| WST-300 | 3.000 | 2.838 | 0.093 |
| WST-306 | 3.062 | 2.897 | 0.093 |
| WST-312 | 3.125 | 2.957 | 0.093 |
| WST-315 | 3.156 | 2.986 | 0.093 |
| WST-325 | 3.250 | 3.075 | 0.093 |
| WST-334 | 3.344 | 3.164 | 0.093 |
| WST-343 | 3.437 | 3.254 | 0.093 |
| WST-350 | 3.500 | 3.315 | 0.111 |
| WST-354 | 3.543 | 3.356 | 0.111 |
| WST-362 | 3.625 | 3.433 | 0.111 |

| Ref.Number | Shaft dia. | Free dia. | Thickness |
|------------|---------------|-----------|-----------|
| | | d | H |
| WST-368 | 3.687 | 3.483 | 0.111 |
| WST-375 | 3.750 | 3.550 | 0.111 |
| WST-387 | 3.875 | 3.670 | 0.111 |
| WST-400 | 4.000 | 3.787 | 0.111 |
| WST-425 | 4.250 | 4.037 | 0.111 |
| WST-437 | 4.375 | 4.162 | 0.111 |
| WST-450 | 4.500 | 4.280 | 0.111 |
| WST-475 | 4.750 | 4.515 | 0.111 |
| WST-500 | 5.000 | 4.755 | 0.111 |
| WST-525 | 5.250 | 4.995 | 0.127 |
| WST-550 | 5.500 | 5.229 | 0.127 |
| WST-575 | 5.750 | 5.466 | 0.127 |
| WST-600 | 6.000 | 5.705 | 0.127 |
| WST-625 | 6.250 | 5.938 | 0.165 |
| WST-650 | 6.500 | 6.182 | 0.165 |
| WST-675 | 6.750 | 6.420 | 0.165 |
| WST-700 | 7.000 | 6.658 | 0.165 |
| WST-725 | 7.250 | 6.894 | 0.165 |
| WST-750 | 7.500 | 7.130 | 0.189 |
| WST-775 | 7.750 | 7.368 | 0.189 |
| WST-800 | 8.000 | 7.607 | 0.189 |
| WST-825 | 8.250 | 7.845 | 0.189 |
| WST-850 | 8.500 | 8.083 | 0.189 |
| WST-875 | 8.750 | 8.321 | 0.189 |
| WST-900 | 9.000 | 8.560 | 0.189 |
| WST-925 | 9.250 | 8.798 | 0.189 |
| WST-950 | 9.500 | 9.036 | 0.189 |
| WST-975 | 9.750 | 9.273 | 0.189 |
| WST-1000 | 10.000 | 9.508 | 0.189 |

OTHER PROFILES ARE ALSO AVAILABLE ON REQUEST

Though this product offering contains a wide selection of commonly used parts in the marketplace, it is possible that you haven't found the exact part you were looking for.

We have many other seal profiles available on request, please do not hesitate to contact us and we will do our best to help you locate the required part.



MISC.



MISC.

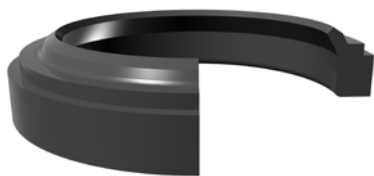
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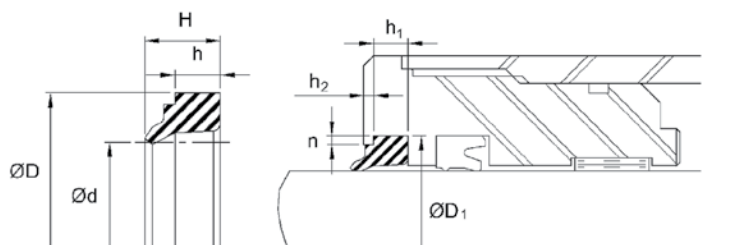


| | | | |
|--|-----|--|----|
| | WA | | 2 |
| | WB | | 6 |
| | WC | | 8 |
| | WF | | 15 |
| | WG | | 17 |
| | WN | | 19 |
| | WO | | 24 |
| | WR | | 29 |
| | WS | | 30 |
| | WT | | 33 |
| | WV | | 37 |
| | WW | | 39 |
| | PPW | | 42 |

WA - Rod wipers - Metric



| Standard Materials | Temperature Range | Surface Speed |
|--------------------|--------------------------------------|---------------------|
| Polyurethane | -40°F to +212°F (-40°C to +100°C) | <2.6 ft/s (0.8 m/s) |



The **WA-style** wiper rings are medium-duty exclusion devices, and are made to snap into standard housings. Their lip shape insures that contaminants such as sand, mud and other debris are removed from the cylinder rod.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | |
|--------------|--------------|----------------|-------------------------|-------|------|--------------------|----------------|--------------------|-------------------|--------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | h1 +.200/- .000 | n +.010/- .010 | h2 +.020/- .020 |
| W004012040WA | 4.00 | -.010 -.040 | 4.00 | 12.00 | 7.00 | 12.00 | + .075/+ .000 | 4.00 | 1.00 | 1.00 |
| W005008022WA | 5.00 | | 5.00 | 8.00 | 4.00 | 8.00 | +.090 +.000 | 2.20 | 0.50 | 1.00 |
| W006010022WA | 6.00 | | 6.00 | 10.00 | 4.00 | 10.00 | | 2.20 | 0.05 | 1.00 |
| W008014026WA | 8.00 | -.013 -.049 | 8.00 | 14.00 | 5.00 | 14.00 | +.110 +.000 | 2.60 | 0.05 | 1.00 |
| W008016040WA | 8.00 | | 8.00 | 16.00 | 7.00 | 16.00 | | 4.00 | 1.00 | 1.00 |
| W010016026WA | 10.00 | | 10.00 | 16.00 | 5.00 | 16.00 | | 2.60 | 1.00 | 1.00 |
| W010016040WA | 10.00 | | 10.00 | 16.00 | 7.00 | 16.00 | | 4.00 | 1.00 | 1.00 |
| W010018040WA | 10.00 | | 10.00 | 18.00 | 7.00 | 18.00 | | 4.00 | 1.00 | 1.00 |
| W012018026WA | 12.00 | -.016 -.059 | 12.00 | 18.00 | 5.00 | 18.00 | | 2.60 | 1.00 | 1.00 |
| W012020040WA | 12.00 | | 12.00 | 20.00 | 7.00 | 20.00 | +.130 +.000 | 4.00 | 1.00 | 1.00 |
| W014020031WA | 14.00 | | 14.00 | 20.00 | 5.00 | 20.00 | | 3.10 | 1.00 | 1.00 |
| W014022040WA | 14.00 | | 14.00 | 22.00 | 7.00 | 22.00 | | 4.00 | 1.00 | 1.00 |
| W015023040WA | 15.00 | | 15.00 | 23.00 | 7.00 | 23.00 | | 4.00 | 1.00 | 1.00 |
| W016024040WA | 16.00 | | 16.00 | 24.00 | 7.00 | 24.00 | | 4.00 | 1.00 | 1.00 |
| W017025040WA | 17.00 | | 17.00 | 25.00 | 7.00 | 25.00 | | 4.00 | 1.00 | 1.00 |
| W018024031WA | 18.00 | | 18.00 | 24.00 | 5.00 | 24.00 | | 3.10 | 1.00 | 1.00 |
| W018026040WA | 18.00 | | 18.00 | 26.00 | 7.00 | 26.00 | | 4.00 | 1.00 | 1.00 |
| W020028040WA | 20.00 | -.020 -.072 | 20.00 | 28.00 | 7.00 | 28.00 | | 4.00 | 1.00 | 1.00 |
| W022030040WA | 22.00 | | 22.00 | 30.00 | 7.00 | 30.00 | | 4.00 | 1.00 | 1.00 |
| W023031040WA | 23.00 | | 23.00 | 31.00 | 7.00 | 31.00 | +.160 +.000 | 4.00 | 1.00 | 1.00 |
| W024032040WA | 24.00 | | 24.00 | 32.00 | 7.00 | 32.00 | | 4.00 | 1.00 | 1.00 |
| W025033040WA | 25.00 | | 25.00 | 33.00 | 7.00 | 33.00 | | 4.00 | 1.00 | 1.00 |

WA series - AU 92A



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | |
|--------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|--------------------|-------------------|--------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | h1 +.200/- .000 | n +.010/- .010 | h2 +.020/- .020 |
| W026034040WA | 26.00 | + .020 | 26.00 | 34.00 | 7.00 | 34.00 | + .160 | 4.00 | 1.00 | 1.00 |
| W028036040WA | 28.00 | + .072 | 28.00 | 36.00 | 7.00 | 36.00 | + .000 | 4.00 | 1.00 | 1.00 |
| W030038040WA | 30.00 | ↓ | 30.00 | 38.00 | 7.00 | 38.00 | | 4.00 | 1.00 | 1.00 |
| W032040040WA | 32.00 | | 32.00 | 40.00 | 7.00 | 40.00 | | 4.00 | 1.00 | 1.00 |
| W033041040WA | 33.00 | - .025 - .087 | 33.00 | 41.00 | 7.00 | 41.00 | | 4.00 | 1.00 | 1.00 |
| W034042040WA | 34.00 | | 34.00 | 42.00 | 7.00 | 42.00 | | 4.00 | 1.00 | 1.00 |
| W035043040WA | 35.00 | | 35.00 | 43.00 | 7.00 | 43.00 | | 4.00 | 1.00 | 1.00 |
| W036044040WA | 36.00 | | 36.00 | 44.00 | 7.00 | 44.00 | | 4.00 | 1.00 | 1.00 |
| W038046040WA | 38.00 | | 38.00 | 46.00 | 7.00 | 46.00 | | 4.00 | 1.00 | 1.00 |
| W040048040WA | 40.00 | | 40.00 | 48.00 | 7.00 | 48.00 | | 4.00 | 1.00 | 1.00 |
| W041049040WA | 41.00 | | 41.00 | 49.00 | 7.00 | 49.00 | | 4.00 | 1.00 | 1.00 |
| W042050040WA | 42.00 | | 42.00 | 50.00 | 7.00 | 50.00 | ↓ | 4.00 | 1.00 | 1.00 |
| W044052040WA | 44.00 | | 44.00 | 52.00 | 7.00 | 52.00 | + .190 + .000 | 4.00 | 1.00 | 1.00 |
| W045053040WA | 45.00 | | 45.00 | 53.00 | 7.00 | 53.00 | | 4.00 | 1.00 | 1.00 |
| W045057055WA | 45.00 | | 45.00 | 57.00 | 10.00 | 57.00 | | 5.50 | 1.50 | 1.50 |
| W046054040WA | 46.00 | | 46.00 | 54.00 | 7.00 | 54.00 | | 4.00 | 1.00 | 1.00 |
| W047055040WA | 47.00 | | 47.00 | 55.00 | 7.00 | 55.00 | | 4.00 | 1.00 | 1.00 |
| W048056040WA | 48.00 | | 48.00 | 56.00 | 7.00 | 56.00 | | 4.00 | 1.00 | 1.00 |
| W050058040WA | 50.00 | | 50.00 | 58.00 | 7.00 | 58.00 | | 4.00 | 1.00 | 1.00 |
| W050062055WA | 50.00 | | 50.00 | 62.00 | 10.00 | 62.00 | | 5.50 | 1.50 | 1.50 |
| W050063040WA | 50.00 | ↓ | 50.00 | 63.00 | 7.00 | 63.00 | | 4.00 | 1.00 | 1.00 |
| W051059040WA | 51.00 | | 51.00 | 59.00 | 7.00 | 59.00 | | 4.00 | 1.00 | 1.00 |
| W052060040WA | 52.00 | - .030 - .104 | 52.00 | 60.00 | 7.00 | 60.00 | | 4.00 | 1.00 | 1.00 |
| W053061040WA | 53.00 | | 53.00 | 61.00 | 7.00 | 61.00 | | 4.00 | 1.00 | 1.00 |
| W054062040WA | 54.00 | | 54.00 | 62.00 | 7.00 | 62.00 | | 4.00 | 1.00 | 1.00 |
| W055063040WA | 55.00 | | 55.00 | 63.00 | 7.00 | 63.00 | | 4.00 | 1.00 | 1.00 |
| W056064040WA | 56.00 | | 56.00 | 64.00 | 7.00 | 64.00 | | 4.00 | 1.00 | 1.00 |
| W057065040WA | 57.00 | | 57.00 | 65.00 | 7.00 | 65.00 | | 4.00 | 1.00 | 1.00 |
| W058066040WA | 58.00 | | 58.00 | 66.00 | 7.00 | 66.00 | | 4.00 | 1.00 | 1.00 |
| W060068040WA | 60.00 | | 60.00 | 68.00 | 7.00 | 68.00 | | 4.00 | 1.00 | 1.00 |
| W060072055WA | 60.00 | | 60.00 | 72.00 | 10.00 | 72.00 | | 5.50 | 1.50 | 1.50 |
| W062070040WA | 62.00 | | 62.00 | 70.00 | 7.00 | 70.00 | | 4.00 | 1.00 | 1.00 |
| W063071040WA | 63.00 | | 63.00 | 71.00 | 7.00 | 71.00 | | 4.00 | 1.00 | 1.00 |
| W064072040WA | 64.00 | | 64.00 | 72.00 | 7.00 | 72.00 | | 4.00 | 1.00 | 1.00 |
| W065073040WA | 65.00 | | 65.00 | 73.00 | 7.00 | 73.00 | | 4.00 | 1.00 | 1.00 |
| W066074040WA | 66.00 | | 66.00 | 74.00 | 7.00 | 74.00 | | 4.00 | 1.00 | 1.00 |
| W067075040WA | 67.00 | | 67.00 | 75.00 | 7.00 | 75.00 | | 4.00 | 1.00 | 1.00 |
| W068076040WA | 68.00 | | 68.00 | 76.00 | 7.00 | 76.00 | | 4.00 | 1.00 | 1.00 |
| W070078040WA | 70.00 | | 70.00 | 78.00 | 7.00 | 78.00 | | 4.00 | 1.00 | 1.00 |
| W072080040WA | 72.00 | | 72.00 | 80.00 | 7.00 | 80.00 | ↓ | 4.00 | 1.00 | 1.00 |
| W073081040WA | 73.00 | | 73.00 | 81.00 | 7.00 | 81.00 | + .220 + .000 | 4.00 | 1.00 | 1.00 |
| W075083040WA | 75.00 | | 75.00 | 83.00 | 7.00 | 83.00 | | 4.00 | 1.00 | 1.00 |
| W078086040WA | 78.00 | | 78.00 | 86.00 | 7.00 | 86.00 | | 4.00 | 1.00 | 1.00 |
| W080088040WA | 80.00 | ↓ | 80.00 | 88.00 | 7.00 | 88.00 | | 4.00 | 1.00 | 1.00 |
| W082090040WA | 82.00 | | 82.00 | 90.00 | 7.00 | 90.00 | | 4.00 | 1.00 | 1.00 |
| W083091040WA | 83.00 | - .036 - .123 | 83.00 | 91.00 | 7.00 | 91.00 | ↓ | 4.00 | 1.00 | 1.00 |



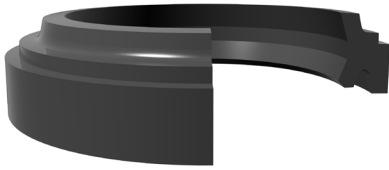
WA series - AU 92A

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | |
|--------------|--------------|--------------|-------------------------|--------|-------|--------------------|------------------|--------------------|-------------------|--------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | h1 +.200/- .000 | n +.010/- .010 | h2 +.020/- .020 |
| W085093040WA | 85.00 | -.036 | 85.00 | 93.00 | 7.00 | 93.00 | + .220 + .000 | 4.00 | 1.00 | 1.00 |
| W086094040WA | 86.00 | -.123 | 86.00 | 94.00 | 7.00 | 94.00 | | 4.00 | 1.00 | 1.00 |
| W088096040WA | 88.00 | | 88.00 | 96.00 | 7.00 | 96.00 | | 4.00 | 1.00 | 1.00 |
| W090098040WA | 90.00 | | 90.00 | 98.00 | 7.00 | 98.00 | | 4.00 | 1.00 | 1.00 |
| W092100040WA | 92.00 | | 92.00 | 100.00 | 7.00 | 100.00 | | 4.00 | 1.00 | 1.00 |
| W093101040WA | 93.00 | | 93.00 | 101.00 | 7.00 | 101.00 | | 4.00 | 1.00 | 1.00 |
| W095103040WA | 95.00 | | 95.00 | 103.00 | 7.00 | 103.00 | | 4.00 | 1.00 | 1.00 |
| W095103055WA | 95.00 | | 95.00 | 103.00 | 10.00 | 103.00 | | 5.50 | 1.00 | 1.50 |
| W097105040WA | 97.00 | | 97.00 | 105.00 | 7.00 | 105.00 | | 4.00 | 1.00 | 1.00 |
| W100108040WA | 100.00 | | 100.00 | 108.00 | 7.00 | 108.00 | | 4.00 | 1.00 | 1.00 |
| W100108055WA | 100.00 | | 100.00 | 108.00 | 10.00 | 108.00 | | 5.50 | 1.00 | 1.50 |
| W102114055WA | 102.00 | | 102.00 | 114.00 | 10.00 | 114.00 | | 5.50 | 1.50 | 1.50 |
| W105117055WA | 105.00 | | 105.00 | 117.00 | 10.00 | 117.00 | | 5.50 | 1.50 | 1.50 |
| W106118055WA | 106.00 | | 106.00 | 118.00 | 10.00 | 118.00 | | 5.50 | 1.50 | 1.50 |
| W110118040WA | 110.00 | | 110.00 | 118.00 | 7.00 | 118.00 | | 4.00 | 1.00 | 1.00 |
| W110118055WA | 110.00 | | 110.00 | 118.00 | 10.00 | 118.00 | ▼ | 5.50 | 1.50 | 1.50 |
| W110122055WA | 110.00 | | 110.00 | 122.00 | 10.00 | 122.00 | + .250 + .000 | 5.50 | 1.50 | 1.50 |
| W112124055WA | 112.00 | | 112.00 | 124.00 | 10.00 | 124.00 | | 5.50 | 1.50 | 1.50 |
| W113121040WA | 113.00 | | 113.00 | 121.00 | 7.00 | 121.00 | | 4.00 | 1.00 | 1.00 |
| W114122040WA | 114.00 | | 114.00 | 122.00 | 7.00 | 122.00 | | 4.00 | 1.00 | 1.00 |
| W115127055WA | 115.00 | | 115.00 | 127.00 | 10.00 | 127.00 | | 5.50 | 1.50 | 1.50 |
| W118130055WA | 118.00 | | 118.00 | 130.00 | 10.00 | 130.00 | | 5.50 | 1.50 | 1.50 |
| W120132055WA | 120.00 | ▼ | 120.00 | 132.00 | 10.00 | 132.00 | | 5.50 | 1.50 | 1.50 |
| W125133040WA | 125.00 | -.043 | 125.00 | 133.00 | 7.00 | 133.00 | | 4.00 | 1.00 | 1.00 |
| W125137055WA | 125.00 | -.143 | 125.00 | 137.00 | 10.00 | 137.00 | | 5.50 | 1.50 | 1.50 |
| W128140055WA | 128.00 | | 128.00 | 140.00 | 10.00 | 140.00 | | 5.50 | 1.50 | 1.50 |
| W130142055WA | 130.00 | | 130.00 | 142.00 | 10.00 | 142.00 | | 5.50 | 1.50 | 1.50 |
| W131139040WA | 131.00 | | 131.00 | 139.00 | 7.00 | 139.00 | | 4.00 | 1.00 | 1.00 |
| W135147055WA | 135.00 | | 135.00 | 147.00 | 10.00 | 147.00 | | 5.50 | 1.50 | 1.50 |
| W140152055WA | 140.00 | | 140.00 | 152.00 | 10.00 | 152.00 | | 5.50 | 1.50 | 1.50 |
| W140155065WA | 140.00 | | 140.00 | 155.00 | 13.00 | 155.00 | | 6.50 | 2.00 | 2.00 |
| W142154055WA | 142.00 | | 142.00 | 154.00 | 10.00 | 154.00 | | 5.50 | 1.50 | 1.50 |
| W145157055WA | 145.00 | | 145.00 | 157.00 | 10.00 | 157.00 | | 5.50 | 1.50 | 1.50 |
| W149157040WA | 149.00 | | 149.00 | 157.00 | 7.00 | 157.00 | | 4.00 | 1.00 | 1.00 |
| W150162055WA | 150.00 | | 150.00 | 162.00 | 10.00 | 162.00 | | 5.50 | 1.50 | 1.50 |
| W152164055WA | 152.00 | | 152.00 | 164.00 | 10.00 | 164.00 | | 5.50 | 1.50 | 1.50 |
| W154166055WA | 154.00 | | 154.00 | 166.00 | 10.00 | 166.00 | | 5.50 | 1.50 | 1.50 |
| W155167055WA | 155.00 | | 155.00 | 167.00 | 10.00 | 167.00 | | 5.50 | 1.50 | 1.50 |
| W160172055WA | 160.00 | | 160.00 | 172.00 | 10.00 | 172.00 | | 5.50 | 1.50 | 1.50 |
| W165177055WA | 165.00 | | 165.00 | 177.00 | 10.00 | 177.00 | | 5.50 | 1.50 | 1.50 |
| W166178055WA | 166.00 | | 166.00 | 178.00 | 10.00 | 178.00 | | 5.50 | 1.50 | 1.50 |
| W168176040WA | 168.00 | | 168.00 | 176.00 | 7.00 | 176.00 | ▼ | 4.00 | 1.00 | 1.00 |
| W170182055WA | 170.00 | | 170.00 | 182.00 | 10.00 | 182.00 | + .290 + .000 | 5.50 | 1.50 | 1.50 |
| W175187055WA | 175.00 | | 175.00 | 187.00 | 10.00 | 187.00 | | 5.50 | 1.50 | 1.50 |
| W180192055WA | 180.00 | ▼ | 180.00 | 192.00 | 10.00 | 192.00 | ▼ | 5.50 | 1.50 | 1.50 |
| W185197055WA | 185.00 | -.050/- .165 | 185.00 | 197.00 | 10.00 | 197.00 | ▼ | 5.50 | 1.50 | 1.50 |

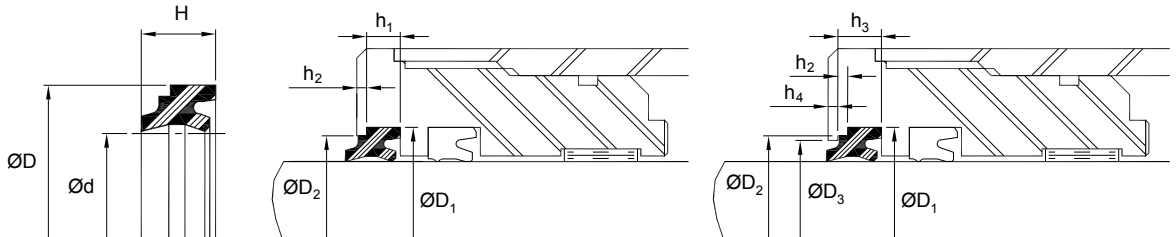
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | |
|--------------|--------------|----------------|-------------------------|--------|-------|--------------------|----------------|-----------------------|----------------------|-----------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | h1 + .200 / - .000 | n + .010 / - .010 | h2 + .020 / - .020 |
| W188196040WA | 188.00 | -.050 -.165 | 188.00 | 196.00 | 7.00 | 196.00 | +.290 +.000 | 4.00 | 1.00 | 1.00 |
| W190202055WA | 190.00 | | 190.00 | 202.00 | 10.00 | 202.00 | | 5.50 | 1.50 | 1.50 |
| W195207055WA | 195.00 | | 195.00 | 207.00 | 10.00 | 207.00 | | 5.50 | 1.50 | 1.50 |
| W200212055WA | 200.00 | | 200.00 | 212.00 | 10.00 | 212.00 | | 5.50 | 1.50 | 1.50 |
| W210218040WA | 210.00 | | 210.00 | 218.00 | 7.00 | 218.00 | | 4.00 | 1.00 | 1.00 |
| W210225065WA | 210.00 | | 210.00 | 225.00 | 13.00 | 225.00 | | 6.50 | 2.00 | 2.00 |
| W220235055WA | 220.00 | | 220.00 | 235.00 | 10.00 | 235.00 | | 5.50 | 2.00 | 2.00 |
| W220235065WA | 220.00 | | 220.00 | 235.00 | 13.00 | 235.00 | | 6.50 | 2.00 | 2.00 |
| W230245065WA | 230.00 | | 230.00 | 245.00 | 13.00 | 245.00 | | 6.50 | 2.00 | 2.00 |
| W235250065WA | 235.00 | | 235.00 | 250.00 | 13.00 | 250.00 | | 6.50 | 2.00 | 2.00 |
| W238253065WA | 238.00 | | 238.00 | 253.00 | 13.00 | 253.00 | | 6.50 | 2.00 | 2.00 |
| W240255065WA | 240.00 | | 240.00 | 255.00 | 13.00 | 255.00 | | 6.50 | 2.00 | 2.00 |
| W250265065WA | 250.00 | | 250.00 | 265.00 | 13.00 | 265.00 | | 6.50 | 2.00 | 2.00 |
| W260275065WA | 260.00 | -.056 -.186 | 260.00 | 275.00 | 13.00 | 275.00 | +.320 +.000 | 6.50 | 2.00 | 2.00 |
| W265280065WA | 265.00 | | 265.00 | 280.00 | 13.00 | 280.00 | | 6.50 | 2.00 | 2.00 |
| W275290065WA | 275.00 | | 275.00 | 290.00 | 10.00 | 290.00 | | 6.50 | 2.00 | 2.00 |
| W300315065WA | 300.00 | | 300.00 | 315.00 | 13.00 | 315.00 | | 6.50 | 2.00 | 2.00 |
| W305320065WA | 305.00 | | 305.00 | 320.00 | 13.00 | 320.00 | +.360 +.000 | 6.50 | 2.00 | 2.00 |
| W310325065WA | 310.00 | | 310.00 | 325.00 | 13.00 | 325.00 | | 6.50 | 2.00 | 2.00 |
| W315330065WA | 315.00 | | 315.00 | 330.00 | 13.00 | 330.00 | | 6.50 | 2.00 | 2.00 |
| W320335065WA | 320.00 | -.062 -.202 | 320.00 | 335.00 | 13.00 | 335.00 | | 6.50 | 2.00 | 2.00 |
| W340355065WA | 340.00 | | 340.00 | 355.00 | 13.00 | 355.00 | | 6.50 | 2.00 | 2.00 |
| W365380065WA | 365.00 | | 365.00 | 380.00 | 13.00 | 380.00 | | 6.50 | 2.00 | 2.00 |
| W400415065WA | 400.00 | | 400.00 | 415.00 | 13.00 | 415.00 | +.400 +.000 | 6.50 | 2.00 | 2.00 |
| W450465065WA | 450.00 | -.068 -.223 | 450.00 | 465.00 | 13.00 | 465.00 | | 6.50 | 2.00 | 2.00 |
| W500515065WA | 500.00 | | 500.00 | 515.00 | 13.00 | 515.00 | 6.50 | 2.00 | 2.00 | |



WB - Rod wipers - Metric



| Standard Materials | Temperature Range | Surface Speed |
|--------------------|--------------------------------------|----------------------|
| Polyurethane | -40°F to +212°F (-40°C to +100°C) | < 2.6 ft/s (0.8 m/s) |



housing 1

housing 2

The **WB-style** is a dual lip, dual function wiper. It insures proper wiping action of the rod and also acts as a secondary rod seal for both hydraulic and pneumatic cylinder applications.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | | | | | |
|----------------|--------------|--------------|-------------------------|-------|------|--------------------|--------------|-------|--------------|-------|--------------|------|------|------|------|
| | d1 | Tol. | d | D | H | D1 | Tol. | D2 | Tol. | D3 | Tol. | h1 | h2 | h3 | h4 |
| W010018040WB/U | 10.00 | -.013/- .049 | 10.00 | 18.00 | 8.00 | 18.00 | +.070/- .000 | 16.00 | +.035/- .035 | 13.50 | +.110/- .000 | 4.00 | 2.00 | 6.00 | 2.00 |
| W012020040WB/U | 12.00 | -.016/- .059 | 12.00 | 20.00 | 8.00 | 20.00 | +.084/- .000 | 18.00 | +.042/- .042 | 15.50 | +.130/- .000 | 4.00 | 2.00 | 6.00 | 2.00 |
| W014022040WB/U | 14.00 | | 14.00 | 22.00 | 8.00 | 22.00 | | 20.00 | | 17.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W015023040WB/U | 15.00 | | 15.00 | 23.00 | 8.00 | 23.00 | | 21.00 | | 18.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W016024040WB/U | 16.00 | | 16.00 | 24.00 | 8.00 | 24.00 | | 22.00 | | 19.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W018026040WB/U | 18.00 | | 18.00 | 26.00 | 8.00 | 26.00 | | 24.00 | | 21.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W020028040WB/U | 20.00 | -.020/- .072 | 20.00 | 28.00 | 8.00 | 28.00 | | 26.00 | | 23.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W022030040WB/U | 22.00 | | 22.00 | 30.00 | 8.00 | 30.00 | | 28.00 | | 25.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W024032040WB/U | 24.00 | | 24.00 | 32.00 | 8.00 | 32.00 | +.100/- .000 | 30.00 | | 27.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W025033040WB/U | 25.00 | | 25.00 | 33.00 | 8.00 | 33.00 | | 31.00 | +.050/- .050 | 28.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W028036040WB/U | 28.00 | | 28.00 | 36.00 | 8.00 | 36.00 | | 34.00 | | 31.50 | +.160/- .000 | 4.00 | 2.00 | 6.00 | 2.00 |
| W030038040WB/U | 30.00 | | 30.00 | 38.00 | 8.00 | 38.00 | | 36.00 | | 33.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W032040040WB/U | 32.00 | -.025/- .087 | 32.00 | 40.00 | 8.00 | 40.00 | | 38.00 | | 35.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W035043040WB/U | 35.00 | | 35.00 | 43.00 | 8.00 | 43.00 | | 41.00 | | 38.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W036044040WB/U | 36.00 | | 36.00 | 44.00 | 8.00 | 44.00 | | 42.00 | | 39.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W037045040WB/U | 37.00 | | 37.00 | 45.00 | 8.00 | 45.00 | | 43.00 | | 40.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W038046040WB/U | 38.00 | | 38.00 | 46.00 | 8.00 | 46.00 | | 44.00 | | 41.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W040048040WB/U | 40.00 | | 40.00 | 48.00 | 8.00 | 48.00 | | 46.00 | | 43.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W042050040WB/U | 42.00 | | 42.00 | 50.00 | 8.00 | 50.00 | | 48.00 | | 45.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W045053040WB/U | 45.00 | | 45.00 | 53.00 | 8.00 | 53.00 | +.120/- .000 | 51.00 | +.060/- .060 | 48.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W046054040WB/U | 46.00 | | 46.00 | 54.00 | 8.00 | 54.00 | | 52.00 | | 49.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W048056040WB/U | 48.00 | | 48.00 | 56.00 | 8.00 | 56.00 | | 54.00 | | 51.50 | +.190/- .000 | 4.00 | 2.00 | 6.00 | 2.00 |
| W050058040WB/U | 50.00 | | 50.00 | 58.00 | 8.00 | 58.00 | | 56.00 | | 53.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W052060040WB/U | 52.00 | -.030/- .104 | 52.00 | 60.00 | 8.00 | 60.00 | | 58.00 | | 55.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W055063040WB/U | 55.00 | | 55.00 | 63.00 | 8.00 | 63.00 | | 61.00 | | 58.50 | | 4.00 | 2.00 | 6.00 | 2.00 |

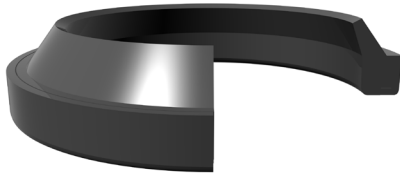
WB series - AU 92A

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | | | | | |
|----------------|--------------|---------------|-------------------------|--------|-------|--------------------|-----------------|--------|-----------------|--------|-----------------|------|------|------|------|
| | d1 | Tol. | d | D | H | D1 | Tol. | D2 | Tol. | D3 | Tol. | h1 | h2 | h3 | h4 |
| | | | | | | | | | | | | | | | |
| W056064040WB/U | 56.00 | .030 -.104 | 56.00 | 64.00 | 8.00 | 64.00 | +0.120 -.000 | 62.00 | +0.060 -.060 | 59.50 | +0.190 -.000 | 4.00 | 2.00 | 6.00 | 2.00 |
| W060068040WB/U | 60.00 | | 60.00 | 68.00 | 8.00 | 68.00 | | 66.00 | | 63.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W063071040WB/U | 63.00 | | 63.00 | 71.00 | 8.00 | 71.00 | | 69.00 | | 66.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W065073040WB/U | 65.00 | | 65.00 | 73.00 | 8.00 | 73.00 | | 71.00 | | 68.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W068076040WB/U | 68.00 | | 68.00 | 76.00 | 8.00 | 76.00 | | 74.00 | | 71.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W070078040WB/U | 70.00 | | 70.00 | 78.00 | 8.00 | 78.00 | ▼ | 76.00 | ▼ | 73.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W075083040WB/U | 75.00 | | 75.00 | 83.00 | 8.00 | 83.00 | +0.140 -.000 | 81.00 | +0.070 -.070 | 78.50 | ▼ | 4.00 | 2.00 | 6.00 | 2.00 |
| W080088040WB/U | 80.00 | ▼ | 80.00 | 88.00 | 8.00 | 88.00 | | 86.00 | | 83.50 | +0.220 -.000 | 4.00 | 2.00 | 6.00 | 2.00 |
| W085093040WB/U | 85.00 | .036 -.123 | 85.00 | 93.00 | 8.00 | 93.00 | | 91.00 | | 88.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W090098040WB/U | 90.00 | | 90.00 | 98.00 | 8.00 | 98.00 | | 96.00 | | 93.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W095103040WB/U | 95.00 | | 95.00 | 103.00 | 8.00 | 103.00 | | 101.00 | | 98.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W100108040WB/U | 100.00 | | 100.00 | 108.00 | 8.00 | 108.00 | | 106.00 | | 103.50 | | 4.00 | 2.00 | 6.00 | 2.00 |
| W105117055WB | 105.00 | | 105.00 | 117.00 | 11.00 | 117.00 | ▼ | 114.00 | | 110.00 | | 5.50 | 2.70 | 8.20 | 3.00 |
| W110122055WB/U | 110.00 | | 110.00 | 122.00 | 11.00 | 122.00 | +0.160 -.000 | 119.00 | ▼ | 115.00 | | 5.50 | 2.70 | 8.20 | 3.00 |
| W115127055WB/U | 115.00 | | 115.00 | 127.00 | 11.00 | 127.00 | | 124.00 | +0.080 -.080 | 120.00 | ▼ | 5.50 | 2.70 | 8.20 | 3.00 |
| W120132055WB/U | 120.00 | ▼ | 120.00 | 132.00 | 11.00 | 132.00 | | 129.00 | | 125.00 | +0.250 -.000 | 5.50 | 2.70 | 8.20 | 3.00 |
| W125137055WB/U | 125.00 | .043 -.143 | 125.00 | 137.00 | 11.00 | 137.00 | | 134.00 | | 130.00 | | 5.50 | 2.70 | 8.20 | 3.00 |
| W130142055WB/U | 130.00 | | 130.00 | 142.00 | 11.00 | 142.00 | | 139.00 | | 135.00 | | 5.50 | 2.70 | 8.20 | 3.00 |
| W135147055WB/U | 135.00 | | 135.00 | 147.00 | 11.00 | 147.00 | | 144.00 | | 140.00 | | 5.50 | 2.70 | 8.20 | 3.00 |
| W140152055WB/U | 140.00 | | 140.00 | 152.00 | 11.00 | 152.00 | | 149.00 | | 145.00 | | 5.50 | 2.70 | 8.20 | 3.00 |
| W145157055WB/U | 145.00 | | 145.00 | 157.00 | 11.00 | 157.00 | | 154.00 | | 150.00 | | 5.50 | 2.70 | 8.20 | 3.00 |
| W150162055WB/U | 150.00 | | 150.00 | 162.00 | 11.00 | 162.00 | | 159.00 | | 155.00 | | 5.50 | 2.70 | 8.20 | 3.00 |
| W155167055WB/U | 155.00 | | 155.00 | 167.00 | 11.00 | 167.00 | | 164.00 | | 160.00 | | 5.50 | 2.70 | 8.20 | 3.00 |
| W160172055WB/U | 160.00 | | 160.00 | 172.00 | 11.00 | 172.00 | | 169.00 | | 165.00 | | 5.50 | 2.70 | 8.20 | 3.00 |
| W165177055WB/U | 165.00 | | 165.00 | 177.00 | 11.00 | 177.00 | ▼ | 174.00 | | 170.00 | | 5.50 | 2.70 | 8.20 | 3.00 |
| W170182055WB/U | 170.00 | | 170.00 | 182.00 | 11.00 | 182.00 | +0.185 -.000 | 179.00 | ▼ | 175.00 | ▼ | 5.50 | 2.70 | 8.20 | 3.00 |
| W180192055WB/U | 180.00 | ▼ | 180.00 | 192.00 | 11.00 | 192.00 | | 189.00 | +0.093 -.093 | 185.00 | +0.290 -.000 | 5.50 | 2.70 | 8.20 | 3.00 |
| W185197055WB/U | 185.00 | .050 -.165 | 185.00 | 197.00 | 11.00 | 197.00 | | 194.00 | | 190.00 | | 5.50 | 2.70 | 8.20 | 3.00 |
| W190202055WB/U | 190.00 | | 190.00 | 202.00 | 11.00 | 202.00 | | 199.00 | | 195.00 | | 5.50 | 2.70 | 8.20 | 3.00 |
| W195207055WB/U | 195.00 | | 195.00 | 207.00 | 11.00 | 207.00 | | 204.00 | | 200.00 | | 5.50 | 2.70 | 8.20 | 3.00 |
| W200212055WB/U | 200.00 | | 200.00 | 212.00 | 11.00 | 212.00 | | 209.00 | | 205.00 | | 5.50 | 2.70 | 8.20 | 3.00 |
| W205220065WB/U | 205.00 | | 205.00 | 220.00 | 13.00 | 220.00 | | 216.00 | | 212.00 | | 6.50 | 3.00 | 9.50 | 3.00 |
| W210225065WB/U | 210.00 | | 210.00 | 225.00 | 13.00 | 225.00 | | 221.00 | | 217.00 | | 6.50 | 3.00 | 9.50 | 3.00 |
| W220235065WB/U | 220.00 | | 220.00 | 235.00 | 13.00 | 235.00 | | 231.00 | | 227.00 | | 6.50 | 3.00 | 9.50 | 3.00 |
| W225240065WB/U | 225.00 | | 225.00 | 240.00 | 13.00 | 240.00 | ▼ | 236.00 | ▼ | 232.00 | ▼ | 6.50 | 3.00 | 9.50 | 3.00 |
| W240255065WB/U | 240.00 | | 240.00 | 255.00 | 13.00 | 255.00 | +0.210 -.000 | 251.00 | +0.105 -.105 | 247.00 | ▼ | 6.50 | 3.00 | 9.50 | 3.00 |
| W250265065WB/U | 250.00 | ▼ | 250.00 | 265.00 | 13.00 | 265.00 | | 261.00 | | 257.00 | +0.320 -.000 | 6.50 | 3.00 | 9.50 | 3.00 |
| W260275065WB/U | 260.00 | .056 -.186 | 260.00 | 275.00 | 13.00 | 275.00 | | 271.00 | | 267.00 | | 6.50 | 3.00 | 9.50 | 3.00 |
| W275290065WB/U | 275.00 | | 275.00 | 290.00 | 13.00 | 280.00 | | 286.00 | | 282.00 | | 6.50 | 3.00 | 9.50 | 3.00 |
| W280295065WB/U | 280.00 | | 280.00 | 295.00 | 13.00 | 295.00 | | 291.00 | | 287.00 | | 6.50 | 3.00 | 9.50 | 3.00 |
| W290305065WB/U | 290.00 | | 290.00 | 305.00 | 13.00 | 305.00 | | 301.00 | ▼ | 297.00 | | 6.50 | 3.00 | 9.50 | 3.00 |
| W300315065WB/U | 300.00 | ▼ | 300.00 | 315.00 | 13.00 | 315.00 | ▼ | 311.00 | +0.115 -.115 | 307.00 | ▼ | 6.50 | 3.00 | 9.50 | 3.00 |
| W320335065WB/U | 320.00 | .062 -.202 | 320.00 | 335.00 | 13.00 | 335.00 | +0.230 -.000 | 331.00 | | 327.00 | +0.360 -.000 | 6.50 | 3.00 | 9.50 | 3.00 |
| W350365065WB/U | 350.00 | | 350.00 | 365.00 | 13.00 | 355.00 | ▼ | 361.00 | | 357.00 | | 6.50 | 3.00 | 9.50 | 3.00 |
| W360375065WB/U | 360.00 | ▼ | 360.00 | 375.00 | 13.00 | 380.00 | ▼ | 371.00 | ▼ | 367.00 | ▼ | 6.50 | 3.00 | 9.50 | 3.00 |
| W370385065WB/U | 370.00 | ▼ | 370.00 | 385.00 | 13.00 | 415.00 | +0.250/-000 | 381.00 | ▼ | 377.00 | ▼ | 6.50 | 3.00 | 9.50 | 3.00 |

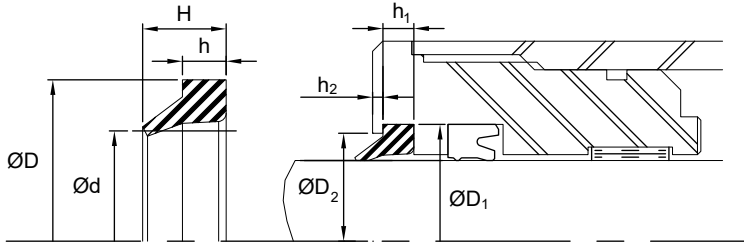




WC - Rod wipers - Metric



| Standard Materials | Temperature Range | Surface Speed |
|--------------------|--------------------------------------|---------------------|
| Polyurethane | -40°F to +212°F (-40°C to +100°C) | <2.6 ft/s (0.8 m/s) |



The **WC-style** is a popular snap-in wiper style that fits into standard housings. A heavier cross-section insures that it will efficiently wipe most contaminants from the cylinder rod, while remaining stable in the housing. The precision knives-trimmed lip keeps the scraping edge of the wiper in an optimal position for maximum efficiency.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | | | |
|----------------|--------------|----------------|-------------------------|-------|------|------|--------------------|----------------|-------|----------------|------|----------------|------|----------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | D2 | Tol. | h1 | Tol. | h2 | Tol. |
| W004012027WC/U | 4.00 | -.010 | 4.00 | 12.00 | 2.70 | 4.00 | 12.00 | +.110 -.000 | 9.00 | +.090 -.000 | 3.00 | +.200 -.000 | 1.30 | +.200 -.200 |
| W005012025WC/U | 5.00 | -.040 | 5.00 | 12.00 | 2.50 | 4.00 | 12.00 | -.000 | 9.00 | -.000 | 2.80 | -.000 | 1.50 | -.200 |
| W006012027WC/U | 6.00 | ↓ | 6.00 | 12.00 | 2.70 | 4.00 | 12.00 | ↓ | 9.00 | ↓ | 3.00 | ↓ | 1.30 | ↓ |
| W008014035WC/U | 8.00 | -.013 -.049 | 8.00 | 14.00 | 3.50 | 4.50 | 14.60 | ↓ | 11.00 | +.110 -.000 | 3.80 | ↓ | 1.00 | ↓ |
| W009013022WC/U | 9.00 | ↓ | 9.00 | 13.00 | 2.20 | 3.50 | 13.00 | ↓ | 12.00 | ↓ | 2.50 | ↓ | 1.30 | ↓ |
| W010016035WC/U | 10.00 | ↓ | 10.00 | 16.00 | 3.50 | 5.00 | 16.60 | ↓ | 13.00 | ↓ | 3.80 | ↓ | 1.50 | ↓ |
| W012018035WC/U | 12.00 | -.016 -.059 | 12.00 | 18.00 | 3.50 | 5.50 | 18.60 | +.130 -.000 | 15.00 | ↓ | 3.80 | ↓ | 2.00 | ↓ |
| W013019035WC/U | 13.00 | ↓ | 13.00 | 19.00 | 3.50 | 5.50 | 19.60 | ↓ | 16.00 | ↓ | 3.80 | ↓ | 2.00 | ↓ |
| W014020035WC/U | 14.00 | ↓ | 14.00 | 20.00 | 3.50 | 5.50 | 20.60 | ↓ | 17.00 | ↓ | 3.80 | ↓ | 2.00 | ↓ |
| W014020035WC/U | 14.00 | ↓ | 14.00 | 20.00 | 3.50 | 5.00 | 20.60 | ↓ | 17.00 | ↓ | 3.80 | ↓ | 1.50 | ↓ |
| W014021035WC/U | 14.00 | ↓ | 14.00 | 21.00 | 3.50 | 5.50 | 21.60 | ↓ | 17.00 | ↓ | 3.80 | ↓ | 2.00 | ↓ |
| W015021035WC/U | 15.00 | ↓ | 15.00 | 21.00 | 3.50 | 5.50 | 21.60 | ↓ | 18.00 | ↓ | 3.00 | ↓ | 2.00 | ↓ |
| W016022028WC/U | 16.00 | ↓ | 16.00 | 22.00 | 2.80 | 4.00 | 22.60 | ↓ | 19.00 | +.130 -.000 | 3.00 | ↓ | 1.20 | ↓ |
| W016022035WC/U | 16.00 | ↓ | 16.00 | 22.00 | 3.50 | 5.50 | 22.60 | ↓ | 19.00 | ↓ | 3.80 | ↓ | 2.00 | ↓ |
| W016024040WC/U | 16.00 | ↓ | 16.00 | 24.00 | 4.00 | 7.00 | 24.20 | ↓ | 19.00 | ↓ | 4.30 | ↓ | 3.00 | ↓ |
| W016024050WC/U | 16.00 | ↓ | 16.00 | 24.00 | 5.00 | 7.00 | 24.60 | ↓ | 19.00 | ↓ | 5.30 | ↓ | 2.00 | ↓ |
| W017023035WC/U | 17.00 | ↓ | 17.00 | 23.00 | 3.50 | 5.50 | 23.60 | ↓ | 20.00 | ↓ | 3.80 | ↓ | 2.00 | ↓ |
| W017024035WC/U | 17.00 | ↓ | 17.00 | 24.00 | 3.50 | 5.50 | 24.60 | ↓ | 20.00 | ↓ | 3.80 | ↓ | 2.00 | ↓ |
| W018024035WC/U | 18.00 | ↓ | 18.00 | 24.00 | 3.50 | 5.50 | 24.60 | ↓ | 21.00 | ↓ | 3.80 | ↓ | 2.00 | ↓ |
| W018026050WC/U | 18.00 | ↓ | 18.00 | 26.00 | 5.00 | 7.00 | 26.60 | ↓ | 21.00 | ↓ | 5.30 | ↓ | 2.00 | ↓ |
| W018030040WC/U | 18.00 | ↓ | 18.00 | 30.00 | 4.00 | 7.00 | 30.20 | +.160 -.000 | 21.00 | ↓ | 4.30 | ↓ | 3.00 | ↓ |
| W018030050WC/U | 18.00 | ↓ | 18.00 | 30.00 | 5.00 | 7.00 | 30.60 | ↓ | 21.00 | ↓ | 5.30 | ↓ | 2.00 | ↓ |

WC series - AU 92A



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | | | |
|----------------|--------------|----------------|-------------------------|-------|------|-------|--------------------|----------------|-------|----------------|------|----------------|------|----------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | D2 | Tol. | h1 | Tol. | h2 | Tol. |
| W019028050WC/U | 19.00 | -.020 | 19.00 | 28.00 | 5.00 | 7.00 | 28.60 | +.160 -.000 | 22.00 | +.130 -.000 | 5.30 | +.200 -.000 | 2.00 | +.200 -.200 |
| W020026031WC/U | 20.00 | -.072 | 20.00 | 26.00 | 3.10 | 5.20 | 26.60 | | 23.00 | | 3.40 | +.200 -.000 | 2.10 | +.200 -.200 |
| W020028050WC/U | 20.00 | | 20.00 | 28.00 | 5.00 | 7.00 | 28.60 | | 23.00 | | 5.30 | | 2.00 | |
| W022029050WC/U | 22.00 | | 22.00 | 29.50 | 5.00 | 7.00 | 30.10 | | 25.00 | | 5.30 | | 2.00 | |
| W022030050WC/U | 22.00 | | 22.00 | 30.00 | 5.00 | 7.00 | 30.60 | | 25.00 | | 5.30 | | 2.00 | |
| W024032050WC/U | 24.00 | | 24.00 | 32.00 | 5.00 | 7.00 | 32.60 | | 27.00 | | 5.30 | | 2.00 | |
| W025033050WC/U | 25.00 | | 25.00 | 33.00 | 5.00 | 7.00 | 33.60 | | 28.00 | | 5.30 | | 2.00 | |
| W026033040WC/U | 26.00 | | 26.00 | 33.00 | 4.00 | 7.00 | 33.20 | | 29.00 | | 4.30 | | 3.00 | |
| W026034050WC/U | 26.00 | | 26.00 | 34.00 | 5.00 | 7.00 | 34.60 | | 29.00 | | 5.30 | | 2.00 | |
| W027035050WC/U | 27.00 | | 27.00 | 35.00 | 5.00 | 7.00 | 35.60 | | 30.00 | ▼ | 5.30 | | 2.00 | |
| W028036050WC/U | 28.00 | | 28.00 | 36.00 | 5.00 | 7.00 | 36.60 | | 31.00 | +.160 -.000 | 5.30 | | 2.00 | |
| W029040070WC/U | 29.50 | | 29.50 | 40.00 | 7.00 | 12.00 | 40.20 | | 35.50 | | 7.10 | | 5.00 | |
| W030038050WC/U | 30.00 | | 30.00 | 38.00 | 5.00 | 7.00 | 38.60 | | 33.00 | | 5.30 | | 2.00 | |
| W030040028WC/U | 30.00 | | 30.00 | 40.00 | 2.80 | 4.00 | 40.00 | | 34.50 | | 3.00 | | 1.20 | |
| W030042060WC/U | 30.00 | | 30.00 | 42.00 | 6.00 | 9.00 | 42.60 | | 36.00 | | 6.30 | | 3.00 | |
| W030042070WC/U | 30.00 | ▼ | 30.00 | 42.00 | 7.00 | 12.00 | 42.20 | | 36.00 | | 7.10 | | 5.00 | |
| W032040035WC/U | 32.00 | -.025 -.087 | 32.00 | 40.00 | 3.50 | 5.00 | 40.00 | | 35.00 | | 3.80 | | 1.50 | |
| W032040050WC/U | 32.00 | | 32.00 | 40.00 | 5.00 | 7.00 | 40.60 | | 35.00 | | 5.30 | | 2.00 | |
| W032042040WC/U | 32.00 | | 32.00 | 42.00 | 4.00 | 6.00 | 42.00 | | 35.00 | | 4.20 | | 2.00 | |
| W033041050WC/U | 33.00 | | 33.00 | 41.00 | 5.00 | 7.00 | 41.60 | | 36.00 | | 5.30 | | 2.00 | |
| W033042050WC/U | 33.00 | | 33.00 | 42.00 | 5.00 | 7.00 | 42.60 | | 36.00 | | 5.30 | | 2.00 | |
| W035040035WC/U | 35.00 | | 35.00 | 40.00 | 3.50 | 5.00 | 40.00 | | 38.00 | | 3.80 | | 1.50 | |
| W035043050WC/U | 35.00 | | 35.00 | 43.00 | 5.00 | 7.00 | 43.60 | | 38.00 | | 5.30 | | 2.00 | |
| W035045038WC/U | 35.00 | | 35.00 | 45.00 | 3.80 | 6.00 | 45.00 | | 39.00 | | 4.00 | | 2.20 | |
| W035047040WC/U | 35.00 | | 35.00 | 47.00 | 4.00 | 7.00 | 47.20 | | 38.00 | | 4.30 | | 3.00 | |
| W035047050WC/U | 35.00 | | 35.00 | 47.00 | 5.00 | 7.00 | 47.60 | | 38.00 | | 5.30 | | 2.00 | |
| W036044050WC/U | 36.00 | | 36.00 | 44.00 | 5.00 | 7.00 | 44.60 | | 39.00 | | 5.30 | | 2.00 | |
| W036048060WC/U | 36.00 | | 36.00 | 48.00 | 6.00 | 9.00 | 48.20 | | 42.00 | | 6.30 | | 3.00 | |
| W038046050WC/U | 38.00 | | 38.00 | 46.00 | 5.00 | 7.00 | 46.60 | | 41.00 | | 5.30 | | 2.00 | |
| W038048045WC/U | 38.00 | | 38.00 | 48.00 | 4.50 | 7.00 | 48.60 | | 41.00 | | 4.80 | | 2.50 | |
| W040048040WC/U | 40.00 | | 40.00 | 48.00 | 4.00 | 6.00 | 48.00 | | 43.00 | | 4.20 | | 2.00 | |
| W040048050WC/U | 40.00 | | 40.00 | 48.00 | 5.00 | 7.00 | 48.60 | ▼ | 43.00 | | 5.30 | | 2.00 | |
| W040052060WC/U | 40.00 | | 40.00 | 52.00 | 6.00 | 9.00 | 52.20 | +.190 -.000 | 46.00 | | 6.30 | | 3.00 | |
| W042050050WC/U | 42.00 | | 42.00 | 50.00 | 5.00 | 7.00 | 50.60 | | 45.00 | | 5.30 | | 2.00 | |
| W042054060WC/U | 42.00 | | 42.00 | 54.00 | 6.00 | 9.00 | 54.20 | | 48.00 | | 6.30 | | 3.00 | |
| W045053050WC/U | 45.00 | | 45.00 | 53.00 | 5.00 | 7.00 | 53.60 | | 48.00 | | 5.30 | | 2.00 | |
| W045055050WC/U | 45.00 | | 45.00 | 55.00 | 5.00 | 7.00 | 55.60 | | 48.00 | | 5.30 | | 2.00 | |
| W045057050WC/U | 45.00 | | 45.00 | 57.00 | 5.00 | 7.00 | 57.60 | | 48.00 | ▼ | 5.30 | | 2.00 | |
| W045057060WC/U | 45.00 | | 45.00 | 57.00 | 6.00 | 9.00 | 57.20 | | 51.00 | +.190 -.000 | 6.30 | | 3.00 | |
| W045060040WC/U | 45.00 | | 45.00 | 60.00 | 4.00 | 6.00 | 60.00 | | 53.00 | | 4.20 | | 2.00 | |
| W046054050WC/U | 46.00 | | 46.00 | 54.00 | 5.00 | 7.00 | 54.60 | | 49.00 | | 5.30 | | 2.00 | |
| W048056050WC/U | 48.00 | | 48.00 | 56.00 | 5.00 | 7.00 | 56.60 | | 51.00 | | 5.30 | | 2.00 | |
| W050058050WC/U | 50.00 | | 50.00 | 58.00 | 5.00 | 7.00 | 58.60 | | 53.00 | | 5.30 | | 2.00 | |
| W050060050WC/U | 50.00 | | 50.00 | 60.00 | 5.00 | 7.00 | 60.60 | | 53.00 | | 5.30 | | 2.00 | |
| W050062050WC/U | 50.00 | | 50.00 | 62.00 | 5.00 | 7.00 | 62.60 | | 53.00 | | 5.30 | | 2.00 | |
| W050062060WC/U | 50.00 | ▼ | 50.00 | 62.00 | 6.00 | 9.00 | 62.20 | ▼ | 56.00 | ▼ | 6.30 | ▼ | 3.00 | ▼ |



WC series - AU 92A

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | | | |
|----------------|--------------|--|-------------------------|-------|------|-------|--------------------|--|-------|--|------|--|------|--|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | D2 | Tol. | h1 | Tol. | h2 | Tol. |
| W050065040WC/U | 50.00 | -.025/- .087 | 50.00 | 65.00 | 4.00 | 6.00 | 65.60 | | 53.00 | | 4.20 | | 2.00 | |
| W053061050WC/U | 53.00 | | 53.00 | 61.00 | 5.00 | 7.00 | 61.60 | $\begin{matrix} +.190 \\ -.000 \end{matrix}$ | 56.00 | $\begin{matrix} +.190 \\ -.000 \end{matrix}$ | 5.30 | $\begin{matrix} +.200 \\ -.000 \end{matrix}$ | 2.00 | $\begin{matrix} +.200 \\ -.200 \end{matrix}$ |
| W055063050WC/U | 55.00 | $\begin{matrix} -.030 \\ -.104 \end{matrix}$ | 55.00 | 63.00 | 5.00 | 7.00 | 63.60 | | 58.00 | | 5.30 | | 2.00 | |
| W055065050WC/U | 55.00 | | 55.00 | 65.00 | 5.00 | 7.00 | 65.60 | | 58.00 | | 5.30 | | 2.00 | |
| W055067060WC/U | 55.00 | | 55.00 | 67.00 | 6.00 | 9.00 | 67.20 | | 61.00 | | 6.30 | | 3.00 | |
| W056064050WC/U | 56.00 | | 56.00 | 64.00 | 5.00 | 7.00 | 64.60 | | 59.00 | | 5.30 | | 2.00 | |
| W056066050WC/U | 56.00 | | 56.00 | 66.00 | 5.00 | 7.00 | 66.60 | | 59.00 | | 5.30 | | 2.00 | |
| W058068050WC/U | 58.00 | | 58.00 | 68.00 | 5.00 | 7.00 | 68.60 | | 61.00 | | 5.30 | | 2.00 | |
| W060068050WC/U | 60.00 | | 60.00 | 68.00 | 5.00 | 7.00 | 68.60 | | 63.00 | | 5.30 | | 2.00 | |
| W060070050WC/U | 60.00 | | 60.00 | 70.00 | 5.00 | 7.00 | 70.60 | | 63.00 | | 5.30 | | 2.00 | |
| W060070052WC/U | 60.00 | | 60.00 | 70.00 | 5.20 | 7.00 | 70.60 | | 66.50 | | 5.50 | | 1.80 | |
| W061067050WC/U | 61.00 | | 61.00 | 67.00 | 5.00 | 7.00 | 67.60 | | 64.00 | | 5.30 | | 2.00 | |
| W061069050WC/U | 61.00 | | 61.00 | 69.00 | 5.00 | 7.00 | 69.60 | | 64.00 | | 5.30 | | 2.00 | |
| W062070050WC/U | 62.00 | | 62.00 | 70.00 | 5.00 | 7.00 | 70.60 | | 65.00 | | 5.30 | | 2.00 | |
| W063071050WC/U | 63.00 | | 63.00 | 71.00 | 5.00 | 7.00 | 71.60 | | 66.00 | | 5.30 | | 2.00 | |
| W063073050WC/U | 63.00 | | 63.00 | 73.00 | 5.00 | 7.00 | 73.60 | | 66.00 | | 5.30 | | 2.00 | |
| W063075060WC/U | 63.00 | | 63.00 | 75.00 | 6.00 | 9.00 | 75.20 | | 69.00 | | 6.30 | | 3.00 | |
| W065073050WC/U | 65.00 | | 65.00 | 73.00 | 5.00 | 7.00 | 73.60 | | 68.00 | | 5.30 | | 2.00 | |
| W065075050WC/U | 65.00 | | 65.00 | 75.00 | 5.00 | 7.00 | 75.60 | | 68.00 | | 5.30 | | 2.00 | |
| W065076058WC/U | 65.00 | | 65.00 | 76.00 | 5.80 | 7.00 | 76.60 | | 71.50 | | 6.00 | | 1.20 | |
| W065077060WC/U | 65.00 | | 65.00 | 77.00 | 6.00 | 9.00 | 77.20 | | 71.00 | | 6.30 | | 3.00 | |
| W065077070WC/U | 65.00 | | 65.00 | 77.00 | 7.00 | 12.00 | 77.20 | | 71.00 | | 7.10 | | 5.00 | |
| W067076052WC/U | 67.00 | | 67.00 | 76.00 | 5.20 | 7.00 | 76.60 | | 71.00 | | 5.50 | | 1.80 | |
| W070078050WC/U | 70.00 | | 70.00 | 78.00 | 5.00 | 7.00 | 78.60 | ▼ | 73.00 | | 5.30 | | 2.00 | |
| W070080050WC/U | 70.00 | | 70.00 | 80.00 | 5.00 | 7.00 | 80.60 | | 73.00 | | 5.30 | | 2.00 | |
| W070080070WC/U | 70.00 | | 70.00 | 80.00 | 7.00 | 12.00 | 80.20 | $\begin{matrix} +.220 \\ -.000 \end{matrix}$ | 76.00 | | 7.10 | | 5.00 | |
| W070082070WC/U | 70.00 | | 70.00 | 82.00 | 7.00 | 12.00 | 82.20 | | 76.00 | | 7.10 | | 5.00 | |
| W072080050WC/U | 72.00 | | 72.00 | 80.00 | 5.00 | 7.00 | 80.60 | | 75.00 | | 5.30 | | 2.00 | |
| W073081050WC/U | 73.00 | | 73.00 | 81.00 | 5.00 | 7.00 | 81.60 | | 76.00 | | 5.30 | | 2.00 | |
| W075083050WC/U | 75.00 | | 75.00 | 83.00 | 5.00 | 7.00 | 83.60 | | 78.00 | | 5.30 | | 2.00 | |
| W075085070WC/U | 75.00 | | 75.00 | 85.00 | 5.00 | 7.00 | 85.60 | | 78.00 | | 5.30 | | 2.00 | |
| W075087050WC/U | 75.00 | | 75.00 | 87.00 | 5.00 | 7.00 | 87.60 | | 78.00 | ▼ | 5.30 | | 2.00 | |
| W075087070WC/U | 75.00 | | 75.00 | 87.00 | 7.00 | 12.00 | 87.20 | | 81.00 | | 7.10 | | 5.00 | |
| W075088050WC/U | 75.00 | | 75.00 | 88.00 | 5.00 | 7.00 | 88.60 | | 78.00 | $\begin{matrix} +.220 \\ -.000 \end{matrix}$ | 5.30 | | 2.00 | |
| W076082050WC/U | 76.00 | | 76.00 | 82.00 | 5.00 | 7.00 | 82.60 | | 81.00 | | 5.30 | | 2.00 | |
| W076084050WC/U | 76.00 | | 76.00 | 84.00 | 5.00 | 7.00 | 84.60 | | 79.00 | | 5.30 | | 2.00 | |
| W076088070WC/U | 76.50 | | 76.50 | 88.00 | 7.00 | 12.00 | 88.20 | | 82.50 | | 7.10 | | 5.00 | |
| W078086050WC/U | 78.00 | | 78.00 | 86.00 | 5.00 | 7.00 | 86.60 | | 81.00 | | 5.30 | | 2.00 | |
| W078088052WC/U | 78.00 | | 78.00 | 88.00 | 5.20 | 7.00 | 88.60 | | 84.50 | | 5.50 | | 1.80 | |
| W078092070WC/U | 78.00 | | 78.00 | 92.00 | 7.00 | 12.00 | 92.20 | | 84.00 | | 7.10 | | 5.00 | |
| W080088050WC/U | 80.00 | | 80.00 | 88.00 | 5.00 | 7.00 | 88.60 | | 83.00 | | 5.30 | | 2.00 | |
| W080090070WC/U | 80.00 | | 80.00 | 90.00 | 7.00 | 12.00 | 90.20 | | 86.00 | | 7.10 | | 5.00 | |
| W080092070WC/U | 80.00 | | 80.00 | 92.00 | 7.00 | 12.00 | 92.20 | | 86.00 | | 7.10 | | 5.00 | |
| W080096080WC/U | 80.00 | ▼ | 80.00 | 96.00 | 8.00 | 12.00 | 96.20 | | 86.00 | | 8.20 | | 4.00 | |
| W083091050WC/U | 83.00 | $\begin{matrix} -.036 \\ -.123 \end{matrix}$ | 83.00 | 91.00 | 5.00 | 7.00 | 91.60 | | 86.00 | | 5.30 | | 2.00 | |
| W083098050WC/U | 83.00 | | 83.00 | 98.00 | 5.00 | 7.00 | 98.60 | ▼ | 86.00 | ▼ | 5.30 | ▼ | 2.00 | ▼ |

WC series - AU 92A



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | | | |
|----------------|--------------|-------|-------------------------|--------|------|-------|--------------------|----------------|--------|----------------|------|----------------|------|----------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | D2 | Tol. | h1 | Tol. | h2 | Tol. |
| W084091050WC/U | 84.00 | -.036 | 84.00 | 91.70 | 5.00 | 7.00 | 92.30 | +.220 -.000 | 87.00 | +.220 -.000 | 5.30 | +.200 -.000 | 2.00 | +.200 -.200 |
| W085093050WC/U | 85.00 | -.123 | 85.00 | 93.00 | 5.00 | 7.00 | 93.60 | | 88.00 | | 5.30 | | 2.00 | |
| W085097070WC/U | 85.00 | | 85.00 | 97.00 | 7.00 | 12.00 | 97.20 | | 91.00 | | 7.10 | | 5.00 | |
| W085101050WC/U | 85.00 | | 85.00 | 101.00 | 5.00 | 7.00 | 101.60 | | 88.00 | | 5.30 | | 2.00 | |
| W087095040WC/U | 87.00 | | 87.00 | 95.00 | 4.00 | 7.00 | 95.20 | | 90.00 | | 4.30 | ▼ | 3.00 | |
| W088096050WC/U | 88.00 | | 88.00 | 96.00 | 5.00 | 7.00 | 96.60 | | 91.00 | | 5.30 | +.300 -.000 | 2.00 | |
| W088100070WC/U | 88.00 | | 88.00 | 100.00 | 7.00 | 12.00 | 100.20 | | 94.00 | | 7.10 | | 5.00 | |
| W090098050WC/U | 90.00 | | 90.00 | 98.00 | 5.00 | 7.00 | 98.60 | | 93.00 | | 5.30 | | 2.00 | |
| W090100070WC/U | 90.00 | | 90.00 | 100.00 | 7.00 | 12.00 | 100.20 | | 96.00 | | 7.10 | | 5.00 | |
| W090102058WC/U | 90.00 | | 90.00 | 102.00 | 5.80 | 8.00 | 102.20 | | 94.00 | | 6.00 | | 2.20 | |
| W090102070WC/U | 90.00 | | 90.00 | 102.00 | 7.00 | 12.00 | 102.20 | | 96.00 | | 7.10 | | 5.00 | |
| W090107070WC/U | 90.00 | | 90.00 | 107.00 | 7.00 | 12.00 | 107.20 | | 96.00 | | 7.10 | | 5.00 | |
| W091097050WC/U | 91.00 | | 91.00 | 97.00 | 5.00 | 7.00 | 97.60 | | 94.00 | | 5.30 | | 2.00 | |
| W091099050WC/U | 91.00 | | 91.00 | 99.00 | 5.00 | 7.00 | 99.60 | | 94.00 | | 5.30 | | 2.00 | |
| W092100050WC/U | 92.00 | | 92.00 | 100.00 | 5.00 | 7.00 | 100.60 | | 95.00 | | 5.30 | | 2.00 | |
| W092103052WC/U | 92.00 | | 92.00 | 103.00 | 5.20 | 7.00 | 103.60 | | 97.00 | | 5.50 | | 1.80 | |
| W092104070WC/U | 92.00 | | 92.00 | 104.00 | 7.00 | 12.00 | 104.20 | | 98.00 | | 7.10 | | 5.00 | |
| W093101047WC/U | 93.00 | | 93.00 | 101.00 | 4.70 | 7.00 | 101.00 | | 96.00 | | 5.00 | | 2.30 | |
| W095103050WC/U | 95.00 | | 95.00 | 103.00 | 5.00 | 7.00 | 103.60 | | 98.00 | | 5.30 | | 2.00 | |
| W095105070WC/U | 95.00 | | 95.00 | 105.00 | 7.00 | 12.00 | 105.20 | | 101.00 | | 7.10 | | 5.00 | |
| W095107070WC/U | 95.00 | | 95.00 | 107.00 | 7.00 | 12.00 | 107.20 | | 101.00 | | 7.10 | | 5.00 | |
| W097105047WC/U | 97.00 | | 97.00 | 105.00 | 4.70 | 7.00 | 105.00 | | 100.00 | | 5.00 | | 2.30 | |
| W097111070WC/U | 97.00 | | 97.00 | 111.00 | 7.00 | 12.00 | 111.20 | | 103.00 | | 7.10 | | 5.00 | |
| W099109052WC/U | 99.00 | | 99.00 | 109.00 | 5.20 | 7.00 | 109.60 | | 105.50 | | 5.50 | | 1.80 | |
| W100108050WC/U | 100.00 | | 100.00 | 108.00 | 5.00 | 7.00 | 108.60 | | 103.00 | | 5.30 | | 2.00 | |
| W100112058WC/U | 100.00 | | 100.00 | 112.00 | 5.80 | 8.00 | 112.20 | | 104.00 | | 6.00 | | 2.20 | |
| W100112070WC/U | 100.00 | | 100.00 | 112.00 | 7.00 | 12.00 | 112.20 | | 106.00 | | 7.10 | | 5.00 | |
| W100116080WC/U | 100.00 | | 100.00 | 116.00 | 8.00 | 12.00 | 116.20 | | 106.00 | | 8.20 | | 4.00 | |
| W101110050WC/U | 101.00 | | 101.00 | 110.80 | 5.00 | 7.00 | 111.40 | | 104.00 | | 5.30 | | 2.00 | |
| W103115070WC/U | 103.00 | | 103.00 | 115.00 | 7.00 | 12.00 | 115.20 | | 109.00 | | 7.10 | | 5.00 | |
| W104116070WC/U | 104.00 | | 104.00 | 116.00 | 7.00 | 12.00 | 116.20 | | 110.00 | | 7.10 | | 5.00 | |
| W105113050WC/U | 105.00 | | 105.00 | 113.00 | 5.00 | 7.00 | 113.60 | | 108.00 | | 5.30 | | 2.00 | |
| W105116070WC/U | 105.00 | | 105.00 | 116.00 | 7.00 | 12.00 | 116.20 | | 111.00 | | 7.10 | | 5.00 | |
| W105117070WC/U | 105.00 | | 105.00 | 117.00 | 7.00 | 12.00 | 117.20 | ▼ | 111.00 | | 7.10 | | 5.00 | |
| W105120070WC/U | 105.00 | | 105.00 | 120.00 | 7.00 | 12.00 | 120.20 | +.250/- .000 | 111.00 | | 7.10 | | 5.00 | |
| W107113050WC/U | 107.00 | | 107.00 | 113.00 | 5.00 | 7.00 | 113.60 | +.220 -.000 | 110.00 | | 5.30 | | 2.00 | |
| W110118050WC/U | 110.00 | | 110.00 | 118.00 | 5.00 | 7.00 | 118.60 | +.220 -.000 | 113.00 | | 5.30 | | 2.00 | |
| W110122070WC/U | 110.00 | | 110.00 | 122.00 | 7.00 | 12.00 | 122.20 | +.250 -.000 | 116.00 | | 7.10 | | 5.00 | |
| W112120050WC/U | 112.00 | | 112.00 | 120.00 | 5.00 | 7.00 | 120.60 | +.250 -.000 | 115.00 | | 5.30 | | 2.00 | |
| W112124070WC/U | 112.00 | | 112.00 | 124.00 | 7.00 | 12.00 | 124.20 | | 118.00 | | 7.10 | | 5.00 | |
| W114125070WC/U | 114.00 | | 114.00 | 125.00 | 7.00 | 12.00 | 125.20 | | 120.00 | | 7.10 | | 5.00 | |
| W115123050WC/U | 115.00 | | 115.00 | 123.00 | 5.00 | 7.00 | 123.60 | | 118.00 | | 5.30 | | 2.00 | |
| W115125050WC/U | 115.00 | | 115.00 | 125.00 | 5.00 | 7.00 | 125.60 | | 118.00 | ▼ | 5.30 | | 2.00 | |
| W115127070WC/U | 115.00 | | 115.00 | 127.00 | 7.00 | 12.00 | 127.20 | | 121.00 | +.250 -.000 | 7.10 | | 5.00 | |
| W116128070WC/U | 116.00 | | 116.00 | 128.00 | 7.00 | 12.00 | 128.20 | | 122.00 | | 7.10 | | 5.00 | |
| W116130070WC/U | 116.00 | ▼ | 116.00 | 130.00 | 7.00 | 12.00 | 130.20 | ▼ | 122.00 | ▼ | 7.10 | ▼ | 5.00 | ▼ |



WC series - AU 92A

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | | | |
|----------------|--------------|----------------|-------------------------|--------|-------|-------|--------------------|----------------|--------|----------------|-------|----------------|-------|----------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | D2 | Tol. | h1 | Tol. | h2 | Tol. |
| W118126047WC/U | 118.00 | -.036 -.123 | 118.00 | 126.00 | 4.70 | 7.00 | 126.00 | +.250 -.000 | 121.00 | +.250 -.000 | 5.00 | +.300 -.000 | 2.30 | +.200 -.200 |
| W118128050WC/U | 118.00 | | 118.00 | 128.00 | 5.00 | 7.00 | 128.60 | | 121.00 | | 5.30 | | 2.00 | |
| W118130070WC/U | 118.00 | | 118.00 | 130.00 | 7.00 | 12.00 | 130.20 | | 124.00 | | 7.10 | | 5.00 | |
| W120128050WC/U | 120.00 | | 120.00 | 128.00 | 5.00 | 7.00 | 128.60 | | 123.00 | | 5.30 | | 2.00 | |
| W120130050WC/U | 120.00 | | 120.00 | 130.00 | 5.00 | 7.00 | 130.60 | | 123.00 | | 5.30 | | 2.00 | |
| W120130052WC/U | 120.00 | | 120.00 | 130.00 | 5.20 | 7.00 | 130.60 | | 126.50 | | 5.50 | | 1.80 | |
| W120132070WC/U | 120.00 | ▼ | 120.00 | 132.00 | 7.00 | 12.00 | 132.20 | | 126.00 | | 7.10 | | 5.00 | |
| W121130050WC/U | 121.00 | -.043 -.143 | 121.00 | 130.60 | 5.00 | 7.00 | 131.20 | | 124.00 | | 5.30 | | 2.00 | |
| W125133050WC/U | 125.00 | | 125.00 | 133.00 | 5.00 | 7.00 | 133.60 | | 128.00 | | 5.30 | | 2.00 | |
| W125137070WC/U | 125.00 | | 125.00 | 137.00 | 7.00 | 12.00 | 137.20 | | 131.00 | | 7.10 | | 5.00 | |
| W125137075WC/U | 125.00 | | 125.00 | 137.00 | 7.50 | 12.00 | 137.20 | | 131.00 | | 7.60 | | 4.50 | |
| W125140100WC/U | 125.00 | | 125.00 | 140.00 | 10.00 | 16.00 | 140.00 | | 132.60 | | 10.20 | | 6.00 | |
| W125141080WC/U | 125.00 | | 125.00 | 141.00 | 8.00 | 12.00 | 141.20 | | 131.00 | | 8.20 | | 4.00 | |
| W127135050WC/U | 127.00 | | 127.00 | 135.00 | 5.00 | 7.00 | 135.60 | | 130.00 | | 5.30 | | 2.00 | |
| W127136050WC/U | 127.00 | | 127.00 | 136.50 | 5.00 | 7.00 | 137.10 | | 130.00 | | 5.30 | | 2.00 | |
| W128140070WC/U | 128.00 | | 128.00 | 140.00 | 7.00 | 12.00 | 140.20 | | 134.00 | | 7.10 | | 5.00 | |
| W130142070WC/U | 130.00 | | 130.00 | 142.00 | 7.00 | 12.00 | 142.20 | | 130.00 | | 7.10 | | 5.00 | |
| W130145100WC/U | 130.00 | | 130.00 | 145.00 | 10.00 | 16.00 | 145.60 | | 137.60 | | 10.20 | | 6.00 | |
| W135147070WC/U | 135.00 | | 135.00 | 147.00 | 7.00 | 12.00 | 147.20 | | 141.00 | | 7.10 | | 5.00 | |
| W135149070WC/U | 135.00 | | 135.00 | 149.00 | 7.00 | 12.00 | 149.20 | | 141.00 | | 7.10 | | 5.00 | |
| W140148050WC/U | 140.00 | | 140.00 | 148.00 | 5.00 | 7.00 | 148.60 | | 143.00 | | 5.30 | | 2.00 | |
| W140148058WC/U | 140.00 | | 140.00 | 148.00 | 5.80 | 7.00 | 148.60 | | 143.00 | | 6.00 | | 1.20 | |
| W140149050WC/U | 140.00 | | 140.00 | 149.00 | 5.00 | 7.00 | 149.60 | | 143.00 | | 5.30 | | 2.00 | |
| W140150050WC/U | 140.00 | | 140.00 | 150.00 | 5.00 | 7.00 | 150.60 | | 143.00 | | 5.30 | | 2.00 | |
| W140152070WC/U | 140.00 | | 140.00 | 152.00 | 7.00 | 12.00 | 152.20 | | 146.00 | | 7.10 | | 5.00 | |
| W140152087WC/U | 140.00 | | 140.00 | 152.00 | 8.70 | 15.00 | 152.00 | | 147.00 | | 9.00 | | 6.30 | |
| W140155087WC/U | 140.00 | | 140.00 | 155.00 | 8.70 | 15.00 | 155.00 | | 147.50 | | 9.00 | | 6.30 | |
| W140155100WC/U | 140.00 | | 140.00 | 155.00 | 10.00 | 16.00 | 155.60 | | 147.60 | | 10.20 | | 6.00 | |
| W141151052WC/U | 141.00 | | 141.00 | 151.00 | 5.20 | 7.00 | 151.60 | | 147.50 | | 5.50 | | 1.80 | |
| W143151050WC/U | 143.00 | | 143.00 | 151.00 | 5.00 | 7.00 | 151.60 | | 146.00 | | 5.30 | | 2.00 | |
| W143151052WC/U | 143.00 | | 143.00 | 151.00 | 5.20 | 4.00 | 151.00 | | 146.00 | | 5.50 | | -1.20 | |
| W143153050WC/U | 143.00 | | 143.00 | 153.00 | 5.00 | 7.00 | 153.60 | | 146.00 | | 5.30 | | 2.00 | |
| W145153050WC/U | 145.00 | | 145.00 | 153.00 | 5.00 | 7.00 | 153.60 | | 148.00 | | 5.30 | | 2.00 | |
| W145157070WC/U | 145.00 | | 145.00 | 157.00 | 7.00 | 12.00 | 157.20 | | 151.00 | | 7.10 | | 5.00 | |
| W145160090WC/U | 145.00 | | 145.00 | 160.00 | 9.00 | 16.00 | 160.60 | | 152.60 | | 9.10 | | 7.00 | |
| W145160100WC/U | 145.00 | | 145.00 | 160.00 | 10.00 | 16.00 | 160.60 | | 152.60 | | 10.20 | | 6.00 | |
| W146158070WC/U | 146.00 | | 146.00 | 158.00 | 7.00 | 12.00 | 158.20 | | 152.00 | | 7.10 | | 5.00 | |
| W150162060WC/U | 150.00 | | 150.00 | 162.00 | 6.00 | 12.00 | 162.20 | | 156.00 | | 6.30 | | 6.00 | |
| W150162070WC/U | 150.00 | | 150.00 | 162.00 | 7.00 | 12.00 | 162.20 | | 156.00 | | 7.10 | | 5.00 | |
| W150162075WC/U | 150.00 | | 150.00 | 162.00 | 7.50 | 12.00 | 162.20 | | 156.00 | | 7.60 | | 4.50 | |
| W150165072WC/U | 150.00 | | 150.00 | 165.00 | 7.20 | 12.00 | 165.00 | | 156.00 | | 7.50 | | 4.80 | |
| W150165100WC/U | 150.00 | | 150.00 | 165.00 | 10.00 | 16.00 | 165.60 | | 157.60 | | 10.20 | | 6.00 | |
| W150166100WC/U | 150.00 | | 150.00 | 166.00 | 10.00 | 16.00 | 166.60 | | 157.60 | | 10.20 | | 6.00 | |
| W152160050WC/U | 152.00 | | 152.00 | 160.00 | 5.00 | 7.00 | 160.60 | | 155.00 | | 5.30 | | 2.00 | |
| W155167070WC/U | 155.00 | | 155.00 | 167.00 | 7.00 | 12.00 | 167.20 | | 161.00 | | 7.10 | | 5.00 | |
| W155169070WC/U | 155.00 | ▼ | 155.00 | 169.00 | 7.00 | 12.00 | 169.20 | ▼ | 161.00 | ▼ | 7.10 | ▼ | 5.00 | ▼ |

WC series - AU 92A



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | | | |
|----------------|--------------|-------|-------------------------|--------|-------|-------|--------------------|----------------|--------|----------------|-------|----------------|------|----------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | D2 | Tol. | h1 | Tol. | h2 | Tol. |
| W155170100WC/U | 155.00 | -.043 | 155.00 | 170.00 | 10.00 | 16.00 | 170.60 | +.250 -.000 | 162.60 | +.250 -.000 | 10.20 | +.300 -.000 | 6.00 | +.200 -.200 |
| W155175100WC/U | 155.00 | -.143 | 155.00 | 175.00 | 10.00 | 18.00 | 175.00 | | 165.00 | | 10.20 | | 8.00 | |
| W160168050WC/U | 160.00 | | 160.00 | 168.00 | 5.00 | 7.00 | 168.60 | | 163.00 | | 5.30 | | 2.00 | |
| W160172070WC/U | 160.00 | | 160.00 | 172.00 | 7.00 | 12.00 | 172.20 | | 166.00 | | 7.10 | | 5.00 | |
| W160172075WC/U | 160.00 | | 160.00 | 172.00 | 7.50 | 12.00 | 172.20 | | 166.00 | | 7.60 | | 4.50 | |
| W160175087WC/U | 160.00 | | 160.00 | 175.00 | 8.70 | 15.00 | 175.00 | | 167.00 | | 9.00 | | 6.30 | |
| W160175100WC/U | 160.00 | | 160.00 | 175.00 | 10.00 | 16.00 | 175.60 | | 167.60 | | 10.20 | | 6.00 | |
| W162172052WC/U | 162.00 | | 162.00 | 172.00 | 5.20 | 7.00 | 172.60 | | 168.00 | | 5.50 | | 1.80 | |
| W165173050WC/U | 165.00 | | 165.00 | 173.00 | 5.00 | 7.00 | 173.60 | | 168.00 | | 5.30 | | 2.00 | |
| W165177070WC/U | 165.00 | | 165.00 | 177.00 | 7.00 | 16.00 | 177.20 | | 170.00 | | 7.10 | | 9.00 | |
| W170178050WC/U | 170.00 | | 170.00 | 178.00 | 5.00 | 7.00 | 178.60 | ▼ | 173.00 | | 5.30 | | 2.00 | |
| W170180050WC/U | 170.00 | | 170.00 | 180.00 | 5.00 | 7.00 | 180.60 | +.290 -.000 | 173.00 | | 5.30 | | 2.00 | |
| W170182070WC/U | 170.00 | | 170.00 | 182.00 | 7.00 | 12.00 | 182.20 | | 176.00 | | 7.10 | | 5.00 | |
| W170185100WC/U | 170.00 | | 170.00 | 185.00 | 10.00 | 16.00 | 182.60 | | 177.60 | | 10.20 | | 6.00 | |
| W171181050WC/U | 171.00 | | 171.00 | 181.00 | 5.00 | 7.00 | 181.60 | | 174.00 | | 5.30 | | 2.00 | |
| W171183070WC/U | 171.00 | | 171.00 | 183.00 | 7.00 | 12.00 | 183.20 | | 177.00 | | 7.10 | | 5.00 | |
| W175183050WC/U | 175.00 | | 175.00 | 183.00 | 5.00 | 7.00 | 183.60 | | 178.00 | ▼ | 5.30 | | 2.00 | |
| W175189070WC/U | 175.00 | | 175.00 | 189.00 | 7.00 | 12.00 | 189.20 | | 181.00 | +.290 -.000 | 7.10 | | 5.00 | |
| W180195100WC/U | 180.00 | | 180.00 | 195.00 | 10.00 | 16.00 | 195.60 | | 187.60 | | 10.20 | | 6.00 | |
| W180200070WC/U | 180.00 | | 180.00 | 200.00 | 7.00 | 12.00 | 200.20 | | 188.00 | | 7.10 | | 5.00 | |
| W180200100WC/U | 180.00 | ▼ | 180.00 | 200.00 | 10.00 | 18.00 | 200.00 | | 190.00 | | 10.20 | | 8.00 | |
| W183193052WC/U | 183.00 | -.050 | 183.00 | 193.00 | 5.20 | 7.00 | 193.60 | | 189.00 | | 5.50 | | 1.80 | |
| W185193050WC/U | 185.00 | -.165 | 185.00 | 193.00 | 5.00 | 7.00 | 193.60 | | 188.00 | | 5.30 | | 2.00 | |
| W185197070WC/U | 185.00 | | 185.00 | 197.00 | 7.00 | 12.00 | 197.20 | | 191.00 | | 7.10 | | 5.00 | |
| W185200100WC/U | 185.00 | | 185.00 | 200.00 | 10.00 | 16.00 | 200.60 | | 192.60 | | 10.20 | | 6.00 | |
| W190198050WC/U | 190.00 | | 190.00 | 198.00 | 5.00 | 7.00 | 198.60 | | 193.00 | | 5.30 | | 2.00 | |
| W190205010WC/U | 190.00 | | 190.00 | 205.00 | 10.00 | 18.00 | 205.20 | | 198.00 | | 10.10 | | 8.00 | |
| W190205100WC/U | 190.00 | | 190.00 | 205.00 | 10.00 | 16.00 | 205.60 | | 197.60 | | 10.20 | | 6.00 | |
| W190210100WC/U | 190.00 | | 190.00 | 210.00 | 10.00 | 18.00 | 210.00 | | 200.00 | | 10.20 | | 8.00 | |
| W195210100WC/U | 195.00 | | 195.00 | 210.00 | 10.00 | 16.00 | 210.60 | | 202.60 | | 10.20 | | 6.00 | |
| W196210070WC/U | 196.00 | | 196.00 | 210.00 | 7.00 | 12.00 | 210.20 | | 202.00 | | 7.10 | | 5.00 | |
| W200215100WC/U | 200.00 | | 200.00 | 215.00 | 10.00 | 18.00 | 215.00 | | 210.00 | | 10.20 | | 8.00 | |
| W200220100WC/U | 200.00 | | 200.00 | 220.00 | 10.00 | 18.00 | 220.00 | | 210.00 | | 10.20 | | 8.00 | |
| W205213050WC/U | 205.00 | | 205.00 | 213.00 | 5.00 | 7.00 | 213.60 | | 208.00 | | 5.30 | | 2.00 | |
| W210220050WC/U | 210.00 | | 210.00 | 220.00 | 5.00 | 7.00 | 220.60 | | 213.00 | | 5.30 | | 2.00 | |
| W210225100WC/U | 210.00 | | 210.00 | 225.00 | 10.00 | 16.00 | 225.20 | | 218.00 | | 10.10 | | 6.00 | |
| W220235100WC/U | 220.00 | | 220.00 | 235.00 | 10.00 | 18.00 | 235.00 | | 230.00 | | 10.20 | | 8.00 | |
| W220240100WC/U | 220.00 | | 220.00 | 240.00 | 10.00 | 18.00 | 240.00 | | 230.00 | | 10.20 | | 8.00 | |
| W230245100WC/U | 230.00 | | 230.00 | 245.00 | 10.00 | 16.00 | 245.20 | | 238.00 | | 10.10 | | 6.00 | |
| W230250100WC/U | 230.00 | | 230.00 | 250.00 | 10.00 | 18.00 | 250.00 | ▼ | 240.00 | | 10.20 | | 8.00 | |
| W240255100WC/U | 240.00 | | 240.00 | 255.00 | 10.00 | 16.00 | 255.20 | +.320 -.000 | 248.00 | | 10.10 | | 6.00 | |
| W240260100WC/U | 250.00 | | 250.00 | 260.00 | 10.00 | 18.00 | 260.00 | | 250.00 | ▼ | 10.20 | | 8.00 | |
| W250265100WC/U | 250.00 | ▼ | 250.00 | 265.00 | 10.00 | 16.00 | 265.20 | | 258.00 | +.320 -.000 | 10.20 | | 6.00 | |
| W250270100WC/U | 260.00 | -.056 | 260.00 | 270.00 | 10.00 | 18.00 | 270.00 | | 260.00 | | 10.20 | | 8.00 | |
| W257267052WC/U | 257.00 | -.186 | 257.00 | 267.00 | 5.20 | 7.00 | 267.60 | | 264.00 | | 5.50 | | 1.80 | |
| W260275100WC/U | 260.00 | ▼ | 260.00 | 275.00 | 10.00 | 18.00 | 275.00 | ▼ | 270.00 | ▼ | 10.20 | ▼ | 8.00 | ▼ |

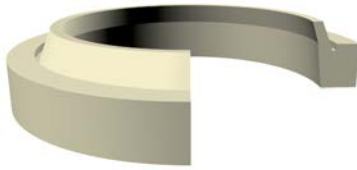


WC series - AU 92A

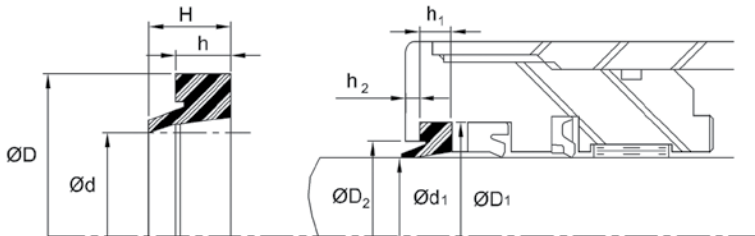
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | | | |
|----------------|--------------|-------------------|-------------------------|--------|-------|-------|--------------------|--------------------|--------|--------------------|-------|--------------------|------|--------------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | D2 | Tol. | h1 | Tol. | h2 | Tol. |
| W260280100WC/U | 260.00 | $-.056$ | 260.00 | 280.00 | 10.00 | 18.00 | 280.00 | $+.320$ $-.000$ | 270.00 | $+.320$ $-.000$ | 10.20 | $+.300$ $-.000$ | 8.00 | $+.200$ $-.200$ |
| W280300100WC/U | 280.00 | $-.186$ | 280.00 | 300.00 | 10.00 | 18.00 | 300.00 | $+.320$ $-.000$ | 290.00 | $+.320$ $-.000$ | 10.20 | $+.300$ $-.000$ | 8.00 | $+.200$ $-.200$ |
| W295315100WC/U | 295.00 | | 295.00 | 315.00 | 10.00 | 18.00 | 315.00 | ↓ | 305.00 | ↓ | 10.20 | | 8.00 | |
| W300320100WC/U | 300.00 | ↓ | 300.00 | 320.00 | 10.00 | 18.00 | 320.00 | $+.360$ $-.000$ | 310.00 | ↓ | 10.20 | ↓ | 8.00 | ↓ |
| W360380100WC/U | 360.00 | $-.062$ / $-.202$ | 360.00 | 380.00 | 10.00 | 18.00 | 380.00 | $+.360$ $-.000$ | 370.00 | $+.360$ / $-.000$ | 10.20 | ↓ | 8.00 | ↓ |



WF - Rod wipers - Metric



| Standard Material | Temperature Range | Surface Speed |
|-------------------|--------------------------------------|-------------------|
| Polyurethane | -40°F to +212°F (-40°C to +100°C) | <3.3 ft/s (1 m/s) |



Similar in design to the **WC-style**, the **WF-style** design has the added interference on the outside diameter to prevent contamination into the cylinder via the static side of the groove.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

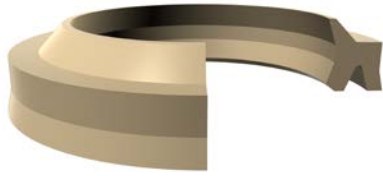
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | | | |
|----------------|--------------|----------------|-------------------------|-------|------|------|--------------------|----------------|-------|----------------|------|----------------|------|----------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | D2 | Tol. | h1 | Tol. | h2 | Tol. |
| W006014045WF | 6.30 | -.013 -.035 | 6.30 | 14.30 | 4.50 | 6.00 | 14.30 | +.070 -.000 | 10.30 | +.100 -.000 | 5.00 | +.300 -.000 | 2.00 | +.200 -.200 |
| W008016045WF | 8.00 | -.035 | 8.00 | 16.00 | 4.50 | 6.00 | 16.00 | -.000 | 12.00 | -.000 | 5.00 | -.000 | 2.00 | -.200 |
| W009017045WF | 9.00 | | 9.00 | 17.00 | 4.50 | 6.00 | 17.00 | | 13.00 | | 5.00 | | 2.00 | |
| W010018045WF | 10.00 | | 10.00 | 18.00 | 4.50 | 6.00 | 18.00 | ▼ | 14.00 | | 5.00 | | 2.00 | |
| W011019045WF | 11.20 | ▼ | 11.20 | 19.20 | 4.50 | 6.00 | 19.20 | +.084 -.000 | 15.20 | | 5.00 | | 2.00 | |
| W014022045WF | 14.00 | -.016 -.043 | 14.00 | 22.00 | 4.50 | 6.00 | 22.00 | -.000 | 18.00 | | 5.00 | | 2.00 | |
| W015023045WF | 15.00 | | 15.00 | 23.00 | 4.50 | 6.00 | 23.00 | | 19.00 | | 5.00 | | 2.00 | |
| W016024045WF | 16.00 | | 16.00 | 24.00 | 4.50 | 6.00 | 24.00 | | 20.30 | | 5.00 | | 2.00 | |
| W018026045WF | 18.00 | ▼ | 18.00 | 26.00 | 4.50 | 6.00 | 26.00 | | 22.30 | | 5.00 | | 2.00 | |
| W020028045WF | 20.00 | -.020 -.053 | 20.00 | 28.00 | 4.50 | 6.00 | 28.00 | ▼ | 24.00 | | 5.00 | | 2.00 | |
| W022030045WF | 22.40 | -.053 | 22.40 | 30.40 | 4.50 | 6.00 | 30.40 | +.100 -.000 | 26.40 | | 5.00 | | 2.00 | |
| W023031045WF | 23.50 | | 23.50 | 31.50 | 4.50 | 6.00 | 31.50 | -.000 | 27.50 | | 5.00 | | 2.00 | |
| W025033045WF | 25.00 | | 25.00 | 33.00 | 4.50 | 6.00 | 33.00 | | 29.00 | | 5.00 | | 2.00 | |
| W028036045WF | 28.00 | | 28.00 | 36.00 | 4.50 | 6.00 | 36.00 | | 32.00 | | 5.00 | | 2.00 | |
| W030038050WF | 30.00 | ▼ | 30.00 | 38.00 | 5.00 | 6.50 | 38.00 | | 34.00 | | 6.00 | | 2.00 | |
| W031039050WF | 31.50 | -.025 -.064 | 31.50 | 39.50 | 5.00 | 6.50 | 39.50 | | 35.50 | | 6.00 | | 2.00 | |
| W035043050WF | 35.00 | -.064 | 35.00 | 43.00 | 5.00 | 6.50 | 43.00 | | 39.00 | | 6.00 | | 2.00 | |
| W035043050WF-1 | 35.50 | | 35.50 | 43.50 | 5.00 | 6.50 | 43.50 | | 39.50 | | 6.00 | | 2.00 | |
| W040048050WF | 40.00 | | 40.00 | 48.00 | 5.00 | 6.50 | 48.00 | ▼ | 44.00 | | 6.00 | | 2.00 | |
| W045053050WF | 45.00 | | 45.00 | 53.00 | 5.00 | 6.50 | 53.00 | +.120 -.000 | 49.00 | | 6.00 | | 2.00 | |
| W045053050WF-1 | 45.50 | | 45.50 | 53.50 | 5.00 | 6.50 | 53.50 | -.000 | 49.50 | | 6.00 | | 2.00 | |
| W050058050WF | 50.00 | ▼ | 50.00 | 58.00 | 5.00 | 6.50 | 58.00 | | 54.00 | | 6.00 | | 2.00 | |
| W053061050WF | 53.00 | -.030/-076 | 53.00 | 61.00 | 5.00 | 6.50 | 61.00 | ▼ | 57.00 | ▼ | 6.00 | ▼ | 2.00 | ▼ |



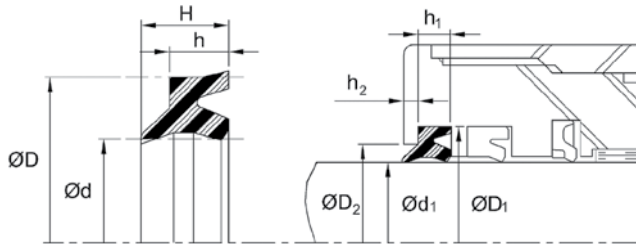
WF series - AU 94A

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | | | |
|--------------|--------------|-------|-------------------------|--------|------|-------|--------------------|----------------|--------|----------------|-------|----------------|------|----------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | D2 | Tol. | h1 | Tol. | h2 | Tol. |
| W055063050WF | 55.00 | -.030 | 55.00 | 63.00 | 5.00 | 6.50 | 63.00 | +.120 -.000 | 59.00 | +.100 -.000 | 6.00 | +.300 -.000 | 2.00 | +.200 -.200 |
| W056064050WF | 56.00 | -.076 | 56.00 | 64.00 | 5.00 | 6.50 | 64.00 | -.000 | 60.00 | -.000 | 6.00 | -.000 | 2.00 | -.000 |
| W060068050WF | 60.00 | | 60.00 | 68.00 | 5.00 | 6.50 | 68.00 | | 64.00 | | 6.00 | | 2.00 | |
| W063071050WF | 63.00 | | 63.00 | 71.00 | 5.00 | 6.50 | 71.00 | | 67.00 | | 6.00 | | 2.00 | |
| W065073050WF | 65.00 | | 65.00 | 73.00 | 5.00 | 6.50 | 73.00 | | 69.00 | | 6.00 | | 2.00 | |
| W067075050WF | 67.00 | | 67.00 | 75.00 | 5.00 | 6.50 | 75.00 | | 71.00 | | 6.00 | | 2.00 | |
| W070080060WF | 70.00 | | 70.00 | 80.00 | 6.00 | 8.00 | 80.00 | ▼ | 75.00 | | 7.00 | | 3.00 | |
| W071081060WF | 71.00 | | 71.00 | 81.00 | 6.00 | 8.00 | 81.00 | +.140 -.000 | 76.00 | | 7.00 | | 3.00 | |
| W075085060WF | 75.00 | | 75.00 | 85.00 | 6.00 | 8.00 | 85.00 | -.000 | 80.00 | | 7.00 | | 3.00 | |
| W080090060WF | 80.00 | ▼ | 80.00 | 90.00 | 6.00 | 8.00 | 90.00 | | 85.00 | | 7.00 | | 3.00 | |
| W085095060WF | 85.00 | -.036 | 85.00 | 95.00 | 6.00 | 8.00 | 95.00 | | 90.00 | | 7.00 | | 3.00 | |
| W090100060WF | 90.00 | -.090 | 90.00 | 100.00 | 6.00 | 8.00 | 100.00 | | 95.00 | | 7.00 | | 3.00 | |
| W095105060WF | 95.00 | | 95.00 | 105.00 | 6.00 | 8.00 | 105.00 | | 100.00 | | 7.00 | | 3.00 | |
| W100110060WF | 100.00 | | 100.00 | 110.00 | 6.00 | 8.00 | 110.00 | | 105.00 | | 7.00 | | 3.00 | |
| W105115060WF | 105.00 | | 105.00 | 115.00 | 6.00 | 8.00 | 115.00 | | 110.00 | | 7.00 | | 3.00 | |
| W106116060WF | 106.00 | | 106.00 | 116.00 | 6.00 | 8.00 | 116.00 | | 111.00 | | 7.00 | | 3.00 | |
| W110120060WF | 110.00 | | 110.00 | 120.00 | 6.00 | 8.00 | 120.00 | ▼ | 115.00 | | 7.00 | | 3.00 | |
| W112122060WF | 112.00 | | 112.00 | 122.00 | 6.00 | 8.00 | 122.00 | +.160 -.000 | 117.00 | | 7.00 | | 4.00 | |
| W118128060WF | 118.00 | | 118.00 | 128.00 | 6.00 | 8.00 | 128.00 | -.000 | 123.00 | | 7.00 | | 4.00 | |
| W120130060WF | 120.00 | ▼ | 120.00 | 130.00 | 6.00 | 8.00 | 130.00 | | 125.00 | | 7.00 | | 4.00 | |
| W125138070WF | 125.00 | -.043 | 125.00 | 138.00 | 7.00 | 9.50 | 138.00 | | 132.00 | | 8.00 | | 4.00 | |
| W130143070WF | 130.00 | -.106 | 130.00 | 143.00 | 7.00 | 9.50 | 143.00 | | 137.00 | | 8.00 | | 4.00 | |
| W132145070WF | 132.00 | | 132.00 | 145.00 | 7.00 | 9.50 | 145.00 | | 139.00 | | 8.00 | | 4.00 | |
| W140153070WF | 140.00 | | 140.00 | 153.00 | 7.00 | 9.50 | 153.00 | | 147.00 | | 8.00 | | 4.00 | |
| W145158070WF | 145.00 | | 145.00 | 158.00 | 7.00 | 9.50 | 158.00 | | 152.00 | | 8.00 | | 4.00 | |
| W150163070WF | 150.00 | | 150.00 | 163.00 | 7.00 | 9.50 | 163.00 | | 157.00 | | 8.00 | | 4.00 | |
| W160173070WF | 160.00 | | 160.00 | 173.00 | 7.00 | 9.50 | 173.00 | ▼ | 167.00 | | 8.00 | | 4.00 | |
| W170183070WF | 170.00 | | 170.00 | 183.00 | 7.00 | 9.50 | 183.00 | +.185 -.000 | 177.00 | | 8.00 | | 4.00 | |
| W175188070WF | 175.00 | | 175.00 | 188.00 | 7.00 | 9.50 | 188.00 | -.000 | 182.00 | | 8.00 | | 4.00 | |
| W180193070WF | 180.00 | ▼ | 180.00 | 193.00 | 7.00 | 9.50 | 193.00 | | 187.00 | | 8.00 | | 4.00 | |
| W190203070WF | 190.00 | -.050 | 190.00 | 203.00 | 7.00 | 9.50 | 203.00 | | 197.00 | | 8.00 | | 5.00 | |
| W199212070WF | 199.00 | -.122 | 199.00 | 212.00 | 7.00 | 9.50 | 212.00 | | 206.00 | | 8.00 | | 5.00 | |
| W200213070WF | 200.00 | | 200.00 | 213.00 | 7.00 | 9.50 | 213.00 | | 207.00 | | 8.00 | | 5.00 | |
| W204217070WF | 204.00 | | 204.00 | 217.00 | 7.00 | 9.50 | 217.00 | | 211.00 | | 8.00 | | 5.00 | |
| W210223070WF | 210.00 | | 210.00 | 223.00 | 7.00 | 9.50 | 223.00 | | 217.00 | | 8.00 | | 5.00 | |
| W220233070WF | 220.00 | | 220.00 | 233.00 | 7.00 | 9.50 | 233.00 | | 227.00 | | 8.00 | | 5.00 | |
| W224237070WF | 224.00 | | 224.00 | 237.00 | 7.00 | 9.50 | 237.00 | | 231.00 | | 8.00 | | 5.00 | |
| W225238070WF | 225.00 | | 225.00 | 238.00 | 7.00 | 9.50 | 238.00 | | 232.00 | | 8.00 | | 5.00 | |
| W230243070WF | 230.00 | | 230.00 | 243.00 | 7.00 | 9.50 | 243.00 | ▼ | 237.00 | | 8.00 | | 5.00 | |
| W240253070WF | 240.00 | | 240.00 | 253.00 | 7.00 | 9.50 | 253.00 | +.210 -.000 | 247.00 | | 8.00 | | 5.00 | |
| W250263070WF | 250.00 | ▼ | 250.00 | 263.00 | 7.00 | 9.50 | 263.00 | -.000 | 257.00 | | 8.00 | | 5.00 | |
| W260275090WF | 260.00 | -.056 | 260.00 | 275.00 | 9.00 | 12.00 | 275.00 | | 268.00 | | 10.00 | | 5.00 | |
| W270285090WF | 270.00 | -.137 | 270.00 | 285.00 | 9.00 | 12.00 | 285.00 | | 278.00 | | 10.00 | | 5.00 | |
| W280295090WF | 280.00 | | 280.00 | 295.00 | 9.00 | 12.00 | 295.00 | | 288.00 | | 10.00 | | 5.00 | |
| W290305090WF | 290.00 | | 290.00 | 305.00 | 9.00 | 12.00 | 305.00 | | 298.00 | | 10.00 | | 5.00 | |
| W300315090WF | 300.00 | ▼ | 300.00 | 315.00 | 9.00 | 12.00 | 315.00 | ▼ | 308.00 | ▼ | 10.00 | ▼ | 5.00 | ▼ |

WG - Rod wipers - Metric



| Standard Materials | Temperature Range | Surface Speed |
|--------------------|--------------------------------------|---------------------|
| Polyurethane | -40°F to +212°F (-40°C to +100°C) | <2.6 ft/s (0.8 m/s) |



The **WG-style** wiper is a dual-function unit, which wipes dirt and other contaminants from the rod while insuring sealability as a secondary rod seal. The fluid retained by the wiper can be pumped back into the system via a leakage bore hole.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | | | |
|----------------|--------------|----------------|-------------------------|-------|------|------|--------------------|----------------|-------|----------------|------|----------------|------|----------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | D2 | Tol. | h1 | Tol. | h2 | Tol. |
| W018026045WG | 18.00 | -.016/- .043 | 18.00 | 26.00 | 4.50 | 6.00 | 26.00 | +.000 -.200 | 22.30 | +.100 -.100 | 5.00 | +.200 -.200 | 2.00 | +.200 -.200 |
| W020028045WG | 20.00 | -.020/- .053 | 20.00 | 28.00 | 4.50 | 6.00 | 28.00 | | 24.30 | | 5.00 | | 2.00 | |
| W022030045WG | 22.00 | -.020 -.030 | 22.00 | 30.00 | 4.50 | 6.00 | 30.00 | | 26.30 | | 5.00 | | 2.00 | |
| W022030045WG-1 | 22.40 | | 22.40 | 30.40 | 4.50 | 6.00 | 30.40 | | 26.70 | | 5.00 | | 2.00 | |
| W025033045WG | 25.00 | | 25.00 | 33.00 | 4.50 | 6.00 | 33.00 | | 29.30 | | 5.00 | | 2.00 | |
| W026034045WG | 26.00 | | 26.00 | 34.00 | 4.50 | 6.00 | 34.00 | | 30.30 | | 5.00 | | 2.00 | |
| W028036045WG | 28.00 | | 28.00 | 36.00 | 4.50 | 6.00 | 36.00 | | 32.30 | | 5.00 | | 2.00 | |
| W030038050WG | 30.00 | ▼ | 30.00 | 38.00 | 5.00 | 6.50 | 38.00 | | 34.00 | | 6.00 | | 2.00 | |
| W031039050WG | 31.50 | -.025 -.064 | 31.50 | 39.50 | 5.00 | 6.50 | 39.50 | | 35.50 | | 6.00 | | 2.00 | |
| W032040050WG | 32.00 | | 32.00 | 40.00 | 5.00 | 6.50 | 40.00 | | 36.00 | | 6.00 | | 2.00 | |
| W034042050WG | 34.50 | | 34.50 | 42.50 | 5.00 | 6.50 | 42.00 | | 38.00 | | 6.00 | | 2.00 | |
| W035043050WG | 35.00 | | 35.00 | 43.00 | 5.00 | 6.50 | 43.00 | | 39.00 | | 6.00 | | 2.00 | |
| W035043050WG-1 | 35.50 | | 35.50 | 43.50 | 5.00 | 6.50 | 43.50 | | 39.50 | | 6.00 | | 2.00 | |
| W038046050WG | 38.00 | | 38.00 | 46.00 | 5.00 | 6.50 | 46.00 | | 42.00 | | 6.00 | | 2.00 | |
| W040048050WG | 40.00 | | 40.00 | 48.00 | 5.00 | 6.50 | 48.00 | | 44.00 | | 6.00 | | 2.00 | |
| W045053050WG | 45.00 | | 45.00 | 53.00 | 5.00 | 6.50 | 53.00 | | 49.00 | | 6.00 | | 2.00 | |
| W048056050WG | 48.00 | | 48.00 | 56.00 | 5.00 | 6.50 | 56.00 | | 52.00 | | 6.00 | | 2.00 | |
| W050058050WG | 50.00 | ▼ | 50.00 | 58.00 | 5.00 | 6.50 | 58.00 | | 54.00 | | 6.00 | | 2.00 | |
| W055063050WG | 55.00 | -.030 -.076 | 55.00 | 63.00 | 5.00 | 6.50 | 63.00 | | 59.00 | | 6.00 | | 2.00 | |
| W056064050WG | 56.00 | | 56.00 | 64.00 | 5.00 | 6.50 | 64.00 | | 60.00 | | 6.00 | | 2.00 | |
| W058066050WG | 58.00 | | 58.00 | 66.00 | 5.00 | 6.50 | 66.00 | | 62.00 | | 6.00 | | 2.00 | |
| W060068050WG | 60.00 | | 60.00 | 68.00 | 5.00 | 6.50 | 68.00 | | 64.00 | | 6.00 | | 2.00 | |
| W063071050WG | 63.00 | ▼ | 63.00 | 71.00 | 5.00 | 6.50 | 71.00 | ▼ | 67.00 | ▼ | 6.00 | ▼ | 2.00 | ▼ |



WG series - AU 92A

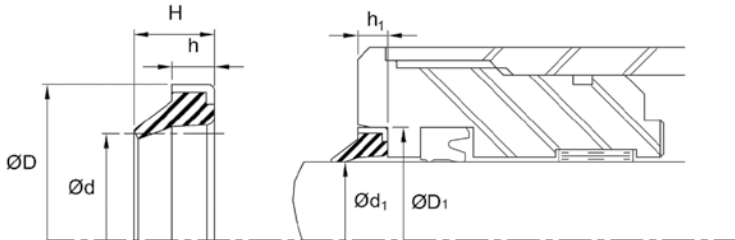
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | | | |
|--------------|---------------|--------------------|-------------------------|--------|------|-------|--------------------|--------------------|--------|--------------------|-------|--------------------|------|--------------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | D2 | Tol. | h1 | Tol. | h2 | Tol. |
| W065073050WG | 65.00 | $-.030$ $-.076$ | 65.00 | 73.00 | 5.00 | 6.50 | 73.00 | $+.000$ $-.200$ | 69.00 | $+.100$ $-.100$ | 6.00 | $+.200$ $-.200$ | 2.00 | $+.200$ $-.200$ |
| W070080060WG | 70.00 | | 70.00 | 80.00 | 6.00 | 8.00 | 80.00 | | 75.00 | | 7.00 | | 3.00 | |
| W071081060WG | 71.00 | | 71.00 | 81.00 | 6.00 | 8.00 | 81.00 | | 76.00 | | 7.00 | | 3.00 | |
| W075085050WG | 75.00 | | 75.00 | 85.00 | 6.00 | 8.00 | 85.00 | | 80.00 | | 7.00 | | 3.00 | |
| W080090060WG | 80.00 | ▼ | 80.00 | 90.00 | 6.00 | 8.00 | 90.00 | | 85.00 | | 7.00 | | 3.00 | |
| W085095060WG | 85.00 | $-.036$ $-.090$ | 85.00 | 95.00 | 6.00 | 8.00 | 95.00 | | 90.00 | | 7.00 | | 3.00 | |
| W090100060WG | 90.00 | | 90.00 | 100.00 | 6.00 | 8.00 | 100.00 | | 95.00 | | 7.00 | | 3.00 | |
| W095105060WG | 95.00 | | 95.00 | 105.00 | 6.00 | 8.00 | 105.00 | | 100.00 | | 7.00 | | 3.00 | |
| W100110060WG | 100.00 | | 100.00 | 110.00 | 6.00 | 8.00 | 110.00 | | 105.00 | | 7.00 | | 3.00 | |
| W105115060WG | 105.00 | | 105.00 | 115.00 | 6.00 | 8.00 | 115.00 | | 110.00 | | 7.00 | | 3.00 | |
| W112122060WG | 112.00 | ▼ | 112.00 | 122.00 | 6.00 | 8.00 | 122.00 | | 117.00 | | 7.00 | | 3.00 | |
| W125138070WG | 125.00 | $-.043$ $-.106$ | 125.00 | 138.00 | 7.00 | 9.50 | 138.00 | | 132.00 | | 8.00 | | 3.00 | |
| W140153070WG | 140.00 | | 140.00 | 153.00 | 7.00 | 9.50 | 153.00 | | 147.00 | | 8.00 | | 3.00 | |
| W150163070WG | 150.00 | | 150.00 | 163.00 | 7.00 | 9.50 | 163.00 | | 157.00 | | 8.00 | | 3.00 | |
| W180193070WG | 180.00 | ▼ | 180.00 | 193.00 | 7.00 | 9.50 | 193.00 | | 187.00 | | 8.00 | | 3.00 | |
| W185198070WG | 185.00 | $-.050$ $-.122$ | 185.00 | 198.00 | 7.00 | 9.50 | 198.00 | | 192.00 | | 8.00 | | 3.00 | |
| W200213070WG | 200.00 | | 200.00 | 213.00 | 7.00 | 9.50 | 213.00 | | 207.00 | | 8.00 | | 3.00 | |
| W210223070WG | 210.00 | | 210.00 | 223.00 | 7.00 | 9.50 | 223.00 | | 217.00 | | 8.00 | | 3.00 | |
| W250265090WG | 250.00 | ▼ | 250.00 | 265.00 | 9.00 | 12.00 | 265.00 | ▼ | 258.00 | ▼ | 10.00 | ▼ | 3.00 | ▼ |



WN - Rod wipers - Metric



| Standard Material | Temperature Range | Surface Speed |
|-------------------|--------------------------------------|-------------------|
| Nitrile/Steel | -40°F to +250°F (-40°C to +121°C) | < 13 ft/s (4 m/s) |



The **WN-style** is a metal-clad, press-in wiper. Its protruding, sharp-edge wiping/scraping lip effectively keeps the foreign particles away from the gland area.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|--------|-------------------------|-------|------|-------|--------------------|------------------|------|------------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | h1 | Tol. |
| W006013030WN | 6.00 | -0.010 | 6.00 | 13.00 | 3.00 | 4.50 | 13.00 | +0.027 -0.000 | 3.00 | +0.500 -0.000 |
| W006014050WN | 6.00 | -0.028 | 6.00 | 14.00 | 5.00 | 8.00 | 14.00 | | 5.00 | |
| W008015030WN | 8.00 | -0.013 | 8.00 | 15.00 | 3.00 | 4.50 | 15.00 | | 3.00 | |
| W008016050WN | 8.00 | -0.035 | 8.00 | 16.00 | 5.00 | 8.00 | 16.00 | | 5.00 | |
| W008018060WN | 8.00 | | 8.00 | 18.00 | 6.00 | 9.00 | 18.00 | ▼ | 6.00 | |
| W008022030WN | 8.00 | | 8.00 | 22.00 | 3.00 | 4.50 | 22.00 | +0.033/-0.000 | 3.00 | |
| W008140035WN | 8.00 | | 8.00 | 14.00 | 3.50 | 5.00 | 14.00 | +0.027 -0.000 | 3.50 | |
| W010016030WN | 10.00 | | 10.00 | 16.00 | 3.00 | 4.50 | 16.00 | | 3.00 | |
| W010016050WN | 10.00 | | 10.00 | 16.00 | 5.00 | 8.00 | 16.00 | | 5.00 | |
| W010018050WN | 10.00 | | 10.00 | 18.00 | 5.00 | 8.00 | 18.00 | ▼ | 5.00 | |
| W010020050WN | 10.00 | ▼ | 10.00 | 20.00 | 5.00 | 8.00 | 20.00 | +0.033/-0.000 | 5.00 | |
| W012018030WN | 12.00 | -0.016 | 12.00 | 18.00 | 3.00 | 4.50 | 18.00 | +0.027/-0.000 | 3.00 | |
| W012020040WN | 12.00 | -0.043 | 12.00 | 20.00 | 4.00 | 6.00 | 20.00 | +0.033 -0.000 | 4.00 | |
| W012022050WN | 12.00 | | 12.00 | 22.00 | 5.00 | 8.00 | 22.00 | | 5.00 | |
| W012022070WN | 12.00 | | 12.00 | 22.00 | 7.00 | 10.00 | 22.00 | | 7.00 | |
| W012025050WN | 12.00 | | 12.00 | 25.00 | 5.00 | 8.00 | 25.00 | | 5.00 | |
| W014020030WN | 14.00 | | 14.00 | 20.00 | 3.00 | 4.50 | 20.00 | | 3.00 | |
| W014020035WN | 14.00 | | 14.00 | 20.00 | 3.50 | 5.00 | 20.00 | | 3.50 | |
| W014020040WN | 14.00 | | 14.00 | 20.00 | 4.00 | 6.00 | 20.00 | | 4.00 | |
| W014022030WN | 14.00 | | 14.00 | 22.00 | 3.00 | 4.50 | 22.00 | | 3.00 | |
| W014024070WN | 14.00 | | 14.00 | 24.00 | 7.00 | 10.00 | 24.00 | | 7.00 | |
| W014025050WN | 14.00 | ▼ | 14.00 | 25.00 | 5.00 | 8.00 | 25.00 | ▼ | 5.00 | ▼ |



WN series - NBR/STEEL

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|----------------|-------------------------|-------|------|-------|--------------------|----------------|------|----------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | h1 | Tol. |
| W015025050WN | 15.00 | -.016 -.043 | 15.00 | 25.00 | 5.00 | 8.00 | 25.00 | +.033 -.000 | 5.00 | +.500 -.000 |
| W015025070WN | 15.00 | | 15.00 | 25.00 | 7.00 | 10.00 | 25.00 | | 7.00 | |
| W016022030WN | 16.00 | | 16.00 | 22.00 | 3.00 | 4.50 | 22.00 | | 3.00 | |
| W016022035WN | 16.00 | | 16.00 | 22.00 | 3.50 | 5.00 | 22.00 | | 3.50 | |
| W016022040WN | 16.00 | | 16.00 | 22.00 | 4.00 | 6.00 | 22.00 | | 4.00 | |
| W016022050WN | 16.00 | | 16.00 | 22.00 | 5.00 | 8.00 | 22.00 | | 5.00 | |
| W016024030WN | 16.00 | | 16.00 | 24.00 | 3.00 | 4.50 | 24.00 | | 3.00 | |
| W016026050WN | 16.00 | | 16.00 | 26.00 | 5.00 | 8.00 | 26.00 | | 5.00 | |
| W016026070WN | 16.00 | | 16.00 | 26.00 | 7.00 | 10.00 | 26.00 | | 7.00 | |
| W017022050WN | 17.00 | | 17.00 | 22.00 | 5.00 | 8.00 | 22.00 | | 5.00 | |
| W018026030WN | 18.00 | | 18.00 | 26.00 | 3.00 | 4.50 | 26.00 | | 3.00 | |
| W018026050WN | 18.00 | | 18.00 | 26.00 | 5.00 | 7.00 | 26.00 | | 5.00 | |
| W018028050WN | 18.00 | | 18.00 | 28.00 | 5.00 | 8.00 | 28.00 | | 5.00 | |
| W018028070WN | 18.00 | | 18.00 | 28.00 | 7.00 | 10.00 | 28.00 | ▼ | 7.00 | |
| W018035050WN | 18.00 | ▼ | 18.00 | 35.00 | 5.00 | 8.00 | 35.00 | +.039/- .000 | 5.00 | |
| W019027064WN | 19.00 | -.020 -.053 | 19.00 | 27.00 | 6.40 | 9.50 | 27.00 | +.033 -.000 | 6.40 | |
| W020026040WN | 20.00 | | 20.00 | 26.00 | 4.00 | 6.00 | 26.00 | | 4.00 | |
| W020026050WN | 20.00 | | 20.00 | 26.00 | 5.00 | 8.00 | 26.00 | | 5.00 | |
| W020028035WN | 20.00 | | 20.00 | 28.00 | 3.50 | 5.00 | 28.00 | | 3.50 | |
| W020028050WN | 20.00 | | 20.00 | 28.00 | 5.00 | 8.00 | 28.00 | | 5.00 | |
| W020030040WN | 20.00 | | 20.00 | 30.00 | 4.00 | 6.00 | 30.00 | | 4.00 | |
| W020030050WN | 20.00 | | 20.00 | 30.00 | 5.00 | 8.00 | 30.00 | | 5.00 | |
| W020030070WN | 20.00 | | 20.00 | 30.00 | 7.00 | 10.00 | 30.00 | ▼ | 7.00 | |
| W020035070WN | 20.00 | | 20.00 | 35.00 | 7.00 | 10.00 | 35.00 | +.039/- .000 | 7.00 | |
| W021028035WN | 21.00 | | 21.00 | 28.00 | 3.50 | 5.00 | 28.00 | +.033 -.000 | 3.50 | |
| W022028050WN | 22.00 | | 22.00 | 28.00 | 5.00 | 8.00 | 28.00 | | 5.00 | |
| W022030050WN | 22.00 | | 22.00 | 30.00 | 5.00 | 8.00 | 30.00 | ▼ | 5.00 | |
| W022032050WN | 22.00 | | 22.00 | 32.00 | 5.00 | 8.00 | 32.00 | +.039 -.000 | 5.00 | |
| W022032070WN | 22.00 | | 22.00 | 32.00 | 7.00 | 10.00 | 32.00 | | 7.00 | |
| W022035050WN | 22.00 | | 22.00 | 35.00 | 5.00 | 8.00 | 35.00 | | 5.00 | |
| W022035070WN | 22.00 | | 22.00 | 35.00 | 7.00 | 10.00 | 35.00 | | 7.00 | |
| W022038050WN | 22.00 | | 22.00 | 38.00 | 5.00 | 8.00 | 38.00 | | 5.00 | |
| W024032050WN | 24.00 | | 24.00 | 32.00 | 5.00 | 7.00 | 32.00 | | 5.00 | |
| W024035070WN | 24.00 | | 24.00 | 35.00 | 7.00 | 10.00 | 35.00 | | 7.00 | |
| W024037070WN | 24.00 | | 24.00 | 37.00 | 7.00 | 10.00 | 37.00 | | 7.00 | |
| W025035030WN | 25.00 | | 25.00 | 35.00 | 3.00 | 4.50 | 35.00 | | 3.00 | |
| W025035050WN | 25.00 | | 25.00 | 35.00 | 5.00 | 8.00 | 35.00 | | 5.00 | |
| W025035070WN | 25.00 | | 25.00 | 35.00 | 7.00 | 10.00 | 35.00 | | 7.00 | |
| W026034050WN | 26.00 | | 26.00 | 34.00 | 5.00 | 8.00 | 34.00 | | 5.00 | |
| W028038050WN | 28.00 | | 28.00 | 38.00 | 5.00 | 8.00 | 38.00 | | 5.00 | |
| W028038070WN | 28.00 | | 28.00 | 38.00 | 7.00 | 10.00 | 38.00 | | 7.00 | |
| W028040070WN | 28.00 | | 28.00 | 40.00 | 7.00 | 10.00 | 40.00 | | 7.00 | |
| W029040070WN | 29.50 | | 29.50 | 40.00 | 7.00 | 10.00 | 40.00 | | 7.00 | |
| W030040050WN | 30.00 | | 30.00 | 40.00 | 5.00 | 7.00 | 40.00 | | 5.00 | |
| W030040070WN | 30.00 | | 30.00 | 40.00 | 7.00 | 10.00 | 40.00 | | 7.00 | |
| W030042050WN | 30.00 | ▼ | 30.00 | 42.00 | 5.00 | 8.00 | 42.00 | ▼ | 5.00 | ▼ |

WN series - NBR/STEEL



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|------------------|-------------------------|-------|------|-------|--------------------|------------------|------|------------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | h1 | Tol. |
| W030042070WN | 30.00 | -0.020 -0.053 | 30.00 | 42.00 | 7.00 | 10.00 | 42.00 | +0.039 -0.000 | 7.00 | +0.500 -0.000 |
| W030045050WN | 30.00 | | 30.00 | 45.00 | 5.00 | 8.00 | 45.00 | | 5.00 | |
| W030045070WN | 30.00 | ▼ | 30.00 | 45.00 | 7.00 | 10.00 | 45.00 | | 7.00 | |
| W032040040WN | 32.00 | -0.025 -0.064 | 32.00 | 40.00 | 4.00 | 6.00 | 40.00 | | 4.00 | |
| W032040070WN | 32.00 | | 32.00 | 40.00 | 7.00 | 10.00 | 40.00 | | 7.00 | |
| W032042050WN | 32.00 | | 32.00 | 42.00 | 5.00 | 8.00 | 42.00 | | 5.00 | |
| W032042070WN | 32.00 | | 32.00 | 42.00 | 7.00 | 10.00 | 42.00 | | 7.00 | |
| W032045040WN | 32.00 | | 32.00 | 45.00 | 4.00 | 6.00 | 45.00 | | 4.00 | |
| W032045050WN | 32.00 | | 32.00 | 45.00 | 5.00 | 8.00 | 45.00 | | 5.00 | |
| W032045070WN | 32.00 | | 32.00 | 45.00 | 7.00 | 10.00 | 45.00 | | 7.00 | |
| W033043050WN | 33.00 | | 33.00 | 43.00 | 5.00 | 8.00 | 43.00 | | 5.00 | |
| W033043070WN | 33.00 | | 33.00 | 43.00 | 7.00 | 10.00 | 43.00 | | 7.00 | |
| W035045050WN | 35.00 | | 35.00 | 45.00 | 5.00 | 8.00 | 45.00 | | 5.00 | |
| W035045070WN | 35.00 | | 35.00 | 45.00 | 7.00 | 10.00 | 45.00 | | 7.00 | |
| W035047070WN | 35.00 | | 35.00 | 47.00 | 7.00 | 10.00 | 47.00 | | 7.00 | |
| W035050090WN | 35.00 | | 35.00 | 50.00 | 9.00 | 12.00 | 50.00 | ▼ | 9.00 | |
| W035052070WN | 35.00 | | 35.00 | 52.00 | 7.00 | 10.00 | 52.00 | +0.046/-0.000 | 7.00 | |
| W036045070WN | 36.00 | | 36.00 | 45.00 | 7.00 | 10.00 | 45.00 | +0.039 -0.000 | 7.00 | |
| W036046050WN | 36.00 | | 36.00 | 46.00 | 5.00 | 8.00 | 46.00 | | 5.00 | |
| W036046070WN | 36.00 | | 36.00 | 46.00 | 7.00 | 10.00 | 46.00 | | 7.00 | |
| W038048070WN | 38.00 | | 38.00 | 48.00 | 7.00 | 10.00 | 48.00 | | 7.00 | |
| W039050070WN | 39.50 | | 39.50 | 50.00 | 7.00 | 10.00 | 50.00 | | 7.00 | |
| W040050035WN | 40.00 | | 40.00 | 50.00 | 3.50 | 5.00 | 50.00 | | 3.50 | |
| W040050050WN | 40.00 | | 40.00 | 50.00 | 5.00 | 8.00 | 50.00 | | 5.00 | |
| W040050070WN | 40.00 | | 40.00 | 50.00 | 7.00 | 10.00 | 50.00 | ▼ | 7.00 | |
| W040052050WN | 40.00 | | 40.00 | 52.00 | 5.00 | 8.00 | 52.00 | +0.046 -0.000 | 5.00 | |
| W040052070WN | 40.00 | | 40.00 | 52.00 | 7.00 | 10.00 | 52.00 | | 7.00 | |
| W040055090WN | 40.00 | | 40.00 | 55.00 | 9.00 | 12.00 | 55.00 | | 9.00 | |
| W042052070WN | 42.00 | | 42.00 | 52.00 | 7.00 | 10.00 | 52.00 | | 7.00 | |
| W044055050WN | 44.00 | | 44.00 | 55.00 | 5.00 | 8.00 | 55.00 | | 5.00 | |
| W045055050WN | 45.00 | | 45.00 | 55.00 | 5.00 | 8.00 | 55.00 | | 5.00 | |
| W045055070WN | 45.00 | | 45.00 | 55.00 | 7.00 | 10.00 | 55.00 | | 7.00 | |
| W045060050WN | 45.00 | | 45.00 | 60.00 | 5.00 | 7.00 | 60.00 | | 5.00 | |
| W045060070WN | 45.00 | | 45.00 | 60.00 | 7.00 | 10.00 | 60.00 | | 7.00 | |
| W047057070WN | 47.00 | | 47.00 | 57.00 | 7.00 | 10.00 | 57.00 | | 7.00 | |
| W048060070WN | 48.00 | | 48.00 | 60.00 | 7.00 | 10.00 | 60.00 | | 7.00 | |
| W050056040WN | 50.00 | | 50.00 | 56.00 | 4.00 | 6.00 | 56.00 | | 4.00 | |
| W050056050WN | 50.00 | | 50.00 | 56.00 | 5.00 | 7.00 | 56.00 | | 5.00 | |
| W050060050WN | 50.00 | | 50.00 | 60.00 | 5.00 | 8.00 | 60.00 | | 5.00 | |
| W050060070WN | 50.00 | | 50.00 | 60.00 | 7.00 | 10.00 | 60.00 | | 7.00 | |
| W050065050WN | 50.00 | | 50.00 | 65.00 | 5.00 | 8.00 | 65.00 | | 5.00 | |
| W050065070WN | 50.00 | ▼ | 50.00 | 65.00 | 7.00 | 10.00 | 65.00 | | 7.00 | |
| W052062070WN | 52.00 | -0.030 -0.076 | 52.00 | 62.00 | 7.00 | 10.00 | 62.00 | | 7.00 | |
| W055063070WN | 55.00 | | 55.00 | 63.00 | 7.00 | 10.00 | 63.00 | | 7.00 | |
| W055065050WN | 55.00 | | 55.00 | 65.00 | 5.00 | 8.00 | 65.00 | | 5.00 | |
| W055065070WN | 55.00 | ▼ | 55.00 | 65.00 | 7.00 | 10.00 | 65.00 | ▼ | 7.00 | ▼ |



WN series - NBR/STEEL

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|------------------|-------------------------|--------|------|-------|--------------------|------------------|------|------------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | h1 | Tol. |
| W055080050WN | 55.00 | -0.030 -0.076 | 55.00 | 80.00 | 5.00 | 8.00 | 80.00 | +0.046 -0.000 | 5.00 | +0.500 -0.000 |
| W056065070WN | 56.00 | | 56.00 | 65.00 | 7.00 | 10.00 | 65.00 | | 7.00 | |
| W056066050WN | 56.00 | | 56.00 | 66.00 | 5.00 | 8.00 | 66.00 | | 5.00 | |
| W056066070WN | 56.00 | | 56.00 | 66.00 | 7.00 | 10.00 | 66.00 | | 7.00 | |
| W060068050WN | 60.00 | | 60.00 | 68.00 | 5.00 | 8.00 | 68.00 | | 5.00 | |
| W060070050WN | 60.00 | | 60.00 | 70.00 | 5.00 | 8.00 | 70.00 | | 5.00 | |
| W060070070WN | 60.00 | | 60.00 | 70.00 | 7.00 | 10.00 | 70.00 | | 7.00 | |
| W060074050WN | 60.00 | | 60.00 | 74.00 | 5.00 | 8.00 | 74.00 | | 5.00 | |
| W060075070WN | 60.00 | | 60.00 | 75.00 | 7.00 | 10.00 | 75.00 | | 7.00 | |
| W060080070WN | 60.00 | | 60.00 | 80.00 | 7.00 | 10.00 | 80.00 | | 7.00 | |
| W061072070WN | 61.00 | | 61.00 | 72.00 | 7.00 | 10.00 | 72.00 | | 7.00 | |
| W063072070WN | 63.00 | | 63.00 | 72.00 | 7.00 | 10.00 | 72.00 | | 7.00 | |
| W063073060WN | 63.00 | | 63.00 | 73.00 | 6.00 | 9.00 | 73.00 | | 6.00 | |
| W063073070WN | 63.00 | | 63.00 | 73.00 | 7.00 | 10.00 | 73.00 | | 7.00 | |
| W063075070WN | 63.00 | | 63.00 | 75.00 | 7.00 | 10.00 | 75.00 | ▼ | 7.00 | |
| W063083050WN | 63.00 | | 63.00 | 83.00 | 5.00 | 8.00 | 83.00 | +0.054/-0.000 | 5.00 | |
| W065075050WN | 65.00 | | 65.00 | 75.00 | 5.00 | 8.00 | 75.00 | +0.046 -0.000 | 5.00 | |
| W065075070WN | 65.00 | | 65.00 | 75.00 | 7.00 | 10.00 | 75.00 | | 7.00 | |
| W070080050WN | 70.00 | | 70.00 | 80.00 | 5.00 | 8.00 | 80.00 | | 5.00 | |
| W070080070WN | 70.00 | | 70.00 | 80.00 | 7.00 | 10.00 | 80.00 | ▼ | 7.00 | |
| W072082070WN | 72.00 | | 72.00 | 82.00 | 7.00 | 10.00 | 82.00 | +0.054 -0.000 | 7.00 | |
| W073089070WN | 73.00 | | 73.00 | 89.00 | 7.00 | 10.00 | 89.00 | | 7.00 | |
| W075085070WN | 75.00 | | 75.00 | 85.00 | 7.00 | 10.00 | 85.00 | | 7.00 | |
| W075087050WN | 75.00 | | 75.00 | 87.00 | 5.00 | 8.00 | 87.00 | | 5.00 | |
| W075087070WN | 75.00 | | 75.00 | 87.00 | 7.00 | 10.00 | 87.00 | | 7.00 | |
| W078088070WN | 78.00 | | 78.00 | 88.00 | 7.00 | 10.00 | 88.00 | | 7.00 | |
| W080090070WN | 80.00 | ▼ | 80.00 | 90.00 | 7.00 | 10.00 | 90.00 | | 7.00 | |
| W082092070WN | 82.00 | -0.036 -0.090 | 82.00 | 92.00 | 7.00 | 10.00 | 92.00 | | 7.00 | |
| W084094050WN | 84.00 | | 84.00 | 94.00 | 5.00 | 8.00 | 94.00 | | 5.00 | |
| W085095070WN | 85.00 | | 85.00 | 95.00 | 7.00 | 10.00 | 95.00 | | 7.00 | |
| W090100050WN | 90.00 | | 90.00 | 100.00 | 5.00 | 8.00 | 100.00 | | 5.00 | |
| W090100070WN | 90.00 | | 90.00 | 100.00 | 7.00 | 10.00 | 100.00 | | 7.00 | |
| W095105070WN | 95.00 | | 95.00 | 105.00 | 7.00 | 10.00 | 105.00 | | 7.00 | |
| W095106070WN | 95.00 | | 95.00 | 106.00 | 7.00 | 10.00 | 106.00 | | 7.00 | |
| W100110050WN | 100.00 | | 100.00 | 110.00 | 5.00 | 8.00 | 110.00 | | 5.00 | |
| W100110070WN | 100.00 | | 100.00 | 110.00 | 7.00 | 10.00 | 110.00 | | 7.00 | |
| W100115080WN | 100.00 | | 100.00 | 115.00 | 8.00 | 12.00 | 115.00 | | 8.00 | |
| W100115090WN | 100.00 | | 100.00 | 115.00 | 9.00 | 12.00 | 115.00 | | 9.00 | |
| W105115070WN | 105.00 | | 105.00 | 115.00 | 7.00 | 10.00 | 115.00 | | 7.00 | |
| W108120070WN | 108.00 | | 108.00 | 120.00 | 7.00 | 10.00 | 120.00 | | 7.00 | |
| W110120070WN | 110.00 | | 110.00 | 120.00 | 7.00 | 10.00 | 120.00 | ▼ | 7.00 | |
| W110125090WN | 110.00 | | 110.00 | 125.00 | 9.00 | 12.00 | 125.00 | +0.063 -0.000 | 9.00 | |
| W115125070WN | 115.00 | | 115.00 | 125.00 | 7.00 | 10.00 | 125.00 | | 7.00 | |
| W120130070WN | 120.00 | ▼ | 120.00 | 130.00 | 7.00 | 10.00 | 130.00 | | 7.00 | |
| W123147090WN | 123.00 | -0.043 -0.106 | 123.00 | 147.00 | 9.00 | 12.00 | 147.00 | | 9.00 | |
| W125140070WN | 125.00 | | 125.00 | 140.00 | 7.00 | 10.00 | 140.00 | ▼ | 7.00 | ▼ |

WN series - NBR/STEEL



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|----------------|-------------------------|--------|-------|-------|--------------------|----------------|-------|----------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | h1 | Tol. |
| W125140090WN | 125.00 | -.043 -.106 | 125.00 | 140.00 | 9.00 | 12.00 | 140.00 | +.063 -.000 | 9.00 | +.500 -.000 |
| W130140070WN | 130.00 | | 130.00 | 140.00 | 7.00 | 10.00 | 140.00 | | 7.00 | |
| W130145090WN | 130.00 | | 130.00 | 145.00 | 9.00 | 12.00 | 145.00 | | 9.00 | |
| W135145070WN | 135.00 | | 135.00 | 145.00 | 7.00 | 10.00 | 145.00 | | 7.00 | |
| W135150090WN | 135.00 | | 135.00 | 150.00 | 9.00 | 12.00 | 150.00 | | 9.00 | |
| W140150070WN | 140.00 | | 140.00 | 150.00 | 7.00 | 10.00 | 150.00 | | 7.00 | |
| W140155090WN | 140.00 | | 140.00 | 155.00 | 9.00 | 12.00 | 155.00 | | 9.00 | |
| W145160090WN | 145.00 | | 145.00 | 160.00 | 9.00 | 12.00 | 160.00 | | 9.00 | |
| W145165010WN | 145.00 | | 145.00 | 165.00 | 10.00 | 14.00 | 165.00 | | 10.00 | |
| W150165090WN | 150.00 | | 150.00 | 165.00 | 9.00 | 12.00 | 165.00 | | 9.00 | |
| W150166080WN | 150.00 | | 150.00 | 166.00 | 8.00 | 12.00 | 166.00 | | 8.00 | |
| W160175090WN | 160.00 | | 160.00 | 175.00 | 9.00 | 12.00 | 175.00 | | 9.00 | |
| W160176080WN | 160.00 | | 160.00 | 176.00 | 8.00 | 12.00 | 176.00 | | 8.00 | |
| W163175070WN | 163.00 | | 163.00 | 175.00 | 7.00 | 10.00 | 175.00 | | 7.00 | |
| W165180090WN | 165.00 | | 165.00 | 180.00 | 9.00 | 12.00 | 180.00 | | 9.00 | |
| W165180120WN | 165.00 | | 165.00 | 180.00 | 12.00 | 16.00 | 180.00 | ▼ | 12.00 | |
| W170185100WN | 170.00 | | 170.00 | 185.00 | 10.00 | 14.00 | 185.00 | +.072 -.000 | 10.00 | |
| W175190090WN | 175.00 | | 175.00 | 190.00 | 9.00 | 12.00 | 190.00 | | 9.00 | |
| W180195100WN | 180.00 | ▼ | 180.00 | 195.00 | 10.00 | 14.00 | 195.00 | | 10.00 | |
| W185200100WN | 185.00 | -.050 -.122 | 185.00 | 200.00 | 10.00 | 14.00 | 200.00 | | 10.00 | |
| W185201080WN | 185.00 | | 185.00 | 201.00 | 8.00 | 12.00 | 201.00 | | 8.00 | |
| W200215090WN | 200.00 | | 200.00 | 215.00 | 9.00 | 12.00 | 215.00 | | 9.00 | |
| W200220100WN | 200.00 | | 200.00 | 220.00 | 10.00 | 14.00 | 220.00 | | 10.00 | |
| W200220120WN | 200.00 | | 200.00 | 220.00 | 12.00 | 16.00 | 220.00 | | 12.00 | |
| W210230100WN | 210.00 | | 210.00 | 230.00 | 10.00 | 14.00 | 230.00 | | 10.00 | |
| W210230120WN | 210.00 | | 210.00 | 230.00 | 12.00 | 16.00 | 230.00 | | 12.00 | |
| W220240090WN | 220.00 | | 220.00 | 240.00 | 9.00 | 12.00 | 240.00 | | 9.00 | |
| W220240120WN | 220.00 | | 220.00 | 240.00 | 12.00 | 16.00 | 240.00 | | 12.00 | |
| W230246080WN | 230.00 | | 230.00 | 246.50 | 8.00 | 12.00 | 246.50 | ▼ | 8.00 | |
| W240260120WN | 240.00 | | 240.00 | 260.00 | 12.00 | 16.00 | 260.00 | +.081 -.000 | 12.00 | |
| W250270120WN | 250.00 | ▼ | 250.00 | 270.00 | 12.00 | 16.00 | 270.00 | | 12.00 | |
| W275300120WN | 275.00 | -.056 -.137 | 275.00 | 300.00 | 12.00 | 16.00 | 300.00 | | 12.00 | |
| W280300120WN | 280.00 | | 280.00 | 300.00 | 12.00 | 16.00 | 300.00 | ▼ | 12.00 | |
| W320340120WN | 320.00 | -.062 -.151 | 320.00 | 340.00 | 12.00 | 16.00 | 340.00 | +.089 -.000 | 12.00 | |
| W360380120WN | 360.00 | | 360.00 | 380.00 | 12.00 | 16.00 | 380.00 | | 12.00 | |
| W400420120WN | 400.00 | -.068/- .165 | 400.00 | 420.00 | 12.00 | 16.00 | 420.00 | +.097/- .000 | 12.00 | ▼ |

Markets segments we are servicing



Power Tools



Power Transmission



Pulp & Paper



Railway

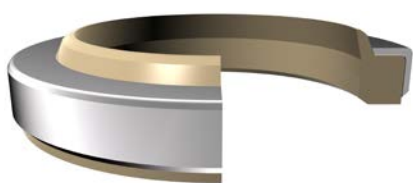


Recreational

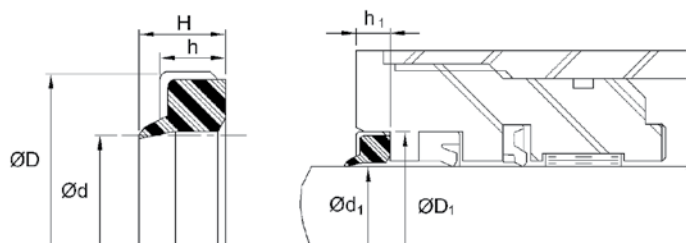


Truck & Bus Tier

WO - Rod wipers - Metric



| Standard Material | Temperature Range | Surface Speed |
|--------------------|--------------------------------------|--------------------|
| Polyurethane/Steel | -40°F to +212°F (-40°C to +100°C) | < 3.3 ft/s (1 m/s) |



Manufactured from highly abrasion resistant polyurethane and bonded to a metal case, this press-in wiper is used to wipe and scrape tough materials especially on mobile construction equipment.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|--------|-------------------------|-------|------|-------|--------------------|---------------|------|--------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | h1 | Tol. |
| W008014035WO | 8.00 | -0.013 | 8.00 | 14.00 | 3.50 | 5.00 | 14.00 | +0.027 | 3.50 | +0.500 |
| W008018050WO | 8.00 | -0.035 | 8.00 | 18.00 | 5.00 | 7.00 | 18.00 | -0.000 | 5.00 | -0.000 |
| W009019050WO | 9.00 | | 9.00 | 19.00 | 5.00 | 7.00 | 19.00 | +0.033/-0.000 | 5.00 | |
| W010016035WO | 10.00 | | 10.00 | 16.00 | 3.50 | 5.00 | 16.00 | +0.027 | 3.50 | |
| W010018050WO | 10.00 | | 10.00 | 18.00 | 5.00 | 8.00 | 18.00 | -0.000 | 5.00 | |
| W010020050WO | 10.00 | ▼ | 10.00 | 20.00 | 5.00 | 8.00 | 20.00 | +0.033/-0.000 | 5.00 | |
| W012018035WO | 12.00 | -0.016 | 12.00 | 18.00 | 3.50 | 5.00 | 18.00 | +0.027 | 3.50 | |
| W012018040WO | 12.00 | -0.043 | 12.00 | 18.00 | 4.00 | 6.00 | 18.00 | -0.000 | 4.00 | |
| W012020040WO | 12.00 | | 12.00 | 20.00 | 4.00 | 6.00 | 20.00 | +0.033 | 4.00 | |
| W012022050WO | 12.00 | | 12.00 | 22.00 | 5.00 | 8.00 | 22.00 | -0.000 | 5.00 | |
| W014020035WO | 14.00 | | 14.00 | 20.00 | 3.50 | 5.00 | 20.00 | | 3.50 | |
| W014024050WO | 14.00 | | 14.00 | 24.00 | 5.00 | 7.00 | 24.00 | | 5.00 | |
| W015021035WO | 15.00 | | 15.00 | 21.00 | 3.50 | 5.00 | 21.00 | | 3.50 | |
| W015025050WO | 15.00 | | 15.00 | 25.00 | 5.00 | 8.00 | 25.00 | | 5.00 | |
| W016022030WO | 16.00 | | 16.00 | 22.00 | 3.00 | 4.50 | 22.00 | | 3.00 | |
| W016022035WO | 16.00 | | 16.00 | 22.00 | 3.50 | 5.00 | 22.00 | | 3.50 | |
| W016022040WO | 16.00 | | 16.00 | 22.00 | 4.00 | 6.00 | 22.00 | | 4.00 | |
| W016026050WO | 16.00 | | 16.00 | 26.00 | 5.00 | 8.00 | 26.00 | | 5.00 | |
| W017024035WO | 17.00 | | 17.00 | 24.00 | 3.50 | 5.00 | 24.00 | | 3.50 | |
| W018028050WO | 18.00 | | 18.00 | 28.00 | 5.00 | 8.00 | 28.00 | | 5.00 | |
| W018028070WO | 18.00 | | 18.00 | 28.00 | 7.00 | 10.00 | 28.00 | | 7.00 | |
| W018030060WO | 18.00 | ▼ | 18.00 | 30.00 | 6.00 | 9.00 | 30.00 | ▼ | 6.00 | ▼ |

WO series - AU/STEEL



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|------------------|-------------------------|-------|------|-------|--------------------|------------------|------|------------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | h1 | Tol. |
| W020026050WO | 20.00 | -0.020 -0.053 | 20.00 | 26.00 | 5.00 | 8.00 | 26.00 | +0.033 -0.000 | 5.00 | +0.500 -0.000 |
| W020028035WO | 20.00 | | 20.00 | 28.00 | 3.50 | 5.00 | 28.00 | | 3.50 | |
| W020030050WO | 20.00 | | 20.00 | 30.00 | 5.00 | 8.00 | 30.00 | ▼ | 5.00 | |
| W020032060WO | 20.00 | | 20.00 | 32.00 | 6.00 | 9.00 | 32.00 | +0.039/-0.000 | 6.00 | |
| W022028050WO | 22.00 | | 22.00 | 28.00 | 5.00 | 8.00 | 28.00 | +0.033/-0.000 | 5.00 | |
| W022032050WO | 22.00 | | 22.00 | 32.00 | 5.00 | 8.00 | 32.00 | +0.039 -0.000 | 5.00 | |
| W022032070WO | 22.00 | | 22.00 | 32.00 | 7.00 | 10.00 | 32.00 | | 7.00 | |
| W024035050WO | 24.00 | | 24.00 | 35.00 | 5.00 | 8.00 | 35.00 | | 5.00 | |
| W025032050WO | 25.00 | | 25.00 | 32.00 | 5.00 | 8.00 | 32.00 | | 5.00 | |
| W025035050WO | 25.00 | | 25.00 | 35.00 | 5.00 | 8.00 | 35.00 | | 5.00 | |
| W025035070WO | 25.00 | | 25.00 | 35.00 | 7.00 | 10.00 | 35.00 | | 7.00 | |
| W025037060WO | 25.00 | | 25.00 | 37.00 | 6.00 | 9.00 | 37.00 | | 6.00 | |
| W026034050WO | 26.00 | | 26.00 | 34.00 | 5.00 | 8.00 | 34.00 | | 5.00 | |
| W027039060WO | 27.00 | | 27.00 | 39.00 | 6.00 | 9.00 | 39.00 | | 6.00 | |
| W028038050WO | 28.00 | | 28.00 | 38.00 | 5.00 | 8.00 | 38.00 | | 5.00 | |
| W028038070WO | 28.00 | | 28.00 | 38.00 | 7.00 | 10.00 | 38.00 | | 7.00 | |
| W028040060WO | 28.00 | | 28.00 | 40.00 | 6.00 | 9.00 | 40.00 | | 6.00 | |
| W028040070WO | 28.00 | | 28.00 | 40.00 | 7.00 | 10.00 | 40.00 | | 7.00 | |
| W030040050WO | 30.00 | | 30.00 | 40.00 | 5.00 | 8.00 | 40.00 | | 5.00 | |
| W030040070WO | 30.00 | | 30.00 | 40.00 | 7.00 | 10.00 | 40.00 | | 7.00 | |
| W030042060WO | 30.00 | | 30.00 | 42.00 | 6.00 | 9.00 | 42.00 | | 6.00 | |
| W030045050WO | 30.00 | ▼ | 30.00 | 45.00 | 5.00 | 8.00 | 45.00 | | 5.00 | |
| W032042050WO | 32.00 | -0.025 -0.064 | 32.00 | 42.00 | 5.00 | 8.00 | 42.00 | | 5.00 | |
| W032042070WO | 32.00 | | 32.00 | 42.00 | 7.00 | 10.00 | 42.00 | | 7.00 | |
| W032044070WO | 32.00 | | 32.00 | 44.00 | 7.00 | 10.00 | 44.00 | | 7.00 | |
| W032045070WO | 32.00 | | 32.00 | 45.00 | 7.00 | 10.00 | 45.00 | | 7.00 | |
| W033043070WO | 33.00 | | 33.00 | 43.00 | 7.00 | 10.00 | 43.00 | | 7.00 | |
| W035045070WO | 35.00 | | 35.00 | 45.00 | 7.00 | 10.00 | 45.00 | | 7.00 | |
| W035047070WO | 35.00 | | 35.00 | 47.00 | 7.00 | 10.00 | 47.00 | | 7.00 | |
| W036045050WO | 36.00 | | 36.00 | 45.00 | 5.00 | 8.00 | 45.00 | | 5.00 | |
| W036045070WO | 36.00 | | 36.00 | 45.00 | 7.00 | 10.00 | 45.00 | | 7.00 | |
| W036046050WO | 36.00 | | 36.00 | 46.00 | 5.00 | 8.00 | 46.00 | | 5.00 | |
| W036050070WO | 36.00 | | 36.00 | 50.00 | 7.00 | 10.00 | 50.00 | | 7.00 | |
| W038048070WO | 38.00 | | 38.00 | 48.00 | 7.00 | 10.00 | 48.00 | | 7.00 | |
| W038050070WO | 38.00 | | 38.00 | 50.00 | 7.00 | 10.00 | 50.00 | | 7.00 | |
| W040050050WO | 40.00 | | 40.00 | 50.00 | 5.00 | 8.00 | 50.00 | | 5.00 | |
| W040050070WO | 40.00 | | 40.00 | 50.00 | 7.00 | 10.00 | 50.00 | ▼ | 7.00 | |
| W040052070WO | 40.00 | | 40.00 | 52.00 | 7.00 | 10.00 | 52.00 | +0.046 -0.000 | 7.00 | |
| W040060070WO | 40.00 | | 40.00 | 60.00 | 7.00 | 10.00 | 60.00 | | 7.00 | |
| W042052050WO | 42.00 | | 42.00 | 52.00 | 5.00 | 8.00 | 52.00 | | 5.00 | |
| W042052070WO | 42.00 | | 42.00 | 52.00 | 7.00 | 10.00 | 52.00 | | 7.00 | |
| W045055050WO | 45.00 | | 45.00 | 55.00 | 5.00 | 8.00 | 55.00 | | 5.00 | |
| W045055070WO | 45.00 | | 45.00 | 55.00 | 7.00 | 10.00 | 55.00 | | 7.00 | |
| W045057070WO | 45.00 | | 45.00 | 57.00 | 7.00 | 10.00 | 57.00 | | 7.00 | |
| W045060070WO | 45.00 | | 45.00 | 60.00 | 7.00 | 10.00 | 60.00 | | 7.00 | |
| W047059070WO | 47.00 | ▼ | 47.00 | 59.00 | 7.00 | 10.00 | 59.00 | ▼ | 7.00 | ▼ |



WO series - AU/STEEL

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|----------------|-------------------------|--------|-------|-------|--------------------|---------------|-------|---------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | h1 | Tol. |
| W048060070W0 | 48.00 | -.025 -.064 | 48.00 | 60.00 | 7.00 | 10.00 | 60.00 | +046 -.000 | 7.00 | +500 -.000 |
| W048062070W0 | 48.00 | | 48.00 | 62.00 | 7.00 | 10.00 | 62.00 | | 7.00 | |
| W050056050W0 | 50.00 | | 50.00 | 56.00 | 5.00 | 8.00 | 56.00 | | 5.00 | |
| W050060050W0 | 50.00 | | 50.00 | 60.00 | 5.00 | 8.00 | 60.00 | | 5.00 | |
| W050060070W0 | 50.00 | | 50.00 | 60.00 | 7.00 | 10.00 | 60.00 | | 7.00 | |
| W050062050W0 | 50.00 | | 50.00 | 62.00 | 5.00 | 8.00 | 62.00 | | 5.00 | |
| W050062070W0 | 50.00 | ▼ | 50.00 | 62.00 | 7.00 | 10.00 | 62.00 | | 7.00 | |
| W052062070W0 | 52.00 | -.030 -.076 | 52.00 | 62.00 | 7.00 | 10.00 | 62.00 | | 7.00 | |
| W053067080W0 | 53.00 | | 53.00 | 67.00 | 8.00 | 11.00 | 67.00 | | 8.00 | |
| W055063070W0 | 55.00 | | 55.00 | 63.00 | 7.00 | 10.00 | 63.00 | | 7.00 | |
| W055065050W0 | 55.00 | | 55.00 | 65.00 | 5.00 | 8.00 | 65.00 | | 5.00 | |
| W055065070W0 | 55.00 | | 55.00 | 65.00 | 7.00 | 10.00 | 65.00 | | 7.00 | |
| W055069080W0 | 55.00 | | 55.00 | 69.00 | 8.00 | 11.00 | 69.00 | | 8.00 | |
| W056066050W0 | 56.00 | | 56.00 | 66.00 | 5.00 | 8.00 | 66.00 | | 5.00 | |
| W056066070W0 | 56.00 | | 56.00 | 66.00 | 7.00 | 10.00 | 66.00 | | 7.00 | |
| W056070080W0 | 56.00 | | 56.00 | 70.00 | 8.00 | 11.00 | 70.00 | | 8.00 | |
| W060070050W0 | 60.00 | | 60.00 | 70.00 | 5.00 | 8.00 | 70.00 | | 5.00 | |
| W060070070W0 | 60.00 | | 60.00 | 70.00 | 7.00 | 10.00 | 70.00 | | 7.00 | |
| W060074050W0 | 60.00 | | 60.00 | 74.00 | 5.00 | 8.00 | 74.00 | | 5.00 | |
| W060074080W0 | 60.00 | | 60.00 | 74.00 | 8.00 | 11.00 | 74.00 | | 8.00 | |
| W060080070W0 | 60.00 | | 60.00 | 80.00 | 7.00 | 10.00 | 80.00 | | 7.00 | |
| W060080100W0 | 60.00 | | 60.00 | 80.00 | 10.00 | 13.00 | 80.00 | | 10.00 | |
| W063073050W0 | 63.00 | | 63.00 | 73.00 | 5.00 | 8.00 | 73.00 | | 5.00 | |
| W063075070W0 | 63.00 | | 63.00 | 75.00 | 7.00 | 10.00 | 75.00 | | 7.00 | |
| W063077080W0 | 63.00 | | 63.00 | 77.00 | 8.00 | 11.00 | 77.00 | | 8.00 | |
| W064078080W0 | 64.00 | | 64.00 | 78.00 | 8.00 | 11.00 | 78.00 | | 8.00 | |
| W065075050W0 | 65.00 | | 65.00 | 75.00 | 5.00 | 8.00 | 75.00 | | 5.00 | |
| W065075070W0 | 65.00 | | 65.00 | 75.00 | 7.00 | 10.00 | 75.00 | | 7.00 | |
| W065079080W0 | 65.00 | | 65.00 | 79.00 | 8.00 | 11.00 | 79.00 | ▼ | 8.00 | |
| W067081080W0 | 67.00 | | 67.00 | 81.00 | 8.00 | 11.00 | 81.00 | +054/-000 | 8.00 | |
| W070080050W0 | 70.00 | | 70.00 | 80.00 | 5.00 | 8.00 | 80.00 | +046 -.000 | 5.00 | |
| W070080070W0 | 70.00 | | 70.00 | 80.00 | 7.00 | 10.00 | 80.00 | | 7.00 | |
| W070084080W0 | 70.00 | | 70.00 | 84.00 | 8.00 | 11.00 | 84.00 | +054 -.000 | 8.00 | |
| W070086105W0 | 70.00 | | 70.00 | 86.00 | 10.50 | 13.50 | 86.00 | | 10.50 | |
| W070090100W0 | 70.00 | | 70.00 | 90.00 | 10.00 | 13.00 | 90.00 | | 10.00 | |
| W071085080W0 | 71.00 | | 71.00 | 85.00 | 8.00 | 11.00 | 85.00 | | 8.00 | |
| W075083070W0 | 75.00 | | 75.00 | 83.00 | 7.00 | 10.00 | 83.00 | | 7.00 | |
| W075085070W0 | 75.00 | | 75.00 | 85.00 | 7.00 | 10.00 | 85.00 | | 7.00 | |
| W075089080W0 | 75.00 | | 75.00 | 89.00 | 8.00 | 11.00 | 89.00 | | 8.00 | |
| W077087070W0 | 77.00 | | 77.00 | 87.00 | 7.00 | 10.00 | 87.00 | | 7.00 | |
| W080088070W0 | 80.00 | | 80.00 | 88.00 | 7.00 | 10.00 | 88.00 | | 7.00 | |
| W080090070W0 | 80.00 | | 80.00 | 90.00 | 7.00 | 10.00 | 90.00 | | 7.00 | |
| W080094080W0 | 80.00 | | 80.00 | 94.00 | 8.00 | 11.00 | 94.00 | | 8.00 | |
| W080100120W0 | 80.00 | | 80.00 | 100.00 | 12.00 | 15.00 | 100.00 | | 12.00 | |
| W082092070W0 | 82.00 | ▼ | 82.00 | 92.00 | 7.00 | 10.00 | 92.00 | | 7.00 | |
| W085095070W0 | 85.00 | -.036/-090 | 85.00 | 95.00 | 7.00 | 10.00 | 95.00 | ▼ | 7.00 | ▼ |

WO series - AU/STEEL



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|----------------|-------------------------|--------|-------|-------|--------------------|----------------|-------|----------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | h1 | Tol. |
| W085099080WO | 85.00 | -.036 -.090 | 85.00 | 99.00 | 8.00 | 11.00 | 99.00 | +.054 -.000 | 8.00 | +.500 -.000 |
| W090100070WO | 90.00 | | 90.00 | 100.00 | 7.00 | 10.00 | 100.00 | | 7.00 | |
| W090104080WO | 90.00 | | 90.00 | 104.00 | 8.00 | 11.00 | 104.00 | | 8.00 | |
| W090110080WO | 90.00 | | 90.00 | 110.00 | 8.00 | 11.00 | 110.00 | | 8.00 | |
| W090110100WO | 90.00 | | 90.00 | 110.00 | 10.00 | 14.00 | 110.00 | | 10.00 | |
| W092106080WO | 92.00 | | 92.00 | 106.00 | 8.00 | 11.00 | 106.00 | | 8.00 | |
| W095105070WO | 95.00 | | 95.00 | 105.00 | 7.00 | 10.00 | 105.00 | | 7.00 | |
| W095109080WO | 95.00 | | 95.00 | 109.00 | 8.00 | 11.00 | 109.00 | | 8.00 | |
| W100110070WO | 100.00 | | 100.00 | 110.00 | 7.00 | 10.00 | 110.00 | | 7.00 | |
| W100114080WO | 100.00 | | 100.00 | 114.00 | 8.00 | 11.00 | 114.00 | | 8.00 | |
| W100115080WO | 100.00 | | 100.00 | 115.00 | 8.00 | 11.00 | 115.00 | | 8.00 | |
| W100120100WO | 100.00 | | 100.00 | 120.00 | 10.00 | 13.00 | 120.00 | | 10.00 | |
| W105115070WO | 105.00 | | 105.00 | 115.00 | 7.00 | 10.00 | 115.00 | | 7.00 | |
| W105121090WO | 105.00 | | 105.00 | 121.00 | 9.00 | 12.00 | 121.00 | +.063 -.000 | 9.00 | |
| W106122090WO | 106.00 | | 106.00 | 122.00 | 9.00 | 12.00 | 122.00 | | 9.00 | |
| W108125090WO | 108.00 | | 108.00 | 125.00 | 9.00 | 12.00 | 125.00 | | 9.00 | |
| W110120070WO | 110.00 | | 110.00 | 120.00 | 7.00 | 10.00 | 120.00 | +.054/- .000 | 7.00 | |
| W110126090WO | 110.00 | | 110.00 | 126.00 | 9.00 | 12.00 | 126.00 | +.063 -.000 | 9.00 | |
| W112128060WO | 112.00 | | 112.00 | 128.00 | 6.00 | 8.00 | 128.00 | | 6.00 | |
| W112128090WO | 112.00 | | 112.00 | 128.00 | 9.00 | 12.00 | 128.00 | | 9.00 | |
| W115125070WO | 115.00 | | 115.00 | 125.00 | 7.00 | 10.00 | 125.00 | | 7.00 | |
| W115129080WO | 115.00 | | 115.00 | 129.00 | 8.00 | 11.00 | 129.00 | | 8.00 | |
| W115131090WO | 115.00 | | 115.00 | 131.00 | 9.00 | 12.00 | 131.00 | | 9.00 | |
| W118134090WO | 118.00 | | 118.00 | 134.00 | 9.00 | 12.00 | 134.00 | | 9.00 | |
| W120130070WO | 120.00 | | 120.00 | 130.00 | 7.00 | 10.00 | 130.00 | | 7.00 | |
| W120136090WO | 120.00 | | 120.00 | 136.00 | 9.00 | 12.00 | 136.00 | | 9.00 | |
| W120160170WO | 120.70 | ▼ | 120.70 | 160.00 | 17.00 | 20.00 | 160.00 | | 17.00 | |
| W125140090WO | 125.00 | -.043 -.106 | 125.00 | 140.00 | 9.00 | 12.00 | 140.00 | | 9.00 | |
| W125141090WO | 125.00 | | 125.00 | 141.00 | 9.00 | 12.00 | 141.00 | | 9.00 | |
| W130145090WO | 130.00 | | 130.00 | 145.00 | 9.00 | 12.00 | 145.00 | | 9.00 | |
| W130146060WO | 130.00 | | 130.00 | 146.00 | 6.00 | 9.00 | 146.00 | | 6.00 | |
| W130146090WO | 130.00 | | 130.00 | 146.00 | 9.00 | 12.00 | 146.00 | | 9.00 | |
| W132148090WO | 132.00 | | 132.00 | 148.00 | 9.00 | 12.00 | 148.00 | | 9.00 | |
| W135155100WO | 135.00 | | 135.00 | 155.00 | 10.00 | 14.00 | 155.00 | | 10.00 | |
| W140155090WO | 140.00 | | 140.00 | 155.00 | 9.00 | 12.00 | 155.00 | | 9.00 | |
| W140160100WO | 140.00 | | 140.00 | 160.00 | 10.00 | 14.00 | 160.00 | | 10.00 | |
| W145165100WO | 145.00 | | 145.00 | 165.00 | 10.00 | 14.00 | 165.00 | | 10.00 | |
| W150165090WO | 150.00 | | 150.00 | 165.00 | 9.00 | 12.00 | 165.00 | | 9.00 | |
| W150170100WO | 150.00 | | 150.00 | 170.00 | 10.00 | 14.00 | 170.00 | | 10.00 | |
| W155175060WO | 155.00 | | 155.00 | 175.00 | 6.00 | 10.00 | 175.00 | | 6.00 | |
| W155175100WO | 155.00 | | 155.00 | 175.00 | 10.00 | 14.00 | 175.00 | | 10.00 | |
| W157177100WO | 157.00 | | 157.00 | 177.00 | 10.00 | 14.00 | 177.00 | | 10.00 | |
| W160175090WO | 160.00 | | 160.00 | 175.00 | 9.00 | 12.00 | 175.00 | | 9.00 | |
| W160180100WO | 160.00 | | 160.00 | 180.00 | 10.00 | 14.00 | 180.00 | | 10.00 | |
| W165185100WO | 165.00 | | 165.00 | 185.00 | 10.00 | 14.00 | 185.00 | | 10.00 | |
| W170190100WO | 170.00 | ▼ | 170.00 | 190.00 | 10.00 | 14.00 | 190.00 | +.072 -.000 | 10.00 | ▼ |



WO series - AU/STEEL

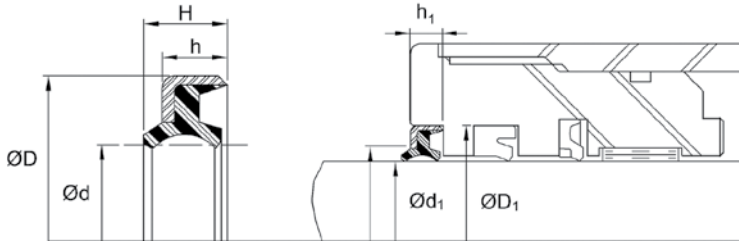
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|---------------|--|-------------------------|--------|-------|-------|--------------------|--|-------|--|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | h1 | Tol. |
| W175195100WO | 175.00 | $\begin{matrix} -.043 \\ -.106 \end{matrix}$ | 175.00 | 195.00 | 10.00 | 14.00 | 195.00 | $\begin{matrix} +.072 \\ -.000 \end{matrix}$ | 10.00 | $\begin{matrix} +.500 \\ -.000 \end{matrix}$ |
| W180195100WO | 180.00 | | 180.00 | 195.00 | 10.00 | 14.00 | 195.00 | | 10.00 | |
| W180205120WO | 180.00 | | 180.00 | 205.00 | 12.00 | 17.00 | 205.00 | | 12.00 | |
| W185210120WO | 185.00 | ▼ | 185.00 | 210.00 | 12.00 | 17.00 | 210.00 | | 12.00 | |
| W190215120WO | 190.00 | $\begin{matrix} -.050 \\ -.122 \end{matrix}$ | 190.00 | 215.00 | 12.00 | 17.00 | 215.00 | | 12.00 | |
| W195220120WO | 195.00 | | 195.00 | 220.00 | 12.00 | 17.00 | 220.00 | | 12.00 | |
| W200220120WO | 200.00 | | 200.00 | 220.00 | 12.00 | 16.00 | 220.00 | | 12.00 | |
| W200225120WO | 200.00 | | 200.00 | 225.00 | 12.00 | 17.00 | 225.00 | | 12.00 | |
| W210235120WO | 210.00 | | 210.00 | 235.00 | 12.00 | 17.00 | 235.00 | | 12.00 | |
| W212237120WO | 212.00 | | 212.00 | 237.00 | 12.00 | 17.00 | 237.00 | | 12.00 | |
| W215240120WO | 215.00 | | 215.00 | 240.00 | 12.00 | 17.00 | 240.00 | | 12.00 | |
| W220245120WO | 220.00 | | 220.00 | 245.00 | 12.00 | 17.00 | 245.00 | | 12.00 | |
| W224249120WO | 224.00 | | 224.00 | 249.00 | 12.00 | 17.00 | 249.00 | | 12.00 | |
| W225250120WO | 225.00 | | 225.00 | 250.00 | 12.00 | 17.00 | 250.00 | ▼ | 12.00 | |
| W230255120WO | 230.00 | | 230.00 | 255.00 | 12.00 | 16.00 | 255.00 | $\begin{matrix} +.081 \\ -.000 \end{matrix}$ | 12.00 | |
| W236261120WO | 236.00 | | 236.00 | 261.00 | 12.00 | 17.00 | 261.00 | | 12.00 | |
| W240265120WO | 240.00 | | 240.00 | 265.00 | 12.00 | 17.00 | 265.00 | | 12.00 | |
| W245270120WO | 245.00 | | 245.00 | 270.00 | 12.00 | 17.00 | 270.00 | | 12.00 | |
| W250275120WO | 250.00 | ▼ | 250.00 | 275.00 | 12.00 | 17.00 | 275.00 | | 12.00 | |
| W260280100WO | 260.00 | $\begin{matrix} -.056 \\ -.137 \end{matrix}$ | 260.00 | 280.00 | 10.00 | 14.00 | 280.00 | | 10.00 | |
| W260285120WO | 260.00 | | 260.00 | 285.00 | 12.00 | 17.00 | 285.00 | | 12.00 | |
| W265290120WO | 265.00 | | 265.00 | 290.00 | 12.00 | 17.00 | 290.00 | | 12.00 | |
| W270295120WO | 270.00 | | 270.00 | 295.00 | 12.00 | 16.00 | 295.00 | | 12.00 | |
| W280300120WO | 280.00 | | 280.00 | 300.00 | 12.00 | 16.00 | 300.00 | | 12.00 | |
| W280310160WO | 280.00 | | 280.00 | 310.00 | 16.00 | 17.00 | 310.00 | ▼ | 16.00 | |
| W290320160WO | 290.00 | | 290.00 | 320.00 | 16.00 | 22.00 | 320.00 | $\begin{matrix} +.089 \\ -.000 \end{matrix}$ | 16.00 | |
| W300330160WO | 300.00 | ▼ | 300.00 | 330.00 | 16.00 | 17.00 | 330.00 | | 16.00 | ▼ |



WR - Rod wipers - Metric



| Standard Material | Temperature Range | Surface Speed |
|--------------------|--------------------------------------|--------------------|
| Polyurethane/Steel | -40°F to +212°F (-40°C to +100°C) | < 3.3 ft/s (1 m/s) |



Similar in use to the **WO-style**, the **WR-style** has the added benefit of being a double-lip design to aid both in secondary sealing and wiping applications.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|----------------|-------------------------|--------|------|-------|--------------------|----------------|------|----------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | h1 | Tol. |
| W014024050WR | 14.00 | -.016 | 14.00 | 24.00 | 5.00 | 7.00 | 24.00 | +.033 -.000 | 5.00 | +.500 +.300 |
| W016026050WR | 16.00 | -.043 | 16.00 | 26.00 | 5.00 | 7.00 | 26.00 | -.000 | 5.00 | +.300 |
| W018030060WR | 18.00 | ↓ | 18.00 | 30.00 | 6.00 | 9.00 | 30.00 | ↓ | 6.00 | |
| W020032060WR | 20.00 | -.020 | 20.00 | 32.00 | 6.00 | 9.00 | 32.00 | +.039 -.000 | 6.00 | |
| W022034060WR | 22.00 | -.053 | 22.00 | 34.00 | 6.00 | 9.00 | 34.00 | -.000 | 6.00 | |
| W025037060WR | 25.00 | | 25.00 | 37.00 | 6.00 | 9.00 | 37.00 | | 6.00 | |
| W030042060WR | 30.00 | | 30.00 | 42.00 | 6.00 | 9.00 | 42.00 | | 6.00 | |
| W030047070WR | 30.00 | ↓ | 30.00 | 47.00 | 7.00 | 10.00 | 47.00 | | 7.00 | |
| W034046070WR | 34.00 | -.025 -.064 | 34.00 | 46.00 | 7.00 | 10.00 | 46.00 | | 7.00 | |
| W035045070WR | 35.00 | | 35.00 | 45.00 | 7.00 | 10.00 | 45.00 | | 7.00 | |
| W035047070WR | 35.00 | | 35.00 | 47.00 | 7.00 | 10.00 | 47.00 | | 7.00 | |
| W038050070WR | 38.00 | | 38.00 | 50.00 | 7.00 | 10.00 | 50.00 | ↓ | 7.00 | |
| W040052070WR | 40.00 | | 40.00 | 52.00 | 7.00 | 10.00 | 52.00 | +.046 -.000 | 7.00 | |
| W045057070WR | 45.00 | | 45.00 | 57.00 | 7.00 | 10.00 | 57.00 | -.000 | 7.00 | |
| W050062070WR | 50.00 | ↓ | 50.00 | 62.00 | 7.00 | 10.00 | 62.00 | | 7.00 | ↓ |
| W055069080WR | 55.00 | -.030 -.076 | 55.00 | 69.00 | 8.00 | 11.00 | 69.00 | | 8.00 | +.600 +.400 |
| W060074080WR | 60.00 | | 60.00 | 74.00 | 8.00 | 11.00 | 74.00 | | 8.00 | |
| W065079080WR | 65.00 | | 65.00 | 79.00 | 8.00 | 11.00 | 79.00 | ↓ | 8.00 | |
| W070084080WR | 70.00 | | 70.00 | 84.00 | 8.00 | 11.00 | 84.00 | +.054 -.000 | 8.00 | |
| W075089080WR | 75.00 | | 75.00 | 89.00 | 8.00 | 11.00 | 89.00 | -.000 | 8.00 | |
| W080094080WR | 80.00 | ↓ | 80.00 | 94.00 | 8.00 | 11.00 | 94.00 | | 8.00 | |
| W085099080WR | 85.00 | -.036 -.090 | 85.00 | 99.00 | 8.00 | 11.00 | 99.00 | | 8.00 | |
| W090104080WR | 90.00 | | 90.00 | 104.00 | 8.00 | 11.00 | 104.00 | ↓ | 8.00 | ↓ |



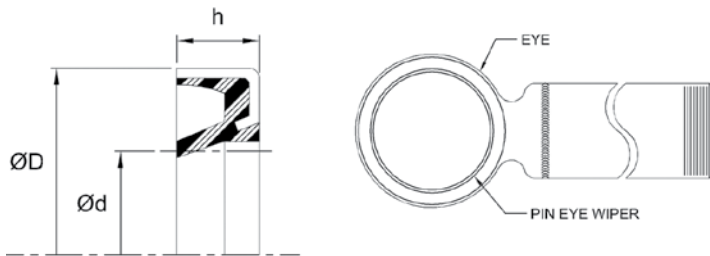
WR series - AU/STEEL

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|----------------|-------------------------|--------|-------|-------|--------------------|----------------|-------|----------------|
| | d1 | Tol. | d | D | h | H | D1 | Tol. | h1 | Tol. |
| W095109080WR | 95.00 | -.036 -.090 | 95.00 | 109.00 | 8.00 | 11.00 | 109.00 | +.054 -.000 | 8.00 | +.600 +.400 |
| W100114080WR | 100.00 | | 100.00 | 114.00 | 8.00 | 11.00 | 114.00 | | 8.00 | |
| W105121090WR | 105.00 | | 105.00 | 121.00 | 9.00 | 12.00 | 121.00 | +.063 -.000 | 9.00 | |
| W110126090WR | 110.00 | | 110.00 | 126.00 | 9.00 | 12.00 | 126.00 | | 9.00 | |
| W115131090WR | 115.00 | | 115.00 | 131.00 | 9.00 | 12.00 | 131.00 | | 9.00 | |
| W120136090WR | 120.00 | ▼ | 120.00 | 136.00 | 9.00 | 12.00 | 136.00 | | 9.00 | |
| W125141090WR | 125.00 | -.043 -.106 | 125.00 | 141.00 | 9.00 | 12.00 | 141.00 | | 9.00 | |
| W130146090WR | 130.00 | | 130.00 | 146.00 | 9.00 | 12.00 | 146.00 | | 9.00 | |
| W135155100WR | 135.00 | | 135.00 | 155.00 | 10.00 | 14.00 | 155.00 | | 10.00 | |
| W140160100WR | 140.00 | | 140.00 | 160.00 | 10.00 | 14.00 | 160.00 | | 10.00 | |
| W145165100WR | 145.00 | | 145.00 | 165.00 | 10.00 | 14.00 | 165.00 | | 10.00 | |
| W150170100WR | 150.00 | | 150.00 | 170.00 | 10.00 | 14.00 | 170.00 | | 10.00 | |
| W155175100WR | 155.00 | | 155.00 | 175.00 | 10.00 | 14.00 | 175.00 | | 10.00 | |
| W160180100WR | 160.00 | | 160.00 | 180.00 | 10.00 | 14.00 | 180.00 | ▼ | 10.00 | |
| W165185100WR | 165.00 | | 165.00 | 185.00 | 10.00 | 14.00 | 185.00 | +.072 -.000 | 10.00 | |
| W170190100WR | 170.00 | | 170.00 | 190.00 | 10.00 | 14.00 | 190.00 | | 10.00 | |
| W175195100WR | 175.00 | | 175.00 | 195.00 | 10.00 | 14.00 | 195.00 | | 10.00 | |
| W180205100WR | 180.00 | | 180.00 | 205.00 | 10.00 | 14.00 | 205.00 | | 10.00 | ▼ |
| W180205120WR | 180.00 | ▼ | 180.00 | 205.00 | 12.00 | 16.00 | 205.00 | | 12.00 | +.700/+.500 |
| W190205090WR | 190.00 | -.050 -.122 | 190.00 | 205.00 | 9.00 | 12.00 | 205.00 | | 9.00 | +.600 +.400 |
| W200216080WR | 200.00 | | 200.00 | 216.00 | 8.00 | 11.00 | 216.00 | | 8.00 | |
| W225250120WR | 225.00 | | 225.00 | 250.00 | 12.00 | 16.00 | 250.00 | ▼ | 12.00 | +.700 +.500 |
| W250275120WR | 250.00 | ▼ | 250.00 | 275.00 | 12.00 | 16.00 | 275.00 | +.081/- .000 | 12.00 | |

WS - Pin wipers - Metric



| Standard Material | Temperature Range | Surface Speed |
|--------------------|--------------------------------------|--------------------|
| Polyurethane/Steel | -40°F to +212°F (-40°C to +100°C) | < 3.3 ft/s (1 m/s) |



Used mainly to protect the pins that anchor hydraulic cylinders to articulated equipment, the WS-style is a single shell, polyurethane lip wiper ring.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

WS series - AU/STEEL



| Ref.Number | Pin Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|-----------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| W016024028WS | 16.00 | -.016/- .043 | 16.00 | 24.00 | 2.80 | 24.00 | + .033 - .000 | 2.80 | + .500 + .300 |
| W020028026WS | 20.00 | -.020 - .053 | 20.00 | 28.00 | 2.60 | 28.00 | | 2.60 | |
| W025035040WS | 25.00 | | 25.00 | 35.00 | 4.00 | 35.00 | + .039 - .000 | 4.00 | |
| W025037040WS | 25.00 | | 25.00 | 37.00 | 4.00 | 37.00 | | 4.00 | |
| W030040040WS | 30.00 | | 30.00 | 40.00 | 4.00 | 40.00 | | 4.00 | |
| W035045040WS | 35.00 | | 35.00 | 45.00 | 4.00 | 45.00 | | 4.00 | |
| W035045050WS | 35.00 | -.025 - .064 | 35.00 | 45.00 | 5.00 | 45.00 | | 5.00 | |
| W038057095WS | 38.00 | | 38.00 | 57.00 | 9.50 | 57.00 | + .046/- .000 | 9.50 | + .600/- .400 |
| W040048038WS | 40.00 | | 40.00 | 48.00 | 3.80 | 48.00 | + .039 - .000 | 3.80 | + .500 + .300 |
| W040050031WS | 40.00 | | 40.00 | 50.00 | 3.18 | 50.00 | | 3.18 | |
| W040050040WS | 40.00 | | 40.00 | 50.00 | 4.00 | 50.00 | | 4.00 | |
| W040055050WS | 40.00 | | 40.00 | 55.00 | 5.00 | 55.00 | + .046 - .000 | 5.00 | |
| W040060050WS | 40.00 | | 40.00 | 60.00 | 5.00 | 60.00 | | 5.00 | |
| W045052050WS | 45.00 | | 45.00 | 52.00 | 5.00 | 52.00 | | 5.00 | |
| W045055031WS | 45.00 | | 45.00 | 55.00 | 3.18 | 55.00 | | 3.18 | |
| W045055040WS | 45.00 | | 45.00 | 55.00 | 4.00 | 55.00 | | 4.00 | |
| W045055045WS | 45.00 | | 45.00 | 55.00 | 4.50 | 55.00 | | 4.50 | |
| W045055060WS | 45.00 | | 45.00 | 55.00 | 6.00 | 55.00 | | 6.00 | |
| W045060050WS | 45.00 | | 45.00 | 60.00 | 5.00 | 60.00 | | 5.00 | |
| W050060040WS | 50.00 | | 50.00 | 60.00 | 4.00 | 60.00 | | 4.00 | |
| W050060050WS | 50.00 | | 50.00 | 60.00 | 5.00 | 60.00 | | 5.00 | |
| W050060060WS | 50.00 | | 50.00 | 60.00 | 6.00 | 60.00 | | 6.00 | |
| W050063080WS | 50.00 | | 50.00 | 63.00 | 8.00 | 63.00 | | 8.00 | + .600/- .400 |
| W050065050WS | 50.00 | | 50.00 | 65.00 | 5.00 | 65.00 | | 5.00 | + .500 + .300 |
| W050065060WS | 50.00 | | 50.00 | 65.00 | 6.00 | 65.00 | | 6.00 | |
| W050065075WS | 50.00 | | 50.00 | 65.00 | 7.50 | 65.00 | | 7.50 | |
| W055065031WS | 55.00 | -.030 - .076 | 55.00 | 65.00 | 3.18 | 65.00 | | 3.18 | |
| W055065040WS | 55.00 | | 55.00 | 65.00 | 4.00 | 65.00 | | 4.00 | |
| W055068040WS | 55.00 | | 55.00 | 68.00 | 4.00 | 68.00 | | 4.00 | |
| W055070040WS | 55.00 | | 55.00 | 70.00 | 4.00 | 70.00 | | 4.00 | |
| W055070050WS | 55.00 | | 55.00 | 70.00 | 5.00 | 70.00 | | 5.00 | |
| W055070060WS | 55.00 | | 55.00 | 70.00 | 6.00 | 70.00 | | 6.00 | |
| W055070075WS | 55.00 | | 55.00 | 70.00 | 7.50 | 70.00 | | 7.50 | |
| W056070075WS | 56.00 | | 56.00 | 70.00 | 7.50 | 70.00 | | 7.50 | |
| W058068090WS | 58.00 | | 58.00 | 68.00 | 9.00 | 68.00 | | 9.00 | + .600 + .400 |
| W060073080WS | 60.00 | | 60.00 | 73.00 | 8.00 | 73.00 | | 8.00 | |
| W060075040WS | 60.00 | | 60.00 | 75.00 | 4.00 | 75.00 | | 4.00 | + .500 + .300 |
| W060075050WS | 60.00 | | 60.00 | 75.00 | 5.00 | 75.00 | | 5.00 | |
| W060075060WS | 60.00 | | 60.00 | 75.00 | 6.00 | 75.00 | | 6.00 | |
| W060075075WS | 60.00 | | 60.00 | 75.00 | 7.50 | 75.00 | | 7.50 | |
| W060075080WS | 60.00 | | 60.00 | 75.00 | 8.00 | 75.00 | | 8.00 | + .600 + .400 |
| W060090120WS | 60.00 | | 60.00 | 90.00 | 12.00 | 90.00 | | 12.00 | |
| W063077080WS | 63.00 | | 63.00 | 77.00 | 8.00 | 77.00 | | 8.00 | |
| W063078075WS | 63.00 | | 63.00 | 78.00 | 7.50 | 78.00 | | 7.50 | + .500 + .300 |
| W063080050WS | 63.00 | | 63.00 | 80.00 | 5.00 | 80.00 | | 5.00 | |
| W065080050WS | 65.00 | | 65.00 | 80.00 | 5.00 | 80.00 | | 5.00 | |



WS series - AU/STEEL

| Ref.Number | Pin Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|----------------|-------------------------|--------|-------|--------------------|----------------|-------|----------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| W065080080WS | 65.00 | -.030 -.076 | 65.00 | 80.00 | 8.00 | 80.00 | +.046 -.000 | 8.00 | +.600 +.400 |
| W070080090WS | 70.00 | | 70.00 | 80.00 | 9.00 | 80.00 | | 9.00 | |
| W070083080WS | 70.00 | | 70.00 | 83.00 | 8.00 | 83.00 | +.054 -.000 | 8.00 | ↓ |
| W070085050WS | 70.00 | | 70.00 | 85.00 | 5.00 | 85.00 | | 5.00 | |
| W070085075WS | 70.00 | | 70.00 | 85.00 | 7.50 | 85.00 | | 7.50 | |
| W070085080WS | 70.00 | | 70.00 | 85.00 | 8.00 | 85.00 | | 8.00 | +.600/+.400 |
| W070090050WS | 70.00 | | 70.00 | 90.00 | 5.00 | 90.00 | | 5.00 | +.500 +.300 |
| W071086050WS | 71.00 | | 71.00 | 86.00 | 5.00 | 86.00 | | 5.00 | ↓ |
| W075090060WS | 75.00 | | 75.00 | 90.00 | 6.00 | 90.00 | | 6.00 | ↓ |
| W075090080WS | 75.00 | | 75.00 | 90.00 | 8.00 | 90.00 | | 8.00 | +.600/+.400 |
| W080090045WS | 80.00 | | 80.00 | 90.00 | 4.50 | 90.00 | | 4.50 | +.500 +.300 |
| W080090050WS | 80.00 | | 80.00 | 90.00 | 5.00 | 90.00 | | 5.00 | |
| W080093080WS | 80.00 | | 80.00 | 93.00 | 8.00 | 93.00 | | 8.00 | +.600/+.400 |
| W080095050WS | 80.00 | | 80.00 | 95.00 | 5.00 | 95.00 | | 5.00 | +.500 +.300 |
| W080095060WS | 80.00 | | 80.00 | 95.00 | 6.00 | 95.00 | | 6.00 | ↓ |
| W080095080WS | 80.00 | | 80.00 | 95.00 | 8.00 | 95.00 | | 8.00 | +.600/+.400 |
| W080100060WS | 80.00 | | 80.00 | 100.00 | 6.00 | 100.00 | | 6.00 | +.500/+.300 |
| W080100100WS | 80.00 | ↓ | 80.00 | 100.00 | 10.00 | 100.00 | | 10.00 | +.600/+.400 |
| W085100060WS | 85.00 | -.036 -.090 | 85.00 | 100.00 | 6.00 | 100.00 | | 6.00 | +.500/+.300 |
| W085100080WS | 85.00 | | 85.00 | 100.00 | 8.00 | 100.00 | | 8.00 | +.600 +.400 |
| W085100100WS | 85.00 | | 85.00 | 100.00 | 10.00 | 100.00 | | 10.00 | |
| W090105050WS | 90.00 | | 90.00 | 105.00 | 5.00 | 105.00 | | 5.00 | +.500 +.300 |
| W090105060WS | 90.00 | | 90.00 | 105.00 | 6.00 | 105.00 | | 6.00 | ↓ |
| W090105080WS | 90.00 | | 90.00 | 105.00 | 8.00 | 105.00 | | 8.00 | +.600 +.400 |
| W090110095WS | 90.00 | | 90.00 | 110.00 | 9.50 | 110.00 | | 9.50 | ↓ |
| W090110100WS | 90.00 | | 90.00 | 110.00 | 10.00 | 110.00 | ↓ | 10.00 | ↓ |
| W090130130WS | 90.00 | | 90.00 | 130.00 | 13.00 | 130.00 | +.063/-.000 | 13.00 | ↓ |
| W095110080WS | 95.00 | | 95.00 | 110.00 | 8.00 | 110.00 | +.054 -.000 | 8.00 | ↓ |
| W100115050WS | 100.00 | | 100.00 | 115.00 | 5.00 | 115.00 | | 5.00 | +.500 +.300 |
| W100115060WS | 100.00 | | 100.00 | 115.00 | 6.00 | 115.00 | | 6.00 | ↓ |
| W100115070WS | 100.00 | | 100.00 | 115.00 | 7.00 | 115.00 | | 7.00 | ↓ |
| W100115075WS | 100.00 | | 100.00 | 115.00 | 7.50 | 115.00 | | 7.50 | ↓ |
| W100120070WS | 100.00 | | 100.00 | 120.00 | 7.00 | 120.00 | | 7.00 | ↓ |
| W100120080WS | 100.00 | | 100.00 | 120.00 | 8.00 | 120.00 | | 8.00 | +.600 +.400 |
| W100120100WS | 100.00 | | 100.00 | 120.00 | 10.00 | 120.00 | ↓ | 10.00 | ↓ |
| W100125040WS | 100.00 | | 100.00 | 125.00 | 4.00 | 125.00 | +.063 -.000 | 4.00 | +.500/+.300 |
| W100125080WS | 100.00 | | 100.00 | 125.00 | 8.00 | 125.00 | | 8.00 | +.600/+.400 |
| W105120070WS | 105.00 | | 105.00 | 120.00 | 7.00 | 120.00 | +.054 -.000 | 7.00 | +.500/+.300 |
| W105120080WS | 105.00 | | 105.00 | 120.00 | 8.00 | 120.00 | | 8.00 | +.600/+.400 |
| W110125040WS | 110.00 | | 110.00 | 125.00 | 4.00 | 125.00 | +.063 -.000 | 4.00 | +.500 +.300 |
| W110125070WS | 110.00 | | 110.00 | 125.00 | 7.00 | 125.00 | | 7.00 | ↓ |
| W110125080WS | 110.00 | | 110.00 | 125.00 | 8.00 | 125.00 | | 8.00 | +.600 +.400 |
| W110125090WS | 110.00 | | 110.00 | 125.00 | 9.00 | 125.00 | | 9.00 | ↓ |
| W110125095WS | 110.00 | | 110.00 | 125.00 | 9.50 | 125.00 | | 9.50 | ↓ |
| W110125100WS | 110.00 | | 110.00 | 125.00 | 10.00 | 125.00 | | 10.00 | ↓ |
| W110130100WS | 110.00 | ↓ | 110.00 | 130.00 | 10.00 | 130.00 | ↓ | 10.00 | ↓ |

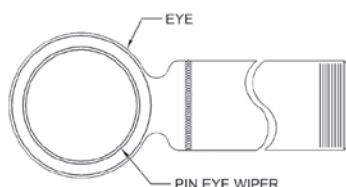
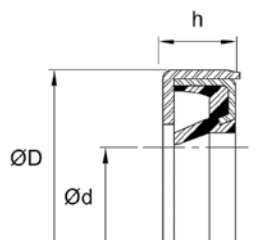
WS series - AU/STEEL

| Ref.Number | Pin Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|----------------|-------------------------|--------|-------|--------------------|----------------|-------|----------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| W110130150WS | 110.00 | -.036 -.090 | 110.00 | 130.00 | 15.00 | 130.00 | +.063 -.000 | 15.00 | +.600 +.400 |
| W110130160WS | 110.00 | | 110.00 | 130.00 | 16.00 | 130.00 | | 16.00 | |
| W120135080WS | 120.00 | | 120.00 | 135.00 | 8.00 | 135.00 | | 8.00 | |
| W120140080WS | 120.00 | | 120.00 | 140.00 | 8.00 | 140.00 | | 8.00 | |
| W120140100WS | 120.00 | ▼ | 120.00 | 140.00 | 10.00 | 140.00 | | 10.00 | |
| W125140080WS | 125.00 | -.043 -.106 | 125.00 | 140.00 | 8.00 | 140.00 | | 8.00 | |
| W125145100WS | 125.00 | | 125.00 | 145.00 | 10.00 | 145.00 | | 10.00 | |
| W140155080WS | 140.00 | | 140.00 | 155.00 | 8.00 | 155.00 | | 8.00 | |
| W140160100WS | 140.00 | ▼ | 140.00 | 160.00 | 10.00 | 160.00 | ▼ | 10.00 | |
| W190210100WS | 190.00 | -.050/- .122 | 190.00 | 210.00 | 10.00 | 210.00 | +.072/- .000 | 10.00 | ▼ |

WT - Pin wipers - Metric



| Standard Material | Temperature Range |
|--------------------|--------------------------------------|
| Nitrile/Steel | -40°F to +212°F (-40°C to +100°C) |
| Polyurethane/Steel | -40°F to +212°F (-40°C to +100°C) |



Similar in use to the **WS-style**, the **WT-style** uses a double-shell, nitrile sealing lip (**WT/N**) or polyurethane sealing lip (**WT**).

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Pin Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|----------------|-------------------------|-------|------|--------------------|----------------|------|----------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| W025035040WT | 25.00 | -.020 -.053 | 25.00 | 35.00 | 4.00 | 35.00 | +.039 -.000 | 4.00 | +.500 +.300 |
| W025035060WT | 25.00 | | 25.00 | 35.00 | 6.00 | 35.00 | | 6.00 | |
| W028038060WT | 28.00 | ▼ | 28.00 | 38.00 | 6.00 | 38.00 | | 6.00 | |
| W030040040WT | 30.00 | ▼ | 30.00 | 40.00 | 4.00 | 40.00 | ▼ | 4.00 | ▼ |



WT series - AU/STEEL & NBR/STEEL

| Ref.Number | Pin Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|-------|-------------------------|-------|------|--------------------|--------|------|---------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| W035045040WT | 35.00 | -.025 | 35.00 | 45.00 | 4.00 | 45.00 | +0.039 | 4.00 | +0.500 |
| W035045050WT | 35.00 | -.064 | 35.00 | 45.00 | 5.00 | 45.00 | -0.000 | 5.00 | +0.300 |
| W035045060WT | 35.00 | | 35.00 | 45.00 | 6.00 | 45.00 | | 6.00 | |
| W038048040WT | 38.00 | | 38.00 | 48.00 | 4.00 | 48.00 | | 4.00 | |
| W040050040WT | 40.00 | | 40.00 | 50.00 | 4.00 | 50.00 | | 4.00 | |
| W040050060WT | 40.00 | | 40.00 | 50.00 | 6.00 | 50.00 | ▼ | 6.00 | |
| W045055040WT | 45.00 | | 45.00 | 55.00 | 4.00 | 55.00 | +0.046 | 4.00 | |
| W045055040WT-1 | 45.50 | | 45.50 | 55.00 | 4.00 | 55.00 | -0.000 | 4.00 | |
| W045055060WT | 45.00 | | 45.00 | 55.00 | 6.00 | 55.00 | | 6.00 | |
| W050060040WT | 50.00 | | 50.00 | 60.00 | 4.00 | 60.00 | | 4.00 | |
| W050060050WT | 50.00 | | 50.00 | 60.00 | 5.00 | 60.00 | | 5.00 | |
| W050060060WT | 50.00 | | 50.00 | 60.00 | 6.00 | 60.00 | | 6.00 | ▼ |
| W050063080WT | 50.00 | | 50.00 | 63.00 | 8.00 | 63.00 | | 8.00 | +0.600/+0.400 |
| W050065040WT | 50.00 | | 50.00 | 65.00 | 4.00 | 65.00 | | 4.00 | +0.500 |
| W050065060WT | 50.00 | ▼ | 50.00 | 65.00 | 6.00 | 65.00 | | 6.00 | +0.300 |
| W055065040WT | 55.00 | -.030 | 55.00 | 65.00 | 4.00 | 65.00 | | 4.00 | |
| W055065060WT | 55.00 | -.076 | 55.00 | 65.00 | 6.00 | 65.00 | | 6.00 | |
| W055068040WT | 55.00 | | 55.00 | 68.00 | 4.00 | 68.00 | | 4.00 | |
| W055070040WT | 55.00 | | 55.00 | 70.00 | 4.00 | 70.00 | | 4.00 | |
| W055070060WT | 55.00 | | 55.00 | 70.00 | 6.00 | 70.00 | | 6.00 | |
| W055075060WT | 55.00 | | 55.00 | 75.00 | 6.00 | 75.00 | | 6.00 | |
| W060070060WT | 60.00 | | 60.00 | 70.00 | 6.00 | 70.00 | | 6.00 | |
| W060074080WT | 60.00 | | 60.00 | 74.00 | 8.00 | 74.00 | | 8.00 | |
| W060075040WT | 60.00 | | 60.00 | 75.00 | 4.00 | 75.00 | | 4.00 | |
| W060075050WT | 60.00 | | 60.00 | 75.00 | 5.00 | 75.00 | | 5.00 | |
| W060075060WT | 60.00 | | 60.00 | 75.00 | 6.00 | 75.00 | | 6.00 | ▼ |
| W060075080WT | 60.00 | | 60.00 | 75.00 | 8.00 | 75.00 | | 8.00 | +0.600/+0.400 |
| W065075040WT | 65.00 | | 65.00 | 75.00 | 4.00 | 75.00 | | 4.00 | +0.500 |
| W065075050WT | 65.00 | | 65.00 | 75.00 | 5.00 | 75.00 | | 5.00 | +0.300 |
| W065075060WT | 65.00 | | 65.00 | 75.00 | 6.00 | 75.00 | | 6.00 | ▼ |
| W065079080WT | 65.00 | | 65.00 | 79.00 | 8.00 | 79.00 | | 8.00 | +0.600/+0.400 |
| W065080040WT | 65.00 | | 65.00 | 80.00 | 4.00 | 80.00 | | 4.00 | +0.500 |
| W065080060WT | 65.00 | | 65.00 | 80.00 | 6.00 | 80.00 | | 6.00 | +0.300 |
| W065080080WT | 65.00 | | 65.00 | 80.00 | 8.00 | 80.00 | ▼ | 8.00 | +0.600/+0.400 |
| W065085050WT | 65.00 | | 65.00 | 85.00 | 5.00 | 85.00 | +0.054 | 5.00 | +0.500 |
| W065085060WT | 65.00 | | 65.00 | 85.00 | 6.00 | 85.00 | -0.000 | 6.00 | +0.300 |
| W068094040WT | 68.00 | | 68.00 | 94.00 | 4.00 | 94.00 | | 4.00 | |
| W070080060WT | 70.00 | | 70.00 | 80.00 | 6.00 | 80.00 | | 6.00 | |
| W070085040WT | 70.00 | | 70.00 | 85.00 | 4.00 | 85.00 | | 4.00 | |
| W070085060WT | 70.00 | | 70.00 | 85.00 | 6.00 | 85.00 | | 6.00 | ▼ |
| W070085080WT | 70.00 | | 70.00 | 85.00 | 8.00 | 85.00 | | 8.00 | +0.600/+0.400 |
| W070090050WT | 70.00 | | 70.00 | 90.00 | 5.00 | 90.00 | | 5.00 | +0.500/+0.300 |
| W070090095WT | 70.00 | | 70.00 | 90.00 | 9.50 | 90.00 | | 9.50 | +0.600/+0.400 |
| W075090040WT | 75.00 | | 75.00 | 90.00 | 4.00 | 90.00 | | 4.00 | +0.500 |
| W075090050WT | 75.00 | | 75.00 | 90.00 | 5.00 | 90.00 | | 5.00 | +0.300 |
| W075090080WT | 75.00 | ▼ | 75.00 | 90.00 | 8.00 | 90.00 | ▼ | 8.00 | +0.600/+0.400 |

WT series - AU/STEEL & NBR/STEEL



| Ref.Number | Pin Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|----------------|-------------------------|--------|-------|--------------------|----------------|-------|-----------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| W075090095WT | 75.00 | -.030 -.076 | 75.00 | 90.00 | 9.50 | 90.00 | +.054 -.000 | 9.50 | + .600/+ .400 |
| W075095040WT | 75.00 | | 75.00 | 95.00 | 4.00 | 95.00 | | 4.00 | + .500 +.300 |
| W075095070WT | 75.00 | | 75.00 | 95.00 | 7.00 | 95.00 | | 7.00 | + .600/+ .400 |
| W075095095WT | 75.00 | | 75.00 | 95.00 | 9.50 | 95.00 | | 9.50 | + .600/+ .400 |
| W080095040WT | 80.00 | | 80.00 | 95.00 | 4.00 | 95.00 | | 4.00 | + .500 +.300 |
| W080095060WT | 80.00 | | 80.00 | 95.00 | 6.00 | 95.00 | | 6.00 | + .600/+ .400 |
| W080095070WT | 80.00 | | 80.00 | 95.00 | 7.00 | 95.00 | | 7.00 | + .600/+ .400 |
| W080095080WT | 80.00 | | 80.00 | 95.00 | 8.00 | 95.00 | | 8.00 | + .600 +.400 |
| W080095100WT | 80.00 | | 80.00 | 95.00 | 10.00 | 95.00 | | 10.00 | + .600 +.400 |
| W080095110WT | 80.00 | | 80.00 | 95.00 | 11.00 | 95.00 | | 11.00 | + .600 +.400 |
| W080100060WT | 80.00 | | 80.00 | 100.00 | 6.00 | 100.00 | | 6.00 | + .500/+ .300 |
| W080105100WT | 80.00 | | 80.00 | 105.00 | 10.00 | 105.00 | | 10.00 | + .600/+ .400 |
| W085100040WT | 85.00 | -.036 -.090 | 85.00 | 100.00 | 4.00 | 100.00 | | 4.00 | + .500 +.300 |
| W085100050WT | 85.00 | | 85.00 | 100.00 | 5.00 | 100.00 | | 5.00 | + .600/+ .400 |
| W085100080WT | 85.00 | | 85.00 | 100.00 | 8.00 | 100.00 | | 8.00 | + .600/+ .400 |
| W085110040WT | 85.00 | | 85.00 | 110.00 | 4.00 | 110.00 | | 4.00 | + .500 +.300 |
| W090104040WT | 90.00 | | 90.00 | 104.00 | 4.00 | 104.00 | | 4.00 | + .600 +.400 |
| W090105040WT | 90.00 | | 90.00 | 105.00 | 4.00 | 105.00 | | 4.00 | + .600 +.400 |
| W090105060WT | 90.00 | | 90.00 | 105.00 | 6.00 | 105.00 | | 6.00 | + .600 +.400 |
| W090105075WT | 90.00 | | 90.00 | 105.00 | 7.50 | 105.00 | | 7.50 | + .600 +.400 |
| W090105080WT | 90.00 | | 90.00 | 105.00 | 8.00 | 105.00 | | 8.00 | + .600 +.400 |
| W090105110WT | 90.00 | | 90.00 | 105.00 | 11.00 | 105.00 | | 11.00 | + .600 +.400 |
| W090110060WT | 90.00 | | 90.00 | 110.00 | 6.00 | 110.00 | | 6.00 | + .500/+ .300 |
| W090110080WT | 90.00 | | 90.00 | 110.00 | 8.00 | 110.00 | | 8.00 | + .600 +.400 |
| W090110095WT | 90.00 | | 90.00 | 110.00 | 9.50 | 110.00 | | 9.50 | + .600 +.400 |
| W090110100WT | 90.00 | | 90.00 | 110.00 | 10.00 | 110.00 | | 10.00 | + .600 +.400 |
| W095110040WT | 95.00 | | 95.00 | 110.00 | 4.00 | 110.00 | | 4.00 | + .500/+ .300 |
| W095110080WT | 95.00 | | 95.00 | 110.00 | 8.00 | 110.00 | | 8.00 | + .600 +.400 |
| W095110095WT | 95.00 | | 95.00 | 110.00 | 9.50 | 110.00 | | 9.50 | + .600 +.400 |
| W095115095WT | 95.00 | | 95.00 | 115.00 | 9.50 | 115.00 | | 9.50 | + .600 +.400 |
| W100114080WT | 100.00 | | 100.00 | 114.00 | 8.00 | 114.00 | | 8.00 | + .600 +.400 |
| W100115040WT | 100.00 | | 100.00 | 115.00 | 4.00 | 115.00 | | 4.00 | + .500 +.300 |
| W100115070WT | 100.00 | | 100.00 | 115.00 | 7.00 | 115.00 | | 7.00 | + .600/+ .400 |
| W100115080WT | 100.00 | | 100.00 | 115.00 | 8.00 | 115.00 | | 8.00 | + .600/+ .400 |
| W100120060WT | 100.00 | | 100.00 | 120.00 | 6.00 | 120.00 | | 6.00 | + .500/+ .300 |
| W100120080WT | 100.00 | | 100.00 | 120.00 | 8.00 | 120.00 | | 8.00 | + .600 +.400 |
| W100120095WT | 100.00 | | 100.00 | 120.00 | 9.50 | 120.00 | | 9.50 | + .600 +.400 |
| W100120100WT | 100.00 | | 100.00 | 120.00 | 10.00 | 120.00 | | 10.00 | + .600 +.400 |
| W100125080WT | 100.00 | | 100.00 | 125.00 | 8.00 | 125.00 | +.063 -.000 | 8.00 | + .600 +.400 |
| W100130080WT | 100.00 | | 100.00 | 130.00 | 8.00 | 130.00 | | 8.00 | + .600 +.400 |
| W110125040WT | 110.00 | | 110.00 | 125.00 | 4.00 | 125.00 | | 4.00 | + .500 +.300 |
| W110125050WT | 110.00 | | 110.00 | 125.00 | 5.00 | 125.00 | | 5.00 | + .600 +.400 |
| W110125080WT | 110.00 | | 110.00 | 125.00 | 8.00 | 125.00 | | 8.00 | + .600 +.400 |
| W110125095WT | 110.00 | | 110.00 | 125.00 | 9.50 | 125.00 | | 9.50 | + .600 +.400 |
| W110126090WT | 110.00 | | 110.00 | 126.00 | 9.00 | 126.00 | | 9.00 | + .600 +.400 |
| W110130080WT | 110.00 | | 110.00 | 130.00 | 8.00 | 130.00 | | 8.00 | + .600 +.400 |

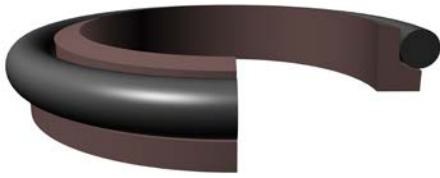


WT series - AU/STEEL & NBR/STEEL

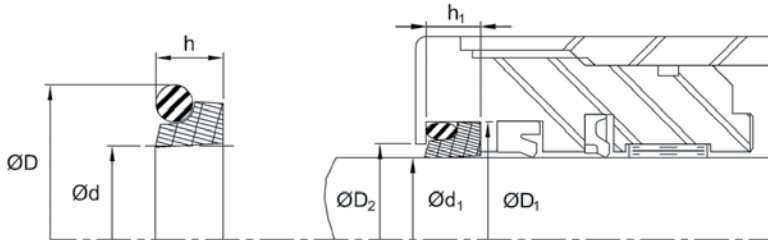
| Ref.Number | Pin Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|---------------|-------------------------|--------|------|--------------------|---------------|------|---------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| W110130095WT | 110.00 | -0.036 | 110.00 | 130.00 | 9.50 | 130.00 | +0.063 | 9.50 | +0.600 |
| W110135080WT | 110.00 | -0.090 | 110.00 | 135.00 | 8.00 | 135.00 | -0.000 | 8.00 | +0.400 |
| W110140080WT | 110.00 | | 110.00 | 140.00 | 8.00 | 140.00 | | 8.00 | ↓ |
| W115130040WT | 115.00 | | 115.00 | 130.00 | 4.00 | 130.00 | | 4.00 | +0.500/+0.300 |
| W115130080WT | 115.00 | | 115.00 | 130.00 | 8.00 | 130.00 | | 8.00 | +0.600 |
| W115140095WT | 115.00 | | 115.00 | 140.00 | 9.50 | 140.00 | | 9.50 | +0.400 |
| W120135040WT | 120.00 | | 120.00 | 135.00 | 4.00 | 135.00 | | 4.00 | +0.500/+0.300 |
| W120135080WT | 120.00 | | 120.00 | 135.00 | 8.00 | 135.00 | | 8.00 | +0.600 |
| W120135095WT | 120.00 | | 120.00 | 135.00 | 9.50 | 135.00 | | 9.50 | +0.400 |
| W120140080WT | 120.00 | | 120.00 | 140.00 | 8.00 | 140.00 | | 8.00 | ↓ |
| W120140095WT | 120.00 | | 120.00 | 140.00 | 9.50 | 140.00 | | 9.50 | ↓ |
| W120145095WT | 120.00 | ↓ | 120.00 | 145.00 | 9.50 | 145.00 | | 9.50 | ↓ |
| W125140040WT | 125.00 | -0.043 | 125.00 | 140.00 | 4.00 | 140.00 | | 4.00 | +0.500 |
| W125140050WT | 125.00 | -0.106 | 125.00 | 140.00 | 5.00 | 140.00 | | 5.00 | +0.300 |
| W125145095WT | 125.00 | | 125.00 | 145.00 | 9.50 | 145.00 | | 9.50 | +0.600 |
| W125150095WT | 125.00 | | 125.00 | 150.00 | 9.50 | 150.00 | | 9.50 | +0.400 |
| W130150040WT | 130.00 | | 130.00 | 150.00 | 4.00 | 150.00 | | 4.00 | +0.500/+0.300 |
| W130155095WT | 130.00 | | 130.00 | 155.00 | 9.50 | 155.00 | | 9.50 | +0.600/+0.400 |
| W140155040WT | 140.00 | | 140.00 | 155.00 | 4.00 | 155.00 | | 4.00 | +0.500/+0.300 |
| W140155080WT | 140.00 | | 140.00 | 155.00 | 8.00 | 155.00 | | 8.00 | +0.600 |
| W140170095WT | 140.00 | | 140.00 | 170.00 | 9.50 | 170.00 | | 9.50 | +0.400 |
| W145160080WT | 145.00 | | 145.00 | 160.00 | 8.00 | 160.00 | | 8.00 | ↓ |
| W160180095WT | 160.00 | ↓ | 160.00 | 180.00 | 9.50 | 180.00 | ↓ | 9.50 | ↓ |
| W190220080WT | 190.00 | -0.050/-0.122 | 190.00 | 220.00 | 8.00 | 220.00 | +0.072/-0.000 | 8.00 | ↓ |



WV - Rod wipers - Metric



| Standard Material | Temperature Range | Surface Speed |
|-------------------|-------------------------------------|-------------------|
| PTFE/Nitrile | -30°F to +130°F (-34°C to +54°C) | <50 ft/s (15 m/s) |



With its aggressive O'Ring loaded design and a PTFE lip, this wiper offers great wiping and scraping action while insuring no particles can migrate through the static side of the groove.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|--------------|--------------|-------|-------------------------|---|---|--------------------|----------------|-------|----------------|------|----------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | D2 | Tol. | h1 | Tol. |
| W006010037WV | 6.00 | -.013 | 6.00 | | | 10.80 | +.027 -.000 | 8.70 | +.200 -.000 | 3.70 | +.200 -.000 |
| W008012037WV | 8.00 | -.035 | 8.00 | | | 12.80 | -.000 | 10.70 | -.000 | 3.70 | -.000 |
| W010014037WV | 10.00 | ▼ | 10.00 | | | 14.80 | ▼ | 12.70 | | 3.70 | |
| W012018050WV | 12.00 | -.016 | 12.00 | | | 18.80 | +.033 -.000 | 15.50 | | 5.00 | |
| W014020050WV | 14.00 | -.043 | 14.00 | | | 20.80 | -.000 | 17.50 | | 5.00 | |
| W015021050WV | 15.00 | | 15.00 | | | 21.80 | | 18.50 | | 5.00 | |
| W016022050WV | 16.00 | | 16.00 | | | 22.80 | | 19.50 | | 5.00 | |
| W018024050WV | 18.00 | ▼ | 18.00 | | | 24.80 | | 21.50 | | 5.00 | |
| W020026050WV | 20.00 | -.020 | 20.00 | | | 26.80 | | 23.50 | | 5.00 | |
| W022028050WV | 22.00 | -.053 | 22.00 | | | 28.80 | ▼ | 25.50 | | 5.00 | |
| W025031050WV | 25.00 | | 25.00 | | | 31.80 | +.039 -.000 | 28.50 | | 5.00 | |
| W028034050WV | 28.00 | | 28.00 | | | 34.80 | -.000 | 31.50 | | 5.00 | |
| W030036050WV | 30.00 | ▼ | 30.00 | | | 36.80 | | 33.50 | | 5.00 | |
| W032038050WV | 32.00 | -.025 | 32.00 | | | 38.80 | | 35.50 | | 5.00 | |
| W033039050WV | 33.00 | -.064 | 33.00 | | | 39.80 | | 36.50 | | 5.00 | |
| W034040050WV | 34.00 | | 34.00 | | | 40.80 | | 37.50 | | 5.00 | |
| W035041050WV | 35.00 | | 35.00 | | | 41.80 | | 38.50 | | 5.00 | |
| W036042050WV | 36.00 | | 36.00 | | | 42.80 | | 39.50 | | 5.00 | |
| W038044050WV | 38.00 | | 38.00 | | | 44.80 | | 41.50 | | 5.00 | |
| W040046050WV | 40.00 | | 40.00 | | | 46.80 | | 43.50 | | 5.00 | |
| W041048050WV | 41.00 | | 41.00 | | | 47.80 | | 44.50 | | 5.00 | |
| W042048050WV | 42.00 | | 42.00 | | | 48.80 | | 45.50 | | 5.00 | |
| W043049050WV | 43.00 | ▼ | 43.00 | | | 49.80 | ▼ | 46.50 | ▼ | 5.00 | ▼ |



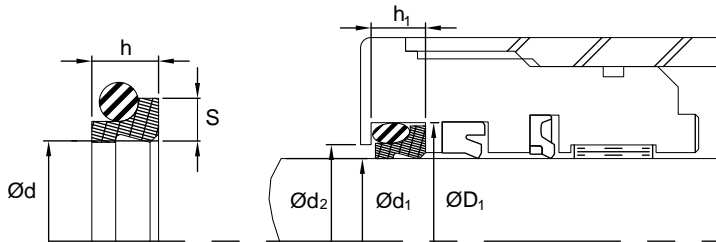
WV series - PTFE/NBR

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|--------------|--------------|----------------|-------------------------|---|---|--------------------|----------------|--------|----------------|------|----------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | D2 | Tol. | h1 | Tol. |
| W045051050WV | 45.00 | -.025 -.064 | 45.00 | | | 51.80 | +.046 -.000 | 48.50 | +.200 -.000 | 5.00 | +.200 -.000 |
| W048054050WV | 48.00 | | 48.00 | | | 54.80 | | 51.50 | | 5.00 | |
| W050056050WV | 50.00 | ▼ | 50.00 | | | 56.80 | | 53.50 | | 5.00 | |
| W055061050WV | 55.00 | -.030 -.076 | 55.00 | | | 61.80 | | 58.50 | | 5.00 | |
| W056062050WV | 56.00 | | 56.00 | | | 62.80 | | 59.50 | | 5.00 | |
| W060066050WV | 60.00 | | 60.00 | | | 66.80 | | 63.50 | | 5.00 | |
| W065073060WV | 65.00 | | 65.00 | | | 73.80 | | 69.00 | | 6.00 | |
| W070078060WV | 70.00 | | 70.00 | | | 78.80 | ▼ | 74.00 | | 6.00 | |
| W075083060WV | 75.00 | | 75.00 | | | 83.80 | +.054 -.000 | 79.00 | | 6.00 | |
| W080088060WV | 80.00 | ▼ | 80.00 | | | 88.80 | | 84.00 | | 6.00 | |
| W085093060WV | 85.00 | -.036 -.090 | 85.00 | | | 93.80 | | 89.00 | | 6.00 | |
| W090098060WV | 90.00 | | 90.00 | | | 98.80 | | 94.00 | | 6.00 | |
| W095103060WV | 95.00 | | 95.00 | | | 103.80 | | 99.00 | | 6.00 | |
| W100108060WV | 100.00 | | 100.00 | | | 108.80 | | 104.00 | | 6.00 | |
| W105113060WV | 105.00 | | 105.00 | | | 113.80 | | 109.00 | | 6.00 | |
| W110118060WV | 110.00 | | 110.00 | | | 118.80 | ▼ | 114.00 | | 6.00 | |
| W115123060WV | 115.00 | | 115.00 | | | 123.80 | +.063 -.000 | 119.00 | | 6.00 | |
| W120128060WV | 120.00 | ▼ | 120.00 | | | 128.80 | | 124.00 | | 6.00 | |
| W125133060WV | 125.00 | -.043 -.106 | 125.00 | | | 133.80 | | 129.00 | | 6.00 | |
| W130138060WV | 130.00 | | 130.00 | | | 138.80 | | 134.00 | | 6.00 | |
| W135143060WV | 135.00 | | 135.00 | | | 143.80 | | 139.00 | | 6.00 | |
| W140148060WV | 140.00 | | 140.00 | | | 148.80 | | 144.00 | | 6.00 | |
| W150158060WV | 150.00 | | 150.00 | | | 158.80 | | 154.00 | | 6.00 | |
| W160168060WV | 160.00 | | 160.00 | | | 168.80 | ▼ | 164.00 | | 6.00 | |
| W170178060WV | 170.00 | | 170.00 | | | 178.80 | +.072 -.000 | 174.00 | | 6.00 | |
| W180188060WV | 180.00 | ▼ | 180.00 | | | 188.80 | | 184.00 | | 6.00 | |
| W190198060WV | 190.00 | -.050 -.122 | 190.00 | | | 198.80 | | 194.00 | | 6.00 | |
| W200208060WV | 200.00 | | 200.00 | | | 208.80 | | 204.00 | | 6.00 | |
| W210218060WV | 210.00 | | 210.00 | | | 218.80 | | 214.00 | | 6.00 | |
| W220228060WV | 220.00 | | 220.00 | | | 228.80 | | 224.00 | | 6.00 | |
| W225233060WV | 225.00 | | 225.00 | | | 233.80 | | 229.00 | | 6.00 | |
| W230238060WV | 230.00 | | 230.00 | | | 238.80 | | 234.00 | | 6.00 | |
| W240248060WV | 240.00 | | 240.00 | | | 248.80 | ▼ | 244.00 | | 6.00 | |
| W250258060WV | 250.00 | ▼ | 250.00 | | | 258.80 | +.081 -.000 | 254.00 | | 6.00 | |
| W260272084WV | 260.00 | -.056 -.137 | 260.00 | | | 272.20 | | 264.50 | | 8.40 | |
| W270282084WV | 270.00 | | 270.00 | | | 282.20 | | 274.50 | | 8.40 | |
| W280292084WV | 280.00 | | 280.00 | | | 292.20 | | 284.50 | | 8.40 | |
| W290302084WV | 290.00 | | 290.00 | | | 302.20 | | 294.50 | | 8.40 | |
| W300312084WV | 300.00 | | 300.00 | | | 312.20 | ▼ | 304.50 | | 8.40 | |
| W310322084WV | 310.00 | ▼ | 310.00 | | | 322.20 | +.089 -.000 | 314.50 | | 8.40 | |
| W320332084WV | 320.00 | -.062 -.151 | 320.00 | | | 332.20 | | 324.50 | | 8.40 | |
| W350362084WV | 350.00 | | 350.00 | | | 362.20 | | 354.50 | | 8.40 | |
| W360372084WV | 360.00 | | 360.00 | | | 372.20 | | 364.50 | | 8.40 | |
| W370382084WV | 370.00 | | 370.00 | | | 382.20 | ▼ | 382.20 | | 8.40 | |
| W400412084WV | 400.00 | ▼ | 400.00 | | | 412.20 | +.097/- .000 | 404.50 | ▼ | 8.40 | ▼ |

WW - Rod wipers - Metric



| Standard Material | Temperature Range | Surface Speed |
|-------------------|-------------------------------------|-------------------|
| PTFE/Nitrile | -30°F to +130°F (-34°C to +54°C) | <50 ft/s (15 m/s) |



Similar to the **WV-style**, the **WW-style** rod wiper incorporates a dual-lip configuration for added wiping action.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|--------------|--------------|------------------|-------------------------|------|------|--------------------|------------------|-------|------------------|------|------------------|
| | d1 | Tol. | d | S | h | D1 | Tol. | D2 | Tol. | h1 | Tol. |
| W006010037WW | 6.00 | +0.010/-0.028 | 6.00 | 1.95 | 3.20 | 10.80 | +0.043 -0.000 | 7.50 | +0.090 -0.000 | 3.70 | +0.200 -0.000 |
| W008012037WW | 8.00 | -0.013 -0.065 | 8.00 | 1.95 | 3.20 | 12.80 | | 9.50 | | 3.70 | |
| W010014037WW | 10.00 | | 10.00 | 1.95 | 3.20 | 14.80 | ▼ | 11.50 | +0.110 -0.000 | 3.70 | |
| W012018050WW | 12.00 | -0.016 -0.043 | 12.00 | 2.95 | 4.50 | 18.80 | +0.052 -0.000 | 13.50 | | 5.00 | |
| W014020050WW | 14.00 | | 14.00 | 2.95 | 4.50 | 20.80 | | 15.50 | | 5.00 | |
| W015021050WW | 15.00 | | 15.00 | 2.95 | 4.50 | 21.80 | | 16.50 | | 5.00 | |
| W016022050WW | 16.00 | | 16.00 | 2.95 | 4.50 | 22.80 | | 17.50 | ▼ | 5.00 | |
| W018024050WW | 18.00 | ▼ | 18.00 | 2.95 | 4.50 | 24.80 | | 19.50 | +0.130 -0.000 | 5.00 | |
| W020026050WW | 20.00 | -0.020 -0.053 | 20.00 | 2.95 | 4.50 | 26.80 | | 21.50 | | 5.00 | |
| W020027042WW | 20.00 | | 20.00 | 2.80 | 3.90 | 27.60 | | 21.00 | | 4.20 | |
| W022028050WW | 22.00 | | 22.00 | 2.95 | 4.50 | 28.80 | | 23.50 | | 5.00 | |
| W022029042WW | 22.00 | | 22.00 | 2.80 | 3.90 | 29.60 | ▼ | 23.00 | | 4.20 | |
| W024030050WW | 24.00 | | 24.00 | 2.95 | 4.50 | 30.80 | +0.062 -0.000 | 25.50 | | 5.00 | |
| W024031042WW | 24.00 | | 24.00 | 2.80 | 3.90 | 31.60 | | 25.00 | | 4.20 | |
| W025031050WW | 25.00 | | 25.00 | 2.95 | 4.50 | 31.80 | | 26.50 | | 5.00 | |
| W025032042WW | 25.00 | | 25.00 | 2.80 | 3.90 | 32.60 | | 26.00 | | 4.20 | |
| W028034050WW | 28.00 | | 28.00 | 2.95 | 4.50 | 34.80 | | 29.50 | | 5.00 | |
| W028035042WW | 28.00 | | 28.00 | 2.80 | 3.90 | 35.60 | | 29.00 | | 4.20 | |
| W030036050WW | 30.00 | | 30.00 | 2.95 | 4.50 | 36.80 | | 31.50 | ▼ | 5.00 | |
| W030037042WW | 30.00 | ▼ | 30.00 | 2.80 | 3.90 | 37.60 | | 31.00 | +0.160 -0.000 | 4.20 | |
| W032038050WW | 32.00 | -0.025 -0.064 | 32.00 | 2.95 | 4.50 | 38.80 | | 33.50 | | 5.00 | |
| W032039042WW | 32.00 | | 32.00 | 2.80 | 3.90 | 39.60 | | 33.00 | | 4.20 | |
| W035041050WW | 35.00 | | 35.00 | 2.95 | 4.50 | 41.80 | | 36.50 | | 5.00 | |
| W035042042WW | 35.00 | ▼ | 35.00 | 2.80 | 3.90 | 42.60 | ▼ | 36.00 | ▼ | 4.20 | ▼ |



WW series - PTFE/NBR

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|---------------|--------------|-------|-------------------------|------|------|--------------------|--------|--------|--------|------|--------|
| | d1 | Tol. | d | S | h | D1 | Tol. | D2 | Tol. | h1 | Tol. |
| W036042050WWW | 36.00 | -.025 | 36.00 | 2.95 | 4.50 | 42.80 | +0.062 | 37.50 | +0.160 | 5.00 | +0.200 |
| W036043042WWW | 36.00 | -.064 | 36.00 | 2.80 | 3.90 | 43.60 | -0.000 | 37.00 | -0.000 | 4.20 | -0.000 |
| W038044050WWW | 38.00 | | 38.00 | 2.95 | 4.50 | 44.80 | | 39.50 | | 5.00 | |
| W038045042WWW | 38.00 | | 38.00 | 2.80 | 3.90 | 45.60 | | 39.00 | | 4.20 | |
| W040046050WWW | 40.00 | | 40.00 | 2.95 | 4.50 | 46.80 | | 41.50 | | 5.00 | |
| W040048063WWW | 40.00 | | 40.00 | 3.90 | 5.90 | 48.80 | | 41.50 | | 6.30 | |
| W042048050WWW | 42.00 | | 42.00 | 2.95 | 4.50 | 48.80 | ▼ | 43.50 | | 5.00 | |
| W042050063WWW | 42.00 | | 42.00 | 3.90 | 5.90 | 50.80 | +0.074 | 43.50 | | 6.30 | |
| W045051050WWW | 45.00 | | 45.00 | 2.95 | 4.50 | 51.80 | -0.000 | 46.50 | | 5.00 | |
| W045053063WWW | 45.00 | | 45.00 | 3.90 | 5.90 | 53.80 | | 46.50 | | 6.30 | |
| W048054050WWW | 48.00 | | 48.00 | 2.95 | 4.50 | 54.80 | | 49.50 | | 5.00 | |
| W048056063WWW | 48.00 | | 48.00 | 3.90 | 5.90 | 56.80 | | 49.50 | ▼ | 6.30 | |
| W050056050WWW | 50.00 | | 50.00 | 2.95 | 4.50 | 56.80 | | 51.50 | +0.190 | 5.00 | |
| W050058063WWW | 50.00 | ▼ | 50.00 | 3.90 | 5.90 | 58.80 | | 51.50 | -0.000 | 6.30 | |
| W052058050WWW | 52.00 | -.030 | 52.00 | 2.95 | 4.50 | 58.80 | | 53.50 | | 5.00 | |
| W052060063WWW | 52.00 | -.076 | 52.00 | 3.90 | 5.90 | 60.80 | | 53.50 | | 6.30 | |
| W055061050WWW | 55.00 | | 55.00 | 2.95 | 4.50 | 61.80 | | 56.50 | | 5.00 | |
| W056062050WWW | 56.00 | | 56.00 | 2.95 | 4.50 | 62.80 | | 57.50 | | 5.00 | |
| W055063063WWW | 55.00 | | 55.00 | 3.90 | 5.90 | 63.80 | | 56.50 | | 6.30 | |
| W056064063WWW | 56.00 | | 56.00 | 3.90 | 5.90 | 64.80 | | 57.50 | | 6.30 | |
| W060066050WWW | 60.00 | | 60.00 | 2.95 | 4.50 | 66.80 | | 61.50 | | 5.00 | |
| W060068063WWW | 60.00 | | 60.00 | 3.90 | 5.90 | 68.80 | | 61.50 | | 6.30 | |
| W063071063WWW | 63.00 | | 63.00 | 3.90 | 5.90 | 71.80 | | 64.50 | | 6.30 | |
| W065073060WWW | 65.00 | | 65.00 | 3.75 | 5.50 | 73.80 | | 66.50 | | 6.00 | |
| W065073063WWW | 65.00 | | 65.00 | 3.90 | 5.90 | 73.80 | | 66.50 | | 6.30 | |
| W070078060WWW | 70.00 | | 70.00 | 3.75 | 5.50 | 78.80 | ▼ | 71.50 | | 6.00 | |
| W070082081WWW | 70.00 | | 70.00 | 5.40 | 7.70 | 82.20 | +0.087 | 72.00 | | 8.10 | |
| W075083060WWW | 75.00 | | 75.00 | 3.75 | 5.50 | 83.80 | -0.000 | 76.50 | | 6.00 | |
| W075087081WWW | 75.00 | | 75.00 | 5.40 | 7.70 | 87.20 | | 77.00 | ▼ | 8.10 | |
| W080088060WWW | 80.00 | | 80.00 | 3.75 | 5.50 | 88.80 | | 81.50 | +0.220 | 6.00 | |
| W080092081WWW | 80.00 | ▼ | 80.00 | 5.40 | 7.70 | 92.20 | | 82.00 | -0.000 | 8.10 | |
| W085093060WWW | 85.00 | -.036 | 85.00 | 3.75 | 5.50 | 93.80 | | 86.50 | | 6.00 | |
| W085097081WWW | 85.00 | -.090 | 85.00 | 5.40 | 7.70 | 97.20 | | 87.00 | | 8.10 | |
| W090098060WWW | 90.00 | | 90.00 | 3.75 | 5.50 | 98.80 | | 91.50 | | 6.00 | |
| W090102081WWW | 90.00 | | 90.00 | 5.40 | 7.70 | 102.20 | | 92.00 | | 8.10 | |
| W095103060WWW | 95.00 | | 95.00 | 3.75 | 5.50 | 103.80 | | 96.50 | | 6.00 | |
| W095107081WWW | 95.00 | | 95.00 | 5.40 | 7.70 | 107.20 | | 97.00 | | 8.10 | |
| W100108060WWW | 100.00 | | 100.00 | 3.75 | 5.50 | 108.80 | | 101.50 | | 6.00 | |
| W100112081WWW | 100.00 | | 100.00 | 5.40 | 7.70 | 112.20 | | 102.00 | | 8.10 | |
| W105113060WWW | 105.00 | | 105.00 | 3.75 | 5.50 | 113.80 | | 106.50 | | 6.00 | |
| W105117081WWW | 105.00 | | 105.00 | 5.40 | 7.70 | 117.20 | | 107.00 | | 8.10 | |
| W110118060WWW | 110.00 | | 110.00 | 3.75 | 5.50 | 118.80 | ▼ | 111.50 | | 6.00 | |
| W110122081WWW | 110.00 | | 110.00 | 5.40 | 7.70 | 122.20 | +0.100 | 112.00 | | 8.10 | |
| W115127081WWW | 115.00 | | 115.00 | 5.40 | 7.70 | 127.20 | -0.000 | 117.00 | ▼ | 8.10 | |
| W120128060WWW | 120.00 | | 120.00 | 3.75 | 5.50 | 128.80 | ▼ | 121.50 | +0.250 | 6.00 | |
| W120132081WWW | 120.00 | ▼ | 120.00 | 5.40 | 7.70 | 132.20 | ▼ | 122.00 | -0.000 | 8.10 | ▼ |

WW series - PTFE/NBR

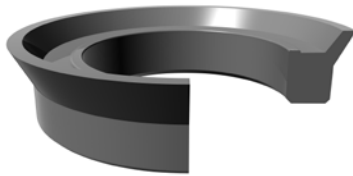


| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|--------------|--------------|-------|-------------------------|------|------|--------------------|--------|--------|--------|------|--------|
| | d1 | Tol. | d | S | h | D1 | Tol. | D2 | Tol. | h1 | Tol. |
| W125133060WW | 125.00 | -.043 | 125.00 | 3.75 | 5.50 | 133.80 | +0.100 | 126.50 | +0.250 | 6.00 | +0.200 |
| W125137081WW | 125.00 | -.106 | 125.00 | 5.40 | 7.70 | 137.20 | -0.000 | 127.00 | -0.000 | 8.10 | +0.200 |
| W130138060WW | 130.00 | | 130.00 | 3.75 | 5.50 | 138.80 | | 131.50 | | 6.00 | |
| W130142081WW | 130.00 | | 130.00 | 5.40 | 7.70 | 142.20 | | 132.00 | | 8.10 | |
| W135147081WW | 135.00 | | 135.00 | 5.40 | 7.70 | 147.20 | | 137.00 | | 8.10 | |
| W140148060WW | 140.00 | | 140.00 | 3.75 | 5.50 | 148.80 | | 141.50 | | 6.00 | |
| W140156095WW | 140.00 | | 140.00 | 7.00 | 9.10 | 156.00 | | 142.50 | | 9.50 | |
| W150158060WW | 150.00 | | 150.00 | 3.75 | 5.50 | 158.80 | | 151.50 | | 6.00 | |
| W150166095WW | 150.00 | | 150.00 | 7.00 | 9.10 | 166.00 | | 152.50 | | 9.50 | |
| W160168060WW | 160.00 | | 160.00 | 3.75 | 5.50 | 168.80 | | 161.50 | | 6.00 | |
| W160176095WW | 160.00 | | 160.00 | 7.00 | 9.10 | 176.00 | | 162.50 | | 9.50 | |
| W170178060WW | 170.00 | | 170.00 | 3.75 | 5.50 | 178.80 | | 171.50 | | 6.00 | |
| W170186095WW | 170.00 | | 170.00 | 7.00 | 9.10 | 186.00 | +0.115 | 172.50 | | 9.50 | |
| W180188060WW | 180.00 | | 180.00 | 3.75 | 5.50 | 188.80 | -0.000 | 181.50 | +0.290 | 6.00 | -0.000 |
| W180196095WW | 180.00 | | 180.00 | 7.00 | 9.10 | 196.00 | | 182.50 | -0.000 | 9.50 | |
| W190198060WW | 190.00 | -.050 | 190.00 | 3.75 | 5.50 | 198.80 | | 191.50 | | 6.00 | |
| W190206095WW | 190.00 | -.122 | 190.00 | 7.00 | 9.10 | 206.00 | | 192.50 | | 9.50 | |
| W200208060WW | 200.00 | | 200.00 | 3.75 | 5.50 | 208.80 | | 201.50 | | 6.00 | |
| W200216095WW | 200.00 | | 200.00 | 7.00 | 9.10 | 216.00 | | 202.50 | | 9.50 | |
| W210218060WW | 210.00 | | 210.00 | 3.75 | 5.50 | 218.80 | | 211.50 | | 6.00 | |
| W210226095WW | 210.00 | | 210.00 | 7.00 | 9.10 | 226.00 | | 212.50 | | 9.50 | |
| W220228060WW | 220.00 | | 220.00 | 3.75 | 5.50 | 228.80 | | 221.50 | | 6.00 | |
| W220236095WW | 220.00 | | 220.00 | 7.00 | 9.10 | 236.00 | | 222.50 | | 9.50 | |
| W230238060WW | 230.00 | | 230.00 | 3.75 | 5.50 | 238.80 | | 231.50 | | 6.00 | |
| W230246095WW | 230.00 | | 230.00 | 7.00 | 9.10 | 246.00 | | 232.50 | | 9.50 | |
| W240248060WW | 240.00 | | 240.00 | 3.75 | 5.50 | 248.80 | | 241.50 | | 6.00 | |
| W240256095WW | 240.00 | | 240.00 | 7.00 | 9.10 | 256.00 | +0.130 | 242.50 | | 9.50 | |
| W250258060WW | 250.00 | | 250.00 | 3.75 | 5.50 | 258.80 | -0.000 | 251.50 | +0.320 | 6.00 | -0.000 |
| W250266095WW | 250.00 | | 250.00 | 7.00 | 9.10 | 266.00 | | 252.50 | -0.000 | 9.50 | |
| W260272084WW | 260.00 | -.056 | 260.00 | 5.15 | 7.60 | 272.20 | | 262.00 | | 8.40 | |
| W260276095WW | 260.00 | -.137 | 260.00 | 7.00 | 9.10 | 276.00 | | 262.50 | | 9.50 | |
| W270282084WW | 270.00 | | 270.00 | 5.15 | 7.60 | 282.20 | | 272.00 | | 8.40 | |
| W270286095WW | 270.00 | | 270.00 | 7.00 | 9.10 | 286.00 | | 272.50 | | 9.50 | |
| W280292084WW | 280.00 | | 280.00 | 5.15 | 7.60 | 292.20 | | 282.00 | | 8.40 | |
| W280296095WW | 280.00 | | 280.00 | 7.00 | 9.10 | 296.00 | | 282.50 | | 9.50 | |
| W290302084WW | 290.00 | | 290.00 | 5.15 | 7.60 | 302.20 | | 292.00 | | 8.40 | |
| W290306095WW | 290.00 | | 290.00 | 7.00 | 9.10 | 306.00 | | 292.50 | | 9.50 | |
| W300312084WW | 300.00 | | 300.00 | 5.15 | 7.60 | 312.20 | | 302.00 | | 8.40 | |
| W300316095WW | 300.00 | | 300.00 | 7.00 | 9.10 | 316.00 | +0.140 | 302.50 | | 9.50 | |
| W310322084WW | 310.00 | | 310.00 | 5.15 | 7.60 | 322.20 | -0.000 | 312.00 | | 8.40 | |
| W310326095WW | 310.00 | | 310.00 | 7.00 | 9.10 | 326.00 | | 312.50 | | 9.50 | |
| W320332084WW | 320.00 | -.062 | 320.00 | 5.15 | 7.60 | 332.20 | | 322.00 | +0.360 | 8.40 | -0.000 |
| W320336095WW | 320.00 | -.151 | 320.00 | 7.00 | 9.10 | 336.00 | | 322.50 | -0.000 | 9.50 | |
| W350362084WW | 350.00 | | 350.00 | 5.15 | 7.60 | 362.20 | | 352.00 | | 8.40 | |
| W350366095WW | 350.00 | | 350.00 | 7.00 | 9.10 | 366.00 | | 352.50 | | 9.50 | |
| W360372084WW | 360.00 | | 360.00 | 5.15 | 7.60 | 372.20 | | 362.00 | | 8.40 | |

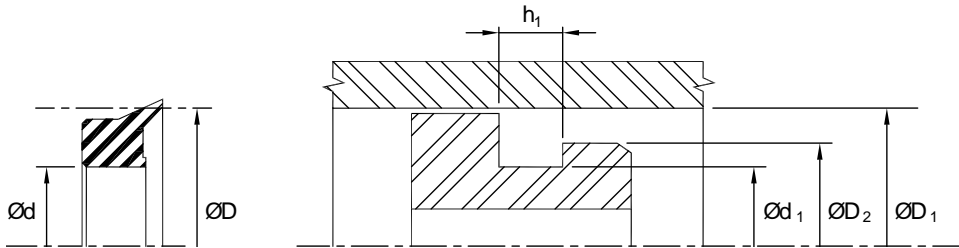
WW series - PTFE/NBR

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|--------------|--------------|----------------|-------------------------|------|-------|--------------------|----------------|--------|----------------|-------|----------------|
| | d1 | Tol. | d | S | h | D1 | Tol. | D2 | Tol. | h1 | Tol. |
| W360376095WW | 360.00 | -.062 -.151 | 360.00 | 7.00 | 9.10 | 376.00 | +.140 -.000 | 362.50 | +.360 -.000 | 9.50 | +.200 -.000 |
| W370382084WW | 370.00 | | 370.00 | 5.15 | 7.60 | 382.20 | | 372.00 | | 8.40 | |
| W370386095WW | 370.00 | | 370.00 | 7.00 | 9.10 | 386.00 | | 372.50 | | 9.50 | |
| W400412084WW | 400.00 | | 400.00 | 5.15 | 7.60 | 412.20 | +.155 -.000 | 402.00 | +.400 -.000 | 8.40 | |
| W400424140WW | 400.00 | | 400.00 | 8.95 | 13.00 | 424.00 | | 402.50 | | 14.00 | |

PPW - Piston wipers - Metric



| Standard Material | Temperature Range | Surface Speed |
|-------------------|--------------------------------------|---------------------|
| Polyurethane | -40°F to +212°F (-40°C to +100°C) | <2.6 ft/s (0.8 m/s) |



PPW-style piston wiper is mainly used to keep foreign materials from entering single-acting hydraulic cylinders that have an opening to the atmosphere. The knife-edged lip offers excellent contaminant exclusion capabilities.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | Housing Dimensions | | | | |
|------------|---------------|----------------|-------------------------|---|--------------------|----------------|------|----------------|-------|
| | D1 | Tol. | d | h | d1 | Tol. | h1 | Tol. | D2 |
| PPW-030 | 30.00 | -.084/- .000 | | | 21.40 | +.065/- .065 | 5.30 | +.250 -.000 | 27.00 |
| PPW-040 | 40.00 | -.100 -.000 | | | 31.40 | +.080 -.080 | 5.30 | | 37.00 |
| PPW-050 | 50.00 | | | | 41.40 | | 5.30 | | 47.00 |
| PPW-055 | 55.00 | -.120 -.000 | | | 46.40 | | 5.30 | | 52.00 |
| PPW-060 | 60.00 | | | | 51.40 | +.095 -.095 | 5.30 | | 57.00 |
| PPW-063 | 63.00 | | | | 54.40 | | 5.30 | | 60.00 |
| PPW-070 | 70.00 | | | | 61.40 | | 5.30 | | 67.00 |

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | Housing Dimensions | | | | |
|------------|---------------|----------------|-------------------------|---|--------------------|----------------|-------|----------------|--------|
| | D1 | Tol. | d | h | d1 | Tol. | h1 | Tol. | D2 |
| PPW-080 | 80.00 | -.120/- .000 | | | 71.40 | +.095/- .095 | 5.30 | +.250 -.000 | 77.00 |
| PPW-090 | 90.00 | -.140 -.000 | | | 81.40 | +.110 -.110 | 5.30 | | 87.00 |
| PPW-095 | 95.00 | | | | 86.40 | | 5.30 | | 92.00 |
| PPW-100 | 100.00 | | | | 91.40 | | 5.30 | | 97.00 |
| PPW-100/B | 100.00 | | | | 88.00 | | 7.50 | | 94.00 |
| PPW-110 | 110.00 | | | | 101.40 | | 5.30 | | 107.00 |
| PPW-115 | 115.00 | | | | 106.40 | | 5.30 | | 112.00 |
| PPW-115/A | 115.00 | | | | 107.00 | | 5.00 | | 111.00 |
| PPW-115/B | 115.00 | ↓ | | | 100.00 | | 10.00 | | 107.50 |
| PPW-120 | 120.00 | -.160 -.000 | | | 111.40 | | 5.30 | | 117.00 |
| PPW-125 | 125.00 | | | | 116.50 | ↓ | 5.30 | | 122.00 |
| PPW-130 | 130.00 | | | | 121.40 | +.125 -.125 | 5.30 | | 127.00 |
| PPW-140 | 140.00 | ↓ | | | 131.40 | | 5.30 | ↓ | 137.00 |

OTHER PROFILES ARE ALSO AVAILABLE ON REQUEST

Though this product offering contains a wide selection of commonly used parts in the marketplace, it is possible that you haven't found the exact part you were looking for.

We have many other seal profiles available on request, please do not hesitate to contact us and we will do our best to help you locate the required part.

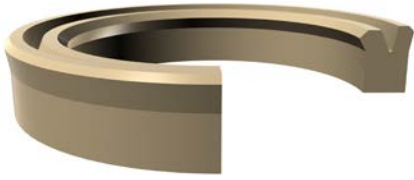




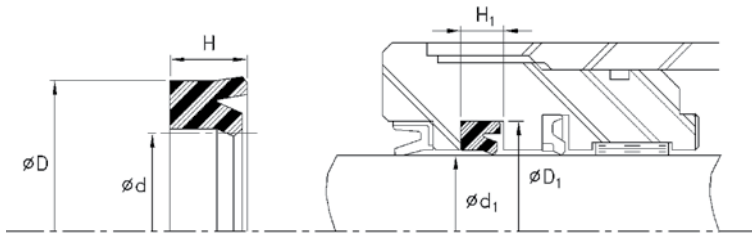


| | | | |
|--|---|---|----|
| | RA | J | 2 |
| | RA/N | J | 10 |
| | RC | J | 14 |
| | RC/AER | J | 24 |
| | RE | J | 26 |
| | RH | J | 28 |
| | RV | J | 30 |
| | RX | J | 33 |
| | RZ | J | 37 |
| | R5/U | J | 40 |
| | R12 | J | 40 |
| | R16 | J | 42 |
| | R19 | J | 45 |
| | SD/N, ST/N, SD/T, ST/T BACK-UP RINGS | J | 46 |

RA - Rod seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|--------------------------|----------------------|
| Polyurethane | -31°F to +212°F (-35°C to +100°C) | ≤6 000 psi (≤414 bar) | < 1.6 ft/s (0.5 m/s) |



RA-style rod seal is a non-symmetrical hydraulic U-Cup type seal. The machined, beveled lip faces the rod to provide both low and high pressures as well as to wipe the rod of the fluid film. Its robust construction makes it particularly well suited for applications in mobile hydraulics.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|--------|-------------------------|-------|------|--------------------|--------|------|--------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R006014050RA | 6.30 | -0.013 | 6.30 | 14.30 | 5.00 | 14.30 | +0.110 | 5.70 | +0.200 |
| R006016060RA | 6.30 | -0.035 | 6.30 | 16.30 | 6.00 | 16.30 | -0.000 | 7.00 | -0.000 |
| R006016075RA | 6.30 | | 6.30 | 16.30 | 7.50 | 16.30 | | 8.50 | |
| R006016080RA | 6.30 | | 6.30 | 16.30 | 8.00 | 16.30 | | 9.00 | |
| R008016050RA | 8.00 | | 8.00 | 16.00 | 5.00 | 16.00 | | 5.70 | |
| R008018060RA | 8.00 | | 8.00 | 18.00 | 6.00 | 18.00 | | 7.00 | |
| R008018075RA | 8.00 | | 8.00 | 18.00 | 7.50 | 18.00 | | 8.50 | |
| R008018080RA | 8.00 | | 8.00 | 18.00 | 8.00 | 18.00 | | 9.00 | |
| R009017050RA | 9.00 | | 9.00 | 17.00 | 5.00 | 17.00 | | 5.70 | |
| R009019060RA | 9.00 | | 9.00 | 19.00 | 6.00 | 19.00 | +0.130 | 7.00 | |
| R009019075RA | 9.00 | | 9.00 | 19.00 | 7.50 | 19.00 | -0.000 | 8.50 | |
| R009019080RA | 9.00 | | 9.00 | 19.00 | 8.00 | 19.00 | | 9.00 | |
| R010018050RA | 10.00 | | 10.00 | 18.00 | 5.00 | 18.00 | | 5.70 | |
| R010020060RA | 10.00 | | 10.00 | 20.00 | 6.00 | 20.00 | | 7.00 | |
| R010020075RA | 10.00 | | 10.00 | 20.00 | 7.50 | 20.00 | | 8.50 | |
| R010020080RA | 10.00 | ▼ | 10.00 | 20.00 | 8.00 | 20.00 | | 9.00 | |
| R011019050RA | 11.20 | -0.016 | 11.20 | 19.20 | 5.00 | 19.20 | | 5.70 | |
| R011021060RA | 11.20 | -0.043 | 11.20 | 21.20 | 6.00 | 21.20 | | 7.00 | |
| R011021075RA | 11.20 | | 11.20 | 21.20 | 7.50 | 21.20 | | 8.50 | |
| R011021080RA | 11.20 | | 11.20 | 21.20 | 8.00 | 21.20 | | 9.00 | |
| R012020050RA | 12.50 | | 12.50 | 20.50 | 5.00 | 20.50 | | 5.70 | |
| R012022060RA | 12.50 | ▼ | 12.50 | 22.50 | 6.00 | 22.50 | | 7.00 | ▼ |

RA series - AU 92A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|-------|-------------------------|-------|-------|--------------------|---------------|-------|--------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R012022075RA | 12.50 | .016 | 12.50 | 22.50 | 7.50 | 22.50 | + .130 | 8.50 | + .200 |
| R012022080RA | 12.50 | -.043 | 12.50 | 22.50 | 8.00 | 22.50 | - .000 | 9.00 | - .000 |
| R014022050RA | 14.00 | | 14.00 | 22.00 | 5.00 | 22.00 | | 5.70 | |
| R014024060RA | 14.00 | | 14.00 | 24.00 | 6.00 | 24.00 | | 7.00 | |
| R014024075RA | 14.00 | | 14.00 | 24.00 | 7.50 | 24.00 | | 8.50 | |
| R014024080RA | 14.00 | | 14.00 | 24.00 | 8.00 | 24.00 | | 9.00 | |
| R015023050RA | 15.00 | | 15.00 | 23.00 | 5.00 | 23.00 | | 5.70 | |
| R015025060RA | 15.00 | | 15.00 | 25.00 | 6.00 | 25.00 | | 7.00 | |
| R015025080RA | 15.00 | | 15.00 | 25.00 | 8.00 | 25.00 | | 9.00 | |
| R015028080RA | 15.00 | | 15.00 | 28.00 | 8.00 | 28.00 | | 9.00 | |
| R015028100RA | 15.00 | | 15.00 | 28.00 | 10.00 | 28.00 | | 11.00 | |
| R016024050RA | 16.00 | | 16.00 | 24.00 | 5.00 | 24.00 | | 5.70 | |
| R016026060RA | 16.00 | | 16.00 | 26.00 | 6.00 | 26.00 | | 7.00 | |
| R016026075RA | 16.00 | | 16.00 | 26.00 | 7.50 | 26.00 | | 8.50 | |
| R016026080RA | 16.00 | | 16.00 | 26.00 | 8.00 | 26.00 | | 9.00 | |
| R018026050RA | 18.00 | | 18.00 | 26.00 | 5.00 | 26.00 | | 5.70 | |
| R018028060RA | 18.00 | | 18.00 | 28.00 | 6.00 | 28.00 | | 7.00 | |
| R018028080RA | 18.00 | | 18.00 | 28.00 | 8.00 | 28.00 | ↓ | 9.00 | |
| R018031080RA | 18.00 | | 18.00 | 31.00 | 8.00 | 31.00 | + .160 | 9.00 | |
| R018031100RA | 18.00 | ↓ | 18.00 | 31.00 | 10.00 | 31.00 | - .000 | 11.00 | |
| R020028050RA | 20.00 | .020 | 20.00 | 28.00 | 5.00 | 28.00 | + .130 | 5.70 | |
| R020030060RA | 20.00 | -.053 | 20.00 | 30.00 | 6.00 | 30.00 | - .000 | 7.00 | |
| R020030080RA | 20.00 | | 20.00 | 30.00 | 8.00 | 30.00 | ↓ | 9.00 | |
| R020033080RA | 20.00 | | 20.00 | 33.00 | 8.00 | 33.00 | + .160 | 9.00 | |
| R020033100RA | 20.00 | | 20.00 | 33.00 | 10.00 | 33.00 | - .000 | 11.00 | |
| R022030050RA | 22.40 | | 22.40 | 30.00 | 5.00 | 30.00 | + .130/- .000 | 5.70 | |
| R022035100RA | 22.00 | | 22.00 | 35.00 | 10.00 | 35.00 | + .160 | 11.00 | |
| R023031050RA | 23.50 | | 23.50 | 31.50 | 5.00 | 31.50 | - .000 | 5.70 | |
| R025033050RA | 25.00 | | 25.00 | 33.00 | 5.00 | 33.00 | | 5.70 | |
| R025035050RA | 25.00 | | 25.00 | 35.00 | 5.00 | 35.00 | | 5.70 | |
| R025035060RA | 25.00 | | 25.00 | 35.00 | 6.00 | 35.00 | | 7.00 | |
| R025035080RA | 25.00 | | 25.00 | 35.00 | 8.00 | 35.00 | | 9.00 | |
| R025038080RA | 25.00 | | 25.00 | 38.00 | 8.00 | 38.00 | | 9.00 | |
| R025038100RA | 25.00 | | 25.00 | 38.00 | 10.00 | 38.00 | | 11.00 | |
| R025040090RA | 25.00 | | 25.00 | 40.00 | 9.00 | 40.00 | | 10.00 | |
| R025040100RA | 25.00 | | 25.00 | 40.00 | 10.00 | 40.00 | | 11.00 | |
| R027040100RA | 27.00 | | 27.00 | 40.00 | 10.00 | 40.00 | | 11.00 | |
| R028035050RA | 28.00 | | 28.00 | 35.50 | 5.00 | 35.50 | | 5.70 | |
| R028038060RA | 28.00 | | 28.00 | 38.00 | 6.00 | 38.00 | | 7.00 | |
| R028038080RA | 28.00 | | 28.00 | 38.00 | 8.00 | 38.00 | | 9.00 | |
| R028041080RA | 28.00 | | 28.00 | 41.00 | 8.00 | 41.00 | | 9.00 | |
| R028041100RA | 28.00 | | 28.00 | 41.00 | 10.00 | 41.00 | | 11.00 | |
| R028043090RA | 28.00 | | 28.00 | 43.00 | 9.00 | 43.00 | | 10.00 | |
| R028043100RA | 28.00 | | 28.00 | 43.00 | 10.00 | 43.00 | | 11.00 | |
| R030040060RA | 30.00 | | 30.00 | 40.00 | 6.00 | 40.00 | | 7.00 | |
| R030040080RA | 30.00 | ↓ | 30.00 | 40.00 | 8.00 | 40.00 | ↓ | 9.00 | ↓ |

RA series - AU 92A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R030043100RA | 30.00 | -0.020 | 30.00 | 43.00 | 10.00 | 43.00 | +0.160 -0.000 | 11.00 | +0.200 -0.000 |
| R030045090RA | 30.00 | -0.053 | 30.00 | 45.00 | 9.00 | 45.00 | | 10.00 | |
| R030045100RA | 30.00 | ▼ | 30.00 | 45.00 | 10.00 | 45.00 | | 11.00 | |
| R031041060RA-1 | 31.50 | -0.025 -0.064 | 31.50 | 41.50 | 6.00 | 41.50 | | 7.00 | |
| R034050120RA | 34.00 | | 34.00 | 50.00 | 12.00 | 50.00 | | 13.00 | |
| R035045060RA | 35.00 | | 35.00 | 45.00 | 6.00 | 45.00 | | 7.00 | |
| R035045070RA | 35.00 | | 35.00 | 45.00 | 7.00 | 45.00 | | 8.00 | |
| R035045080RA | 35.00 | | 35.00 | 45.00 | 8.00 | 45.00 | | 9.00 | |
| R035050090RA | 35.00 | | 35.00 | 50.00 | 9.00 | 50.00 | | 10.00 | |
| R035050100RA | 35.00 | | 35.00 | 50.00 | 10.00 | 50.00 | ▼ | 11.00 | |
| R036052120RA | 36.00 | | 36.00 | 52.00 | 12.00 | 52.00 | +0.190/-0.000 | 13.00 | |
| R040050060RA | 40.00 | | 40.00 | 50.00 | 6.00 | 50.00 | +0.160 -0.000 | 7.00 | |
| R040050080RA | 40.00 | | 40.00 | 50.00 | 8.00 | 50.00 | | 9.00 | |
| R040055090RA | 40.00 | | 40.00 | 55.00 | 9.00 | 55.00 | +0.190 -0.000 | 10.00 | |
| R040055100RA | 40.00 | | 40.00 | 55.00 | 10.00 | 55.00 | | 11.00 | |
| R040056100RA | 40.00 | | 40.00 | 56.00 | 10.00 | 56.00 | | 11.00 | |
| R040056120RA | 40.00 | | 40.00 | 56.00 | 12.00 | 56.00 | | 13.00 | |
| R045055060RA | 45.00 | | 45.00 | 55.00 | 6.00 | 55.00 | | 7.00 | |
| R045055070RA | 45.00 | | 45.00 | 55.00 | 7.00 | 55.00 | | 8.00 | |
| R045055080RA | 45.00 | | 45.00 | 55.00 | 8.00 | 55.00 | | 9.00 | |
| R045056070RA | 45.00 | | 45.00 | 56.00 | 7.00 | 56.00 | | 8.00 | |
| R045060090RA | 45.00 | | 45.00 | 60.00 | 9.00 | 60.00 | | 10.00 | |
| R045060100RA | 45.00 | | 45.00 | 60.00 | 10.00 | 60.00 | | 11.00 | |
| R045061100RA | 45.00 | | 45.00 | 61.00 | 10.00 | 61.00 | | 11.00 | |
| R045061120RA | 45.00 | | 45.00 | 61.00 | 12.00 | 61.00 | | 13.00 | |
| R047063120RA | 47.00 | | 47.00 | 63.00 | 12.00 | 63.00 | | 13.00 | |
| R050060060RA | 50.00 | | 50.00 | 60.00 | 6.00 | 60.00 | | 7.00 | |
| R050060080RA | 50.00 | | 50.00 | 60.00 | 8.00 | 60.00 | | 9.00 | |
| R050063100RA | 50.00 | | 50.00 | 63.00 | 10.00 | 63.00 | | 11.00 | |
| R050065090RA | 50.00 | | 50.00 | 65.00 | 9.00 | 65.00 | | 10.00 | |
| R050065100RA | 50.00 | | 50.00 | 65.00 | 10.00 | 65.00 | | 11.00 | |
| R050066100RA | 50.00 | | 50.00 | 66.00 | 10.00 | 66.00 | | 11.00 | |
| R050066120RA | 50.00 | | 50.00 | 66.00 | 12.00 | 66.00 | | 13.00 | |
| R050070120RA | 50.00 | ▼ | 50.00 | 70.00 | 12.00 | 70.00 | | 13.00 | |
| R053063060RA | 53.00 | -0.030 -0.076 | 53.00 | 63.00 | 6.00 | 63.00 | | 7.00 | |
| R053069120RA | 53.00 | | 53.00 | 69.00 | 12.00 | 69.00 | | 13.00 | |
| R055065060RA | 55.00 | | 55.00 | 65.00 | 6.00 | 65.00 | | 7.00 | |
| R055065080RA | 55.00 | | 55.00 | 65.00 | 8.00 | 65.00 | | 9.00 | |
| R055068100RA | 55.00 | | 55.00 | 68.00 | 10.00 | 68.00 | | 11.00 | |
| R055070090RA | 55.00 | | 55.00 | 70.00 | 9.00 | 70.00 | | 10.00 | |
| R055070100RA | 55.00 | | 55.00 | 70.00 | 10.00 | 70.00 | | 11.00 | |
| R055071100RA | 55.00 | | 55.00 | 71.00 | 10.00 | 71.00 | | 11.00 | |
| R055071120RA | 55.00 | | 55.00 | 71.00 | 12.00 | 71.00 | | 13.00 | |
| R055075120RA | 55.00 | | 55.00 | 75.00 | 12.00 | 75.00 | | 13.00 | |
| R056066060RA | 56.00 | | 56.00 | 66.00 | 6.00 | 66.00 | | 7.00 | |
| R056066080RA | 56.00 | ▼ | 56.00 | 66.00 | 8.00 | 66.00 | ▼ | 9.00 | ▼ |

RA series - AU 92A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|--------|-------------------------|-------|-------|--------------------|---------------|-------|--------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R056071090RA | 56.00 | -0.030 | 56.00 | 71.00 | 9.00 | 71.00 | +0.190 | 10.00 | +0.200 |
| R056071100RA | 56.00 | -0.076 | 56.00 | 71.00 | 10.00 | 71.00 | -0.000 | 11.00 | -0.000 |
| R056072100RA | 56.00 | | 56.00 | 72.00 | 10.00 | 72.00 | | 11.00 | |
| R056072120RA | 56.00 | | 56.00 | 72.00 | 12.00 | 72.00 | | 13.00 | |
| R056076120RA | 56.00 | | 56.00 | 76.00 | 12.00 | 76.00 | | 13.00 | |
| R060070060RA | 60.00 | | 60.00 | 70.00 | 6.00 | 70.00 | | 7.00 | |
| R060070080RA | 60.00 | | 60.00 | 70.00 | 8.00 | 70.00 | | 9.00 | |
| R060071070RA | 60.00 | | 60.00 | 71.00 | 7.00 | 71.00 | | 8.00 | |
| R060073100RA | 60.00 | | 60.00 | 73.00 | 10.00 | 73.00 | | 11.00 | |
| R060075090RA | 60.00 | | 60.00 | 75.00 | 9.00 | 75.00 | | 10.00 | |
| R060075100RA | 60.00 | | 60.00 | 75.00 | 10.00 | 75.00 | | 11.00 | |
| R060076100RA | 60.00 | | 60.00 | 76.00 | 10.00 | 76.00 | | 11.00 | |
| R060076120RA | 60.00 | | 60.00 | 76.00 | 12.00 | 76.00 | | 13.00 | |
| R060080120RA | 60.00 | | 60.00 | 80.00 | 12.00 | 80.00 | | 13.00 | |
| R063073060RA | 63.00 | | 63.00 | 73.00 | 6.00 | 73.00 | | 7.00 | |
| R063073080RA | 63.00 | | 63.00 | 73.00 | 8.00 | 73.00 | | 9.00 | |
| R063078090RA | 63.00 | | 63.00 | 78.00 | 9.00 | 78.00 | | 10.00 | |
| R063078100RA | 63.00 | | 63.00 | 78.00 | 10.00 | 78.00 | | 11.00 | |
| R063079100RA | 63.00 | | 63.00 | 79.00 | 10.00 | 79.00 | | 11.00 | |
| R063079120RA | 63.00 | | 63.00 | 79.00 | 12.00 | 79.00 | ▼ | 13.00 | |
| R063083120RA | 63.00 | | 63.00 | 83.00 | 12.00 | 83.00 | +0.220/-0.000 | 13.00 | |
| R064080120RA | 64.00 | | 64.00 | 80.00 | 12.00 | 80.00 | +0.190 | 13.00 | |
| R065075060RA | 65.00 | | 65.00 | 75.00 | 6.00 | 75.00 | -0.000 | 7.00 | |
| R065075080RA | 65.00 | | 65.00 | 75.00 | 8.00 | 75.00 | | 9.00 | |
| R065078100RA | 65.00 | | 65.00 | 78.00 | 10.00 | 78.00 | | 11.00 | |
| R065080090RA | 65.00 | | 65.00 | 80.00 | 9.00 | 80.00 | | 10.00 | |
| R065080120RA | 65.00 | | 65.00 | 80.00 | 12.00 | 80.00 | ▼ | 13.00 | |
| R065085120RA | 65.00 | | 65.00 | 85.00 | 12.00 | 85.00 | +0.220/-0.000 | 13.00 | |
| R067077060RA | 67.00 | | 67.00 | 77.00 | 6.00 | 77.00 | +0.190/-0.000 | 7.00 | |
| R067082090RA | 67.00 | | 67.00 | 82.00 | 9.00 | 82.00 | +0.220 | 10.00 | |
| R067087150RA | 67.00 | | 67.00 | 87.00 | 15.00 | 87.00 | -0.000 | 16.00 | |
| R070080060RA | 70.00 | | 70.00 | 80.00 | 6.00 | 80.00 | +0.190 | 7.00 | |
| R070080080RA | 70.00 | | 70.00 | 80.00 | 8.00 | 80.00 | -0.000 | 9.00 | |
| R070083100RA | 70.00 | | 70.00 | 83.00 | 10.00 | 83.00 | +0.220 | 11.00 | |
| R070085090RA | 70.00 | | 70.00 | 85.00 | 9.00 | 85.00 | -0.000 | 10.00 | |
| R070085100RA | 70.00 | | 70.00 | 85.00 | 10.00 | 85.00 | | 11.00 | |
| R070090120RA | 70.00 | | 70.00 | 90.00 | 12.00 | 90.00 | | 13.00 | |
| R070090150RA | 70.00 | | 70.00 | 90.00 | 15.00 | 90.00 | | 16.00 | |
| R071081060RA | 71.00 | | 71.00 | 81.00 | 6.00 | 81.00 | | 7.00 | |
| R071081080RA | 71.00 | | 71.00 | 81.00 | 8.00 | 81.00 | | 9.00 | |
| R071086090RA | 71.00 | | 71.00 | 86.00 | 9.00 | 86.00 | | 10.00 | |
| R071086100RA | 71.00 | | 71.00 | 86.00 | 10.00 | 86.00 | | 11.00 | |
| R071091120RA | 71.00 | | 71.00 | 91.00 | 12.00 | 91.00 | | 13.00 | |
| R071091150RA | 71.00 | | 71.00 | 91.00 | 15.00 | 91.00 | | 16.00 | |
| R075085060RA | 75.00 | | 75.00 | 85.00 | 6.00 | 85.00 | | 7.00 | |
| R075085080RA | 75.00 | ▼ | 75.00 | 85.00 | 8.00 | 85.00 | ▼ | 9.00 | ▼ |

RA series - AU 92A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|-------|-------------------------|--------|-------|--------------------|--------------|-------|-------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R075088100RA | 75.00 | -.030 | 75.00 | 88.00 | 10.00 | 88.00 | +.220 | 11.00 | +.200 |
| R075090090RA | 75.00 | -.076 | 75.00 | 90.00 | 9.00 | 90.00 | -.000 | 10.00 | -.000 |
| R075090100RA | 75.00 | | 75.00 | 90.00 | 10.00 | 90.00 | | 11.00 | |
| R075095120RA | 75.00 | | 75.00 | 95.00 | 12.00 | 95.00 | | 13.00 | |
| R075095150RA | 75.00 | | 75.00 | 95.00 | 15.00 | 95.00 | | 16.00 | |
| R080090060RA | 80.00 | | 80.00 | 90.00 | 6.00 | 90.00 | | 7.00 | |
| R080090080RA | 80.00 | | 80.00 | 90.00 | 8.00 | 90.00 | | 9.00 | |
| R080093100RA | 80.00 | | 80.00 | 93.00 | 10.00 | 93.00 | | 11.00 | |
| R080095090RA | 80.00 | | 80.00 | 95.00 | 9.00 | 95.00 | | 10.00 | |
| R080095100RA | 80.00 | | 80.00 | 95.00 | 10.00 | 95.00 | | 11.00 | |
| R080100120RA | 80.00 | | 80.00 | 100.00 | 12.00 | 100.00 | | 13.00 | |
| R080100150RA | 80.00 | ▼ | 80.00 | 100.00 | 15.00 | 100.00 | | 16.00 | |
| R085100090RA | 85.00 | -.036 | 85.00 | 100.00 | 9.00 | 100.00 | | 10.00 | |
| R085100100RA | 85.00 | -.090 | 85.00 | 100.00 | 10.00 | 100.00 | | 11.00 | |
| R085105120RA | 85.00 | | 85.00 | 105.00 | 12.00 | 105.00 | | 13.00 | |
| R085105150RA | 85.00 | | 85.00 | 105.00 | 15.00 | 105.00 | | 16.00 | |
| R090100060RA | 90.00 | | 90.00 | 100.00 | 6.00 | 100.00 | | 7.00 | |
| R090105090RA | 90.00 | | 90.00 | 105.00 | 9.00 | 105.00 | | 10.00 | |
| R090105100RA | 90.00 | | 90.00 | 105.00 | 10.00 | 105.00 | | 11.00 | |
| R090110120RA | 90.00 | | 90.00 | 110.00 | 12.00 | 110.00 | | 13.00 | |
| R090110150RA | 90.00 | | 90.00 | 110.00 | 15.00 | 110.00 | | 16.00 | |
| R095110090RA | 95.00 | | 95.00 | 110.00 | 9.00 | 110.00 | | 10.00 | |
| R095110100RA | 95.00 | | 95.00 | 110.00 | 10.00 | 110.00 | | 11.00 | |
| R095115120RA | 95.00 | | 95.00 | 115.00 | 12.00 | 115.00 | | 13.00 | |
| R095115150RA | 95.00 | | 95.00 | 115.00 | 15.00 | 115.00 | | 16.00 | |
| R098112085RA | 98.00 | | 98.00 | 112.00 | 8.50 | 112.00 | | 9.50 | |
| R100115090RA | 100.00 | | 100.00 | 115.00 | 9.00 | 115.00 | | 10.00 | |
| R100115100RA | 100.00 | | 100.00 | 115.00 | 10.00 | 115.00 | | 11.00 | |
| R100120120RA | 100.00 | | 100.00 | 120.00 | 12.00 | 120.00 | | 13.00 | |
| R100120150RA | 100.00 | | 100.00 | 120.00 | 15.00 | 120.00 | | 16.00 | |
| R105120090RA | 105.00 | | 105.00 | 120.00 | 9.00 | 120.00 | | 10.00 | |
| R105120100RA | 105.00 | | 105.00 | 120.00 | 10.00 | 120.00 | ▼ | 11.00 | |
| R105125120RA | 105.00 | | 105.00 | 125.00 | 12.00 | 125.00 | +.250 | 13.00 | |
| R105125150RA | 105.00 | | 105.00 | 125.00 | 15.00 | 125.00 | -.000 | 16.00 | |
| R105125160RA | 105.00 | | 105.00 | 125.00 | 16.00 | 125.00 | ▼ | 17.00 | |
| R106120085RA | 106.00 | | 106.00 | 120.00 | 8.50 | 120.00 | +.220/- .000 | 9.50 | |
| R106121090RA | 106.00 | | 106.00 | 121.00 | 9.00 | 121.00 | +.250 | 10.00 | |
| R106121100RA | 106.00 | | 106.00 | 121.00 | 10.00 | 121.00 | -.000 | 11.00 | |
| R106126150RA | 106.00 | | 106.00 | 126.00 | 15.00 | 126.00 | | 16.00 | |
| R106126160RA | 106.00 | | 106.00 | 126.00 | 16.00 | 126.00 | | 17.00 | |
| R110125090RA | 110.00 | | 110.00 | 125.00 | 9.00 | 125.00 | | 10.00 | |
| R110125100RA | 110.00 | | 110.00 | 125.00 | 10.00 | 125.00 | | 10.00 | |
| R110130120RA | 110.00 | | 110.00 | 130.00 | 12.00 | 130.00 | | 13.00 | |
| R110130150RA | 110.00 | | 110.00 | 130.00 | 15.00 | 130.00 | | 16.00 | |
| R110130160RA | 110.00 | | 110.00 | 130.00 | 16.00 | 130.00 | | 17.00 | |
| R112125090RA | 112.00 | ▼ | 112.00 | 125.00 | 9.00 | 125.00 | ▼ | 10.00 | ▼ |

RA series - AU 92A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|-------|-------------------------|--------|-------|--------------------|-------|-------|-------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R112127090RA | 112.00 | -.036 | 112.00 | 127.00 | 9.00 | 127.00 | +.250 | 10.00 | +.200 |
| R112127100RA | 112.00 | -.090 | 112.00 | 127.00 | 10.00 | 127.00 | -.000 | 11.00 | -.000 |
| R112132150RA | 112.00 | | 112.00 | 132.00 | 15.00 | 132.00 | | 16.00 | |
| R112132160RA | 112.00 | | 112.00 | 132.00 | 16.00 | 132.00 | | 17.00 | |
| R115130090RA | 115.00 | | 115.00 | 130.00 | 9.00 | 130.00 | | 10.00 | |
| R115135120RA | 115.00 | | 115.00 | 135.00 | 12.00 | 135.00 | | 13.00 | |
| R118133090RA | 118.00 | | 118.00 | 133.00 | 9.00 | 133.00 | | 10.00 | |
| R118133100RA | 118.00 | | 118.00 | 133.00 | 10.00 | 133.00 | | 11.00 | |
| R118138150RA | 118.00 | | 118.00 | 138.00 | 15.00 | 138.00 | | 16.00 | |
| R118138160RA | 118.00 | | 118.00 | 138.00 | 16.00 | 138.00 | | 17.00 | |
| R120135090RA | 120.00 | | 120.00 | 135.00 | 9.00 | 135.00 | | 10.00 | |
| R120135100RA | 120.00 | | 120.00 | 135.00 | 10.00 | 135.00 | | 11.00 | |
| R120140120RA | 120.00 | | 120.00 | 140.00 | 12.00 | 140.00 | | 13.00 | |
| R120140130RA | 120.00 | | 120.00 | 140.00 | 13.00 | 140.00 | | 14.00 | |
| R120140150RA | 120.00 | | 120.00 | 140.00 | 15.00 | 140.00 | | 16.00 | |
| R120140160RA | 120.00 | ▼ | 120.00 | 140.00 | 16.00 | 140.00 | | 17.00 | |
| R125140090RA | 125.00 | -.043 | 125.00 | 140.00 | 9.00 | 140.00 | | 10.00 | |
| R125140100RA | 125.00 | -.106 | 125.00 | 140.00 | 10.00 | 140.00 | | 11.00 | |
| R125145120RA | 125.00 | | 125.00 | 145.00 | 12.00 | 145.00 | | 13.00 | |
| R125145160RA | 125.00 | | 125.00 | 145.00 | 16.00 | 145.00 | | 17.00 | |
| R125150190RA | 125.00 | | 125.00 | 150.00 | 19.00 | 150.00 | | 20.00 | |
| R125150200RA | 125.00 | | 125.00 | 150.00 | 20.00 | 150.00 | | 21.00 | |
| R130145090RA | 130.00 | | 130.00 | 145.00 | 9.00 | 145.00 | | 10.00 | |
| R130145100RA | 130.00 | | 130.00 | 145.00 | 10.00 | 145.00 | | 11.00 | |
| R130150120RA | 130.00 | | 130.00 | 150.00 | 12.00 | 150.00 | | 13.00 | |
| R130150160RA | 130.00 | | 130.00 | 150.00 | 16.00 | 150.00 | | 17.00 | |
| R132157200RA | 132.00 | | 132.00 | 157.00 | 20.00 | 157.00 | | 21.00 | |
| R135160190RA | 135.00 | | 135.00 | 160.00 | 19.00 | 160.00 | | 20.00 | |
| R135160200RA | 135.00 | | 135.00 | 160.00 | 20.00 | 160.00 | | 21.00 | |
| R140150060RA | 140.00 | | 140.00 | 150.00 | 6.00 | 150.00 | | 7.00 | |
| R140155090RA | 140.00 | | 140.00 | 155.00 | 9.00 | 155.00 | | 10.00 | |
| R140155100RA | 140.00 | | 140.00 | 155.00 | 10.00 | 155.00 | | 11.00 | |
| R140160090RA | 140.00 | | 140.00 | 160.00 | 9.00 | 160.00 | | 10.00 | |
| R140160120RA | 140.00 | | 140.00 | 160.00 | 12.00 | 160.00 | | 13.00 | |
| R140160160RA | 140.00 | | 140.00 | 160.00 | 16.00 | 160.00 | | 17.00 | |
| R140165190RA | 140.00 | | 140.00 | 165.00 | 19.00 | 165.00 | | 20.00 | |
| R140165200RA | 140.00 | | 140.00 | 165.00 | 20.00 | 165.00 | | 21.00 | |
| R145170190RA | 145.00 | | 145.00 | 170.00 | 19.00 | 170.00 | | 20.00 | |
| R145170200RA | 145.00 | | 145.00 | 170.00 | 20.00 | 170.00 | | 21.00 | |
| R150165090RA | 150.00 | | 150.00 | 165.00 | 9.00 | 165.00 | | 10.00 | |
| R150165100RA | 150.00 | | 150.00 | 165.00 | 10.00 | 165.00 | | 11.00 | |
| R150170120RA | 150.00 | | 150.00 | 170.00 | 12.00 | 170.00 | | 13.00 | |
| R150170160RA | 150.00 | | 150.00 | 170.00 | 16.00 | 170.00 | | 17.00 | |
| R150175160RA | 150.00 | | 150.00 | 175.00 | 16.00 | 175.00 | | 17.00 | |
| R150175200RA | 150.00 | | 150.00 | 175.00 | 20.00 | 175.00 | | 21.00 | |
| R155170090RA | 155.00 | ▼ | 155.00 | 170.00 | 9.00 | 170.00 | ▼ | 10.00 | ▼ |

RA series - AU 92A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|--------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R155180190RA | 155.00 | -0.043 | 155.00 | 180.00 | 19.00 | 180.00 | +0.250 -0.000 | 20.00 | +0.200 -0.000 |
| R155180200RA | 155.00 | -0.106 | 155.00 | 180.00 | 20.00 | 180.00 | | 21.00 | |
| R160175090RA | 160.00 | | 160.00 | 175.00 | 9.00 | 175.00 | | 10.00 | |
| R160175100RA | 160.00 | | 160.00 | 175.00 | 10.00 | 175.00 | | 11.00 | |
| R160180120RA | 160.00 | | 160.00 | 180.00 | 12.00 | 180.00 | | 13.00 | |
| R160180160RA | 160.00 | | 160.00 | 180.00 | 16.00 | 180.00 | ▼ | 17.00 | |
| R160185160RA | 160.00 | | 160.00 | 185.00 | 16.00 | 185.00 | +0.290 -0.000 | 17.00 | |
| R160185190RA | 160.00 | | 160.00 | 185.00 | 19.00 | 185.00 | | 20.00 | |
| R160185200RA | 160.00 | | 160.00 | 185.00 | 20.00 | 185.00 | ▼ | 21.00 | |
| R165180090RA | 165.00 | | 165.00 | 180.00 | 9.00 | 180.00 | +0.250/-0.000 | 10.00 | |
| R170185090RA | 170.00 | | 170.00 | 185.00 | 9.00 | 185.00 | +0.290 -0.000 | 10.00 | |
| R170185100RA | 170.00 | | 170.00 | 185.00 | 10.00 | 185.00 | | 11.00 | |
| R170190120RA | 170.00 | | 170.00 | 190.00 | 12.00 | 190.00 | | 13.00 | |
| R170190160RA | 170.00 | | 170.00 | 190.00 | 16.00 | 190.00 | | 17.00 | |
| R170195160RA | 170.00 | | 170.00 | 195.00 | 16.00 | 195.00 | | 17.00 | |
| R170195200RA | 170.00 | | 170.00 | 195.00 | 20.00 | 195.00 | | 21.00 | |
| R175190090RA | 175.00 | | 175.00 | 190.00 | 9.00 | 190.00 | | 10.00 | |
| R175200190RA | 175.00 | | 175.00 | 200.00 | 19.00 | 200.00 | | 20.00 | |
| R175200200RA | 175.00 | | 175.00 | 200.00 | 20.00 | 200.00 | | 21.00 | |
| R180200120RA | 180.00 | | 180.00 | 200.00 | 12.00 | 200.00 | | 13.00 | |
| R180200160RA | 180.00 | | 180.00 | 200.00 | 16.00 | 200.00 | | 17.00 | |
| R180205160RA | 180.00 | | 180.00 | 205.00 | 16.00 | 205.00 | | 17.00 | |
| R180205190RA | 180.00 | | 180.00 | 205.00 | 19.00 | 205.00 | | 20.00 | |
| R180205200RA | 180.00 | ▼ | 180.00 | 205.00 | 20.00 | 205.00 | | 21.00 | |
| R190210120RA | 190.00 | -0.050 | 190.00 | 210.00 | 12.00 | 210.00 | | 13.00 | |
| R190210160RA | 190.00 | -0.122 | 190.00 | 210.00 | 16.00 | 210.00 | | 17.00 | |
| R190215160RA | 190.00 | | 190.00 | 215.00 | 16.00 | 215.00 | | 17.00 | |
| R190215200RA | 190.00 | | 190.00 | 215.00 | 20.00 | 215.00 | | 21.00 | |
| R199219110RA | 199.00 | | 199.00 | 219.00 | 11.00 | 219.00 | | 12.00 | |
| R199219150RA | 199.00 | | 199.00 | 219.00 | 15.00 | 219.00 | | 16.00 | |
| R199224160RA | 199.00 | | 199.00 | 224.00 | 16.00 | 224.00 | | 17.00 | |
| R199224190RA | 199.00 | | 199.00 | 224.00 | 19.00 | 224.00 | | 20.00 | |
| R200220120RA | 200.00 | | 200.00 | 220.00 | 12.00 | 220.00 | | 13.00 | |
| R200220160RA | 200.00 | | 200.00 | 220.00 | 16.00 | 220.00 | | 17.00 | |
| R200225160RA | 200.00 | | 200.00 | 225.00 | 16.00 | 225.00 | | 17.00 | |
| R200225190RA | 200.00 | | 200.00 | 225.00 | 19.00 | 225.00 | | 20.00 | |
| R200225200RA | 200.00 | | 200.00 | 225.00 | 20.00 | 225.00 | | 21.00 | |
| R204224120RA | 204.00 | | 204.00 | 224.00 | 12.00 | 224.00 | | 13.00 | |
| R210230120RA | 210.00 | | 210.00 | 230.00 | 12.00 | 230.00 | | 13.00 | |
| R210230160RA | 210.00 | | 210.00 | 230.00 | 16.00 | 230.00 | | 17.00 | |
| R210235160RA | 210.00 | | 210.00 | 235.00 | 16.00 | 235.00 | | 17.00 | |
| R210235190RA | 210.00 | | 210.00 | 235.00 | 19.00 | 235.00 | | 20.00 | |
| R210235200RA | 210.00 | | 210.00 | 235.00 | 20.00 | 235.00 | | 21.00 | |
| R220240120RA | 220.00 | | 220.00 | 240.00 | 12.00 | 240.00 | | 13.00 | |
| R220240160RA | 220.00 | | 220.00 | 240.00 | 16.00 | 240.00 | | 17.00 | |
| R220245160RA | 220.00 | ▼ | 220.00 | 245.00 | 16.00 | 245.00 | ▼ | 17.00 | ▼ |

RA series - AU 92A

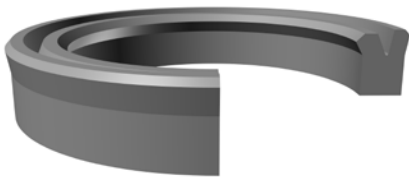


| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|--------|-------------------------|--------|-------|--------------------|--------|-------|--------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R220245190RA | 220.00 | -0.050 | 220.00 | 245.00 | 19.00 | 245.00 | +0.290 | 20.00 | +0.200 |
| R220245200RA | 220.00 | -0.122 | 220.00 | 245.00 | 20.00 | 245.00 | -0.000 | 21.00 | -0.000 |
| R224244110RA | 224.00 | | 224.00 | 244.00 | 11.00 | 244.00 | | 12.00 | |
| R224244150RA | 224.00 | | 224.00 | 244.00 | 15.00 | 244.00 | | 16.00 | |
| R224249150RA | 224.00 | | 224.00 | 249.00 | 15.00 | 249.00 | | 16.00 | |
| R224249180RA | 224.00 | | 224.00 | 249.00 | 18.00 | 249.00 | | 19.00 | |
| R224249190RA | 224.00 | | 224.00 | 249.00 | 19.00 | 249.00 | | 20.00 | |
| R225245120RA | 225.00 | | 225.00 | 245.00 | 12.00 | 245.00 | | 13.00 | |
| R225245160RA | 225.00 | | 225.00 | 245.00 | 16.00 | 245.00 | | 17.00 | |
| R225250160RA | 225.00 | | 225.00 | 250.00 | 16.00 | 250.00 | | 17.00 | |
| R225250190RA | 225.00 | | 225.00 | 250.00 | 19.00 | 250.00 | | 20.00 | |
| R225250200RA | 225.00 | | 225.00 | 252.00 | 20.00 | 252.00 | | 21.00 | |
| R230250120RA | 230.00 | | 230.00 | 250.00 | 12.00 | 250.00 | | 13.00 | |
| R230250160RA | 230.00 | | 230.00 | 250.00 | 16.00 | 250.00 | ▼ | 17.00 | |
| R230255150RA | 230.00 | | 230.00 | 255.00 | 15.00 | 255.00 | +0.320 | 16.00 | -0.000 |
| R230255190RA | 230.00 | | 230.00 | 255.00 | 19.00 | 255.00 | -0.000 | 20.00 | |
| R230255200RA | 230.00 | | 230.00 | 255.00 | 20.00 | 255.00 | | 21.00 | |
| R240260120RA | 240.00 | | 240.00 | 260.00 | 12.00 | 260.00 | | 13.00 | |
| R240260160RA | 240.00 | | 240.00 | 260.00 | 16.00 | 260.00 | | 17.00 | |
| R240265160RA | 240.00 | | 240.00 | 265.00 | 16.00 | 265.00 | | 17.00 | |
| R240265190RA | 240.00 | | 240.00 | 265.00 | 19.00 | 265.00 | | 20.00 | |
| R240265200RA | 240.00 | | 240.00 | 265.00 | 20.00 | 265.00 | | 21.00 | |
| R250270120RA | 250.00 | | 250.00 | 270.00 | 12.00 | 270.00 | | 13.00 | |
| R250270160RA | 250.00 | | 250.00 | 270.00 | 16.00 | 270.00 | | 17.00 | |
| R250275160RA | 250.00 | | 250.00 | 275.00 | 16.00 | 275.00 | | 17.00 | |
| R250275190RA | 250.00 | | 250.00 | 275.00 | 19.00 | 275.00 | | 20.00 | |
| R250275200RA | 250.00 | ▼ | 250.00 | 275.00 | 20.00 | 275.00 | | 21.00 | |
| R260285160RA | 260.00 | -0.056 | 260.00 | 285.00 | 16.00 | 285.00 | | 17.00 | |
| R260285190RA | 260.00 | -0.137 | 260.00 | 285.00 | 19.00 | 285.00 | | 20.00 | |
| R260290190RA | 260.00 | | 260.00 | 290.00 | 19.00 | 290.00 | | 20.00 | |
| R265297240RA | 265.00 | | 265.00 | 297.00 | 24.00 | 297.00 | | 25.00 | |
| R265297250RA | 265.00 | | 265.00 | 297.00 | 25.00 | 297.00 | | 26.00 | |
| R270295160RA | 270.00 | | 270.00 | 295.00 | 16.00 | 295.00 | | 17.00 | |
| R270295190RA | 270.00 | | 270.00 | 295.00 | 19.00 | 295.00 | | 20.00 | |
| R270300190RA | 270.00 | | 270.00 | 300.00 | 19.00 | 300.00 | | 20.00 | |
| R270300240RA | 270.00 | | 270.00 | 300.00 | 24.00 | 300.00 | | 25.00 | |
| R270300250RA | 270.00 | | 270.00 | 300.00 | 25.00 | 300.00 | | 26.00 | |
| R280305160RA | 280.00 | | 280.00 | 305.00 | 16.00 | 305.00 | | 17.00 | |
| R280305190RA | 280.00 | | 280.00 | 305.00 | 19.00 | 305.00 | | 20.00 | |
| R280310190RA | 280.00 | | 280.00 | 310.00 | 19.00 | 310.00 | | 20.00 | |
| R280312240RA | 280.00 | | 280.00 | 312.00 | 24.00 | 312.00 | | 25.00 | |
| R280312250RA | 280.00 | | 280.00 | 312.00 | 25.00 | 312.00 | | 26.00 | |
| R290315160RA | 290.00 | | 290.00 | 315.00 | 16.00 | 315.00 | | 17.00 | |
| R290315190RA | 290.00 | | 290.00 | 315.00 | 19.00 | 315.00 | ▼ | 19.00 | |
| R290320190RA | 290.00 | | 290.00 | 320.00 | 19.00 | 320.00 | +0.360 | 19.00 | -0.000 |
| R300325160RA | 300.00 | ▼ | 300.00 | 325.00 | 16.00 | 325.00 | -0.000 | 17.00 | ▼ |

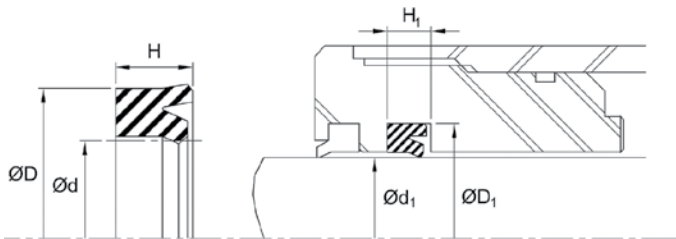
RA series - AU 92A

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|--------------------|-------------------------|--------|-------|--------------------|--------------------|-------|--------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R300325190RA | 300.00 | $-.056$ $-.137$ | 300.00 | 325.00 | 19.00 | 325.00 | $+.360$ $-.000$ | 20.00 | $+.200$ $-.000$ |
| R300330190RA | 300.00 | | 300.00 | 330.00 | 19.00 | 330.00 | | 20.00 | |
| R300332240RA | 300.00 | | 300.00 | 332.00 | 24.00 | 332.00 | | 25.00 | |
| R300332250RA | 300.00 | | 300.00 | 332.00 | 25.00 | 332.00 | | 26.00 | |

RA/N - Rod seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|----------------------|
| Nitrile | -40°F to +212°F (-30°C to +100°C) | ≤2300 psi (≤160 bar) | < 1.6 ft/s (0.5 m/s) |



Similar in design to the standard **RA-styles**, the **RA/N-style** is manufactured out of a fully elastomeric material suitable for pneumatic or low-pressure hydraulic applications only.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|--------------------|-------------------------|-------|------|--------------------|--------------------|------|--------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R002004017RA/N | 2.00 | $-.006$ $-.020$ | 2.00 | 4.50 | 1.70 | 4.50 | $+.075$ $-.000$ | 2.70 | $+.200$ $-.000$ |
| R002005017RA/N | 2.50 | | 2.50 | 5.00 | 1.70 | 5.00 | | 2.70 | |
| R003006025RA/N | 3.00 | | 3.00 | 6.00 | 2.50 | 6.00 | | 3.50 | |
| R004008030RA/N | 4.00 | $-.010$ $-.028$ | 4.00 | 8.00 | 3.00 | 8.00 | $+.090$ $-.000$ | 3.50 | |
| R004009035RA/N | 4.00 | | 4.00 | 9.00 | 3.50 | 9.00 | | 4.00 | |
| R004012045RA/N | 4.00 | | 4.00 | 12.00 | 4.50 | 12.00 | $+.110$ $-.000$ | 5.00 | |
| R005009025RA/N | 5.00 | | 5.00 | 9.00 | 2.50 | 9.00 | $+.090$ $-.000$ | 3.00 | |
| R006010030RA/N | 6.00 | | 6.00 | 10.00 | 3.00 | 10.00 | | 3.50 | |
| R006011032RA/N | 6.00 | | 6.00 | 11.50 | 3.20 | 11.50 | | 4.20 | |
| R006012040RA/N | 6.00 | | 6.00 | 12.00 | 4.00 | 12.00 | $+.110$ $-.000$ | 4.50 | |
| R006012042RA/N | 6.00 | | 6.00 | 12.00 | 4.20 | 12.00 | | 4.70 | |
| R006013055RA/N | 6.00 | | 6.00 | 13.00 | 5.50 | 13.00 | | 6.50 | |

RA/N series - NBR 90A



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|--------------------|-------------------------|-------|-------|--------------------|--------------------|-------|--------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R008014040RA/N | 8.00 | | 8.00 | 14.00 | 4.00 | 14.00 | | 4.50 | |
| R008016055RA/N | 8.00 | $-.013$ $-.035$ | 8.00 | 16.00 | 5.50 | 16.00 | $+.110$ $-.000$ | 6.00 | $+.200$ $-.000$ |
| R008016060RA/N | 8.00 | | 8.00 | 16.00 | 6.00 | 16.00 | | 7.00 | |
| R009015090RA/N | 9.00 | | 9.00 | 15.00 | 9.00 | 15.00 | | 10.00 | |
| R010016045RA/N | 10.00 | | 10.00 | 16.00 | 4.50 | 16.00 | | 5.00 | |
| R010018055RA/N | 10.00 | ▼ | 10.00 | 18.00 | 5.50 | 18.00 | ▼ | 6.00 | |
| R012018045RA/N | 12.00 | $-.016$ $-.043$ | 12.00 | 18.50 | 4.50 | 18.50 | $+.130$ $-.000$ | 5.00 | $+.200$ $-.000$ |
| R012019045RA/N | 12.00 | | 12.00 | 19.00 | 4.50 | 19.00 | | 5.00 | |
| R012020055RA/N | 12.00 | | 12.00 | 20.00 | 5.50 | 20.00 | | 6.00 | |
| R012022075RA/N | 12.00 | | 12.00 | 22.00 | 7.50 | 22.00 | | 8.00 | |
| R012088080RA/N | 12.00 | | 12.00 | 88.00 | 8.00 | 22.00 | | 9.00 | |
| R014019035RA/N | 14.00 | | 14.00 | 19.00 | 3.50 | 19.00 | | 4.00 | |
| R014022055RA/N | 14.00 | | 14.00 | 22.00 | 5.50 | 22.00 | | 6.00 | |
| R015023060RA/N | 15.00 | | 15.00 | 23.00 | 6.00 | 23.00 | | 7.00 | |
| R015025050RA/N | 15.00 | | 15.00 | 25.00 | 5.00 | 25.00 | | 6.00 | |
| R016021050RA/N | 16.00 | | 16.00 | 20.50 | 5.00 | 20.50 | | 6.00 | |
| R016022045RA/N | 16.00 | | 16.00 | 22.50 | 4.50 | 22.50 | | 5.00 | |
| R016022055RA/N | 16.00 | | 16.00 | 22.00 | 5.50 | 22.00 | | 6.50 | |
| R016022065RA/N | 16.00 | | 16.00 | 22.00 | 6.50 | 22.00 | | 7.50 | |
| R016024055RA/N | 16.00 | | 16.00 | 24.00 | 5.50 | 24.00 | | 6.00 | |
| R016026070RA/N | 16.00 | | 16.00 | 26.00 | 7.00 | 26.00 | | 7.50 | |
| R016026075RA/N | 16.00 | | 16.00 | 26.00 | 7.50 | 26.00 | | 8.50 | |
| R018025045RA/N | 18.00 | | 18.00 | 25.00 | 4.50 | 25.00 | | 5.00 | |
| R018025055RA/N | 18.00 | | 18.00 | 25.00 | 5.50 | 25.00 | | 6.00 | |
| R018026055RA/N | 18.00 | ▼ | 18.00 | 26.00 | 5.50 | 26.00 | | 6.00 | |
| R020028055RA/N | 20.00 | $-.020$ $-.053$ | 20.00 | 28.00 | 5.50 | 28.00 | | 6.00 | |
| R020028060RA/N | 20.00 | | 20.00 | 28.00 | 6.00 | 28.00 | | 7.00 | |
| R020030060RA/N | 20.00 | | 20.00 | 30.00 | 6.00 | 30.00 | | 7.00 | |
| R020030075RA/N | 20.00 | | 20.00 | 30.00 | 7.50 | 30.00 | | 8.00 | |
| R020030100RA/N | 20.00 | | 20.00 | 30.00 | 10.00 | 30.00 | ▼ | 11.00 | |
| R020032060RA/N | 20.00 | | 20.00 | 32.00 | 6.00 | 32.00 | $+.160$ $-.000$ | 7.00 | |
| R020032075RA/N | 20.00 | | 20.00 | 32.00 | 7.50 | 32.00 | | 8.00 | |
| R022030055RA/N | 22.00 | | 22.00 | 30.00 | 5.50 | 30.00 | $+.130$ $-.000$ | 6.00 | |
| R022030070RA/N | 22.00 | | 22.00 | 30.00 | 7.00 | 30.00 | | 8.00 | |
| R022032060RA/N | 22.00 | | 22.00 | 32.00 | 6.00 | 32.00 | $+.160$ $-.000$ | 7.00 | |
| R024032055RA/N | 24.00 | | 24.00 | 32.00 | 5.50 | 32.00 | | 6.00 | |
| R025032060RA/N | 25.00 | | 25.00 | 32.00 | 6.00 | 32.00 | | 7.00 | |
| R025033055RA/N | 25.00 | | 25.00 | 33.00 | 5.50 | 33.00 | | 6.00 | |
| R025033075RA/N | 25.00 | | 25.00 | 33.00 | 7.50 | 33.00 | | 8.50 | |
| R025033085RA/N | 25.00 | | 25.00 | 33.00 | 8.50 | 33.00 | | 9.50 | |
| R025033100RA/N | 25.00 | | 25.00 | 33.00 | 10.00 | 33.00 | | 11.00 | |
| R025035060RA/N | 25.00 | | 25.00 | 35.00 | 6.00 | 35.00 | | 6.50 | |
| R025035070RA/N | 25.00 | | 25.00 | 35.00 | 7.00 | 35.00 | | 7.50 | |
| R025035075RA/N | 25.00 | | 25.00 | 35.00 | 7.50 | 35.00 | | 8.00 | |
| R025035080RA/N | 25.00 | | 25.00 | 35.00 | 8.00 | 35.00 | | 9.00 | |
| R025035100RA/N | 25.00 | ▼ | 25.00 | 35.00 | 10.00 | 35.00 | ▼ | 11.00 | ▼ |

RA/N series - NBR 90A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R025037060RA/N | 25.00 | - .020 - .053 | 25.00 | 37.00 | 6.00 | 37.00 | + .160 - .000 | 6.00 | + .200 - .000 |
| R025040100RA/N | 25.00 | | 25.00 | 40.00 | 10.00 | 40.00 | | 11.00 | |
| R028036055RA/N | 28.00 | | 28.00 | 36.00 | 5.50 | 36.00 | | 6.00 | |
| R028038060RA/N | 28.00 | | 28.00 | 38.00 | 6.00 | 38.00 | | 7.00 | |
| R028038070RA/N | 28.00 | | 28.00 | 38.00 | 7.00 | 38.00 | | 7.50 | |
| R028038080RA/N | 28.00 | | 28.00 | 38.00 | 8.00 | 38.00 | | 9.00 | |
| R028038100RA/N | 28.00 | | 28.00 | 38.00 | 10.00 | 38.00 | | 11.00 | |
| R030038063RA/N | 30.00 | | 30.00 | 38.00 | 6.30 | 38.00 | | 7.30 | |
| R030040060RA/N | 30.00 | | 30.00 | 40.00 | 6.00 | 40.00 | | 6.50 | |
| R030040070RA/N | 30.00 | | 30.00 | 40.00 | 7.00 | 40.00 | | 7.50 | |
| R030040080RA/N | 30.00 | | 30.00 | 40.00 | 8.00 | 40.00 | | 9.00 | |
| R030042085RA/N | 30.00 | ▼ | 30.00 | 42.00 | 8.50 | 42.00 | | 9.50 | |
| R032042070RA/N | 32.00 | - .025 - .064 | 32.00 | 42.00 | 7.00 | 42.00 | | 7.50 | |
| R034044070RA/N | 34.00 | | 34.00 | 44.00 | 7.00 | 44.00 | | 7.50 | |
| R035045060RA/N | 35.00 | | 35.00 | 45.00 | 6.00 | 45.00 | | 7.00 | |
| R035045070RA/N | 35.00 | | 35.00 | 45.00 | 7.00 | 45.00 | | 7.50 | |
| R035045080RA/N | 35.00 | | 35.00 | 45.00 | 8.00 | 45.00 | | 9.00 | |
| R035050080RA/N | 35.00 | | 35.00 | 50.00 | 8.00 | 50.00 | | 9.00 | |
| R036046070RA/N | 36.00 | | 36.00 | 46.00 | 7.00 | 46.00 | | 7.50 | |
| R036046080RA/N | 36.00 | | 36.00 | 46.00 | 8.00 | 46.00 | | 9.00 | |
| R036046100RA/N | 36.00 | | 36.00 | 46.00 | 10.00 | 46.00 | | 11.00 | |
| R040048055RA/N | 40.00 | | 40.00 | 48.00 | 5.50 | 48.00 | | 6.00 | |
| R040048080RA/N | 40.00 | | 40.00 | 48.00 | 8.00 | 48.00 | | 8.50 | |
| R040050055RA/N | 40.00 | | 40.00 | 50.00 | 5.50 | 50.00 | | 6.50 | |
| R040050070RA/N | 40.00 | | 40.00 | 50.00 | 7.00 | 50.00 | | 7.50 | |
| R040050080RA/N | 40.00 | | 40.00 | 50.00 | 8.00 | 50.00 | | 9.00 | |
| R040050100RA/N | 40.00 | | 40.00 | 50.00 | 10.00 | 50.00 | ▼ | 11.00 | |
| R040055100RA/N | 40.00 | | 40.00 | 55.00 | 10.00 | 55.00 | + .190 - .000 | 11.00 | |
| R042052070RA/N | 42.00 | | 42.00 | 52.00 | 7.00 | 52.00 | | 7.50 | |
| R045055070RA/N | 45.00 | | 45.00 | 55.00 | 7.00 | 55.00 | | 7.50 | |
| R045055100RA/N | 45.00 | | 45.00 | 55.00 | 10.00 | 55.00 | | 11.00 | |
| R045061120RA/N | 45.00 | | 45.00 | 61.00 | 12.00 | 61.00 | | 13.00 | |
| R050056080RA/N | 50.00 | | 50.00 | 56.00 | 8.00 | 56.00 | ▼ | 9.00 | |
| R050060060RA/N | 50.00 | | 50.00 | 60.00 | 6.00 | 6.00 | + .075/- .000 | 7.00 | |
| R050060070RA/N | 50.00 | | 50.00 | 60.00 | 7.00 | 60.00 | | 7.50 | |
| R050060100RA/N | 50.00 | ▼ | 50.00 | 60.00 | 10.00 | 60.00 | + .190 - .000 | 11.00 | |
| R055065070RA/N | 55.00 | - .030 - .076 | 55.00 | 65.00 | 7.00 | 65.00 | | 7.50 | |
| R055065100RA/N | 55.00 | | 55.00 | 65.00 | 10.00 | 65.00 | | 11.00 | |
| R055070100RA/N | 55.00 | | 55.00 | 70.00 | 10.00 | 70.00 | | 11.00 | |
| R056068070RA/N | 56.00 | | 56.00 | 68.00 | 7.00 | 68.00 | | 8.00 | |
| R056068085RA/N | 56.00 | | 56.00 | 68.00 | 8.50 | 68.00 | | 9.50 | |
| R060070085RA/N | 60.00 | | 60.00 | 70.00 | 8.50 | 70.00 | | 8.50 | |
| R060070100RA/N | 60.00 | | 60.00 | 70.00 | 10.00 | 70.00 | | 11.00 | |
| R060072085RA/N | 60.00 | | 60.00 | 72.00 | 8.50 | 72.00 | | 9.50 | |
| R060074080RA/N | 60.00 | | 60.00 | 74.00 | 8.00 | 74.00 | | 9.00 | |
| R060075120RA/N | 60.00 | ▼ | 60.00 | 75.00 | 12.00 | 75.00 | ▼ | 13.00 | ▼ |

RA/N series - NBR 90A

ROD SEALS



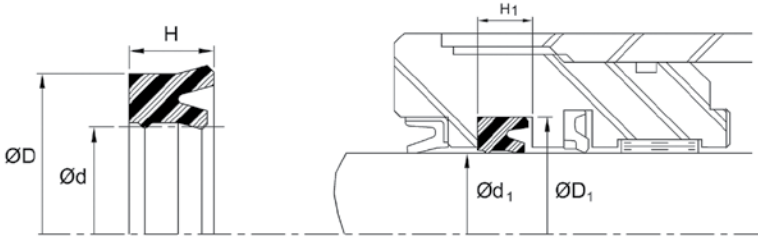
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|---------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R063075085RA/N | 63.00 | -0.030 -0.076 | 63.00 | 75.00 | 8.50 | 75.00 | +0.190 -0.000 | 9.50 | +0.200 -0.000 |
| R065075100RA/N | 65.00 | | 65.00 | 75.00 | 10.00 | 75.00 | | 11.00 | |
| R065077085RA/N | 65.00 | | 65.00 | 77.00 | 8.50 | 77.00 | | 9.50 | |
| R068074040RA/N | 68.00 | | 68.00 | 74.00 | 4.00 | 74.00 | | 5.00 | |
| R068080085RA/N | 68.00 | | 68.00 | 80.00 | 8.50 | 80.00 | | 9.50 | |
| R070080120RA/N | 70.00 | | 70.00 | 80.00 | 12.00 | 80.00 | ▼ | 13.00 | |
| R070082085RA/N | 70.00 | | 70.00 | 82.00 | 8.50 | 82.00 | +0.220 -0.000 | 9.50 | |
| R070085100RA/N | 70.00 | | 70.00 | 85.00 | 10.00 | 85.00 | | 10.00 | |
| R075085120RA/N | 75.00 | | 75.00 | 85.00 | 12.00 | 85.00 | | 13.00 | |
| R080090120RA/N | 80.00 | | 80.00 | 90.00 | 12.00 | 90.00 | | 13.00 | |
| R080092085RA/N | 80.00 | ▼ | 80.00 | 92.00 | 8.50 | 92.00 | | 9.50 | |
| R085095070RA/N | 85.00 | -0.036 -0.090 | 85.00 | 95.00 | 7.00 | 95.00 | | 8.00 | |
| R085095120RA/N | 85.00 | | 85.00 | 95.00 | 12.00 | 95.00 | | 13.00 | |
| R088110165RA/N | 88.00 | | 88.00 | 110.00 | 16.50 | 110.00 | | 17.50 | |
| R090100120RA/N | 90.00 | | 90.00 | 100.00 | 12.00 | 100.00 | | 13.00 | |
| R090102085RA/N | 90.00 | | 90.00 | 102.00 | 8.50 | 102.00 | | 9.50 | |
| R095105120RA/N | 95.00 | | 95.00 | 105.00 | 12.00 | 105.00 | | 13.00 | |
| R100115100RA/N | 100.00 | | 100.00 | 115.00 | 10.00 | 115.00 | | 11.00 | |
| R105120120RA/N | 105.00 | | 105.00 | 120.00 | 12.00 | 120.00 | ▼ | 13.00 | |
| R110125100RA/N | 110.00 | | 110.00 | 125.00 | 10.00 | 125.00 | +0.250 -0.000 | 11.00 | |
| R110130140RA/N | 110.00 | | 110.00 | 130.00 | 14.00 | 130.00 | | 15.00 | |
| R115125120RA/N | 115.00 | | 115.00 | 125.00 | 12.00 | 125.00 | | 13.00 | |
| R120135095RA/N | 120.00 | ▼ | 120.00 | 135.00 | 9.50 | 135.00 | | 10.50 | |
| R135145120RA/N | 135.00 | -0.043 -0.106 | 135.00 | 145.00 | 12.00 | 145.00 | | 13.00 | |
| R140160140RA/N | 140.00 | | 140.00 | 160.00 | 14.00 | 160.00 | | 15.00 | |
| R155165120RA/N | 155.00 | | 155.00 | 165.00 | 12.00 | 165.00 | | 13.00 | |
| R160180140RA/N | 160.00 | | 160.00 | 180.00 | 14.00 | 180.00 | ▼ | 15.00 | |
| R180200140RA/N | 180.00 | ▼ | 180.00 | 200.00 | 14.00 | 200.00 | +0.290 -0.000 | 15.00 | |
| R185195120RA/N | 185.00 | -0.050 -0.122 | 185.00 | 195.00 | 12.00 | 195.00 | | 13.00 | |
| R210240280RA/N | 210.00 | | 210.00 | 240.00 | 28.00 | 240.00 | | 29.00 | |
| R215225120RA/N | 215.00 | | 215.00 | 225.00 | 12.00 | 225.00 | | 13.00 | |
| R240250120RA/N | 240.00 | | 240.00 | 250.00 | 12.00 | 250.00 | ▼ | 13.00 | |
| R245290250RA/N | 245.00 | ▼ | 245.00 | 290.00 | 25.00 | 290.00 | +0.320/-0.00 | 26.00 | ▼ |



RC - Rod seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|--------------------------|----------------------|
| Polyurethane | -40°F to +212°F (-40°C to +100°C) | ≤5 800 psi (≤400 bar) | < 1.6 ft/s (0.5 m/s) |



Though similar in design and function to the **RA-style**, the **RC-style** has the additional benefit of a secondary dynamic lip located closer to the heel portion of the seal. This feature allows for greater stability in the groove, especially on long strokes, rapid cycling or pressure spikes.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|----------------|-------------------------|-------|------|--------------------|----------------|------|----------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| RO04012060RC | 4.00 | -.010 | 4.00 | 12.00 | 6.00 | 12.00 | +.110 -.000 | 7.00 | +.200 -.000 |
| RO06013050RC | 6.00 | -.028 | 6.00 | 13.00 | 5.00 | 13.00 | | 5.50 | |
| RO06014055RC | 6.00 | | 6.00 | 14.00 | 5.50 | 14.00 | | 6.00 | |
| RO06014057RC | 6.00 | | 6.00 | 14.00 | 5.70 | 14.00 | | 6.30 | |
| RO06016060RC | 6.00 | ▼ | 6.00 | 16.00 | 6.00 | 16.00 | | 7.00 | |
| RO08016055RC | 8.00 | -.013 -.035 | 8.00 | 16.00 | 5.50 | 16.00 | | 6.00 | |
| RO08016057RC | 8.00 | | 8.00 | 16.00 | 5.70 | 16.00 | | 6.30 | |
| RO08016080RC | 8.00 | | 8.00 | 16.00 | 8.00 | 16.00 | | 9.00 | |
| RO08018080RC | 8.00 | | 8.00 | 18.00 | 8.00 | 18.00 | | 9.00 | |
| RO09016057RC | 9.00 | | 9.00 | 16.00 | 5.70 | 16.00 | | 6.30 | |
| RO10016045RC | 10.00 | | 10.00 | 16.00 | 4.50 | 16.00 | | 5.30 | |
| RO10017057RC | 10.00 | | 10.00 | 17.00 | 5.70 | 17.00 | | 6.30 | |
| RO10018055RC | 10.00 | | 10.00 | 18.00 | 5.50 | 18.00 | | 6.00 | |
| RO10018057RC | 10.00 | | 10.00 | 18.00 | 5.70 | 18.00 | ▼ | 6.30 | |
| RO10020045RC | 10.00 | | 10.00 | 20.00 | 4.50 | 20.00 | +.130 -.000 | 5.00 | |
| RO10020070RC | 10.00 | | 10.00 | 20.00 | 7.00 | 20.00 | | 8.00 | |
| RO10020080RC | 10.00 | ▼ | 10.00 | 20.00 | 8.00 | 20.00 | | 9.00 | |
| RO12020055RC | 12.00 | -.016 -.043 | 12.00 | 20.00 | 5.50 | 20.00 | | 6.00 | |
| RO12020057RC | 12.00 | | 12.00 | 20.00 | 5.70 | 20.00 | | 6.30 | |
| RO12020080RC | 12.00 | | 12.00 | 20.00 | 8.00 | 20.00 | | 9.00 | |
| RO12022073RC | 12.00 | ▼ | 12.00 | 22.00 | 7.30 | 22.00 | ▼ | 8.00 | ▼ |

RC series - AU 93A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R012022080RC | 12.00 | - .016 - .043 | 12.00 | 22.00 | 8.00 | 22.00 | + .130 - .000 | 9.00 | + .200 - .000 |
| R014022055RC | 14.00 | | 14.00 | 22.00 | 5.50 | 22.00 | | 6.00 | |
| R014022057RC | 14.00 | | 14.00 | 22.00 | 5.70 | 22.00 | | 6.30 | |
| R014024073RC | 14.00 | | 14.00 | 24.00 | 7.30 | 24.00 | | 8.00 | |
| R014024080RC | 14.00 | | 14.00 | 24.00 | 8.00 | 24.00 | | 9.00 | |
| R015025065RC | 15.40 | | 15.40 | 25.50 | 6.50 | 25.50 | | 7.40 | |
| R015025080RC | 15.00 | | 15.00 | 25.00 | 8.00 | 25.00 | | 9.00 | |
| R015026070RC | 15.00 | | 15.00 | 26.00 | 7.00 | 26.00 | | 8.00 | |
| R016024055RC | 16.00 | | 16.00 | 24.00 | 5.50 | 24.00 | | 6.00 | |
| R016024057RC | 16.00 | | 16.00 | 24.00 | 5.70 | 24.00 | | 6.30 | |
| R016024058RC | 16.00 | | 16.00 | 24.00 | 5.80 | 24.00 | | 6.30 | |
| R016024063RC | 16.00 | | 16.00 | 24.00 | 6.30 | 24.00 | | 7.00 | |
| R016026070RC | 16.00 | | 16.00 | 26.00 | 7.00 | 26.00 | | 8.00 | |
| R016026073RC | 16.00 | | 16.00 | 26.00 | 7.30 | 26.00 | | 8.00 | |
| R016026080RC | 16.00 | | 16.00 | 26.00 | 8.00 | 26.00 | | 9.00 | |
| R018025050RC | 18.00 | | 18.00 | 25.00 | 5.00 | 25.00 | | 5.50 | |
| R018026055RC | 18.00 | | 18.00 | 26.00 | 5.50 | 26.00 | | 6.00 | |
| R018026063RC | 18.00 | | 18.00 | 26.00 | 6.30 | 26.00 | | 7.00 | |
| R018026080RC | 18.00 | ▼ | 18.00 | 26.00 | 8.00 | 26.00 | | 9.00 | |
| R018028073RC | 18.00 | - .020 - .053 | 18.00 | 28.00 | 7.30 | 28.00 | | 8.00 | |
| R018028080RC | 18.00 | | 18.00 | 28.00 | 8.00 | 28.00 | | 9.00 | |
| R019027080RC | 19.50 | ▼ | 19.50 | 27.50 | 8.00 | 27.50 | | 9.00 | |
| R020026048RC | 20.00 | - .016 - .043 | 20.00 | 26.00 | 4.80 | 26.00 | | 5.30 | |
| R020026050RC | 20.00 | | 20.00 | 26.00 | 5.00 | 26.00 | | 5.50 | |
| R020028040RC | 20.00 | - .020 - .053 | 20.00 | 28.00 | 4.00 | 28.00 | | 4.50 | |
| R020028055RC | 20.00 | | 20.00 | 28.00 | 5.50 | 28.00 | | 6.00 | |
| R020028057RC | 20.00 | | 20.00 | 28.00 | 5.70 | 28.00 | | 6.30 | |
| R020030060RC | 20.00 | | 20.00 | 30.00 | 6.00 | 30.00 | | 7.00 | |
| R020030070RC | 20.00 | | 20.00 | 30.00 | 7.00 | 30.00 | | 8.00 | |
| R020030073RC | 20.00 | | 20.00 | 30.00 | 7.30 | 30.00 | | 8.00 | |
| R020030080RC | 20.00 | | 20.00 | 30.00 | 8.00 | 30.00 | | 9.00 | |
| R020030100RC | 20.00 | | 20.00 | 30.00 | 10.00 | 30.00 | ▼ | 11.00 | |
| R020035100RC | 20.00 | | 20.00 | 35.00 | 10.00 | 35.00 | + .160 - .000 | 11.00 | |
| R020040045RC | 20.00 | | 20.00 | 40.00 | 4.50 | 40.00 | | 5.00 | |
| R022030060RC | 22.00 | | 22.00 | 30.00 | 6.00 | 30.00 | | 7.00 | |
| R022030070RC | 22.00 | | 22.00 | 30.00 | 7.00 | 30.00 | | 8.00 | |
| R022032060RC | 22.00 | | 22.00 | 32.00 | 6.00 | 32.00 | | 7.00 | |
| R022032073RC | 22.00 | | 22.00 | 32.00 | 7.30 | 32.00 | | 8.00 | |
| R022032080RC | 22.00 | | 22.00 | 32.00 | 8.00 | 32.00 | | 9.00 | |
| R022035100RC | 22.00 | | 22.00 | 35.00 | 10.00 | 35.00 | | 11.00 | |
| R023035100RC | 23.00 | | 23.00 | 35.00 | 10.00 | 35.00 | | 11.00 | |
| R025032100RC | 25.00 | | 25.00 | 32.00 | 10.00 | 32.00 | | 11.00 | |
| R025033055RC | 25.00 | | 25.00 | 33.00 | 5.50 | 33.00 | | 6.00 | |
| R025033057RC | 25.00 | | 25.00 | 33.00 | 5.70 | 33.00 | | 6.30 | |
| R025033063RC | 25.00 | | 25.00 | 33.00 | 6.30 | 33.00 | | 7.00 | |
| R025033065RC | 25.00 | ▼ | 25.00 | 33.00 | 6.50 | 33.00 | ▼ | 7.30 | ▼ |

RC series - AU 93A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|---------------|-------------------------|-------|-------|--------------------|--------|-------|--------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R025033073RC | 25.00 | - .020 | 25.00 | 33.00 | 7.30 | 33.00 | + .160 | 8.00 | + .200 |
| R025033080RC | 25.00 | - .053 | 25.00 | 33.00 | 8.00 | 33.00 | - .000 | 9.00 | - .000 |
| R025033100RC | 25.00 | | 25.00 | 33.00 | 10.00 | 33.00 | | 11.00 | |
| R025035060RC | 25.00 | | 25.00 | 35.00 | 6.00 | 35.00 | | 7.00 | |
| R025035070RC | 25.00 | | 25.00 | 35.00 | 7.00 | 35.00 | | 8.00 | |
| R025035073RC | 25.00 | | 25.00 | 35.00 | 7.30 | 35.00 | | 8.00 | |
| R025035080RC | 25.00 | | 25.00 | 35.00 | 8.00 | 35.00 | | 9.00 | |
| R025035100RC | 25.00 | | 25.00 | 35.00 | 10.00 | 35.00 | | 11.00 | |
| R025038100RC | 25.00 | | 25.00 | 38.00 | 10.00 | 38.00 | | 11.00 | |
| R025040100RC | 25.00 | | 25.00 | 40.00 | 10.00 | 40.00 | | 11.00 | |
| R025045120RC | 25.00 | | 25.00 | 45.00 | 12.00 | 45.00 | | 13.00 | |
| R028036070RC | 28.00 | | 28.00 | 36.00 | 7.00 | 36.00 | | 8.00 | |
| R028036073RC | 28.00 | | 28.00 | 36.00 | 7.30 | 36.00 | | 8.00 | |
| R028036080RC | 28.00 | | 28.00 | 36.00 | 8.00 | 36.00 | | 9.00 | |
| R028038073RC | 28.00 | | 28.00 | 38.00 | 7.30 | 38.00 | | 8.00 | |
| R028038075RC | 28.00 | | 28.00 | 38.00 | 7.50 | 38.00 | | 8.50 | |
| R028038080RC | 28.00 | | 28.00 | 38.00 | 8.00 | 38.00 | | 9.00 | |
| R028038100RC | 28.00 | | 28.00 | 38.00 | 10.00 | 38.00 | | 11.00 | |
| R028043100RC | 28.00 | | 28.00 | 43.00 | 10.00 | 43.00 | | 11.00 | |
| R028043114RC | 28.00 | | 28.00 | 43.00 | 11.40 | 43.00 | | 12.50 | |
| R030040065RC | 30.00 | ▼ | 30.00 | 40.00 | 6.50 | 40.00 | | 7.50 | |
| R030040073RC | 30.00 | - .025 | 30.00 | 40.00 | 7.30 | 40.00 | | 8.00 | |
| R030040080RC | 30.00 | - .064 | 30.00 | 40.00 | 8.00 | 40.00 | | 9.00 | |
| R030040100RC | 30.00 | ▼ | 30.00 | 40.00 | 10.00 | 40.00 | | 11.00 | |
| R030042085RC | 30.00 | - .020/- .053 | 30.00 | 42.00 | 8.50 | 42.00 | | 9.50 | |
| R030045100RC | 30.00 | - .025 | 30.00 | 45.00 | 10.00 | 45.00 | | 11.00 | |
| R030045110RC | 30.00 | - .064 | 30.00 | 45.00 | 11.00 | 45.00 | | 12.00 | |
| R030050120RC | 30.00 | - .020 | 30.00 | 50.00 | 12.00 | 50.00 | | 13.00 | |
| R032040067RC | 32.00 | - .053 | 32.00 | 40.00 | 6.70 | 40.00 | | 7.50 | |
| R032040080RC | 32.00 | - .025 | 32.00 | 40.00 | 8.00 | 40.00 | | 9.00 | |
| R032041079RC | 32.00 | - .064 | 32.00 | 41.50 | 7.90 | 41.50 | | 8.90 | |
| R032042073RC | 32.00 | ▼ | 32.00 | 42.00 | 7.30 | 42.00 | | 8.00 | |
| R032042100RC | 32.00 | - .020 | 32.00 | 42.00 | 10.00 | 42.00 | | 11.00 | |
| R032045100RC | 32.00 | - .053 | 32.00 | 45.00 | 10.00 | 45.00 | | 11.00 | |
| R032047100RC | 32.00 | ▼ | 32.00 | 47.00 | 10.00 | 47.00 | | 11.00 | |
| R032047114RC | 32.00 | - .025 | 32.00 | 47.00 | 11.40 | 47.00 | | 12.50 | |
| R033043100RC | 33.00 | - .064 | 33.00 | 43.00 | 10.00 | 43.00 | | 11.00 | |
| R035043073RC | 35.00 | | 35.00 | 43.00 | 7.30 | 43.00 | | 8.00 | |
| R035045065RC | 35.00 | | 35.00 | 45.00 | 6.50 | 45.00 | | 7.50 | |
| R035045070RC | 35.00 | | 35.00 | 45.00 | 7.00 | 45.00 | | 8.00 | |
| R035045073RC | 35.00 | | 35.00 | 45.00 | 7.30 | 45.00 | | 8.00 | |
| R035045080RC | 35.00 | | 35.00 | 45.00 | 8.00 | 45.00 | | 9.00 | |
| R035045100RC | 35.00 | | 35.00 | 45.00 | 10.00 | 45.00 | | 11.00 | |
| R035050100RC | 35.00 | | 35.00 | 50.00 | 10.00 | 50.00 | | 11.00 | |
| R036044063RC | 36.00 | | 36.00 | 44.00 | 6.30 | 44.00 | | 7.00 | |
| R036046070RC | 36.00 | ▼ | 36.00 | 46.00 | 7.00 | 46.00 | ▼ | 8.00 | ▼ |

RC series - AU 93A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R036046073RC | 36.00 | - .025 - .064 | 36.00 | 46.00 | 7.30 | 46.00 | + .160 - .000 | 8.00 | + .200 - .000 |
| R036046075RC | 36.00 | | 36.00 | 46.00 | 7.50 | 46.00 | | 8.50 | |
| R036046080RC | 36.00 | | 36.00 | 46.00 | 8.00 | 46.00 | | 9.00 | |
| R036046100RC | 36.00 | | 36.00 | 46.00 | 10.00 | 46.00 | | 11.00 | |
| R036051100RC | 36.00 | | 36.00 | 51.00 | 10.00 | 51.00 | | 11.00 | |
| R036056120RC | 36.00 | ▼ | 36.00 | 56.00 | 12.00 | 56.00 | | 13.00 | |
| R037047080RC | 37.00 | - .020/- .053 | 37.00 | 47.00 | 8.00 | 47.00 | | 9.00 | |
| R037047100RC | 37.00 | - .025 - .064 | 37.00 | 47.00 | 10.00 | 47.00 | | 11.00 | |
| R038050085RC | 38.00 | | 38.00 | 50.00 | 8.50 | 50.00 | | 9.50 | |
| R038055100RC | 38.00 | | 38.00 | 55.00 | 10.00 | 55.00 | | 11.00 | |
| R040048057RC | 40.00 | | 40.00 | 48.00 | 5.70 | 48.00 | | 6.30 | |
| R040049095RC | 40.00 | | 40.00 | 49.50 | 9.50 | 49.50 | ▼ | 10.50 | |
| R040050073RC | 40.00 | | 40.00 | 50.00 | 7.30 | 50.00 | + .190 - .000 | 8.00 | |
| R040050100RC | 40.00 | | 40.00 | 50.00 | 10.00 | 50.00 | | 11.00 | |
| R040055100RC | 40.00 | | 40.00 | 55.00 | 10.00 | 55.00 | | 11.00 | |
| R040055114RC | 40.00 | | 40.00 | 55.00 | 11.40 | 55.00 | | 12.50 | |
| R040060100RC | 40.00 | | 40.00 | 60.00 | 10.00 | 60.00 | | 11.00 | |
| R040060120RC | 40.00 | | 40.00 | 60.00 | 12.00 | 60.00 | | 13.00 | |
| R042050114RC | 42.00 | | 42.00 | 50.00 | 11.40 | 50.00 | | 12.50 | |
| R042052100RC | 42.00 | | 42.00 | 52.00 | 10.00 | 52.00 | | 11.00 | |
| R042053090RC | 42.00 | | 42.00 | 53.00 | 10.00 | 53.00 | | 10.00 | |
| R043053073RC | 43.00 | | 43.00 | 53.00 | 7.30 | 53.00 | | 8.00 | |
| R045053056RC | 45.00 | | 45.00 | 53.00 | 5.60 | 53.00 | | 6.30 | |
| R045053080RC | 45.00 | | 45.00 | 53.00 | 8.00 | 53.00 | | 9.00 | |
| R045053114RC | 45.00 | | 45.00 | 53.00 | 11.40 | 53.00 | | 12.50 | |
| R045053120RC | 45.00 | | 45.00 | 53.00 | 12.00 | 53.00 | | 13.00 | |
| R045055070RC | 45.00 | | 45.00 | 55.00 | 7.00 | 55.00 | | 8.00 | |
| R045055073RC | 45.00 | | 45.00 | 55.00 | 7.30 | 55.00 | | 8.00 | |
| R045055100RC | 45.00 | | 45.00 | 55.00 | 10.00 | 55.00 | | 11.00 | |
| R045055114RC | 45.00 | | 45.00 | 55.00 | 11.40 | 55.00 | | 12.50 | |
| R045057095RC | 45.00 | | 45.00 | 57.70 | 9.50 | 57.70 | | 10.50 | |
| R045060100RC | 45.00 | | 45.00 | 60.00 | 10.00 | 60.00 | | 11.00 | |
| R045060114RC | 45.00 | | 45.00 | 60.00 | 11.40 | 60.00 | | 12.50 | |
| R045065100RC | 45.00 | | 45.00 | 65.00 | 10.00 | 65.00 | | 11.00 | |
| R045065120RC | 45.00 | | 45.00 | 65.00 | 12.00 | 65.00 | | 13.00 | |
| R045065130RC | 45.00 | | 45.00 | 65.00 | 13.00 | 65.00 | | 14.00 | |
| R048056114RC | 45.00 | | 45.00 | 56.00 | 11.40 | 56.00 | | 12.50 | |
| R048056120RC | 45.00 | | 45.00 | 56.00 | 12.00 | 56.00 | | 13.00 | |
| R048063100RC | 48.00 | | 48.00 | 63.00 | 10.00 | 63.00 | | 11.00 | |
| R048068120RC | 48.00 | | 48.00 | 68.00 | 12.00 | 68.00 | | 13.00 | |
| R050057100RC | 50.00 | | 50.00 | 57.00 | 10.00 | 57.00 | | 11.00 | |
| R050058080RC | 50.00 | ▼ | 50.00 | 58.00 | 8.00 | 58.00 | | 9.00 | |
| R050058114RC | 50.00 | - .030 - .076 | 50.00 | 58.00 | 11.40 | 58.00 | | 12.50 | |
| R050060070RC | 50.00 | | 50.00 | 60.00 | 7.00 | 60.00 | | 8.00 | |
| R050060073RC | 50.00 | - .025 - .064 | 50.00 | 60.00 | 7.30 | 60.00 | | 8.00 | |
| R050060100RC | 50.00 | | 50.00 | 60.00 | 10.00 | 60.00 | ▼ | 11.00 | ▼ |

RC series - AU 93A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|----------------|-------------------------|-------|-------|--------------------|----------------|-------|----------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R050062095RC | 50.00 | -.030/-.076 | 50.00 | 62.70 | 9.50 | 62.70 | | 10.50 | |
| R050062100RC | 50.00 | | 50.00 | 62.00 | 10.00 | 62.00 | +.190 -.000 | 11.00 | +.200 -.000 |
| R050065095RC | 50.00 | -.025 -.064 | 50.00 | 65.00 | 9.50 | 65.00 | | 10.50 | |
| R050065100RC | 50.00 | | 50.00 | 65.00 | 10.00 | 65.00 | | 11.00 | |
| R050065110RC | 50.00 | | 50.00 | 65.00 | 11.00 | 65.00 | | 12.00 | |
| R050065115RC | 50.00 | | 50.00 | 65.00 | 11.50 | 65.00 | | 12.50 | |
| R050065155RC | 50.00 | | 50.00 | 65.00 | 15.50 | 65.00 | | 15.50 | |
| R050070120RC | 50.00 | | 50.00 | 70.00 | 12.00 | 70.00 | | 13.00 | |
| R050070140RC | 50.00 | ▼ | 50.00 | 70.00 | 14.00 | 70.00 | | 15.00 | |
| R052062100RC | 52.00 | -.030 -.076 | 52.00 | 62.00 | 10.00 | 62.00 | | 11.00 | |
| R055062090RC | 55.00 | | 55.00 | 62.50 | 9.00 | 62.50 | | 10.00 | |
| R055063114RC | 55.00 | | 55.00 | 63.00 | 11.40 | 63.00 | | 12.50 | |
| R055065085RC | 55.00 | | 55.00 | 65.00 | 8.50 | 65.00 | | 9.50 | |
| R055065100RC | 55.00 | ▼ | 55.00 | 65.00 | 10.00 | 65.00 | | 11.00 | |
| R055065120RC | 55.00 | -.025/-.064 | 55.00 | 65.00 | 12.00 | 65.00 | | 13.00 | |
| R055067100RC | 55.00 | -.030 -.076 | 55.00 | 67.00 | 10.00 | 67.00 | | 11.00 | |
| R055070100RC | 55.00 | | 55.00 | 70.00 | 10.00 | 70.00 | | 11.00 | |
| R055070120RC | 55.00 | -.025 -.064 | 55.00 | 70.00 | 12.00 | 70.00 | | 13.00 | |
| R055075120RC | 55.00 | | 55.00 | 75.00 | 12.00 | 75.00 | | 13.00 | |
| R056066100RC | 56.00 | -.030 -.076 | 56.00 | 66.00 | 10.00 | 66.00 | | 11.00 | |
| R056071100RC | 56.00 | | 56.00 | 71.00 | 10.00 | 71.00 | | 11.00 | |
| R056071114RC | 56.00 | | 56.00 | 71.00 | 11.40 | 71.00 | | 12.50 | |
| R056076120RC | 56.00 | | 56.00 | 76.00 | 12.00 | 76.00 | | 13.00 | |
| R058068114RC | 58.00 | | 58.00 | 68.00 | 11.40 | 68.00 | | 12.50 | |
| R060068114RC | 60.00 | | 60.00 | 68.00 | 11.40 | 68.00 | | 12.50 | |
| R060070052RC | 60.00 | | 60.00 | 70.00 | 5.20 | 70.00 | | 6.00 | |
| R060070075RC | 60.00 | | 60.00 | 70.00 | 7.50 | 70.00 | | 8.50 | |
| R060070100RC | 60.00 | | 60.00 | 70.00 | 10.00 | 70.00 | | 11.00 | |
| R060070114RC | 60.00 | | 60.00 | 70.00 | 11.40 | 70.00 | | 12.50 | |
| R060070120RC | 60.00 | | 60.00 | 70.00 | 12.00 | 70.00 | | 13.00 | |
| R060075100RC | 60.00 | | 60.00 | 75.00 | 10.00 | 75.00 | | 11.00 | |
| R060075114RC | 60.00 | | 60.00 | 75.00 | 11.40 | 75.00 | | 12.50 | |
| R060075120RC | 60.00 | | 60.00 | 75.00 | 12.00 | 75.00 | | 13.00 | |
| R060075155RC | 60.00 | | 60.00 | 75.00 | 15.50 | 75.00 | | 16.50 | |
| R060080120RC | 60.00 | | 60.00 | 80.00 | 12.00 | 80.00 | | 13.00 | |
| R063071080RC | 63.00 | | 63.00 | 71.00 | 8.00 | 71.00 | | 9.00 | |
| R063073120RC | 63.00 | | 63.00 | 73.00 | 12.00 | 73.00 | | 13.00 | |
| R063075085RC | 63.00 | | 63.00 | 75.00 | 8.50 | 75.00 | | 9.50 | |
| R063075100RC | 63.00 | | 63.00 | 75.00 | 10.00 | 75.00 | | 11.00 | |
| R063075120RC | 63.00 | | 63.00 | 75.00 | 12.00 | 75.00 | | 13.00 | |
| R063078100RC | 63.00 | | 63.00 | 78.00 | 10.00 | 78.00 | | 11.00 | |
| R063078114RC | 63.00 | | 63.00 | 78.00 | 11.40 | 78.00 | | 12.50 | |
| R063083120RC | 63.00 | | 63.00 | 83.00 | 12.00 | 83.00 | | 13.00 | |
| R063083135RC | 63.00 | | 63.00 | 83.00 | 13.50 | 83.00 | | 14.50 | |
| R063083150RC | 63.00 | | 63.00 | 83.00 | 15.00 | 83.00 | | 16.00 | |
| R065073114RC | 65.00 | ▼ | 65.00 | 75.00 | 11.40 | 75.00 | ▼ | 12.50 | ▼ |

RC series - AU 93A



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R065075100RC | 65.00 | -0.030 -0.076 | 65.00 | 75.00 | 10.00 | 75.00 | +0.190 -0.000 | 11.00 | +0.200 -0.000 |
| R065075114RC | 65.00 | | 65.00 | 75.00 | 11.40 | 75.00 | | 12.50 | |
| R065075120RC | 65.00 | | 65.00 | 75.00 | 12.00 | 75.00 | | 13.00 | |
| R065077095RC | 65.00 | | 65.00 | 77.70 | 9.50 | 77.70 | | 10.50 | |
| R065080100RC | 65.00 | | 65.00 | 80.00 | 10.00 | 80.00 | | 11.00 | |
| R065080120RC | 65.00 | | 65.00 | 80.00 | 12.00 | 80.00 | | 13.00 | |
| R065085120RC | 65.00 | | 65.00 | 85.00 | 12.00 | 85.00 | | 13.00 | |
| R066080100RC | 66.00 | | 66.00 | 80.00 | 10.00 | 80.00 | | 11.00 | |
| R067075114RC | 67.00 | | 67.00 | 75.00 | 11.40 | 75.00 | | 12.50 | |
| R068078120RC | 68.00 | | 68.00 | 78.00 | 12.00 | 78.00 | | 13.00 | |
| R070077090RC | 70.00 | | 70.00 | 77.50 | 9.00 | 77.50 | | 10.00 | |
| R070078114RC | 70.00 | | 70.00 | 78.00 | 11.40 | 78.00 | ▼ | 12.50 | |
| R070079130RC | 70.00 | | 70.00 | 79.00 | 13.00 | 79.00 | +0.220 -0.000 | 14.00 | |
| R070080080RC | 70.00 | | 70.00 | 80.00 | 8.00 | 80.00 | | 9.00 | |
| R070080114RC | 70.00 | | 70.00 | 80.00 | 11.40 | 80.00 | | 12.50 | |
| R070080120RC | 70.00 | | 70.00 | 80.00 | 12.00 | 80.00 | | 13.00 | |
| R070085100RC | 70.00 | | 70.00 | 85.00 | 10.00 | 85.00 | | 11.00 | |
| R070085114RC | 70.00 | | 70.00 | 85.00 | 11.40 | 85.00 | | 12.50 | |
| R070085120RC | 70.00 | | 70.00 | 85.00 | 12.00 | 85.00 | | 13.00 | |
| R070090120RC | 70.00 | | 70.00 | 90.00 | 12.00 | 90.00 | | 13.00 | |
| R070090150RC | 70.00 | | 70.00 | 90.00 | 15.00 | 90.00 | | 16.00 | |
| R073082070RC | 73.00 | | 73.00 | 82.40 | 7.00 | 82.40 | | 7.80 | |
| R075083114RC | 75.00 | | 75.00 | 83.00 | 11.40 | 83.00 | | 12.50 | |
| R075085085RC | 75.00 | | 75.00 | 85.00 | 8.50 | 85.00 | | 9.50 | |
| R075085087RC | 75.00 | | 75.00 | 85.00 | 8.70 | 85.00 | | 9.50 | |
| R075085100RC | 75.00 | | 75.00 | 85.00 | 10.00 | 85.00 | | 11.00 | |
| R075085114RC | 75.00 | | 75.00 | 85.00 | 11.40 | 85.00 | | 12.50 | |
| R075085120RC | 75.00 | | 75.00 | 85.00 | 12.00 | 85.00 | | 13.00 | |
| R075090100RC | 75.00 | | 75.00 | 90.00 | 10.00 | 90.00 | | 11.00 | |
| R075090110RC | 75.00 | | 75.00 | 90.00 | 11.00 | 90.00 | | 12.00 | |
| R075090114RC | 75.00 | | 75.00 | 90.00 | 11.40 | 90.00 | | 12.50 | |
| R075090120RC | 75.00 | | 75.00 | 90.00 | 12.00 | 90.00 | | 13.00 | |
| R077086140RC | 77.00 | ▼ | 77.00 | 86.00 | 14.00 | 86.00 | | 15.00 | |
| R077087120RC | 77.00 | -0.036/-0.090 | 77.00 | 87.00 | 12.00 | 87.00 | | 13.00 | |
| R078086085RC | 78.00 | -0.030 -0.076 | 78.00 | 86.00 | 8.50 | 86.00 | | 9.50 | |
| R078086114RC | 78.00 | | 78.00 | 86.00 | 11.40 | 86.00 | | 12.50 | |
| R078086135RC | 78.00 | | 78.00 | 86.00 | 13.50 | 86.00 | | 14.50 | |
| R078088120RC | 78.00 | | 78.00 | 88.00 | 12.00 | 88.00 | | 13.00 | |
| R078090120RC | 78.00 | | 78.00 | 90.00 | 12.00 | 90.00 | | 13.00 | |
| R080088114RC | 80.00 | | 80.00 | 88.00 | 11.40 | 88.00 | | 12.50 | |
| R080090120RC | 80.00 | | 80.00 | 90.00 | 12.00 | 90.00 | | 13.00 | |
| R080095100RC | 80.00 | ▼ | 80.00 | 95.00 | 10.00 | 95.00 | | 11.00 | |
| R080095114RC | 80.00 | -0.036 -0.090 | 80.00 | 95.00 | 11.40 | 95.00 | | 12.50 | |
| R080095120RC | 80.00 | | 80.00 | 95.00 | 12.00 | 95.00 | | 13.00 | |
| R080100120RC | 80.00 | -0.030 -0.076 | 80.00 | 100.00 | 12.00 | 100.00 | | 13.00 | |
| R080100125RC | 80.00 | | 80.00 | 100.00 | 12.50 | 100.00 | ▼ | 13.50 | ▼ |

RC series - AU 93A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|----------------|-------------------------|--------|-------|--------------------|-----------------|-------|-----------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R080100150RC | 80.00 | -.030/-.076 | 80.00 | 100.00 | 15.00 | 100.00 | +0.220 -.000 | 16.00 | +0.200 -.000 |
| R081089105RC | 81.00 | -.036 -.090 | 81.00 | 89.00 | 10.50 | 89.00 | | 11.50 | |
| R082097120RC | 82.50 | | 82.50 | 97.50 | 12.00 | 97.50 | | 13.00 | |
| R085092090RC | 85.00 | ↓ | 85.00 | 92.50 | 9.00 | 92.50 | | 10.00 | |
| R085093114RC | 85.00 | -.030 -.076 | 85.00 | 93.00 | 11.40 | 93.00 | | 12.50 | |
| R085095120RC | 85.00 | | 85.00 | 95.00 | 12.00 | 95.00 | | 13.00 | |
| R085100114RC | 85.00 | ↓ | 85.00 | 100.00 | 11.40 | 100.00 | | 12.50 | |
| R085100120RC | 85.00 | -.036 -.090 | 85.00 | 100.00 | 12.00 | 100.00 | | 13.00 | |
| R085105120RC | 85.00 | | 85.00 | 105.00 | 12.00 | 105.00 | | 13.00 | |
| R090098114RC | 90.00 | | 90.00 | 98.00 | 11.40 | 98.00 | | 12.50 | |
| R090100114RC | 90.00 | | 90.00 | 100.00 | 11.40 | 100.00 | | 12.50 | |
| R090100120RC | 90.00 | | 90.00 | 100.00 | 12.00 | 100.00 | | 13.00 | |
| R090105114RC | 90.00 | | 90.00 | 105.00 | 11.40 | 105.00 | | 12.50 | |
| R090105120RC | 90.00 | | 90.00 | 105.00 | 12.00 | 105.00 | | 13.00 | |
| R090110120RC | 90.00 | | 90.00 | 110.00 | 12.00 | 110.00 | | 13.00 | |
| R092107114RC | 92.00 | | 92.00 | 107.00 | 11.40 | 107.00 | | 12.50 | |
| R093101114RC | 93.00 | | 93.00 | 101.00 | 11.40 | 101.00 | | 12.50 | |
| R095103114RC | 95.00 | | 95.00 | 103.00 | 11.40 | 103.00 | | 12.50 | |
| R095105085RC | 95.00 | | 95.00 | 105.00 | 8.50 | 105.00 | | 9.50 | |
| R095105087RC | 95.00 | | 95.00 | 105.00 | 8.70 | 105.00 | | 9.50 | |
| R095105120RC | 95.00 | | 95.00 | 105.00 | 12.00 | 105.00 | | 13.00 | |
| R095115120RC | 95.00 | | 95.00 | 115.00 | 12.00 | 115.00 | | 13.00 | |
| R097105114RC | 97.00 | | 97.00 | 105.00 | 11.40 | 105.00 | | 12.50 | |
| R097105130RC | 97.00 | | 97.00 | 105.00 | 13.00 | 105.00 | | 14.00 | |
| R097105135RC | 97.00 | | 97.00 | 105.00 | 13.50 | 105.00 | | 14.50 | |
| R097106140RC | 97.00 | | 97.00 | 106.00 | 14.00 | 106.00 | | 15.00 | |
| R099109120RC | 99.00 | | 99.00 | 109.00 | 12.00 | 109.00 | | 13.00 | |
| R100108114RC | 100.00 | | 100.00 | 108.00 | 11.40 | 108.00 | | 12.50 | |
| R100110080RC | 100.00 | | 100.00 | 110.00 | 8.00 | 110.00 | | 9.00 | |
| R100110100RC | 100.00 | | 100.00 | 110.00 | 10.00 | 110.00 | | 11.00 | |
| R100110114RC | 100.00 | | 100.00 | 110.00 | 11.40 | 110.00 | | 12.50 | |
| R100115120RC | 100.00 | | 100.00 | 115.00 | 12.00 | 115.00 | | 13.00 | |
| R100120120RC | 100.00 | | 100.00 | 120.00 | 12.00 | 120.00 | | 13.00 | |
| R100120130RC | 100.00 | | 100.00 | 120.00 | 13.00 | 120.00 | | 14.00 | |
| R100120145RC | 100.00 | | 100.00 | 120.00 | 14.50 | 120.00 | | 15.50 | |
| R100120150RC | 100.00 | | 100.00 | 120.00 | 15.00 | 120.00 | | 16.00 | |
| R100125150RC | 100.00 | | 100.00 | 125.00 | 15.00 | 125.00 | | 16.00 | |
| R105113114RC | 105.00 | | 105.00 | 113.00 | 11.40 | 113.00 | | 12.50 | |
| R105113135RC | 105.00 | | 105.00 | 113.00 | 13.50 | 113.00 | | 14.50 | |
| R105115114RC | 105.00 | | 105.00 | 115.00 | 11.40 | 115.00 | | 12.50 | |
| R105120092RC | 105.00 | | 105.00 | 120.00 | 9.20 | 120.00 | | 10.00 | |
| R105120099RC | 105.00 | | 105.00 | 120.00 | 9.90 | 120.00 | | 10.90 | |
| R110118114RC | 110.00 | | 110.00 | 118.00 | 11.40 | 118.00 | ↓ | 12.50 | |
| R110120120RC | 110.00 | | 110.00 | 120.00 | 12.00 | 120.00 | +0.250 -.000 | 13.00 | |
| R110125150RC | 110.00 | | 110.00 | 125.00 | 15.00 | 125.00 | | 16.00 | |
| R110130120RC | 110.00 | ↓ | 110.00 | 130.00 | 12.00 | 130.00 | ↓ | 13.00 | ↓ |

RC series - AU 93A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R110130145RC | 110.00 | -0.036 -0.090 | 110.00 | 130.00 | 14.50 | 130.00 | +0.250 -0.000 | 15.50 | +0.200 -0.000 |
| R110130150RC | 110.00 | | 110.00 | 130.00 | 15.00 | 130.00 | | 16.00 | |
| R110135150RC | 110.00 | | 110.00 | 135.00 | 15.00 | 135.00 | | 16.00 | |
| R112122100RC | 112.00 | | 112.00 | 122.00 | 10.00 | 122.00 | | 11.00 | |
| R113123085RC | 113.00 | | 113.00 | 123.00 | 8.50 | 123.00 | | 9.50 | |
| R113123087RC | 113.00 | | 113.00 | 123.00 | 8.70 | 123.00 | | 9.50 | |
| R115123114RC | 115.00 | | 115.00 | 123.00 | 11.40 | 123.00 | | 12.50 | |
| R115125120RC | 115.00 | | 115.00 | 125.00 | 12.00 | 125.00 | | 13.00 | |
| R115125140RC | 115.00 | | 115.00 | 125.00 | 14.00 | 125.00 | | 15.00 | |
| R115130100RC | 115.00 | | 115.00 | 130.00 | 10.00 | 130.00 | | 11.00 | |
| R115140150RC | 115.00 | | 115.00 | 140.00 | 15.00 | 140.00 | | 16.00 | |
| R117126140RC | 117.00 | | 117.00 | 126.00 | 14.00 | 126.00 | | 15.00 | |
| R118126114RC | 118.00 | | 118.00 | 126.00 | 11.40 | 126.00 | | 12.50 | |
| R118126130RC | 118.00 | | 118.00 | 126.00 | 13.00 | 126.00 | | 14.00 | |
| R118126135RC | 118.00 | | 118.00 | 126.00 | 13.50 | 126.00 | | 14.50 | |
| R120128114RC | 120.00 | | 120.00 | 128.00 | 11.40 | 128.00 | | 12.50 | |
| R120130114RC | 120.00 | ▼ | 120.00 | 130.00 | 11.40 | 130.00 | | 12.50 | |
| R120130120RC | 120.00 | -0.043/-0.106 | 120.00 | 130.00 | 12.00 | 130.00 | | 13.00 | |
| R120130140RC | 120.00 | -0.036 -0.090 | 120.00 | 130.00 | 14.00 | 130.00 | | 15.00 | |
| R120135150RC | 120.00 | | 120.00 | 135.00 | 15.00 | 135.00 | | 16.00 | |
| R120140120RC | 120.00 | -0.043 -0.106 | 120.00 | 140.00 | 12.00 | 140.00 | | 13.00 | |
| R120140150RC | 120.00 | | 120.00 | 140.00 | 15.00 | 140.00 | | 16.00 | |
| R121135090RC | 121.00 | | 121.00 | 135.00 | 9.00 | 135.00 | | 10.00 | |
| R125133114RC | 125.00 | ▼ | 125.00 | 133.00 | 11.40 | 133.00 | | 12.50 | |
| R125135100RC | 125.00 | -0.036 -0.090 | 125.00 | 135.00 | 10.00 | 135.00 | | 11.00 | |
| R125145120RC | 125.00 | | 125.00 | 145.00 | 12.00 | 145.00 | | 13.00 | |
| R125145150RC | 125.00 | ▼ | 125.00 | 145.00 | 15.00 | 145.00 | | 16.00 | |
| R125150150RC | 125.00 | -0.043 -0.106 | 125.00 | 150.00 | 15.00 | 150.00 | | 16.00 | |
| R125155180RC | 125.00 | | 125.00 | 155.00 | 18.00 | 155.00 | | 19.00 | |
| R127140114RC | 127.00 | | 127.00 | 140.00 | 11.40 | 140.00 | | 12.50 | |
| R128136114RC | 128.00 | | 128.00 | 136.00 | 11.40 | 136.00 | | 12.50 | |
| R130138114RC | 130.00 | | 130.00 | 138.00 | 11.40 | 138.00 | | 12.50 | |
| R130145120RC | 130.00 | | 130.00 | 145.00 | 12.00 | 145.00 | | 13.00 | |
| R130145150RC | 130.00 | | 130.00 | 145.00 | 15.00 | 145.00 | | 16.00 | |
| R130150120RC | 130.00 | | 130.00 | 150.00 | 12.00 | 150.00 | | 13.00 | |
| R130150125RC | 130.00 | | 130.00 | 150.00 | 12.50 | 150.00 | | 12.50 | |
| R130150150RC | 130.00 | | 130.00 | 150.00 | 15.00 | 150.00 | | 16.00 | |
| R131150130RC | 131.00 | | 131.00 | 150.00 | 13.00 | 150.00 | | 14.00 | |
| R132142085RC | 132.00 | | 132.00 | 142.00 | 8.50 | 142.00 | | 9.50 | |
| R132142087RC | 132.00 | | 132.00 | 142.00 | 8.70 | 142.00 | | 9.50 | |
| R135143114RC | 135.00 | | 135.00 | 143.00 | 11.40 | 143.00 | | 12.50 | |
| R135145120RC | 135.00 | | 135.00 | 145.00 | 12.00 | 145.00 | | 13.00 | |
| R135150114RC | 135.00 | | 135.00 | 150.00 | 11.40 | 150.00 | | 12.50 | |
| R135150150RC | 135.00 | | 135.00 | 150.00 | 15.00 | 150.00 | | 16.00 | |
| R137146140RC | 137.00 | | 137.00 | 146.00 | 14.00 | 146.00 | | 15.00 | |
| R140148114RC | 140.00 | ▼ | 140.00 | 148.00 | 11.40 | 148.00 | ▼ | 12.50 | ▼ |

RC series - AU 93A

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|----------------|-------------------------|--------|-------|--------------------|----------------|-------|----------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R140150114RC | 140.00 | -.043 -.106 | 140.00 | 150.00 | 11.40 | 150.00 | +.250 -.000 | 12.50 | +.200 -.000 |
| R140160120RC | 140.00 | | 140.00 | 160.00 | 12.00 | 160.00 | | 13.00 | |
| R140160150RC | 140.00 | | 140.00 | 160.00 | 15.00 | 160.00 | | 16.00 | |
| R140165150RC | 140.00 | | 140.00 | 165.00 | 15.00 | 165.00 | | 16.00 | |
| R140170180RC | 140.00 | | 140.00 | 170.00 | 18.00 | 170.00 | | 19.00 | |
| R141151120RC | 141.00 | | 141.00 | 151.00 | 12.00 | 151.00 | | 13.00 | |
| R143151114RC | 143.00 | | 143.00 | 151.00 | 11.40 | 151.00 | | 12.50 | |
| R143151130RC | 143.00 | | 143.00 | 151.00 | 13.00 | 151.00 | | 14.00 | |
| R143151135RC | 143.00 | | 143.00 | 151.00 | 13.50 | 151.00 | | 14.50 | |
| R145155120RC | 145.00 | | 145.00 | 155.00 | 12.00 | 155.00 | | 13.00 | |
| R145160120RC | 145.00 | | 145.00 | 160.00 | 12.00 | 160.00 | | 13.00 | |
| R148160120RC | 148.00 | | 148.00 | 160.00 | 12.00 | 160.00 | | 13.00 | |
| R150170145RC | 150.00 | | 150.00 | 170.00 | 14.50 | 170.00 | | 15.50 | |
| R150170150RC | 150.00 | | 150.00 | 170.00 | 15.00 | 170.00 | | 16.00 | |
| R150180180RC | 150.00 | | 150.00 | 180.00 | 18.00 | 180.00 | | 19.00 | |
| R152160114RC | 152.00 | | 152.00 | 160.00 | 11.40 | 160.00 | | 12.50 | |
| R152160140RC | 152.50 | | 152.50 | 160.50 | 14.00 | 160.50 | | 15.00 | |
| R152162100RC | 152.00 | | 152.00 | 162.00 | 10.00 | 162.00 | | 11.00 | |
| R152171114RC | 152.00 | | 152.00 | 171.00 | 11.40 | 171.00 | | 12.50 | |
| R155163114RC | 155.00 | | 155.00 | 163.00 | 11.40 | 163.00 | | 12.50 | |
| R155165120RC | 155.00 | | 155.00 | 165.00 | 12.00 | 165.00 | | 13.00 | |
| R160168114RC | 160.00 | | 160.00 | 168.00 | 11.40 | 168.00 | | 12.50 | |
| R160170114RC | 160.00 | | 160.00 | 170.00 | 11.40 | 170.00 | | 12.50 | |
| R160170120RC | 160.00 | | 160.00 | 170.00 | 12.00 | 170.00 | | 13.00 | |
| R160180150RC | 160.00 | | 160.00 | 180.00 | 15.00 | 180.00 | | 16.00 | |
| R160185150RC | 160.00 | | 160.00 | 185.00 | 15.00 | 185.00 | | 16.00 | |
| R160185182RC | 160.00 | | 160.00 | 185.00 | 18.20 | 185.00 | | 20.00 | |
| R160190180RC | 160.00 | | 160.00 | 190.00 | 18.00 | 190.00 | | 19.00 | |
| R162172120RC | 162.00 | | 162.00 | 172.00 | 12.00 | 172.00 | | 13.00 | |
| R165184130RC | 165.00 | | 165.00 | 184.00 | 13.00 | 184.00 | | 14.00 | |
| R165190170RC | 165.00 | | 165.00 | 190.00 | 17.00 | 190.00 | ▼ | 18.00 | |
| R167176114RC | 167.00 | | 167.00 | 176.00 | 11.40 | 176.00 | +.290 -.000 | 12.50 | |
| R170178114RC | 170.00 | | 170.00 | 178.00 | 11.40 | 178.00 | | 12.50 | |
| R170180120RC | 170.00 | | 170.00 | 180.00 | 12.00 | 180.00 | | 13.00 | |
| R170190150RC | 170.00 | | 170.00 | 190.00 | 15.00 | 190.00 | | 16.00 | |
| R170200180RC | 170.00 | | 170.00 | 200.00 | 18.00 | 200.00 | | 19.00 | |
| R171179114RC | 171.00 | | 171.00 | 179.00 | 11.40 | 179.00 | | 12.50 | |
| R171179130RC | 171.00 | | 171.00 | 179.00 | 13.00 | 179.00 | | 14.00 | |
| R175185120RC | 175.00 | | 175.00 | 185.00 | 12.00 | 185.00 | | 13.00 | |
| R177205190RC | 177.00 | ▼ | 177.00 | 205.00 | 19.00 | 205.00 | | 20.00 | |
| R180188135RC | 180.00 | -.050/- .122 | 180.00 | 188.00 | 13.50 | 188.00 | | 14.50 | |
| R180190100RC | 180.00 | -.043 -.106 | 180.00 | 190.00 | 10.00 | 190.00 | | 11.00 | |
| R180195114RC | 180.00 | | 180.00 | 195.00 | 11.40 | 195.00 | | 12.50 | |
| R180195125RC | 180.00 | -.050/- .122 | 180.00 | 195.00 | 12.50 | 195.00 | | 13.50 | |
| R180200150RC | 180.00 | -.043 -.106 | 180.00 | 200.00 | 15.00 | 200.00 | | 16.00 | |
| R180205150RC | 180.00 | | 180.00 | 205.00 | 15.00 | 205.00 | ▼ | 16.00 | ▼ |

RC series - AU 93A

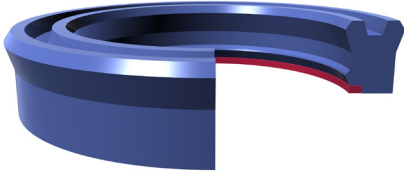
ROD SEALS



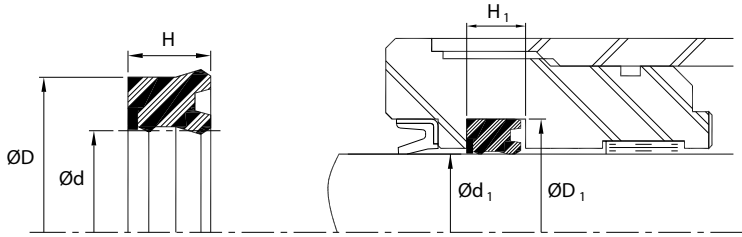
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|---------------|------------|-------------------------|--------|-------|--------------------|------|-------|------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R180205190RC | 180.00 | -043 | 180.00 | 205.00 | 19.00 | 205.00 | +290 | 20.00 | +200 |
| R180210180RC | 180.00 | -106 | 180.00 | 210.00 | 18.00 | 210.00 | -000 | 19.00 | -000 |
| R185193114RC | 185.00 | ↓ | 185.00 | 193.00 | 11.40 | 193.00 | | 12.50 | |
| R185195120RC | 185.00 | -.050/-122 | 185.00 | 195.00 | 12.00 | 195.00 | | 13.00 | |
| R200208114RC | 200.00 | -.043/-106 | 200.00 | 208.00 | 11.40 | 208.00 | | 12.50 | |
| R200225182RC | 200.00 | -.050 | 200.00 | 225.00 | 18.20 | 225.00 | | 20.00 | |
| R200225190RC | 200.00 | -122 | 200.00 | 225.00 | 19.00 | 225.00 | | 20.00 | |
| R200230180RC | 200.00 | | 200.00 | 230.00 | 18.00 | 230.00 | | 19.00 | |
| R205220125RC | 205.00 | | 205.00 | 220.00 | 12.50 | 220.00 | | 13.50 | |
| R209228130RC | 209.00 | | 209.00 | 228.00 | 13.00 | 228.00 | | 14.00 | |
| R210230150RC | 210.00 | | 210.00 | 230.00 | 15.00 | 230.00 | | 16.00 | |
| R210240180RC | 210.00 | | 210.00 | 240.00 | 18.00 | 240.00 | | 19.00 | |
| R212220135RC | 212.00 | | 212.00 | 220.00 | 13.50 | 220.00 | | 14.50 | |
| R220220150RC | 200.00 | | 200.00 | 220.00 | 15.00 | 220.00 | | 16.00 | |
| R220250180RC | 220.00 | | 220.00 | 250.00 | 18.00 | 250.00 | | 19.00 | |
| R220250227RC | 220.00 | | 220.00 | 250.00 | 22.70 | 250.00 | | 25.00 | |
| R230260227RC | 230.00 | | 230.00 | 260.00 | 22.70 | 260.00 | ↓ | 25.00 | |
| R232246120RC | 232.00 | | 232.00 | 246.00 | 12.00 | 246.00 | +320 | 13.00 | |
| R240260150RC | 240.00 | | 240.00 | 260.00 | 15.00 | 260.00 | -000 | 16.00 | |
| R250270150RC | 250.00 | ↓ | 250.00 | 270.00 | 15.00 | 270.00 | | 16.00 | |
| R270300180RC | 270.00 | -.056 | 270.00 | 300.00 | 18.00 | 300.00 | | 19.00 | |
| R280300150RC | 280.00 | -137 | 280.00 | 300.00 | 15.00 | 300.00 | | 16.00 | |
| R280310180RC | 280.00 | ↓ | 280.00 | 310.00 | 18.00 | 310.00 | ↓ | 19.00 | |
| R320350200RC | 320.00 | -.062 | 320.00 | 350.00 | 20.00 | 350.00 | +360 | 21.00 | |
| R360390200RC | 360.00 | -151 | 360.00 | 390.00 | 20.00 | 390.00 | -000 | 21.00 | ↓ |



RC/AER - Rod seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-----------------------------|--------------------------------------|---------------------------|--------------------------|
| Polyurethane/ Polyacetal | -40°F to +212°F (-40°C to +100°C) | ≤10 000 psi (≤700 bar) | < 1.5 ft/s (0.46 m/s) |



To protect against high loads, the **RC/AER-style** adds an anti-extrusion ring on its heel portion that is positively actuated and that effectively closes up the clearance gap, thus protecting the seal against extrusion damage.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| GAP DIMENSION "G" | | | |
|---|-------------------------|---------|---------------------------|
| The largest gap dimension appearing in operation on the non-pressurised side: | | | |
| Gap | Pressure | Gap | Pressure |
| 0.80 mm | ≤2900 psi (≤200 bar) | 0.40 mm | ≤7250 psi (≤500 bar) |
| 0.65 mm | ≤4350 psi (≤300 bar) | 0.33 mm | ≤8700 psi (≤600 bar) |
| 0.50 mm | ≤5800 psi (≤400 bar) | 0.25 mm | ≤10 150 psi (≤700 bar) |

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|------------------|--------------|-----------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| RO25033058RC/AER | 25.00 | -.020/- .053 | 25.00 | 33.00 | 5.80 | 33.00 | + .160 - .000 | 6.30 | + .200 - .000 |
| RO40048080RC/AER | 40.00 | -.025 - .064 | 40.00 | 48.00 | 8.00 | 48.00 | ↓ | 9.00 | ↓ |
| RO40050100RC/AER | 40.00 | ↓ | 40.00 | 50.00 | 10.00 | 50.00 | + .190 - .000 | 11.00 | ↓ |
| RO40052100RC/AER | 40.00 | ↓ | 40.00 | 52.00 | 10.00 | 52.00 | ↓ | 11.00 | ↓ |
| RO40055100RC/AER | 40.00 | ↓ | 40.00 | 55.00 | 10.00 | 55.00 | ↓ | 11.00 | ↓ |

RC/AER series - AU/POM

ROD SEALS

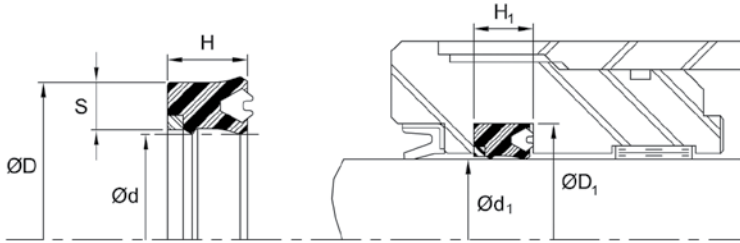


| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|------------------|--------------|----------------|-------------------------|--------|-------|--------------------|----------------|-------|----------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R045053095RC/AER | 45.00 | -.025 -.064 | 45.00 | 53.00 | 9.50 | 53.00 | +.190 -.000 | 10.50 | +.200 -.000 |
| R045055100RC/AER | 45.00 | | 45.00 | 55.00 | 10.00 | 55.00 | | 11.00 | |
| R045060100RC/AER | 45.00 | | 45.00 | 60.00 | 10.00 | 60.00 | | 11.00 | |
| R050060100RC/AER | 50.00 | | 50.00 | 60.00 | 10.00 | 60.00 | | 11.00 | |
| R050065100RC/AER | 50.00 | ▼ | 50.00 | 65.00 | 10.00 | 65.00 | | 11.00 | |
| R055065100RC/AER | 55.00 | -.030 -.076 | 55.00 | 65.00 | 10.00 | 65.00 | | 11.00 | |
| R055070095RC/AER | 55.00 | | 55.00 | 70.00 | 9.50 | 70.00 | | 10.50 | |
| R056071115RC/AER | 56.00 | | 56.00 | 71.00 | 11.50 | 71.00 | | 12.50 | |
| R060070125RC/AER | 60.00 | | 60.00 | 70.00 | 12.50 | 70.00 | | 13.50 | |
| R060075120RC/AER | 60.00 | | 60.00 | 75.00 | 12.00 | 75.00 | | 13.00 | |
| R060080120RC/AER | 60.00 | | 60.00 | 80.00 | 12.00 | 80.00 | | 13.00 | |
| R063075120RC/AER | 63.00 | | 63.00 | 75.00 | 12.00 | 75.00 | | 13.00 | |
| R063078115RC/AER | 63.00 | | 63.00 | 78.00 | 11.50 | 78.00 | ▼ | 12.50 | |
| R063083120RC/AER | 63.00 | | 63.00 | 83.00 | 12.00 | 83.00 | +.220/- .000 | 13.00 | |
| R065075120RC/AER | 65.00 | | 65.00 | 75.00 | 12.00 | 75.00 | +.190 -.000 | 13.00 | |
| R065080115RC/AER | 65.00 | | 65.00 | 80.00 | 11.50 | 80.00 | ▼ | 12.50 | |
| R070080070RC/AER | 70.00 | | 70.00 | 80.00 | 7.00 | 80.00 | ▼ | 8.00 | |
| R070085120RC/AER | 70.00 | | 70.00 | 85.00 | 12.00 | 85.00 | +.220 -.000 | 13.00 | |
| R070090135RC/AER | 70.00 | | 70.00 | 90.00 | 13.50 | 90.00 | | 14.50 | |
| R075085120RC/AER | 75.00 | | 75.00 | 85.00 | 12.00 | 85.00 | | 13.00 | |
| R075085120RC/AER | 75.00 | | 75.00 | 85.00 | 12.00 | 85.00 | | 13.00 | |
| R075090120RC/AER | 75.00 | | 75.00 | 90.00 | 12.00 | 90.00 | | 13.00 | |
| R075095135RC/AER | 75.00 | | 75.00 | 95.00 | 13.50 | 95.00 | | 14.50 | |
| R080088090RC/AER | 80.00 | | 80.00 | 88.00 | 9.00 | 88.00 | | 10.00 | |
| R080093135RC/AER | 80.00 | | 80.00 | 93.00 | 13.50 | 93.00 | | 14.50 | |
| R080095110RC/AER | 80.00 | | 80.00 | 95.00 | 11.00 | 95.00 | | 12.00 | |
| R080096095RC/AER | 80.00 | | 80.00 | 96.00 | 9.50 | 96.00 | | 10.50 | |
| R080100115RC/AER | 80.00 | | 80.00 | 100.00 | 11.50 | 100.00 | | 12.50 | |
| R080100135RC/AER | 80.00 | ▼ | 80.00 | 100.00 | 13.50 | 100.00 | | 14.50 | |
| R090105085RC/AER | 90.00 | -.036 -.090 | 90.00 | 105.00 | 8.50 | 105.00 | | 9.50 | |
| R090105120RC/AER | 90.00 | | 90.00 | 105.00 | 12.00 | 105.00 | | 13.00 | |
| R090110120RC/AER | 90.00 | | 90.00 | 110.00 | 12.00 | 110.00 | | 13.00 | |
| R095115135RC/AER | 95.00 | | 95.00 | 115.00 | 13.50 | 115.00 | | 14.50 | |
| R100108080RC/AER | 100.00 | | 100.00 | 108.00 | 8.00 | 108.00 | | 9.00 | |
| R100113125RC/AER | 100.00 | | 100.00 | 113.00 | 12.50 | 113.00 | | 13.50 | |
| R100120150RC/AER | 100.00 | | 100.00 | 120.00 | 15.00 | 120.00 | | 14.50 | |
| R100120135RC/AER | 100.00 | | 100.00 | 120.00 | 13.50 | 120.00 | | 14.50 | |
| R110120135RC/AER | 110.00 | | 110.00 | 120.00 | 13.50 | 120.00 | | 14.50 | |
| R110125120RC/AER | 110.00 | | 110.00 | 125.00 | 12.00 | 125.00 | ▼ | 13.00 | |
| R110130115RC/AER | 110.00 | | 110.00 | 130.00 | 11.50 | 135.00 | +.250 -.000 | 12.50 | |
| R120135115RC/AER | 120.00 | | 120.00 | 135.00 | 11.50 | 135.00 | | 12.50 | |
| R120140115RC/AER | 120.00 | | 120.00 | 140.00 | 11.50 | 140.00 | | 12.50 | |
| R120140150RC/AER | 120.00 | ▼ | 120.00 | 140.00 | 15.00 | 140.00 | | 16.00 | |
| R130145120RC/AER | 130.00 | -.043 -.106 | 130.00 | 145.00 | 12.00 | 145.00 | | 13.00 | |
| R135150120RC/AER | 135.00 | | 135.00 | 150.00 | 12.00 | 150.00 | | 13.00 | |
| R140155120RC/AER | 140.00 | ▼ | 140.00 | 155.00 | 12.00 | 155.00 | ▼ | 13.00 | ▼ |

RE - Rod seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------------------------|--------------------------------------|---------------------------|--------------------------|
| Polyurethane/ Polyacetal/Nitrile | -40°F to +212°F (-40°C to +100°C) | ≤10 000 psi (≤700 bar) | < 1.5 ft/s (0.46 m/s) |



This high-pressure rod seals incorporates both an acetal anti-extrusion ring for pressure protection as well as a unique profiled energizer to ensure lip loading in all conditions. Twin-lip design insures dry rod sealing and added stability in the housing.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| MAXIMUM EXTRUSION GAP | | | |
|---|-------------------------|---------|---------------------------|
| The largest gap dimension appearing in operation on the non-pressurised side: | | | |
| Jeu | Pression | Jeu | Pression |
| 1.00 mm | ≤2400 psi (≤160 bar) | 0.40 mm | ≤7500 psi (≤500 bar) |
| 0.80 mm | ≤3750 psi (≤250 bar) | 0.25 mm | ≤10 000 psi (≤700 bar) |
| 0.60 mm | ≤6000 psi (≤400 bar) | | |

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|-----------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R030040073RE | 30.00 | -.095/- .095 | 30.00 | 40.00 | 7.30 | 40.00 | + .160 - .000 | 8.00 | + .200 - .000 |
| R030040100RE | 30.00 | -.025 - .064 | 30.00 | 40.00 | 10.00 | 40.00 | ↓ | 11.00 | ↓ |
| R035045100RE | 30.00 | ↓ | 30.00 | 45.00 | 10.00 | 45.00 | ↓ | 11.00 | ↓ |
| R035050095RE | 35.00 | ↓ | 35.00 | 50.00 | 9.50 | 50.00 | + .190 - .000 | 10.50 | ↓ |
| R036046073RE | 36.00 | ↓ | 36.00 | 46.00 | 7.30 | 46.00 | ↓ | 8.00 | ↓ |

RE series - AU/POM/NBR

ROD SEALS



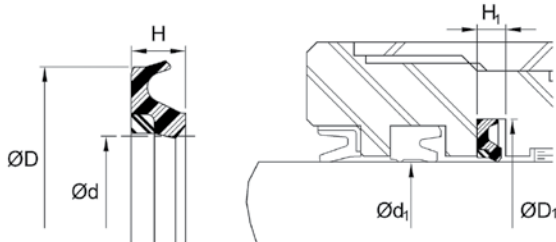
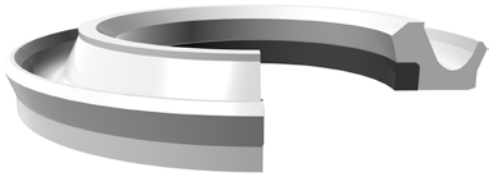
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|------|-------------------------|--------|-------|--------------------|------|-------|------|
| | d1 | Tol. | d | D | h | D1 | Tol. | h1 | Tol. |
| R040050073RE | 40.00 | -030 | 40.00 | 50.00 | 7.30 | 50.00 | +095 | 8.00 | +250 |
| R040050100RE | 40.00 | -104 | 40.00 | 50.00 | 10.00 | 50.00 | -095 | 11.00 | -000 |
| R045055073RE | 45.00 | | 45.00 | 55.00 | 7.30 | 55.00 | ▼ | 8.00 | |
| R045055100RE | 45.00 | | 45.00 | 55.00 | 10.00 | 55.00 | +110 | 11.00 | |
| R045060114RE | 45.00 | | 45.00 | 60.00 | 11.40 | 60.00 | -110 | 12.50 | |
| R050060073RE | 50.00 | | 50.00 | 60.00 | 7.30 | 60.00 | | 8.00 | |
| R050060100RE | 50.00 | | 50.00 | 60.00 | 10.00 | 60.00 | | 11.00 | |
| R050065100RE | 50.00 | | 50.00 | 65.00 | 10.00 | 65.00 | | 11.00 | |
| R050065114RE | 50.00 | | 50.00 | 65.00 | 11.40 | 65.00 | | 12.50 | |
| R055065100RE | 55.00 | | 55.00 | 65.00 | 10.00 | 65.00 | | 11.00 | |
| R055070090RE | 55.00 | | 55.00 | 70.00 | 9.00 | 70.00 | | 10.00 | |
| R055070114RE | 55.00 | | 55.00 | 70.00 | 11.40 | 70.00 | | 12.50 | |
| R056071114RE | 56.00 | ▼ | 56.00 | 71.00 | 11.40 | 71.00 | | 12.50 | |
| R060073130RE | 60.00 | -036 | 60.00 | 73.00 | 13.00 | 73.00 | | 14.00 | |
| R060075114RE | 60.00 | -123 | 60.00 | 75.00 | 11.40 | 75.00 | | 12.50 | |
| R063078114RE | 63.00 | | 63.00 | 78.00 | 11.40 | 78.00 | | 12.50 | |
| R063083118RE | 63.00 | | 63.00 | 83.00 | 11.80 | 83.00 | | 13.00 | |
| R065075100RE | 65.00 | | 65.00 | 75.00 | 10.00 | 75.00 | | 11.00 | |
| R065080100RE | 65.00 | | 65.00 | 80.00 | 10.00 | 80.00 | | 11.00 | |
| R065080114RE | 65.00 | | 65.00 | 80.00 | 11.40 | 80.00 | | 12.50 | |
| R065080130RE | 65.00 | | 65.00 | 80.00 | 13.00 | 80.00 | | 14.00 | |
| R070083130RE | 70.00 | | 70.00 | 83.00 | 13.00 | 83.00 | | 14.00 | |
| R070085114RE | 70.00 | | 70.00 | 85.00 | 11.40 | 85.00 | | 12.50 | |
| R075088130RE | 75.00 | | 75.00 | 88.00 | 13.00 | 88.00 | | 14.00 | |
| R075090120RE | 75.00 | | 75.00 | 90.00 | 12.00 | 90.00 | | 13.00 | |
| R075090130RE | 75.00 | | 75.00 | 90.00 | 13.00 | 90.00 | ▼ | 14.00 | |
| R075095114RE | 75.00 | | 75.00 | 95.00 | 11.40 | 95.00 | +125 | 12.50 | |
| R075095146RE | 75.00 | | 75.00 | 95.00 | 14.60 | 95.00 | -125 | 16.00 | |
| R080093130RE | 80.00 | | 80.00 | 93.00 | 13.00 | 93.00 | | 14.00 | |
| R080095114RE | 80.00 | | 80.00 | 95.00 | 11.40 | 95.00 | | 12.50 | |
| R080095130RE | 80.00 | | 80.00 | 95.00 | 13.00 | 95.00 | | 14.00 | |
| R085100118RE | 85.00 | | 85.00 | 100.00 | 11.80 | 100.00 | | 13.00 | |
| R085100130RE | 85.00 | | 85.00 | 100.00 | 13.00 | 100.00 | | 14.00 | |
| R085105146RE | 85.00 | ▼ | 85.00 | 105.00 | 14.60 | 105.00 | | 16.00 | |
| R090105114RE | 90.00 | -043 | 90.00 | 105.00 | 11.40 | 105.00 | | 12.50 | |
| R090105130RE | 90.00 | -143 | 90.00 | 105.00 | 13.00 | 105.00 | | 14.00 | |
| R090110146RE | 90.00 | | 90.00 | 110.00 | 14.60 | 110.00 | | 16.00 | |
| R095110120RE | 95.00 | | 95.00 | 110.00 | 12.00 | 110.00 | | 13.00 | |
| R095110130RE | 95.00 | | 95.00 | 110.00 | 13.00 | 110.00 | | 14.00 | |
| R095115146RE | 95.00 | | 95.00 | 115.00 | 14.60 | 115.00 | | 16.00 | |
| R100115130RE | 100.00 | | 100.00 | 115.00 | 13.00 | 115.00 | | 14.00 | |
| R100120145RE | 100.00 | | 100.00 | 120.00 | 14.50 | 120.00 | ▼ | 16.00 | |
| R105120120RE | 105.00 | | 105.00 | 120.00 | 12.00 | 120.00 | +145 | 13.00 | |
| R105120130RE | 105.00 | ▼ | 105.00 | 120.00 | 13.00 | 120.00 | -145 | 14.00 | |
| R105125146RE | 105.00 | -050 | 105.00 | 125.00 | 14.60 | 125.00 | | 16.00 | |
| R110125130RE | 110.00 | -165 | 110.00 | 125.00 | 13.00 | 125.00 | ▼ | 14.00 | ▼ |

RE series - AU/POM/NBR



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|--------|-------------------------|--------|-------|--------------------|---------------|-------|--------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R110130130RE | 110.00 | - .025 | 110.00 | 130.00 | 13.00 | 130.00 | + .080 | 14.00 | + .250 |
| R110130145RE | 110.00 | - .087 | 110.00 | 130.00 | 14.50 | 130.00 | - .080 | 16.00 | - .000 |
| R115135146RE | 115.00 | | 115.00 | 135.00 | 14.60 | 135.00 | | 16.00 | |
| R120135145RE | 120.00 | | 120.00 | 135.00 | 14.50 | 135.00 | | 16.00 | |
| R120140130RE | 120.00 | | 120.00 | 140.00 | 13.00 | 140.00 | | 14.00 | |
| R120140146RE | 120.00 | | 120.00 | 140.00 | 14.60 | 140.00 | | 16.00 | |
| R125145145RE | 125.00 | | 125.00 | 145.00 | 14.50 | 145.00 | ↓ | 16.00 | |
| R130145130RE | 130.00 | | 130.00 | 145.00 | 13.00 | 145.00 | + .095 | 14.00 | |
| R130150145RE | 130.00 | | 130.00 | 150.00 | 14.50 | 150.00 | - .095 | 16.00 | |
| R140155130RE | 140.00 | | 140.00 | 155.00 | 13.00 | 155.00 | | 14.00 | |
| R140160130RE | 140.00 | | 140.00 | 160.00 | 13.00 | 160.00 | | 14.00 | |
| R140160145RE | 140.00 | | 140.00 | 160.00 | 14.50 | 160.00 | | 16.00 | |
| R150170146RE | 150.00 | | 150.00 | 170.00 | 14.60 | 170.00 | | 16.00 | |
| R160180145RE | 160.00 | ↓ | 160.00 | 180.00 | 14.50 | 180.00 | | 16.00 | |
| R160185146RE | 160.00 | - .030 | 160.00 | 185.00 | 14.60 | 185.00 | ↓ | 16.00 | |
| R180200145RE | 180.00 | - .104 | 180.00 | 200.00 | 14.50 | 200.00 | | 16.00 | |
| R200220145RE | 200.00 | ↓ | 200.00 | 220.00 | 14.50 | 220.00 | - .110/- .110 | 16.00 | |
| R215235145RE | 215.00 | ↓ | 215.00 | 235.00 | 14.50 | 235.00 | - .095/- .095 | 16.00 | ↓ |

RH - Buffer seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-----------------------------|------------------------------------|-------------------------|-------------------|
| Polyurethane/ Polyacetal | -30°F à +230°F (-34°C à +110°C) | ≤8500 psi (≤584 bar) | <3.3 ft/s (1 m/s) |

RH-style are used as a primary rod seal to be used in conjunction with a secondary, rod-type seal. The buffer ring is used to absorb the initial shock load of the hydraulic system and thus protect the secondary seal. The use of an anti-extrusion ring allows it to withstand high pressures, and its special design avoids pressure-trapping.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

RH series - AU/POM

ROD SEALS



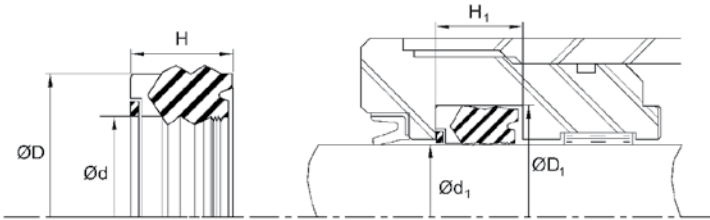
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|---------|------|--------------------|------------------|------|------------------|
| | d1 | Tol. | d | D | h | D1 | Tol. | H1 | Tol. |
| R035051060RH | 35.50 | - .025 - .064 | 35.50 | 51.00 | 6.00 | 50.00 | + .200 - .000 | 6.30 | + .200 - .000 |
| R040055060RH | 40.00 | | 40.00 | 55.50 | 6.00 | 55.50 | | 6.30 | |
| R045060060RH | 45.00 | | 45.00 | 60.50 | 6.00 | 60.50 | | 6.30 | |
| R050065060RH | 50.00 | ▼ | 50.00 | 65.50 | 6.00 | 65.50 | | 6.30 | |
| R055070060RH | 55.00 | - .030 - .076 | 55.00 | 70.50 | 6.00 | 70.50 | | 6.30 | |
| R060075060RH | 60.00 | | 60.00 | 75.50 | 6.00 | 75.50 | | 6.30 | |
| R065080060RH | 65.00 | | 65.00 | 80.50 | 6.00 | 80.50 | | 6.30 | |
| R070085060RH | 70.00 | | 70.00 | 85.50 | 6.00 | 85.50 | | 6.30 | |
| R075090060RH | 75.00 | | 75.00 | 90.50 | 6.00 | 90.50 | | 6.30 | |
| R080095060RH | 80.00 | ▼ | 80.00 | 95.50 | 6.00 | 95.50 | | 6.30 | |
| R085100060RH | 85.00 | - .036 - .090 | 85.00 | 100.50 | 6.00 | 100.50 | | 6.30 | |
| R090105060RH | 90.00 | | 90.00 | 105.50 | 6.00 | 105.50 | | 6.30 | |
| R095110060RH | 95.00 | | 95.00 | 110.50 | 6.00 | 110.50 | | 6.30 | |
| R100115060RH | 100.00 | | 100.00 | 115.50 | 6.00 | 115.50 | | 6.30 | |
| R105120060RH | 105.00 | | 105.00 | 120.50 | 6.00 | 120.50 | | 6.30 | |
| R110125060RH | 110.00 | | 110.00 | 125.50 | 6.00 | 125.50 | | 6.30 | |
| R115130060RH | 115.00 | | 115.00 | 130.50 | 6.00 | 130.50 | | 6.30 | |
| R120135060RH | 120.00 | ▼ | 120.00 | 135.50 | 6.00 | 135.50 | | 6.30 | |
| R125140060RH | 125.00 | - .043 - .106 | 125.00 | 140.50 | 6.00 | 140.50 | | 6.30 | |
| R130145060RH | 130.00 | | 130.00 | 145.50 | 6.00 | 145.50 | | 6.30 | |
| R135150060RH | 135.00 | | 135.00 | 150.50 | 6.00 | 150.50 | | 6.30 | |
| R140155060RH | 140.00 | | 140.00 | 155.50 | 6.00 | 155.50 | | 6.30 | |
| R145160060RH | 145.00 | | 145.00 | 160.50 | 6.00 | 160.50 | | 6.30 | |
| R150165060RH | 150.00 | | 150.00 | 165.50 | 6.00 | 165.50 | | 6.30 | |
| R155170060RH | 155.00 | | 155.00 | 170.50 | 6.00 | 170.50 | | 6.30 | |
| R160175060RH | 160.00 | | 160.00 | 175.50 | 6.00 | 175.50 | | 6.30 | |
| R165180060RH | 165.00 | | 165.00 | 180.50 | 6.00 | 180.50 | | 6.30 | |
| R170185060RH | 170.00 | | 170.00 | 185.50 | 6.00 | 185.50 | | 6.30 | |
| R180195060RH | 180.00 | ▼ | 180.00 | 195.50 | 6.00 | 195.50 | | 6.30 | |
| R190205060RH | 190.00 | - .043 - .106 | 190.00 | 205.50 | 6.00 | 205.50 | | 6.30 | |
| R200215077RH | 200.00 | | 200.00 | 215.50 | 7.70 | 215.50 | | 8.10 | |
| R210225077RH | 210.00 | ▼ | 210.00 | 225.50z | 7.70 | 225.50 | ▼ | 8.10 | ▼ |



RV - Rod seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------------------|--------------------------------------|---------------------------|----------------------|
| Nitrile/Neofab/ Polyacetal | -22°F to +230°F (-30°C to +110°C) | ≤10 000 psi (≤700 bar) | < 1.6 ft/s (0.5 m/s) |



RV-style is a three-piece unit, comprising of an elastomeric header ring, a fabric-reinforced female adapter and an acetal anti-extrusion ring. Designed to replace standard, stackable vee-packings, the RV seal requires no pre-load, its molded, multiple lip design insures excellent sealing ability especially on high side-load applications.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|-----------------|-------------------------|-------|---|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R018030225RV | 18.00 | -.016/- .043 | 18.00 | 30.00 | | 30.00 | -.130/- .000 | 22.50 | + .250 - .000 |
| R020033200RV | 20.00 | -.020 - .053 | 20.00 | 33.00 | | 33.00 | + .160 - .000 | 20.00 | |
| R022035200RV | 22.00 | | 22.00 | 35.00 | | 35.00 | | 20.00 | |
| R025037225RV | 25.00 | | 25.00 | 37.00 | | 37.00 | | 22.50 | |
| R025038200RV | 25.00 | | 25.00 | 38.00 | | 38.00 | | 20.00 | |
| R028041200RV | 28.00 | | 28.00 | 41.00 | | 41.00 | | 20.00 | |
| R030043200RV | 30.00 | ▼ | 30.00 | 43.00 | | 43.00 | | 20.00 | |
| R032047225RV | 32.00 | -.025 - .064 | 32.00 | 47.00 | | 47.00 | | 22.50 | |
| R035045256RV | 35.00 | | 35.00 | 45.00 | | 45.00 | | 25.60 | |
| R035047225RV | 35.00 | | 35.00 | 47.00 | | 47.00 | | 22.50 | |
| R035050225RV | 35.00 | | 35.00 | 50.00 | | 50.00 | | 22.50 | |
| R040050170RV | 40.00 | | 40.00 | 50.00 | | 50.00 | | 17.00 | |
| R040050173RV | 40.00 | | 40.00 | 50.00 | | 50.00 | ▼ | 17.30 | |
| R040052225RV | 40.00 | | 40.00 | 52.00 | | 52.00 | + .190 - .000 | 22.50 | |
| R040055225RV | 40.00 | | 40.00 | 55.00 | | 55.00 | | 22.50 | |
| R040060300RV | 40.00 | | 40.00 | 60.00 | | 60.00 | | 30.00 | |
| R045060225RV | 45.00 | | 45.00 | 60.00 | | 60.00 | | 22.50 | |
| R045065280RV | 45.00 | | 45.00 | 65.00 | | 65.00 | | 28.00 | |
| R050063200RV | 50.00 | | 50.00 | 63.00 | | 63.00 | | 20.00 | |
| R050065225RV | 50.00 | | 50.00 | 65.00 | | 65.00 | | 22.50 | |
| R050065245RV | 50.00 | | 50.00 | 65.00 | | 65.00 | | 24.50 | |
| R050070300RV | 50.00 | ▼ | 50.00 | 70.00 | | 70.00 | ▼ | 30.00 | ▼ |

RV series - NBR/NEO/POM

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|--------------|-----------------|-------------------------|--------|---|--------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R050070319RV | 50.00 | -.025/-.064 | 50.00 | 70.00 | | 70.00 | | 31.90 | |
| R055070225RV | 55.00 | | 55.00 | 70.00 | | 70.00 | + .190 - .000 | 22.50 | + .250 - .000 |
| R055070250RV | 55.00 | -.030 - .076 | 55.00 | 70.00 | | 70.00 | | 25.00 | |
| R055075300RV | 55.00 | | 55.00 | 75.00 | | 75.00 | | 30.00 | |
| R055075320RV | 55.00 | | 55.00 | 75.00 | | 75.00 | | 32.00 | |
| R056071250RV | 56.00 | | 56.00 | 71.00 | | 71.00 | | 25.00 | |
| R056076280RV | 56.00 | | 56.00 | 76.00 | | 76.00 | | 28.00 | |
| R060075225RV | 60.00 | | 60.00 | 75.00 | | 75.00 | | 22.50 | |
| R060075250RV | 60.00 | | 60.00 | 75.00 | | 75.00 | | 25.00 | |
| R060077270RV | 60.00 | | 60.00 | 77.00 | | 77.00 | | 27.00 | |
| R060080300RV | 60.00 | | 60.00 | 80.00 | | 80.00 | | 30.00 | |
| R060080320RV | 60.00 | | 60.00 | 80.00 | | 80.00 | | 32.00 | |
| R060080349RV | 60.00 | | 60.00 | 80.00 | | 80.00 | ▼ | 34.90 | |
| R063083280RV | 63.00 | | 63.00 | 83.00 | | 83.00 | + .220 - .000 | 28.00 | |
| R063083290RV | 63.00 | | 63.00 | 83.00 | | 83.00 | | 29.00 | |
| R065085290RV | 65.00 | | 65.00 | 85.00 | | 85.00 | | 29.00 | |
| R070083250RV | 70.00 | | 70.00 | 83.00 | | 83.00 | | 25.00 | |
| R070085225RV | 70.00 | | 70.00 | 85.00 | | 85.00 | | 22.50 | |
| R070090300RV | 70.00 | | 70.00 | 90.00 | | 90.00 | | 30.00 | |
| R070090319RV | 70.00 | | 70.00 | 90.00 | | 90.00 | | 31.90 | |
| R075095280RV | 75.00 | | 75.00 | 95.00 | | 95.00 | | 28.00 | |
| R075095300RV | 75.00 | | 75.00 | 95.00 | | 95.00 | | 30.00 | |
| R080095225RV | 80.00 | | 80.00 | 95.00 | | 95.00 | | 22.50 | |
| R080100300RV | 80.00 | ▼ | 80.00 | 100.00 | | 100.00 | | 30.00 | |
| R085100225RV | 85.00 | -.036 - .090 | 85.00 | 100.00 | | 100.00 | | 22.50 | |
| R090105225RV | 90.00 | | 90.00 | 105.00 | | 105.00 | | 22.50 | |
| R090105250RV | 90.00 | | 90.00 | 105.00 | | 105.00 | | 25.00 | |
| R090105335RV | 90.00 | | 90.00 | 105.00 | | 105.00 | | 33.50 | |
| R090110300RV | 90.00 | | 90.00 | 110.00 | | 110.00 | | 30.00 | |
| R090110325RV | 90.00 | | 90.00 | 110.00 | | 110.00 | | 32.50 | |
| R095110225RV | 95.00 | | 95.00 | 110.00 | | 110.00 | | 22.50 | |
| R095115280RV | 95.00 | | 95.00 | 115.00 | | 115.00 | | 28.00 | |
| R100114242RV | 100.00 | | 100.00 | 114.30 | | 114.30 | ▼ | 24.20 | |
| R100120300RV | 100.00 | | 100.00 | 120.00 | | 120.00 | + .250 - .000 | 30.00 | |
| R105125185RV | 105.00 | | 105.00 | 125.00 | | 125.00 | | 18.50 | |
| R110125225RV | 110.00 | | 110.00 | 125.00 | | 125.00 | | 22.50 | |
| R110130325RV | 110.00 | | 110.00 | 130.00 | | 130.00 | | 32.50 | |
| R115130225RV | 115.00 | | 115.00 | 130.00 | | 130.00 | | 22.50 | |
| R115130300RV | 115.00 | | 115.00 | 130.00 | | 130.00 | | 30.00 | |
| R120140300RV | 120.00 | ▼ | 120.00 | 140.00 | | 140.00 | | 30.00 | |
| R125140225RV | 125.00 | -.043 - .106 | 125.00 | 140.00 | | 140.00 | | 22.50 | |
| R125145300RV | 125.00 | | 125.00 | 145.00 | | 145.00 | | 30.00 | |
| R130150300RV | 130.00 | | 130.00 | 150.00 | | 150.00 | | 30.00 | |
| R135150225RV | 135.00 | | 135.00 | 150.00 | | 150.00 | | 22.50 | |
| R140155225RV | 140.00 | | 140.00 | 155.00 | | 155.00 | | 22.50 | |
| R140160225RV | 140.00 | ▼ | 140.00 | 160.00 | | 160.00 | ▼ | 22.50 | ▼ |

RV series - NBR/NEO/POM

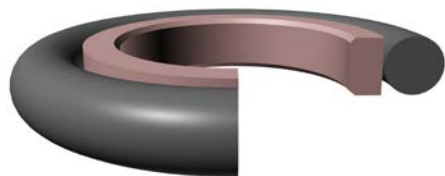
ROD SEALS



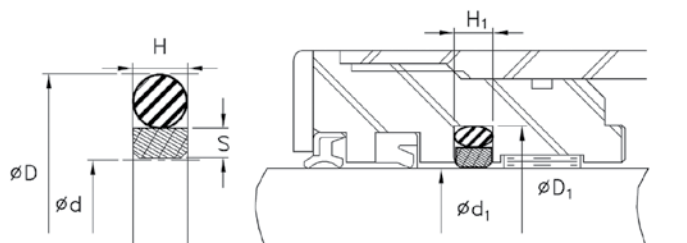
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|---------------|----------------|-------------------------|--------|---|--------------------|-----------------|-------|-----------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R140160280RV | 140.00 | -.043 -.106 | 140.00 | 160.00 | | 160.00 | + .250 -.000 | 28.00 | + .250 -.000 |
| R145165225RV | 145.00 | | 145.00 | 165.00 | | 165.00 | | 22.50 | |
| R150165225RV | 150.00 | | 150.00 | 165.00 | | 165.00 | | 22.50 | |
| R150170280RV | 150.00 | | 150.00 | 170.00 | | 170.00 | | 28.00 | |
| R155175225RV | 155.00 | | 155.00 | 175.00 | | 175.00 | | 22.50 | |
| R160180280RV | 160.00 | | 160.00 | 180.00 | | 180.00 | ▼ | 28.00 | |
| R170185225RV | 170.00 | | 170.00 | 185.00 | | 185.00 | + .250 -.000 | 22.50 | |
| R170195350RV | 170.00 | | 170.00 | 195.00 | | 195.00 | | 35.00 | |
| R175195225RV | 175.00 | | 175.00 | 195.00 | | 195.00 | | 22.50 | |
| R175195300RV | 175.00 | | 175.00 | 195.00 | | 195.00 | | 30.00 | |
| R180205350RV | 180.00 | ▼ | 180.00 | 205.00 | | 205.00 | | 35.00 | |
| R185200225RV | 185.00 | -.050 -.122 | 185.00 | 200.00 | | 200.00 | | 22.50 | |
| R185210350RV | 185.00 | | 185.00 | 210.00 | | 210.00 | | 35.00 | |
| R187202225RV | 187.00 | | 187.00 | 202.00 | | 202.00 | | 22.50 | |
| R190215350RV | 190.00 | | 190.00 | 215.00 | | 215.00 | | 35.00 | |
| R195210225RV | 195.00 | | 195.00 | 210.00 | | 210.00 | | 22.50 | |
| R195220350RV | 195.00 | | 195.00 | 220.00 | | 220.00 | | 35.00 | |
| R200215225RV | 200.00 | | 200.00 | 215.00 | | 215.00 | | 22.50 | |
| R200225350RV | 200.00 | | 200.00 | 225.00 | | 225.00 | | 35.00 | |
| R205230350RV | 205.00 | | 205.00 | 230.00 | | 230.00 | | 35.00 | |
| R210235350RV | 210.00 | | 210.00 | 235.00 | | 235.00 | | 35.00 | |
| R220240225RV | 220.00 | | 220.00 | 240.00 | | 240.00 | | 22.50 | |
| R220245350RV | 220.00 | | 220.00 | 245.00 | | 245.00 | | 35.00 | |
| R225240225RV | 225.00 | | 225.00 | 240.00 | | 240.00 | | 22.50 | |
| R230250225RV | 230.00 | | 230.00 | 250.00 | | 250.00 | | 22.50 | |
| R235255225RV | 235.00 | | 235.00 | 255.00 | | 255.00 | ▼ | 22.50 | |
| R240265350RV | 240.00 | | 240.00 | 265.00 | | 265.00 | + .320 -.000 | 35.00 | |
| R260280225RV | 260.00 | | 260.00 | 280.00 | | 280.00 | | 22.50 | |
| R280305350RV | 280.00 | ▼ | 280.00 | 305.00 | | 305.00 | ▼ | 35.00 | ▼ |



RX - Buffer seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|-------------------|
| BR.PTFE/Nitrile | -22°F to +212°F (-30°C to +100°C) | ≤5800 psi (≤400 bar) | < 16 ft/s (5 m/s) |



Consisting of a PTFE sealing element and an elastomeric preloader, this buffer ring is similar to the **RZ-style** with a lower coefficient of break-out friction, and the possibility to seal in a double-acting application.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|----------------|-------------------------|------|------|------|--------------------|-----------------|------|-----------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| RO03007020RX | 3.00 | -.006/- .020 | 3.00 | 1.05 | 2.00 | -008 | 7.90 | + .036 -.000 | 2.20 | + .200 -.000 |
| RO04008020RX | 4.00 | -.010 -.028 | 4.00 | 1.05 | 2.00 | -010 | 8.90 | | 2.20 | |
| RO05009020RX | 5.00 | | 5.00 | 1.05 | 2.00 | -011 | 9.90 | | 2.20 | |
| RO06010020RX | 6.00 | ↓ | 6.00 | 1.05 | 2.00 | -011 | 10.90 | | 2.20 | |
| RO07011020RX | 7.00 | -.013 -.035 | 7.00 | 1.05 | 2.00 | -012 | 11.90 | | 2.20 | |
| RO08012020RX | 8.00 | | 8.00 | 1.05 | 2.00 | -012 | 12.90 | | 2.20 | |
| RO08015029RX | 8.00 | | 8.00 | 1.65 | 2.93 | -111 | 15.30 | | 3.20 | |
| RO10014020RX | 10.00 | ↓ | 10.00 | 1.05 | 2.00 | -014 | 14.90 | | 2.20 | |
| RO10017029RX | 10.00 | -.016 -.043 | 10.00 | 1.65 | 2.93 | -112 | 17.30 | | 3.20 | |
| RO12016020RX | 12.00 | | 12.00 | 1.05 | 2.00 | -015 | 16.90 | | 2.20 | |
| RO12019029RX | 12.00 | | 12.00 | 1.65 | 2.93 | -113 | 19.30 | | 3.20 | |
| RO14018020RX | 14.00 | | 14.00 | 1.05 | 2.00 | -016 | 18.90 | | 2.20 | |
| RO14021029RX | 14.00 | | 14.00 | 1.65 | 2.93 | -114 | 21.30 | | 3.20 | |
| RO15019020RX | 15.00 | | 15.00 | 1.05 | 2.00 | -017 | 19.90 | | 2.20 | |
| RO15022029RX | 15.00 | | 15.00 | 1.65 | 2.93 | -116 | 22.30 | | 3.20 | |
| RO16020020RX | 16.00 | | 16.00 | 1.05 | 2.00 | -017 | 20.90 | | 2.20 | |
| RO16023029RX | 16.00 | | 16.00 | 1.65 | 2.93 | -116 | 23.30 | | 3.20 | |
| RO18022020RX | 18.00 | | 18.00 | 1.05 | 2.00 | -019 | 22.90 | | 2.20 | |
| RO18025029RX | 18.00 | ↓ | 18.00 | 1.65 | 2.93 | -118 | 25.30 | | 3.20 | |
| RO20027029RX | 20.00 | -.020 -.053 | 20.00 | 1.65 | 2.93 | -119 | 27.30 | | 3.20 | |
| RO20030039RX | 20.00 | | 20.00 | 2.65 | 3.93 | -214 | 30.70 | ↓ | 4.20 | ↓ |



RX series - BR.PTFE/NBR

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|--------|-------------------------|------|------|------|--------------------|--------|------|--------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| R022029029RX | 22.00 | - .020 | 22.00 | 1.65 | 2.93 | -120 | 29.30 | + .036 | 3.20 | + .200 |
| R022032039RX | 22.00 | - .053 | 22.00 | 2.65 | 3.93 | -215 | 32.70 | - .000 | 4.20 | - .000 |
| R024034039RX | 24.00 | | 24.00 | 2.65 | 3.93 | -216 | 34.70 | | 4.20 | |
| R025032029RX | 25.00 | | 25.00 | 1.65 | 2.93 | -122 | 32.30 | | 3.20 | |
| R025035039RX | 25.00 | | 25.00 | 2.65 | 3.93 | -217 | 35.70 | | 4.20 | |
| R026036039RX | 26.00 | | 26.00 | 2.65 | 3.93 | -218 | 36.70 | | 4.20 | |
| R028035029RX | 28.00 | | 28.00 | 1.65 | 2.93 | -124 | 35.50 | | 3.20 | |
| R028038039RX | 28.00 | | 28.00 | 2.65 | 3.93 | -219 | 38.70 | | 4.20 | |
| R030037029RX | 30.00 | | 30.00 | 1.65 | 2.93 | -125 | 37.30 | | 3.20 | |
| R030040039RX | 30.00 | ▼ | 30.00 | 2.65 | 3.93 | -220 | 40.70 | | 4.20 | |
| R032036020RX | 32.00 | - .025 | 32.00 | 1.05 | 2.00 | -027 | 36.90 | | 2.20 | |
| R032039029RX | 32.00 | - .064 | 32.00 | 1.65 | 2.93 | -126 | 39.30 | | 3.20 | |
| R032042039RX | 32.00 | | 32.00 | 2.65 | 3.93 | -221 | 42.70 | | 4.20 | |
| R035042029RX | 35.00 | | 35.00 | 1.65 | 2.93 | -128 | 42.30 | | 3.20 | |
| R035045039RX | 35.00 | | 35.00 | 2.65 | 3.93 | -222 | 45.70 | | 4.20 | |
| R036043029RX | 36.00 | | 36.00 | 1.65 | 2.93 | -129 | 43.30 | | 3.20 | |
| R036046039RX | 36.00 | | 36.00 | 2.65 | 3.93 | -223 | 46.70 | | 4.20 | |
| R038048039RX | 38.00 | | 38.00 | 2.65 | 3.93 | -224 | 48.70 | | 4.20 | |
| R040047029RX | 40.00 | | 40.00 | 1.65 | 2.93 | -130 | 47.30 | | 2.90 | |
| R040050039RX | 40.00 | | 40.00 | 2.65 | 3.93 | -224 | 50.70 | | 4.20 | |
| R040055059RX | 40.00 | | 40.00 | 3.50 | 5.90 | -328 | 55.10 | | 6.30 | |
| R042057059RX | 42.00 | | 42.00 | 3.50 | 5.90 | -328 | 57.10 | | 6.30 | |
| R043053039RX | 43.00 | | 43.00 | 2.65 | 3.93 | -225 | 53.70 | | 4.20 | |
| R043058059RX | 43.00 | | 43.00 | 3.50 | 5.90 | -328 | 58.10 | | 6.30 | |
| R045052029RX | 45.00 | | 45.00 | 1.65 | 2.93 | -134 | 52.30 | | 3.20 | |
| R045055039RX | 45.00 | | 45.00 | 2.65 | 3.93 | -226 | 55.70 | | 4.20 | |
| R045060059RX | 45.00 | | 45.00 | 3.50 | 5.90 | -329 | 60.10 | | 6.30 | |
| R046056039RX | 46.00 | | 46.00 | 2.65 | 3.93 | -226 | 56.70 | | 4.20 | |
| R048063059RX | 48.00 | | 48.00 | 3.50 | 5.90 | -330 | 63.10 | | 6.30 | |
| R050060039RX | 50.00 | | 50.00 | 2.65 | 3.93 | -227 | 60.70 | | 4.20 | |
| R050065059RX | 50.00 | ▼ | 50.00 | 3.50 | 5.90 | -331 | 65.10 | | 6.30 | |
| R052067059RX | 52.00 | - .030 | 52.00 | 3.50 | 5.90 | -331 | 67.10 | | 6.30 | |
| R053068059RX | 53.00 | - .076 | 53.00 | 3.50 | 5.90 | -331 | 68.10 | | 6.30 | |
| R055065039RX | 55.00 | | 55.00 | 2.65 | 3.93 | -229 | 65.70 | | 4.20 | |
| R055070059RX | 55.00 | | 55.00 | 3.50 | 5.90 | -332 | 70.10 | | 6.30 | |
| R056066039RX | 56.00 | | 56.00 | 2.65 | 3.93 | -229 | 66.70 | | 4.20 | |
| R056071059RX | 56.00 | | 56.00 | 3.50 | 5.90 | -333 | 71.10 | | 6.30 | |
| R058073059RX | 58.00 | | 58.00 | 3.50 | 5.90 | -333 | 73.10 | | 6.30 | |
| R060070039RX | 60.00 | | 60.00 | 2.65 | 3.93 | -230 | 70.70 | | 4.20 | |
| R060075059RX | 60.00 | | 60.00 | 3.50 | 5.90 | -334 | 75.10 | | 6.30 | |
| R063073039RX | 63.00 | | 63.00 | 2.65 | 3.93 | -231 | 73.70 | | 4.20 | |
| R063078059RX | 63.00 | | 63.00 | 3.50 | 5.90 | -335 | 78.10 | | 6.30 | |
| R065080059RX | 65.00 | | 65.00 | 3.50 | 5.90 | -335 | 80.10 | | 6.30 | |
| R070085059RX | 70.00 | | 70.00 | 3.50 | 5.90 | -337 | 85.10 | | 6.30 | |
| R075085039RX | 75.00 | | 75.00 | 2.65 | 3.93 | -235 | 85.70 | | 4.20 | |
| R075090059RX | 75.00 | ▼ | 75.00 | 3.50 | 5.90 | -339 | 90.10 | ▼ | 6.30 | ▼ |

RX series - BR.PTFE/NBR

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|------------------|-------------------------|------|------|---------------|--------------------|------------------|------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| R080090039RX | 80.00 | -0.030 -0.076 | 80.00 | 2.65 | 3.93 | -237 | 90.70 | +0.036 -0.000 | 4.20 | +0.200 -0.000 |
| R080095059RX | 80.00 | | 80.00 | 3.50 | 5.90 | -340 | 95.10 | | 6.30 | |
| R085100059RX | 85.00 | -0.036 -0.090 | 85.00 | 3.50 | 5.90 | -342 | 100.10 | | 6.30 | |
| R090097029RX | 90.00 | | 90.00 | 1.65 | 2.93 | -154 | 97.30 | | 3.20 | |
| R090100039RX | 90.00 | | 90.00 | 2.65 | 3.93 | -240 | 100.70 | | 4.20 | |
| R090105059RX | 90.00 | | 90.00 | 3.50 | 5.90 | -344 | 105.10 | | 6.30 | |
| R095110059RX | 95.00 | | 95.00 | 3.50 | 5.90 | -345 | 110.10 | | 6.30 | |
| R100110039RX | 100.00 | | 100.00 | 2.65 | 3.93 | -243 | 110.70 | | 4.20 | |
| R100115059RX | 100.00 | | 100.00 | 3.50 | 5.90 | -347 | 115.10 | | 6.30 | |
| R105120059RX | 105.00 | | 105.00 | 3.50 | 5.90 | -348 | 120.10 | | 6.30 | |
| R110125059RX | 110.00 | | 110.00 | 3.50 | 5.90 | -350 | 125.10 | | 6.30 | |
| R115130059RX | 115.00 | | 115.00 | 3.50 | 5.90 | -351 | 130.10 | | 6.30 | |
| R120135059RX | 120.00 | | 120.00 | 3.50 | 5.90 | -353 | 135.10 | | 6.30 | |
| R120140076RX | 120.00 | ▼ | 120.00 | 4.90 | 7.60 | -430 | 140.50 | | 8.10 | |
| R125140059RX | 125.00 | -0.043 -0.106 | 125.00 | 3.50 | 5.90 | -355 | 140.10 | | 6.30 | |
| R125145076RX | 125.00 | | 125.00 | 4.90 | 7.60 | -430 | 145.50 | | 8.10 | |
| R130145059RX | 130.00 | | 130.00 | 3.50 | 5.90 | -356 | 145.10 | | 6.30 | |
| R130150076RX | 130.00 | | 130.00 | 4.90 | 7.60 | -432 | 150.50 | | 8.10 | |
| R135150059RX | 135.00 | | 135.00 | 3.50 | 5.90 | -358 | 150.10 | | 6.30 | |
| R140155059RX | 140.00 | | 140.00 | 3.50 | 5.90 | -359 | 155.10 | | 6.30 | |
| R140160076RX | 140.00 | | 140.00 | 4.90 | 7.60 | -435 | 160.50 | | 8.10 | |
| R145160059RX | 145.00 | | 145.00 | 3.50 | 5.90 | -437 | 160.10 | | 6.30 | |
| R150165059RX | 150.00 | | 150.00 | 3.50 | 5.90 | -362 | 165.10 | | 6.30 | |
| R160175059RX | 160.00 | | 160.00 | 3.50 | 5.90 | -363 | 175.10 | | 6.30 | |
| R160180076RX | 160.00 | | 160.00 | 4.90 | 7.60 | -439 | 180.50 | | 8.10 | |
| R165180059RX | 165.00 | | 165.00 | 3.50 | 5.90 | -364 | 180.10 | | 6.30 | |
| R170185059RX | 170.00 | | 170.00 | 3.50 | 5.90 | -365 | 185.10 | | 6.30 | |
| R170190076RX | 170.00 | | 170.00 | 4.90 | 7.60 | -441 | 190.50 | | 8.10 | |
| R175190059RX | 175.00 | | 175.00 | 3.50 | 5.90 | -366 | 190.10 | | 6.30 | |
| R180195059RX | 180.00 | ▼ | 180.00 | 3.50 | 5.90 | -366 | 195.10 | | 6.30 | |
| R180200076RX | 180.00 | -0.050 -0.122 | 180.00 | 4.90 | 7.60 | -443 | 200.50 | | 8.10 | |
| R185200059RX | 185.00 | | 185.00 | 3.50 | 5.90 | -367 | 200.10 | | 6.30 | |
| R190205059RX | 190.00 | | 190.00 | 3.50 | 5.90 | -368 | 205.10 | | 6.30 | |
| R190210076RX | 190.00 | | 190.00 | 4.90 | 7.60 | -444 | 210.50 | | 8.10 | |
| R195210059RX | 195.00 | | 195.00 | 3.50 | 5.90 | -369 | 210.10 | | 6.30 | |
| R200215059RX | 200.00 | | 200.00 | 3.50 | 5.90 | -369 | 215.10 | | 6.30 | |
| R200220076RX | 200.00 | | 200.00 | 4.90 | 7.60 | -445 | 220.50 | | 8.10 | |
| R205225076RX | 205.00 | | 205.00 | 4.90 | 7.60 | -446 | 225.50 | | 8.10 | |
| R210230076RX | 210.00 | | 210.00 | 4.90 | 7.60 | -446 | 230.50 | | 8.10 | |
| R215235076RX | 215.00 | | 215.00 | 4.90 | 7.60 | 222.00 X 7.00 | 235.50 | | 8.10 | |
| R220240076RX | 220.00 | | 220.00 | 4.90 | 7.60 | -447 | 240.50 | | 8.10 | |
| R225245076RX | 225.00 | | 225.00 | 4.90 | 7.60 | 234.00 X 7.00 | 245.50 | | 8.10 | |
| R230250076RX | 230.00 | | 230.00 | 4.90 | 7.60 | -448 | 250.50 | | 8.10 | |
| R235255076RX | 235.00 | | 235.00 | 4.90 | 7.60 | -448 | 255.50 | | 8.10 | |
| R240260076RX | 240.00 | | 240.00 | 4.90 | 7.60 | -449 | 260.50 | | 8.10 | |
| R245265076RX | 245.00 | ▼ | 245.00 | 4.90 | 7.60 | -449 | 265.50 | ▼ | 8.10 | ▼ |

RX series - BR.PTFE/NBR

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|--------------|-------------------------|------|------|---------------|--------------------|------------------|------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| R250270076RX | 250.00 | -.006/- .020 | 250.00 | 4.90 | 7.60 | -449 | 270.50 | | 8.10 | |
| R255275076RX | 255.00 | -.056 | 255.00 | 4.90 | 7.60 | 260.00 X 7.00 | 275.50 | + .036 - .000 | 8.10 | + .200 - .000 |
| R260284076RX | 260.00 | -.137 | 260.00 | 6.65 | 7.60 | -450 | 284.00 | | 8.10 | |
| R265289076RX | 265.00 | | 265.00 | 6.65 | 7.60 | 272.00 X 7.00 | 289.00 | | 8.10 | |
| R270294076RX | 270.00 | | 270.00 | 6.65 | 7.60 | -451 | 294.00 | | 8.10 | |
| R275299076RX | 275.00 | | 275.00 | 6.65 | 7.60 | 285.00 X 7.00 | 299.00 | | 8.10 | |
| R280304076RX | 280.00 | | 280.00 | 6.65 | 7.60 | -452 | 304.00 | | 8.10 | |
| R285309076RX | 285.00 | | 285.00 | 6.65 | 7.60 | 298.00 X 7.00 | 309.00 | | 8.10 | |
| R290314076RX | 290.00 | | 290.00 | 6.65 | 7.60 | -453 | 314.00 | | 8.10 | |
| R295319076RX | 295.00 | | 295.00 | 6.65 | 7.60 | -453 | 319.00 | | 8.10 | |
| R300324076RX | 300.00 | | 300.00 | 6.65 | 7.60 | -454 | 324.00 | | 8.10 | |
| R310334076RX | 310.00 | ▼ | 310.00 | 6.65 | 7.60 | -454 | 334.00 | | 8.10 | |
| R320344076RX | 320.00 | -.062 | 320.00 | 6.65 | 7.60 | -455 | 344.00 | | 8.10 | |
| R325349076RX | 325.00 | -.151 | 325.00 | 6.65 | 7.60 | 336.00 X 7.00 | 349.00 | | 8.10 | |
| R330354076RX | 330.00 | | 330.00 | 6.65 | 7.60 | -456 | 354.00 | | 8.10 | |
| R340364076RX | 340.00 | | 340.00 | 6.65 | 7.60 | -457 | 364.00 | | 8.10 | |
| R350374076RX | 350.00 | | 350.00 | 6.65 | 7.60 | -458 | 374.00 | | 8.10 | |
| R360384076RX | 360.00 | | 360.00 | 6.65 | 7.60 | -458 | 384.00 | | 8.10 | |
| R370394076RX | 370.00 | | 370.00 | 6.65 | 7.60 | -459 | 394.00 | | 8.10 | |
| R375399076RX | 375.00 | | 375.00 | 6.65 | 7.60 | 387.00 X 7.00 | 399.00 | | 8.10 | |
| R380404076RX | 380.00 | | 380.00 | 6.65 | 7.60 | -460 | 404.00 | | 8.10 | |
| R390414076RX | 390.00 | | 390.00 | 6.65 | 7.60 | -461 | 414.00 | | 8.10 | |
| R400424076RX | 400.00 | ▼ | 400.00 | 6.65 | 7.60 | -461 | 424.00 | | 8.10 | |
| R410434076RX | 410.00 | -.068 | 410.00 | 6.65 | 7.60 | -462 | 434.00 | | 8.10 | |
| R420444076RX | 420.00 | -.165 | 420.00 | 6.65 | 7.60 | -463 | 444.00 | | 8.10 | |
| R425450076RX | 425.00 | | 425.00 | 6.65 | 7.60 | 437.00 X 7.00 | 449.00 | | 8.10 | |
| R430454076RX | 430.00 | | 430.00 | 6.65 | 7.60 | -464 | 454.00 | | 8.10 | |
| R440464076RX | 440.00 | | 440.00 | 6.65 | 7.60 | -464 | 464.00 | | 8.10 | |
| R450474076RX | 450.00 | | 450.00 | 6.65 | 7.60 | -466 | 474.00 | | 8.10 | |
| R460484076RX | 460.00 | | 460.00 | 6.65 | 7.60 | -466 | 484.00 | | 8.10 | |
| R470494076RX | 470.00 | | 470.00 | 6.65 | 7.60 | -467 | 494.00 | | 8.10 | |
| R475499076RX | 475.00 | | 475.00 | 6.65 | 7.60 | 487.00 X 7.00 | 499.00 | | 8.10 | |
| R480504076RX | 480.00 | | 480.00 | 6.65 | 7.60 | -468 | 504.00 | | 8.10 | |
| R490514076RX | 490.00 | | 490.00 | 6.65 | 7.60 | -469 | 514.00 | | 8.10 | |
| R500524076RX | 500.00 | ▼ | 500.00 | 6.65 | 7.60 | -469 | 524.00 | ▼ | 8.10 | ▼ |

Markets segments we are servicing



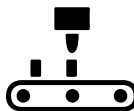
Fluid Handling



Fluid Power



Food & Beverages



Forming Machines

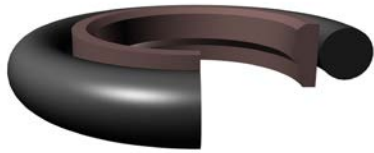


Health & Safety

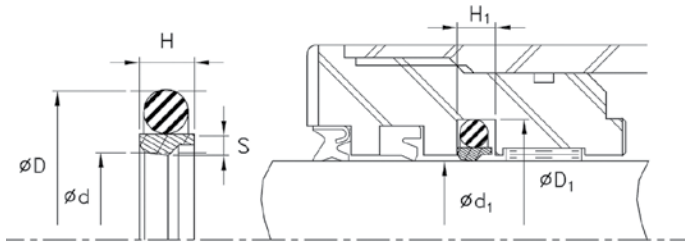


Ind Autom Aftermarket

RZ - Buffer seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|-------------------|
| BR.PTFE/Nitrile | -22°F to +212°F (-30°C to +100°C) | ≤5800 psi (≤400 bar) | < 16 ft/s (5 m/s) |



RZ-style has a filled-PTFE stepped-ring on the dynamic face and is pre-loaded by an elastomeric ring, and is used to protect the U-Cup type rod seal against pressure spikes.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|--------|-------------------------|------|------|------|--------------------|---------------|------|--------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| R004008020RZ | 4.00 | -0.010 | 4.00 | 1.00 | 2.00 | -010 | 8.90 | +0.036 | 2.20 | +0.200 |
| R005009020RZ | 5.00 | -0.028 | 5.00 | 1.00 | 2.00 | -011 | 9.90 | -0.000 | 2.20 | -0.000 |
| R006010020RZ | 6.00 | ▼ | 6.00 | 1.00 | 2.00 | -011 | 10.90 | +0.043 | 2.20 | |
| R007011020RZ | 7.00 | -0.013 | 7.00 | 1.00 | 2.00 | -012 | 11.90 | -0.000 | 2.20 | |
| R008012020RZ | 8.00 | -0.035 | 8.00 | 1.00 | 2.00 | -012 | 12.90 | | 2.20 | |
| R008015029RZ | 8.00 | | 8.00 | 1.70 | 2.93 | -111 | 15.30 | | 3.20 | |
| R010014020RZ | 10.00 | | 10.00 | 1.00 | 2.00 | -013 | 14.90 | | 2.20 | |
| R010017029RZ | 10.00 | ▼ | 10.00 | 1.70 | 2.93 | -113 | 17.30 | | 3.20 | |
| R012016020RZ | 12.00 | -0.016 | 12.00 | 1.00 | 2.00 | -015 | 16.90 | ▼ | 2.20 | |
| R012019029RZ | 12.00 | -0.043 | 12.00 | 1.70 | 2.93 | -114 | 19.30 | +0.052 | 3.20 | |
| R014018020RZ | 14.00 | | 14.00 | 1.00 | 2.00 | -016 | 18.90 | -0.000 | 2.20 | |
| R014021029RZ | 14.00 | | 14.00 | 1.70 | 2.93 | -115 | 21.30 | | 3.20 | |
| R015019020RZ | 15.00 | | 15.00 | 1.00 | 2.00 | -016 | 19.90 | | 2.20 | |
| R015022029RZ | 15.00 | | 15.00 | 1.70 | 2.93 | -116 | 22.30 | | 3.20 | |
| R016020020RZ | 16.00 | | 16.00 | 1.00 | 2.00 | -017 | 20.90 | | 2.20 | |
| R016023029RZ | 16.00 | | 16.00 | 1.70 | 2.93 | -116 | 23.30 | | 3.20 | |
| R018022020RZ | 18.00 | | 18.00 | 1.00 | 2.00 | -018 | 22.90 | | 2.20 | |
| R018025029RZ | 18.00 | ▼ | 18.00 | 1.70 | 2.93 | -118 | 25.30 | | 3.20 | |
| R020027029RZ | 20.00 | -0.020 | 20.00 | 1.70 | 2.93 | -119 | 27.30 | ▼ | 3.20 | |
| R020030039RZ | 20.00 | -0.053 | 20.00 | 2.55 | 3.93 | -214 | 30.70 | +0.062/-0.000 | 4.20 | |
| R022029029RZ | 22.00 | | 22.00 | 1.70 | 2.93 | -120 | 29.30 | +0.052/-0.000 | 3.20 | |
| R022032039RZ | 22.00 | | 22.00 | 2.55 | 3.93 | -215 | 32.70 | +0.062 | 4.20 | |
| R025032029RZ | 25.00 | | 25.00 | 1.70 | 2.93 | -122 | 32.30 | -0.000 | 3.20 | |
| R025035039RZ | 25.00 | | 25.00 | 2.55 | 3.93 | -217 | 35.70 | | 4.20 | |
| R028035029RZ | 28.00 | ▼ | 28.00 | 1.70 | 2.93 | -124 | 35.30 | ▼ | 3.20 | ▼ |



RZ series - BR.PTFE/NBR

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|--------------|--------------|------------------|-------------------------|--------|------|------|--------------------|------------------|------|------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| R028038039RZ | 28.00 | -0.020 -0.053 | 28.00 | 2.55 | 3.93 | -219 | 38.70 | +0.062 -0.000 | 4.20 | +0.200 -0.000 |
| R030037029RZ | 30.00 | | 30.00 | 1.70 | 2.93 | -125 | 37.30 | | 3.20 | |
| R030040039RZ | 30.00 | ▼ | 30.00 | 2.55 | 3.93 | -220 | 40.70 | | 4.20 | |
| R032039029RZ | 32.00 | -0.025 -0.064 | 32.00 | 1.70 | 2.93 | -126 | 39.30 | | 3.20 | |
| R032042039RZ | 32.00 | | 32.00 | 2.55 | 3.93 | -221 | 42.70 | | 4.20 | |
| R035042029RZ | 35.00 | | 35.00 | 1.70 | 2.93 | -128 | 42.30 | | 3.20 | |
| R035045039RZ | 35.00 | | 35.00 | 2.55 | 3.93 | -222 | 45.70 | | 4.20 | |
| R036043029RZ | 36.00 | | 36.00 | 1.70 | 2.93 | -129 | 43.30 | | 3.20 | |
| R036046039RZ | 36.00 | | 36.00 | 2.55 | 3.93 | -223 | 46.70 | | 4.20 | |
| R038048039RZ | 38.00 | | 38.00 | 2.55 | 3.93 | -223 | 48.70 | ▼ | 4.20 | |
| R038053059RZ | 38.00 | | 38.00 | 3.45 | 5.90 | -327 | 53.10 | +0.074 -0.000 | 6.30 | |
| R040050039RZ | 40.00 | | 40.00 | 2.55 | 3.93 | -224 | 50.70 | | 4.20 | |
| R040055059RZ | 40.00 | | 40.00 | 3.45 | 5.90 | -328 | 55.10 | | 6.30 | |
| R042057059RZ | 42.00 | | 42.00 | 3.45 | 5.90 | -328 | 57.10 | | 6.30 | |
| R045055039RZ | 45.00 | | 45.00 | 2.55 | 3.93 | -226 | 55.70 | | 4.20 | |
| R045060059RZ | 45.00 | | 45.00 | 3.45 | 5.90 | -329 | 60.10 | | 6.30 | |
| R050060039RZ | 50.00 | | 50.00 | 2.55 | 3.93 | -227 | 60.70 | | 4.20 | |
| R050065059RZ | 50.00 | ▼ | 50.00 | 3.45 | 5.90 | -331 | 65.10 | | 6.30 | |
| R055070059RZ | 55.00 | -0.030 -0.076 | 55.00 | 3.45 | 5.90 | -332 | 70.10 | | 6.30 | |
| R056066039RZ | 56.00 | | 56.00 | 2.55 | 3.93 | -229 | 66.70 | | 4.20 | |
| R056071059RZ | 56.00 | | 56.00 | 3.45 | 5.90 | -333 | 71.10 | | 6.30 | |
| R060070039RZ | 60.00 | | 60.00 | 2.55 | 3.93 | -230 | 70.70 | | 4.20 | |
| R060075059RZ | 60.00 | | 60.00 | 3.45 | 5.90 | -334 | 75.10 | | 6.30 | |
| R063078059RZ | 63.00 | | 63.00 | 3.45 | 5.90 | -335 | 78.10 | ▼ | 6.30 | |
| R065080059RZ | 65.00 | | 65.00 | 3.45 | 5.90 | -336 | 80.10 | +0.087 -0.000 | 6.30 | |
| R070085059RZ | 70.00 | | 70.00 | 3.45 | 5.90 | -337 | 85.10 | | 6.30 | |
| R075090059RZ | 75.00 | | 75.00 | 3.45 | 5.90 | -339 | 90.10 | | 6.30 | |
| R080095059RZ | 80.00 | ▼ | 80.00 | 3.45 | 5.90 | -340 | 95.10 | | 6.30 | |
| R085100059RZ | 85.00 | -0.036 -0.090 | 85.00 | 3.45 | 5.90 | -342 | 100.10 | | 6.30 | |
| R090105059RZ | 90.00 | | 90.00 | 3.45 | 5.90 | -344 | 105.10 | | 6.30 | |
| R095110059RZ | 95.00 | | 95.00 | 3.45 | 5.90 | -345 | 110.10 | | 6.30 | |
| R100115059RZ | 100.00 | | 100.00 | 3.45 | 5.90 | -347 | 115.10 | ▼ | 6.30 | |
| R105120059RZ | 105.00 | | 105.00 | 3.45 | 5.90 | -348 | 120.10 | +0.100 -0.000 | 6.30 | |
| R110125059RZ | 110.00 | | 110.00 | 3.45 | 5.90 | -350 | 125.10 | | 6.30 | |
| R115130059RZ | 115.00 | | 115.00 | 3.45 | 5.90 | -351 | 130.10 | | 6.30 | |
| R120135059RZ | 120.00 | ▼ | 120.00 | 3.45 | 5.90 | -353 | 135.10 | | 6.30 | |
| R125140059RZ | 125.00 | -0.043 -0.106 | 125.00 | 3.45 | 5.90 | -355 | 140.10 | | 6.30 | |
| R130145059RZ | 130.00 | | 130.00 | 3.45 | 5.90 | -356 | 145.10 | | 6.30 | |
| R135150059RZ | 135.00 | | 135.00 | 3.45 | 5.90 | -358 | 150.10 | | 6.30 | |
| R140155059RZ | 140.00 | | 140.00 | 3.45 | 5.90 | -359 | 155.10 | | 6.30 | |
| R145160059RZ | 145.00 | | 145.00 | 3.45 | 5.90 | -361 | 160.10 | | 6.30 | |
| R150165059RZ | 150.00 | | 150.00 | 3.45 | 5.90 | -362 | 165.10 | | 6.30 | |
| R155170059RZ | 155.00 | | 155.00 | 3.45 | 5.90 | -362 | 170.10 | | 6.30 | |
| R160175059RZ | 160.00 | | 160.00 | 3.45 | 5.90 | -363 | 175.10 | ▼ | 6.30 | |
| R165180059RZ | 165.00 | | 165.00 | 3.45 | 5.90 | -364 | 180.10 | +0.115 -0.000 | 6.30 | |
| R170185059RZ | 170.00 | ▼ | 170.00 | 3.45 t | 5.90 | -365 | 185.10 | | 6.30 | ▼ |

RZ series - BR.PTFE/NBR

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|--------------|----------------|-------------------------|------|------|------|--------------------|----------------|------|----------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| R175190059RZ | 175.00 | -.043 -.106 | 175.00 | 3.45 | 5.90 | -366 | 190.10 | +.115 -.000 | 6.30 | +.200 -.000 |
| R180195059RZ | 180.00 | | 180.00 | 3.45 | 5.90 | -366 | 195.10 | | 6.30 | |
| R185200059RZ | 185.00 | -.050 -.122 | 185.00 | 3.45 | 5.90 | -367 | 200.10 | | 6.30 | |
| R190205059RZ | 190.00 | | 190.00 | 3.45 | 5.90 | -368 | 205.10 | | 6.30 | |
| R195210059RZ | 195.00 | | 195.00 | 3.45 | 5.90 | -369 | 210.10 | | 6.30 | |
| R200215059RZ | 200.00 | | 200.00 | 3.45 | 5.90 | -370 | 215.10 | | 6.30 | |
| R200220076RZ | 200.00 | | 200.00 | 4.75 | 7.60 | -445 | 220.50 | | 8.10 | |
| R205225076RZ | 205.00 | | 205.00 | 4.75 | 7.60 | -446 | 225.50 | | 8.10 | |
| R210230076RZ | 210.00 | | 210.00 | 4.75 | 7.60 | -446 | 230.50 | | 8.10 | |
| R220240076zRZ | 220.00 | | 220.00 | 4.75 | 7.60 | -447 | 240.50 | ▼ | 8.10 | |
| R230250076RZ | 230.00 | | 230.00 | 4.75 | 7.60 | -448 | 250.50 | +.130 -.000 | 8.10 | |
| R240260076RZ | 240.00 | | 240.00 | 4.75 | 7.60 | -449 | 260.50 | | 8.10 | |
| R250270076RZ | 250.00 | ▼ | 250.00 | 4.75 | 7.60 | -449 | 270.50 | | 8.10 | |
| R260284076RZ | 260.00 | -.056 -.137 | 260.00 | 6.50 | 7.60 | -450 | 284.00 | | 8.10 | |
| R270294076RZ | 270.00 | | 270.00 | 6.50 | 7.60 | -451 | 294.00 | | 8.10 | |
| R280304076RZ | 280.00 | | 280.00 | 6.50 | 7.60 | -452 | 304.00 | | 8.10 | |
| R290314076RZ | 290.00 | | 290.00 | 6.50 | 7.60 | -453 | 314.00 | ▼ | 8.10 | |
| R300324076RZ | 300.00 | | 300.00 | 6.50 | 7.60 | -454 | 324.00 | +.140 -.000 | 8.10 | |
| R310334076RZ | 310.00 | ▼ | 310.00 | 6.50 | 7.60 | -454 | 334.00 | | 8.10 | |
| R320344076RZ | 320.00 | -.062 -.151 | 320.00 | 6.50 | 7.60 | -455 | 344.00 | | 8.10 | |
| R330354076RZ | 330.00 | | 330.00 | 6.50 | 7.60 | -456 | 354.00 | | 8.10 | |
| R340364076RZ | 340.00 | | 340.00 | 6.50 | 7.60 | -457 | 364.00 | | 8.10 | |
| R350374076RZ | 350.00 | | 350.00 | 6.50 | 7.60 | -458 | 374.00 | | 8.10 | |
| R360384076RZ | 360.00 | | 360.00 | 6.50 | 7.60 | -458 | 384.00 | | 8.10 | |
| R370394076RZ | 370.00 | | 370.00 | 6.50 | 7.60 | -459 | 394.00 | ▼ | 8.10 | |
| R380404076RZ | 380.00 | | 380.00 | 6.50 | 7.60 | -460 | 404.00 | +.155 -.000 | 8.10 | |
| R390414076RZ | 390.00 | | 390.00 | 6.50 | 7.60 | -461 | 414.00 | | 8.10 | |
| R400424076RZ | 400.00 | ▼ | 400.00 | 6.50 | 7.60 | -461 | 424.00 | | 8.10 | |
| R410434076RZ | 410.00 | -.068 -.165 | 410.00 | 6.50 | 7.60 | -462 | 434.00 | | 8.10 | |
| R420444076RZ | 420.00 | | 420.00 | 6.50 | 7.60 | -463 | 444.00 | | 8.10 | |
| R430454076RZ | 430.00 | | 430.00 | 6.50 | 7.60 | -464 | 454.00 | | 8.10 | |
| R440464076RZ | 440.00 | | 440.00 | 6.50 | 7.60 | -464 | 464.00 | | 8.10 | |
| R450474076RZ | 450.00 | | 450.00 | 6.50 | 7.60 | -465 | 474.00 | | 8.10 | |
| R460484076RZ | 460.00 | | 460.00 | 6.50 | 7.60 | -466 | 484.00 | | 8.10 | |
| R470494076RZ | 470.00 | | 470.00 | 6.50 | 7.60 | -467 | 494.00 | | 8.10 | |
| R480504076RZ | 480.00 | | 480.00 | 6.50 | 7.60 | -468 | 504.00 | | 8.10 | |
| R490514076RZ | 490.00 | | 490.00 | 6.50 | 7.60 | -469 | 514.00 | | 8.10 | |
| R500524076RZ | 500.00 | ▼ | 500.00 | 6.50 | 7.60 | -469 | 524.00 | ▼ | 8.10 | ▼ |

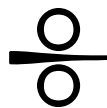
Markets segments we are servicing



Machine Tools



Material Handling



Metal Processing



Mining



Pharmaceutical

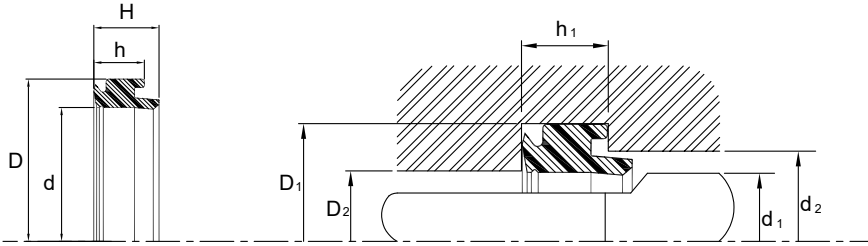


Power Generation

R5/U - Cushion seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|---|-----------------------|-------------------|
| Polyurethane | -31 °F to +176 °F (-35 °C to +80 °C) | ≤300 psi (≤20 bar) | <3.3 ft/s (1 m/s) |

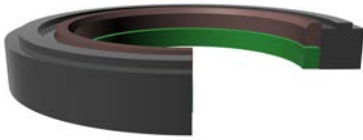


R5/U-Style provide end-of-stroke damping in pneumatic cylinders, eliminating the need for check valves. These polyurethane sealing elements are user-friendly and provide quick response in reverse direction, as well as easy, snap-in installation.

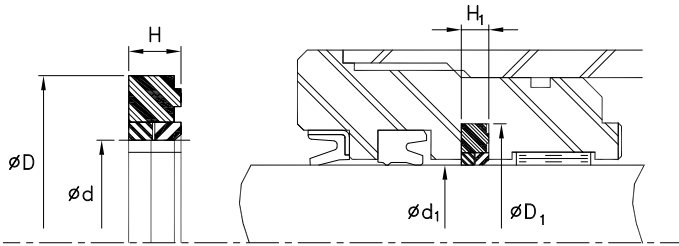
Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | | | |
|----------------|--------------|------------------|-------------------------|-------|------|------|--------------------|------------------|-------|------------------|-------|------------------|------|------------------|
| | d1 | Tol. | d | D | h | H | d2 | Tol. | D1 | Tol. | D2 | Tol. | h1 | Tol. |
| R008011027R5/U | 8.00 | +0.000 -0.090 | 8.00 | 11.60 | 2.70 | 3.50 | 10.00 | +0.090/-0.000 | 11.60 | +0.110 -0.000 | 8.50 | +0.090 -0.000 | 3.30 | +0.100 -0.100 |
| R009015039R5/U | 9.50 | | 9.50 | 15.00 | 3.90 | 5.00 | 12.00 | +0.110 -0.000 | 15.00 | | 10.00 | | 4.50 | |
| R010018062R5/U | 10.00 | +0.000 -0.110 | 10.00 | 18.00 | 6.20 | 8.00 | 15.00 | | 18.00 | | 11.00 | +0.110 -0.000 | 7.00 | |
| R012018048R5/U | 12.00 | | 12.00 | 18.00 | 4.20 | 5.20 | 15.50 | | 18.00 | | 13.00 | | 4.80 | |
| R012020062R5/U | 12.00 | | 12.00 | 20.00 | 6.20 | 8.00 | 17.00 | | 20.00 | +0.130 -0.000 | 13.00 | | 7.00 | |
| R014020062R5/U | 14.00 | | 14.00 | 20.00 | 6.20 | 8.00 | 17.50 | | 20.00 | | 15.00 | | 7.00 | |
| R014022062R5/U | 14.00 | | 14.00 | 22.00 | 6.20 | 8.00 | 19.00 | +0.130 -0.000 | 22.00 | | 15.00 | | 7.00 | |
| R016022045R5/U | 16.00 | | 16.00 | 22.00 | 4.40 | 5.60 | 19.50 | | 22.00 | | 17.00 | | 5.20 | |
| R016024062R5/U | 16.00 | | 16.00 | 24.00 | 6.20 | 8.00 | 21.00 | | 24.00 | | 17.00 | | 7.00 | |
| R018026062R5/U | 18.00 | +0.000 -0.130 | 18.00 | 26.00 | 6.20 | 8.00 | 23.00 | | 26.00 | | 19.00 | +0.130 -0.000 | 7.00 | |
| R020028062R5/U | 20.00 | | 20.00 | 28.00 | 6.20 | 8.00 | 24.00 | | 28.00 | | 21.00 | | 7.00 | |
| R022030062R5/U | 22.00 | | 22.00 | 30.00 | 6.20 | 8.00 | 26.00 | | 30.00 | | 23.00 | | 7.00 | |
| R024032062R5/U | 24.00 | | 24.00 | 32.00 | 6.20 | 8.00 | 28.00 | | 32.00 | +0.016 -0.000 | 25.00 | | 7.00 | |
| R025033062R5/U | 25.00 | | 25.00 | 33.00 | 6.20 | 8.00 | 29.00 | | 33.00 | | 26.00 | | 7.00 | |
| R028036062R5/U | 28.00 | | 28.00 | 36.00 | 6.20 | 8.00 | 32.00 | +0.160 -0.000 | 36.00 | | 29.00 | | 7.00 | |
| R030040062R5/U | 30.00 | | 30.00 | 40.00 | 6.20 | 8.00 | 35.00 | | 40.00 | | 31.50 | +0.160 -0.000 | 7.00 | |
| R032042062R5/U | 32.00 | +0.000 -0.160 | 32.00 | 42.00 | 6.20 | 8.00 | 37.00 | | 42.00 | | 33.50 | | 7.00 | |
| R036046062R5/U | 36.00 | | 36.00 | 46.00 | 6.20 | 8.00 | 41.00 | | 46.00 | | 37.50 | | 7.00 | |
| R040050062R5/U | 40.00 | | 40.00 | 50.00 | 6.20 | 8.00 | 45.00 | | 50.00 | | 41.50 | | 7.00 | |
| R050060062R5/U | 50.00 | | 50.00 | 60.00 | 6.20 | 8.00 | 55.00 | +0.190/-0.000 | 60.00 | +0.190/-0.000 | 51.50 | +0.190/-0.000 | 7.00 | |

R12 - Buffer seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|--------------------|--------------------------------------|-------------------------|-------------------|
| Nylon/PTFE/Nitrile | -40°F to +220°F (-40°C to +104°C) | ≤5000 psi (≤345 bar) | <3 ft/s (0.9 m/s) |



Similar in function to the **RZ-style**, this design adds a nylon anti-extrusion ring to allow for higher pressures.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

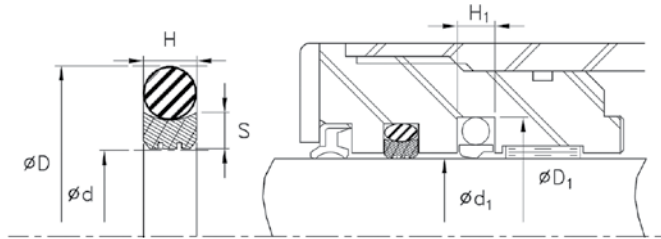
| Ref. Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|---------------|--------------|-------|-------------------------|--------|------|--------------------|-------|------|-------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R040055059R12 | 40.00 | -.025 | 40.00 | 55.50 | 5.90 | 55.50 | +200 | 6.30 | +200 |
| R045060059R12 | 45.00 | -.064 | 45.00 | 60.50 | 5.90 | 60.50 | -.000 | 6.30 | -.000 |
| R050065059R12 | 50.00 | | 50.00 | 65.50 | 5.90 | 65.50 | | 6.30 | |
| R055070059R12 | 55.00 | | 55.00 | 70.50 | 5.90 | 70.50 | | 6.30 | |
| R060075059R12 | 60.00 | | 60.00 | 75.50 | 5.90 | 75.50 | | 6.30 | |
| R065080059R12 | 65.00 | -.013 | 65.00 | 80.50 | 5.90 | 80.50 | | 6.30 | |
| R070085059R12 | 70.00 | -.065 | 70.00 | 85.50 | 5.90 | 85.50 | | 6.30 | |
| R075090059R12 | 75.00 | | 75.00 | 90.50 | 5.90 | 90.50 | | 6.30 | |
| R080095059R12 | 80.00 | | 80.00 | 95.50 | 5.90 | 95.50 | | 6.30 | |
| R085100059R12 | 85.00 | | 85.00 | 100.50 | 5.90 | 100.50 | | 6.30 | |
| R090105059R12 | 90.00 | -.013 | 90.00 | 105.50 | 5.90 | 105.50 | | 6.30 | |
| R095110059R12 | 95.00 | -.065 | 95.00 | 110.50 | 5.90 | 110.50 | | 6.30 | |
| R100115059R12 | 100.00 | | 100.00 | 115.50 | 5.90 | 115.50 | | 6.30 | |
| R105120059R12 | 105.00 | -.013 | 105.00 | 120.50 | 5.90 | 120.50 | | 6.30 | |
| R110125059R12 | 110.00 | -.065 | 110.00 | 125.50 | 5.90 | 125.50 | | 6.30 | |
| R115130059R12 | 115.00 | | 115.00 | 130.50 | 5.90 | 130.50 | | 6.30 | |
| R120135059R12 | 120.00 | | 120.00 | 135.50 | 5.90 | 135.50 | | 6.30 | |
| R125140059R12 | 125.00 | | 125.00 | 140.50 | 5.90 | 140.50 | | 6.30 | |
| R130145059R12 | 130.00 | -.013 | 130.00 | 145.50 | 5.90 | 145.50 | | 6.30 | |
| R135150059R12 | 135.00 | -.065 | 135.00 | 150.50 | 5.90 | 150.50 | | 6.30 | |
| R140155059R12 | 140.00 | | 140.00 | 155.50 | 5.90 | 155.50 | | 6.30 | |
| R145160059R12 | 145.00 | | 145.00 | 160.50 | 5.90 | 160.50 | | 6.30 | |
| R150165059R12 | 150.00 | | 150.00 | 165.50 | 5.90 | 165.50 | | 6.30 | |
| R155170059R12 | 155.00 | | 155.00 | 170.50 | 5.90 | 170.50 | | 6.30 | |
| R160175059R12 | 160.00 | | 160.00 | 175.50 | 5.90 | 175.50 | | 6.30 | |
| R165180059R12 | 165.00 | | 165.00 | 180.50 | 5.90 | 180.50 | | 6.30 | |
| R170185059R12 | 170.00 | | 170.00 | 185.50 | 5.90 | 185.50 | | 6.30 | |



R16 - Rod seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|---------------------------------------|-------------------------|----------------------|
| BR.PTFE/Nitrile | -30°F to +250°F (-34°C to +121 °C) | ≤4400 psi (≤300 bar) | < 1.6 ft/s (0.5 m/s) |



Similar to the **RX-style**, the **R16-style** can also be used in rotary applications. The machined grooves on the face of the PTFE ring help retain systems fluid, thereby reducing the coefficient of friction.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|--------------|-------|-------------------------|------|------|------|--------------------|----------------|------|----------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| R008012020R16 | 8.00 | -.013 | 8.00 | 1.35 | 2.00 | -012 | 12.90 | +.043 -.000 | 2.20 | +.200 -.000 |
| R010014020R16 | 10.00 | -.035 | 10.00 | 1.35 | 2.00 | -013 | 14.90 | ↓ | 2.20 | ↓ |
| R012016020R16 | 12.00 | ↓ | 12.00 | 1.35 | 2.00 | -015 | 16.90 | ↓ | 2.20 | ↓ |
| R014018020R16 | 14.00 | ↓ | 14.00 | 1.35 | 2.00 | -016 | 18.90 | +.052 -.000 | 2.20 | ↓ |
| R015019020R16 | 15.00 | ↓ | 15.00 | 1.35 | 2.00 | -017 | 19.90 | ↓ | 2.20 | ↓ |
| R016020020R16 | 16.00 | ↓ | 16.00 | 1.35 | 2.00 | -017 | 20.90 | ↓ | 2.20 | ↓ |
| R018022020R16 | 18.00 | ↓ | 18.00 | 1.35 | 2.00 | -019 | 22.90 | ↓ | 2.20 | ↓ |
| R020027029R16 | 20.00 | -.020 | 20.00 | 2.10 | 2.93 | -119 | 27.50 | ↓ | 3.20 | ↓ |
| R021028029R16 | 21.00 | -.053 | 21.00 | 2.10 | 2.93 | -119 | 28.50 | ↓ | 3.20 | ↓ |
| R022029029R16 | 22.00 | ↓ | 22.00 | 2.10 | 2.93 | -120 | 29.50 | ↓ | 3.20 | ↓ |
| R024031029R16 | 24.00 | ↓ | 24.00 | 2.10 | 2.93 | -121 | 31.50 | +.062 -.000 | 3.20 | ↓ |
| R025032029R16 | 25.00 | ↓ | 25.00 | 2.10 | 2.93 | -122 | 32.50 | ↓ | 3.20 | ↓ |
| R026033029R16 | 26.00 | ↓ | 26.00 | 2.10 | 2.93 | -123 | 33.50 | ↓ | 3.20 | ↓ |
| R028035029R16 | 28.00 | ↓ | 28.00 | 2.10 | 2.93 | -124 | 35.50 | ↓ | 3.20 | ↓ |
| R030037029R16 | 30.00 | ↓ | 30.00 | 2.10 | 2.93 | -125 | 37.50 | ↓ | 3.20 | ↓ |
| R032039029R16 | 32.00 | -.025 | 32.00 | 2.10 | 2.93 | -126 | 39.50 | ↓ | 3.20 | ↓ |
| R035042029R16 | 35.00 | -.064 | 35.00 | 2.10 | 2.93 | -128 | 42.50 | ↓ | 3.20 | ↓ |
| R036043029R16 | 36.00 | ↓ | 36.00 | 2.10 | 2.93 | -129 | 43.50 | ↓ | 3.20 | ↓ |
| R038049039R16 | 38.00 | ↓ | 38.00 | 3.25 | 3.93 | -130 | 49.00 | ↓ | 4.20 | ↓ |
| R040051039R16 | 40.00 | ↓ | 40.00 | 3.25 | 3.93 | -132 | 51.00 | ↓ | 4.20 | ↓ |
| R042053039R16 | 42.00 | ↓ | 42.00 | 3.25 | 3.93 | -134 | 53.00 | +.074 -.000 | 4.20 | ↓ |

R16 series - BR.PTFE/NBR

ROD SEALS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|--------------|----------------|-------------------------|------|------|---------------|--------------------|----------------|------|----------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| R045056039R16 | 45.00 | -.025 -.064 | 45.00 | 3.25 | 3.93 | -136 | 56.00 | +.074 -.000 | 4.20 | +.200 -.000 |
| R048059039R16 | 48.00 | | 48.00 | 3.25 | 3.93 | -136 | 59.00 | | 4.20 | |
| R050061039R16 | 50.00 | ▼ | 50.00 | 3.25 | 3.93 | -138 | 61.00 | | 4.20 | |
| R052063039R16 | 52.00 | -.030 -.076 | 52.00 | 3.25 | 3.93 | -138 | 63.00 | | 4.20 | |
| R055066039R16 | 55.00 | | 55.00 | 3.25 | 3.93 | -140 | 66.00 | | 4.20 | |
| R056067039R16 | 56.00 | | 56.00 | 3.25 | 3.93 | -142 | 67.00 | | 4.20 | |
| R058069039R16 | 58.00 | | 58.00 | 3.25 | 3.93 | -230 | 69.00 | | 4.20 | |
| R060071039R16 | 60.00 | | 60.00 | 3.25 | 3.93 | -230 | 71.00 | | 4.20 | |
| R063074039R16 | 63.00 | | 63.00 | 3.25 | 3.93 | -231 | 74.00 | | 4.20 | |
| R065076039R16 | 65.00 | | 65.00 | 3.25 | 3.93 | -232 | 76.00 | | 4.20 | |
| R068079039R16 | 68.00 | | 68.00 | 3.25 | 3.93 | -233 | 79.00 | ▼ | 4.20 | |
| R070081039R16 | 70.00 | | 70.00 | 3.25 | 3.93 | -233 | 81.00 | +.087 -.000 | 4.20 | |
| R075086039R16 | 75.00 | | 75.00 | 3.25 | 3.93 | -235 | 86.00 | | 4.20 | |
| R080091039R16 | 80.00 | ▼ | 80.00 | 3.25 | 3.93 | -236 | 91.00 | | 4.20 | |
| R085096039R16 | 85.00 | -.036 -.090 | 85.00 | 3.25 | 3.93 | -238 | 96.00 | | 4.20 | |
| R090101039R16 | 90.00 | | 90.00 | 3.25 | 3.93 | -239 | 101.00 | | 4.20 | |
| R095106039R16 | 95.00 | | 95.00 | 3.25 | 3.93 | -241 | 106.00 | | 4.20 | |
| R100111039R16 | 100.00 | | 100.00 | 3.25 | 3.93 | -242 | 111.00 | | 4.20 | |
| R105116039R16 | 105.00 | | 105.00 | 3.25 | 3.93 | -244 | 116.00 | ▼ | 4.20 | |
| R110121039R16 | 110.00 | | 110.00 | 3.25 | 3.93 | -246 | 121.00 | +.100 -.000 | 4.20 | |
| R115126039R16 | 115.00 | | 115.00 | 3.25 | 3.93 | -247 | 126.00 | | 4.20 | |
| R120131039R16 | 120.00 | ▼ | 120.00 | 3.25 | 3.93 | -249 | 131.00 | | 4.20 | |
| R125136039R16 | 125.00 | -.043 -.106 | 125.00 | 3.25 | 3.93 | -250 | 136.00 | | 4.20 | |
| R130141039R16 | 130.00 | | 130.00 | 3.25 | 3.93 | -252 | 141.00 | | 4.20 | |
| R135146039R16 | 135.00 | | 135.00 | 3.25 | 3.93 | -253 | 146.00 | | 4.20 | |
| R140151039R16 | 140.00 | | 140.00 | 3.25 | 3.93 | -255 | 151.00 | | 4.20 | |
| R145156039R16 | 145.00 | | 145.00 | 3.25 | 3.93 | -257 | 156.00 | | 4.20 | |
| R150161039R16 | 150.00 | | 150.00 | 3.25 | 3.93 | -258 | 161.00 | | 4.20 | |
| R155166039R16 | 155.00 | | 155.00 | 3.25 | 3.93 | -259 | 166.00 | | 4.20 | |
| R160171039R16 | 160.00 | | 160.00 | 3.25 | 3.93 | -260 | 171.00 | | 4.20 | |
| R165176039R16 | 165.00 | | 165.00 | 3.25 | 3.93 | -261 | 176.00 | ▼ | 4.20 | |
| R170181039R16 | 170.00 | | 170.00 | 3.25 | 3.93 | -261 | 181.00 | +.115 -.000 | 4.20 | |
| R175186039R16 | 175.00 | | 175.00 | 3.25 | 3.93 | -262 | 186.00 | | 4.20 | |
| R180191039R16 | 180.00 | ▼ | 180.00 | 3.25 | 3.93 | -263 | 191.00 | | 4.20 | |
| R190206039R16 | 190.00 | -.050 -.122 | 190.00 | 3.25 | 3.93 | -264 | 206.00 | | 4.20 | |
| R200215059R16 | 200.00 | | 200.00 | 4.40 | 5.90 | -369 | 215.50 | | 6.30 | |
| R210225059R16 | 210.00 | | 210.00 | 4.40 | 5.90 | -371 | 225.50 | | 6.30 | |
| R220235059R16 | 220.00 | | 220.00 | 4.40 | 5.90 | -372 | 235.50 | | 6.30 | |
| R225240059R16 | 225.00 | | 225.00 | 4.40 | 5.90 | -373 | 240.50 | | 6.30 | |
| R230245059R16 | 230.00 | | 230.00 | 4.40 | 5.90 | -374 | 245.50 | ▼ | 6.30 | |
| R240255059R16 | 240.00 | | 240.00 | 4.40 | 5.90 | -375 | 255.50 | +.130 -.000 | 6.30 | |
| R250265059R16 | 250.00 | | 250.00 | 4.40 | 5.90 | -377 | 265.50 | | 6.30 | |
| R260281076R16 | 260.00 | ▼ | 260.00 | 5.80 | 7.60 | -378 | 281.00 | | 8.10 | |
| R270291076R16 | 270.00 | -.056 -.137 | 270.00 | 5.80 | 7.60 | -379 | 291.00 | | 8.10 | |
| R280301076R16 | 280.00 | | 280.00 | 5.80 | 7.60 | 285.00 X 7.00 | 301.00 | | 8.10 | |
| R290311076R16 | 290.00 | ▼ | 290.00 | 5.80 | 7.60 | -380 | 311.00 | ▼ | 8.10 | ▼ |

R16 series - BR.PTFE/NBR

ROD SEALS



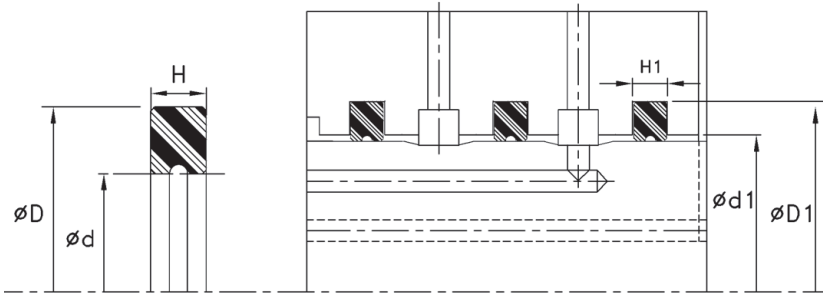
| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|---------------|--------------------|-------------------------|------|------|---------------|--------------------|--------------------|------|--------------------|
| | d1 | Tol. | d | S | H | EXP | D1 | Tol. | H1 | Tol. |
| R300321076R16 | 300.00 | $-.056$ $-.137$ | 300.00 | 5.80 | 7.60 | -381 | 321.00 | $+.140$ $-.000$ | 8.10 | $+.200$ $-.000$ |
| R310331076R16 | 310.00 | | 310.00 | 5.80 | 7.60 | -454 | 331.00 | | 8.10 | |
| R320341076R16 | 320.00 | $-.062$ $-.151$ | 320.00 | 5.80 | 7.60 | 323.00 X 7.00 | 341.00 | | 8.10 | |
| R330351076R16 | 330.00 | | 330.00 | 5.80 | 7.60 | 336.00 X 7.00 | 351.00 | | 8.10 | |
| R340361076R16 | 340.00 | | 340.00 | 5.80 | 7.60 | -456 | 361.00 | | 8.10 | |
| R350371076R16 | 350.00 | | 350.00 | 5.80 | 7.60 | -457 | 371.00 | | 8.10 | |
| R360381076R16 | 360.00 | | 360.00 | 5.80 | 7.60 | -458 | 381.00 | | 8.10 | |
| R370391076R16 | 370.00 | | 370.00 | 5.80 | 7.60 | 375.00 x 7.00 | 391.00 | ▼ | 8.10 | |
| R380401076R16 | 380.00 | | 380.00 | 5.80 | 7.60 | 387.00 x 7.00 | 401.00 | $+.155$ $-.000$ | 8.10 | |
| R390411076R16 | 390.00 | | 390.00 | 5.80 | 7.60 | -460 | 411.00 | | 8.10 | |
| R400421076R16 | 400.00 | ▼ | 400.00 | 5.80 | 7.60 | -461 | 421.00 | | 8.10 | |
| R410431076R16 | 410.00 | $-.068$ $-.165$ | 410.00 | 5.80 | 7.60 | -462 | 431.00 | | 8.10 | |
| R420441076R16 | 420.00 | | 420.00 | 5.80 | 7.60 | 425.00 x 7.00 | 441.00 | | 8.10 | |
| R430451076R16 | 430.00 | | 430.00 | 5.80 | 7.60 | 437.00 x 7.00 | 451.00 | | 8.10 | |
| R440461076R16 | 440.00 | | 440.00 | 5.80 | 7.60 | -464 | 461.00 | | 8.10 | |
| R450471076R16 | 450.00 | | 450.00 | 5.80 | 7.60 | -465 | 471.00 | | 8.10 | |
| R460481076R16 | 460.00 | | 460.00 | 5.80 | 7.60 | -466 | 481.00 | | 8.10 | |
| R470491076R16 | 470.00 | | 470.00 | 5.80 | 7.60 | 475.00 x 7.00 | 491.00 | | 8.10 | |
| R480501076R16 | 480.00 | | 480.00 | 5.80 | 7.60 | 487.00 x 7.00 | 501.00 | | 8.10 | |
| R490511076R16 | 490.00 | | 490.00 | 5.80 | 7.60 | -468 | 511.00 | | 8.10 | |
| R500521076R16 | 500.00 | ▼ | 500.00 | 5.80 | 7.60 | -469 | 521.00 | ▼ | 8.10 | ▼ |



R19 - Rod seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|----------------------|
| Polyurethane | -22°F to +212°F (-30°C to +100°C) | ≤5000 psi (≤345 bar) | < 1.6 ft/s (0.5 m/s) |



ROD SEALS



R19 profile rod seals is specifically designed for use in rotary swivel joints, and is manufactured out of high specification polyurethane.

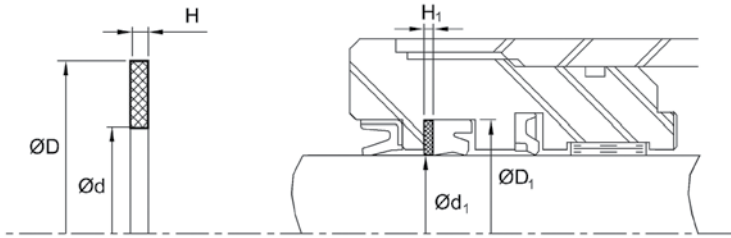
Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|---------------|--------------|------------------|-------------------------|--------|------|--------------------|------------------|------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| R060070053R19 | 60.00 | +0.000 -0.074 | 60.00 | 70.00 | 4.90 | 70.00 | +0.120 -0.000 | 5.30 | +0.300 -0.000 |
| R070080053R19 | 70.00 | | 70.50 | 81.00 | 4.90 | 80.00 | | 5.30 | |
| R075085053R19 | 75.00 | | 75.30 | 85.80 | 4.90 | 85.00 | +0.140 -0.000 | 5.30 | |
| R080090053R19 | 80.00 | | 80.50 | 91.00 | 4.90 | 90.00 | | 5.30 | |
| R085095053R19 | 85.00 | +0.000 -0.087 | 85.50 | 96.00 | 4.90 | 95.00 | | 5.30 | |
| R090100053R19 | 90.00 | | 90.50 | 101.00 | 4.90 | 100.00 | | 5.30 | |
| R095105053R19 | 95.00 | | 95.50 | 106.00 | 4.90 | 105.00 | | 5.30 | |
| R100110053R19 | 100.00 | | 100.50 | 111.00 | 4.90 | 110.00 | | 5.30 | |
| R105115053R19 | 105.00 | | 105.50 | 116.00 | 4.90 | 115.00 | | 5.30 | |
| R110120053R19 | 110.00 | | 110.50 | 121.00 | 4.90 | 120.00 | | 5.30 | |
| R115125053R19 | 115.00 | | 115.50 | 126.00 | 4.90 | 125.00 | +0.160 -0.000 | 5.30 | |
| R120130053R19 | 120.00 | | 120.50 | 131.00 | 4.90 | 130.00 | | 5.30 | |
| R125135053R19 | 125.00 | +0.000 -0.100 | 125.50 | 136.00 | 4.90 | 135.00 | | 5.30 | |
| R130140053R19 | 130.00 | | 131.10 | 141.60 | 4.90 | 140.00 | | 5.30 | |
| R135145053R19 | 135.00 | | 136.10 | 136.60 | 4.90 | 145.00 | | 5.30 | |
| R140150053R19 | 140.00 | | 141.10 | 151.60 | 4.90 | 150.00 | | 5.30 | |
| R145155053R19 | 145.00 | | 146.10 | 146.60 | 4.90 | 155.00 | | 5.30 | |
| R150160053R19 | 150.00 | | 151.10 | 161.60 | 4.90 | 160.00 | | 5.30 | |
| R155165053R19 | 155.00 | | 156.10 | 166.60 | 4.90 | 165.00 | | 5.30 | |
| R160170053R19 | 160.00 | | 161.10 | 171.60 | 4.90 | 170.00 | | 5.30 | |

SD/N, ST/N, SD/T, ST/T - Back-up Rings - Metric



| Standard Material | Temperature Range |
|-------------------|---------------------------------------|
| Nylon /N | -40°F to +250°F (-40°C to +121°C) |
| BR.PTFE /T | -100°F to +500°F (-73°C to +260°C) |



This series of **Back-up Rings** are used in conjunction with U-Cup type rod seals as anti-extrusion devices. Available in either solid (SD) or split-ring design (ST), they allow for increased pressures and shock loads in heavy-duty service.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Nominal Seal Dimensions | | |
|---------------|-------------------------|-------|------|
| | d | D | H |
| BU008018020 | 8.00 | 18.00 | 2.00 |
| BU010020020 | 10.00 | 20.00 | 2.00 |
| BU012020020 | 12.50 | 20.50 | 2.00 |
| BU014024020 | 14.00 | 24.00 | 2.00 |
| BU015023020 | 15.00 | 23.00 | 2.00 |
| BU015028020 | 15.00 | 28.00 | 2.00 |
| BU016024020 | 16.00 | 24.00 | 2.00 |
| BU016026020 | 16.00 | 26.00 | 2.00 |
| BU018026020 | 18.00 | 26.00 | 2.00 |
| BU018031020 | 18.00 | 31.00 | 2.00 |
| BU020025020 | 20.00 | 25.00 | 2.00 |
| BU020028020 | 20.00 | 28.00 | 2.00 |
| BU020030020 | 20.00 | 30.00 | 2.00 |
| BU020033020 | 20.00 | 33.00 | 2.00 |
| BU022030020 | 22.00 | 30.00 | 2.00 |
| BU022030020-1 | 22.40 | 30.00 | 2.00 |
| BU022033020 | 22.00 | 33.00 | 2.00 |
| BU022033020-1 | 22.40 | 33.00 | 2.00 |
| BU022035020 | 22.00 | 35.00 | 2.00 |
| BU023031020 | 23.50 | 31.50 | 2.00 |
| BU024032020 | 24.00 | 32.00 | 2.00 |
| BU025033020 | 25.00 | 33.00 | 2.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|---------------|-------------------------|-------|------|
| | d | D | H |
| BU025033030 | 25.00 | 33.00 | 3.00 |
| BU025035020-1 | 25.50 | 35.50 | 2.00 |
| BU025035020 | 25.00 | 35.00 | 2.00 |
| BU025035030 | 25.00 | 35.00 | 3.00 |
| BU025038020 | 25.00 | 38.00 | 2.00 |
| BU027040030 | 27.00 | 40.00 | 3.00 |
| BU028035030 | 28.00 | 35.50 | 3.00 |
| BU028036030 | 28.00 | 36.00 | 3.00 |
| BU028040030 | 28.00 | 40.00 | 3.00 |
| BU028041030 | 28.00 | 41.00 | 3.00 |
| BU030040020 | 30.00 | 40.00 | 2.00 |
| BU030040030 | 30.00 | 40.00 | 3.00 |
| BU030045030 | 30.00 | 45.00 | 3.00 |
| BU031041030 | 31.50 | 41.50 | 3.00 |
| BU031044030 | 31.50 | 44.50 | 3.00 |
| BU032038020 | 32.00 | 38.00 | 2.00 |
| BU032038030 | 32.00 | 38.00 | 3.00 |
| BU032042030 | 32.00 | 42.00 | 3.00 |
| BU032048030 | 32.00 | 48.00 | 3.00 |
| BU034050030 | 34.00 | 50.00 | 3.00 |
| BU035045020 | 35.00 | 45.00 | 2.00 |
| BU035045030 | 35.00 | 45.00 | 3.00 |

SD/N, ST/N, SD/T, ST/T - NYLON & BR.PTFE



| Ref.Number | Nominal Seal Dimensions | | |
|---------------|-------------------------|-------|------|
| | d | D | H |
| BU035045030-1 | 35.50 | 45.00 | 3.00 |
| BU035050030 | 35.00 | 50.00 | 3.00 |
| BU035051030 | 35.50 | 51.50 | 3.00 |
| BU036046030 | 36.00 | 46.00 | 3.00 |
| BU040050020 | 40.00 | 50.00 | 2.00 |
| BU040050030 | 40.00 | 50.00 | 3.00 |
| BU040055030 | 40.00 | 55.00 | 3.00 |
| BU040056030 | 40.00 | 56.00 | 3.00 |
| BU045055020 | 45.00 | 55.00 | 2.00 |
| BU045055030 | 45.00 | 55.00 | 3.00 |
| BU045056030 | 45.00 | 56.00 | 3.00 |
| BU045060030 | 45.00 | 60.00 | 3.00 |
| BU047061030 | 47.00 | 61.00 | 3.00 |
| BU047063030 | 47.00 | 63.00 | 3.00 |
| BU048063030 | 48.00 | 63.00 | 3.00 |
| BU050060020 | 50.00 | 60.00 | 2.00 |
| BU050060030 | 50.00 | 60.00 | 3.00 |
| BU050063030 | 50.00 | 63.00 | 3.00 |
| BU050065030 | 50.00 | 65.00 | 3.00 |
| BU050070030 | 50.00 | 70.00 | 3.00 |
| BU053063030 | 53.00 | 63.00 | 3.00 |
| BU054060030 | 54.00 | 60.00 | 3.00 |
| BU055065030 | 55.00 | 65.00 | 3.00 |
| BU055068030 | 55.00 | 68.00 | 3.00 |
| BU055070030 | 55.00 | 70.00 | 3.00 |
| BU055071030 | 55.00 | 71.00 | 3.00 |
| BU055075030 | 55.00 | 75.00 | 3.00 |
| BU056066030 | 56.00 | 66.00 | 3.00 |
| BU060070030 | 60.00 | 70.00 | 3.00 |
| BU060071030 | 60.00 | 71.00 | 3.00 |
| BU060073030 | 60.00 | 73.00 | 3.00 |
| BU060075030 | 60.00 | 75.00 | 3.00 |
| BU060076030 | 60.00 | 76.00 | 3.00 |
| BU060080030 | 60.00 | 80.00 | 3.00 |
| BU061071030 | 61.00 | 71.00 | 3.00 |
| BU063073030 | 63.00 | 73.00 | 3.00 |
| BU064080030 | 64.00 | 80.00 | 3.00 |
| BU065075030 | 65.00 | 75.00 | 3.00 |
| BU065078030 | 65.00 | 78.00 | 3.00 |
| BU065080030 | 65.00 | 80.00 | 3.00 |
| BU065085030 | 65.00 | 85.00 | 3.00 |
| BU067077030 | 67.00 | 77.00 | 3.00 |
| BU070080030 | 70.00 | 80.00 | 3.00 |
| BU070083030 | 70.00 | 83.00 | 3.00 |
| BU070085030 | 70.00 | 85.00 | 3.00 |
| BU070090030 | 70.00 | 90.00 | 3.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|--------|------|
| | d | D | H |
| BU071080030 | 71.00 | 80.00 | 3.00 |
| BU071081030 | 71.00 | 81.00 | 3.00 |
| BU075085030 | 75.00 | 85.00 | 3.00 |
| BU075088030 | 75.00 | 88.00 | 3.00 |
| BU075090030 | 75.00 | 90.00 | 3.00 |
| BU075095030 | 75.00 | 95.00 | 3.00 |
| BU080090030 | 80.00 | 90.00 | 3.00 |
| BU080093030 | 80.00 | 93.00 | 3.00 |
| BU080095030 | 80.00 | 95.00 | 3.00 |
| BU080100030 | 80.00 | 100.00 | 3.00 |
| BU085100020 | 85.00 | 100.00 | 2.00 |
| BU085100030 | 85.00 | 100.00 | 3.00 |
| BU085105030 | 85.00 | 105.00 | 3.00 |
| BU090105030 | 90.00 | 105.00 | 3.00 |
| BU090110030 | 90.00 | 110.00 | 3.00 |
| BU095105030 | 95.00 | 105.00 | 3.00 |
| BU095105035 | 95.00 | 105.00 | 3.50 |
| BU095110030 | 95.00 | 110.00 | 3.00 |
| BU095110035 | 95.00 | 110.00 | 3.50 |
| BU095115030 | 95.00 | 115.00 | 3.00 |
| BU100115030 | 100.00 | 115.00 | 3.00 |
| BU100120030 | 100.00 | 120.00 | 3.00 |
| BU100125030 | 100.00 | 125.00 | 3.00 |
| BU105120030 | 105.00 | 120.00 | 3.00 |
| BU105125030 | 105.00 | 125.00 | 3.00 |
| BU106120030 | 106.00 | 120.00 | 3.00 |
| BU106123030 | 106.00 | 123.00 | 3.00 |
| BU110125030 | 110.00 | 125.00 | 3.00 |
| BU110130030 | 110.00 | 130.00 | 3.00 |
| BU112125030 | 112.00 | 125.00 | 3.00 |
| BU112132030 | 112.00 | 132.00 | 3.00 |
| BU115130030 | 115.00 | 130.00 | 3.00 |
| BU115135030 | 115.00 | 135.00 | 3.00 |
| BU120135030 | 120.00 | 135.00 | 3.00 |
| BU120140030 | 120.00 | 140.00 | 3.00 |
| BU125140030 | 125.00 | 140.00 | 3.00 |
| BU125150030 | 125.00 | 150.00 | 3.00 |
| BU130145030 | 130.00 | 145.00 | 3.00 |
| BU130150030 | 130.00 | 150.00 | 3.00 |
| BU135150030 | 135.00 | 150.00 | 3.00 |
| BU135160030 | 135.00 | 160.00 | 3.00 |
| BU136150030 | 136.00 | 150.00 | 3.00 |
| BU140155030 | 140.00 | 155.00 | 3.00 |
| BU140160030 | 140.00 | 160.00 | 3.00 |
| BU140165030 | 140.00 | 165.00 | 3.00 |
| BU145160030 | 145.00 | 160.00 | 3.00 |

SD/N, ST/N, SD/T, ST/T - NYLON & BR.PTFE

ROD SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|--------|------|
| | d | D | H |
| BU145165030 | 145.00 | 165.00 | 3.00 |
| BU145170030 | 145.00 | 170.00 | 3.00 |
| BU150165030 | 150.00 | 165.00 | 3.00 |
| BU155170040 | 155.00 | 170.00 | 4.00 |
| BU155180040 | 155.00 | 180.00 | 4.00 |
| BU160175040 | 160.00 | 175.00 | 4.00 |
| BU160180040 | 160.00 | 180.00 | 4.00 |
| BU160185040 | 160.00 | 185.00 | 4.00 |
| BU165180040 | 165.00 | 180.00 | 4.00 |
| BU170180040 | 170.00 | 180.00 | 4.00 |
| BU170190040 | 170.00 | 190.00 | 4.00 |
| BU170200040 | 170.00 | 200.00 | 4.00 |
| BU175190040 | 175.00 | 190.00 | 4.00 |
| BU175200040 | 175.00 | 200.00 | 4.00 |
| BU180200040 | 180.00 | 200.00 | 4.00 |
| BU180205040 | 180.00 | 205.00 | 4.00 |
| BU190200040 | 190.00 | 200.00 | 4.00 |
| BU190210040 | 190.00 | 210.00 | 4.00 |
| BU200220040 | 200.00 | 220.00 | 4.00 |
| BU200225040 | 200.00 | 225.00 | 4.00 |
| BU204224040 | 204.00 | 224.00 | 4.00 |
| BU205220040 | 205.00 | 220.00 | 4.00 |

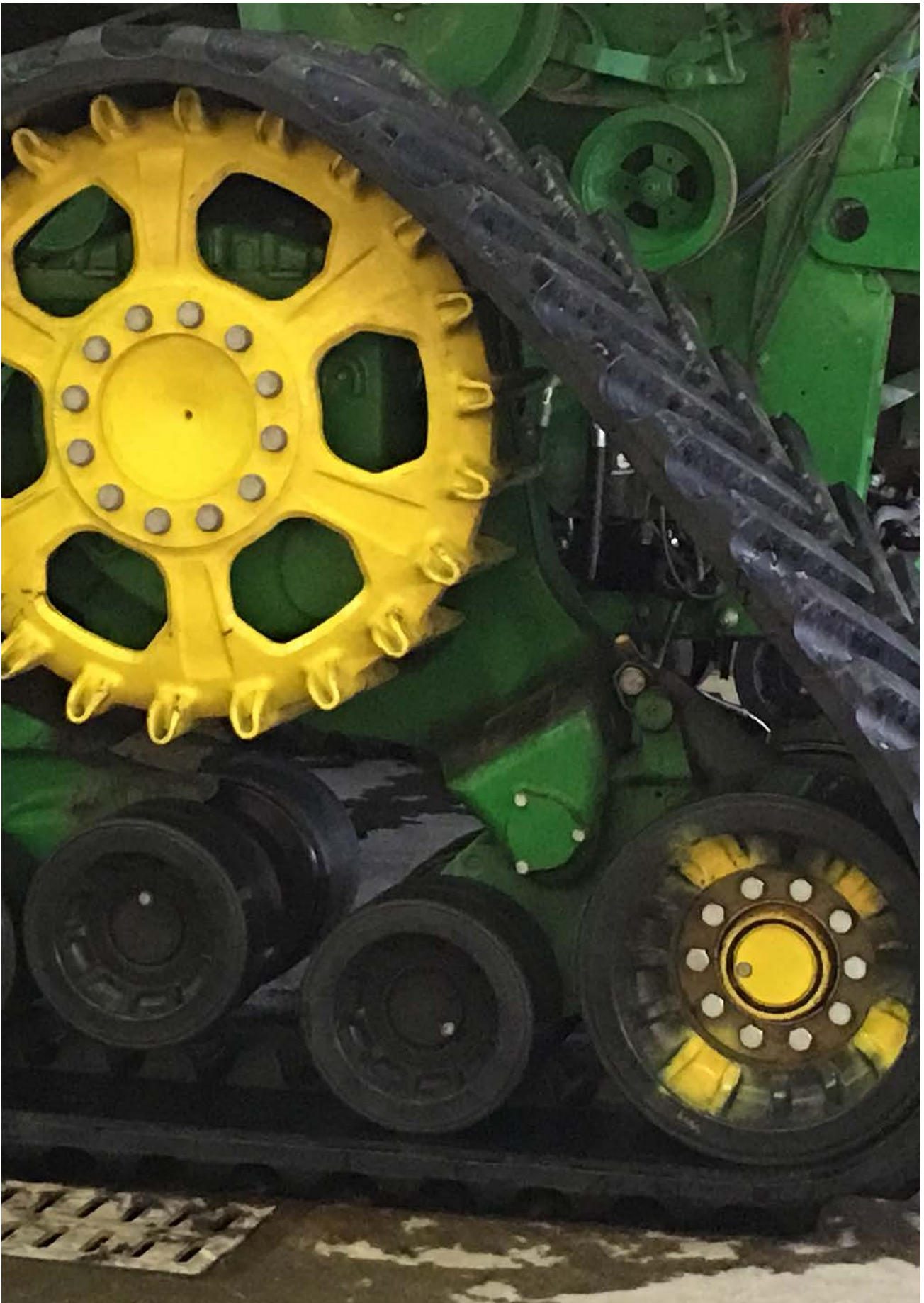
| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|--------|------|
| | d | D | H |
| BU205225040 | 205.00 | 225.00 | 4.00 |
| BU210230040 | 210.00 | 230.00 | 4.00 |
| BU220240040 | 220.00 | 240.00 | 4.00 |
| BU225245040 | 225.00 | 245.00 | 4.00 |
| BU225250040 | 225.00 | 250.00 | 4.00 |
| BU230250040 | 230.00 | 250.00 | 4.00 |
| BU240260040 | 240.00 | 260.00 | 4.00 |
| BU250270040 | 250.00 | 270.00 | 4.00 |
| BU250275040 | 250.00 | 275.00 | 4.00 |
| BU255280040 | 255.00 | 280.00 | 4.00 |
| BU260285040 | 260.00 | 285.00 | 4.00 |
| BU265290040 | 265.00 | 290.00 | 4.00 |
| BU265297040 | 265.00 | 297.00 | 4.00 |
| BU270295040 | 270.00 | 295.00 | 4.00 |
| BU270300040 | 270.00 | 300.00 | 4.00 |
| BU275300040 | 275.00 | 300.00 | 4.00 |
| BU280305040 | 280.00 | 305.00 | 4.00 |
| BU280312040 | 280.00 | 312.00 | 4.00 |
| BU290315040 | 290.00 | 315.00 | 4.00 |
| BU300325040 | 300.00 | 325.00 | 4.00 |
| BU300332040 | 300.00 | 332.00 | 4.00 |

OTHER PROFILES ARE ALSO AVAILABLE ON REQUEST

Though this product offering contains a wide selection of commonly used parts in the marketplace, it is possible that you haven't found the exact part you were looking for.

We have many other seal profiles available on request, please do not hesitate to contact us and we will do our best to help you locate the required part.



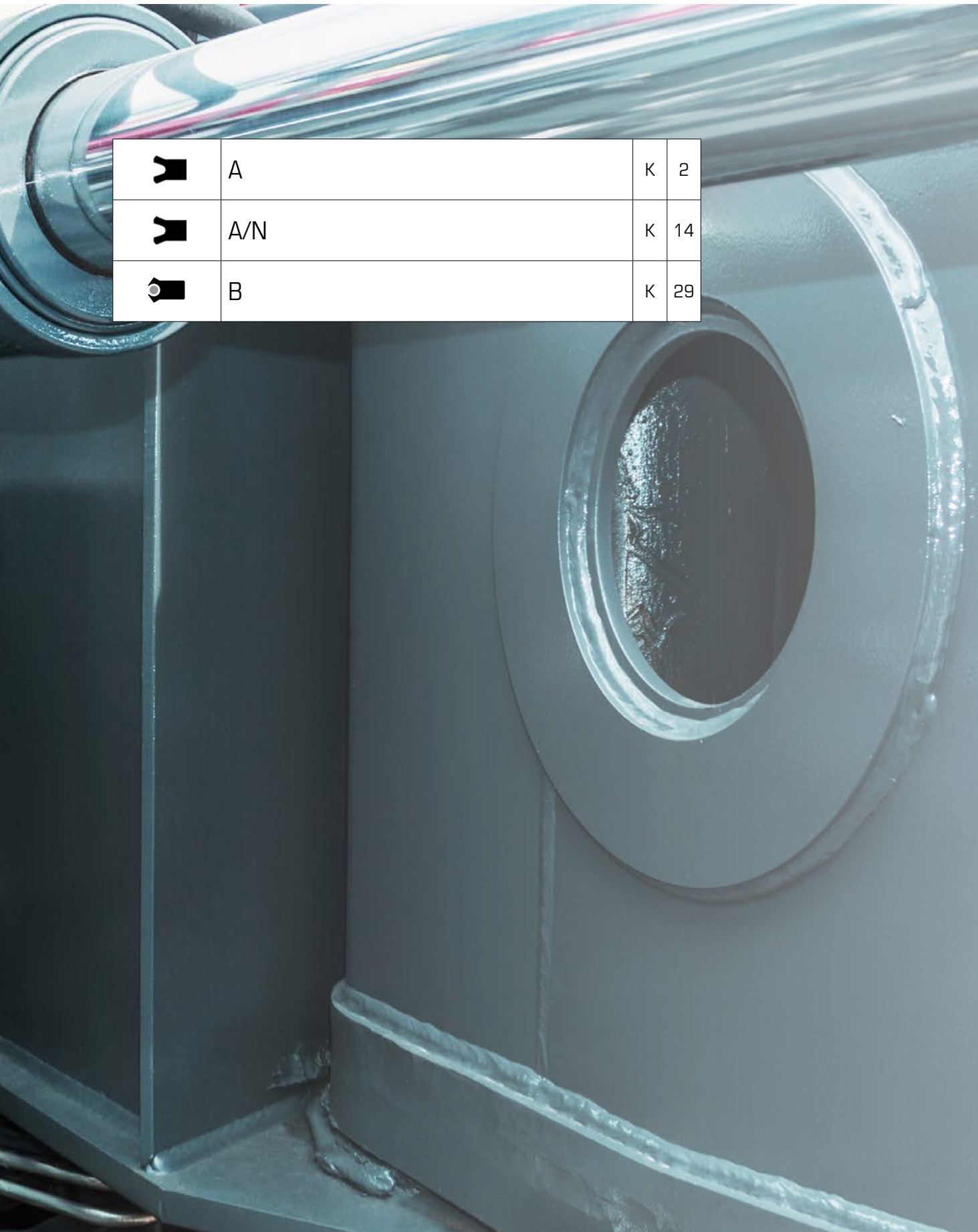



ROD SEALS



ROD SEALS



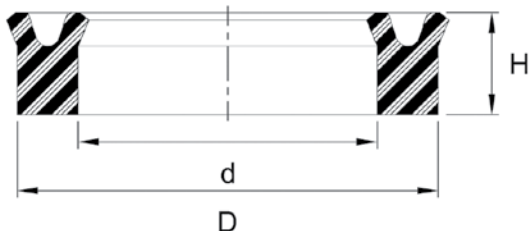


| | | | |
|---|-----|---|----|
|  | A | K | 2 |
|  | A/N | K | 14 |
|  | B | K | 29 |

SYMMETRICAL SEALS



A - Symmetrical seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|----------------------|
| Polyurethane | -40°F to +212°F (-40°C to +100°C) | ≤5800 psi (≤400 bar) | < 1.6 ft/s (0.5 m/s) |

A-Style rod/piston type U-Cups are symmetrical in design and can thus be used for either piston or rod applications. These seals are suitable for both solid and split housings, though heavier cross-sections may require the use of an installation tool.

Made out of robust polyurethane material, these seals are well suited for demanding applications, especially in mobile hydraulics.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | H |
| RP003009045A | 3.00 | 9.00 | 4.50 |
| RP003010050A | 3.00 | 10.00 | 5.00 |
| RP003010060A | 3.00 | 10.00 | 6.00 |
| RP004010040A | 4.00 | 10.00 | 4.00 |
| RP004010045A | 4.00 | 10.00 | 4.50 |
| RP004010050A | 4.00 | 10.00 | 5.00 |
| RP004012055A | 4.00 | 12.00 | 5.50 |
| RP004012060A | 4.00 | 12.00 | 6.00 |
| RP004014060A | 4.00 | 14.00 | 6.00 |
| RP005010050A | 5.00 | 10.00 | 5.00 |
| RP005011050A | 5.00 | 11.00 | 5.00 |
| RP005012050A | 5.00 | 12.00 | 5.00 |
| RP005012057A | 5.00 | 12.00 | 5.70 |
| RP005012060A | 5.00 | 12.00 | 6.00 |
| RP005012062A | 5.00 | 12.00 | 6.20 |
| RP005012080A | 5.00 | 12.00 | 8.00 |
| RP005013060A | 5.00 | 13.00 | 6.00 |
| RP005014045A | 5.00 | 14.00 | 4.50 |
| RP005014060A | 5.00 | 14.00 | 6.00 |
| RP005017090A | 5.00 | 17.00 | 9.00 |
| RP006010030A | 6.00 | 10.00 | 3.00 |
| RP006012040A | 6.00 | 12.00 | 4.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | H |
| RP006012045A | 6.00 | 12.00 | 4.50 |
| RP006012050A | 6.00 | 12.00 | 5.00 |
| RP006012057A | 6.00 | 12.00 | 5.70 |
| RP006012060A | 6.00 | 12.00 | 6.00 |
| RP006012065A | 6.00 | 12.00 | 6.50 |
| RP006012080A | 6.00 | 12.00 | 8.00 |
| RP006013080A | 6.00 | 13.00 | 8.00 |
| RP006014057A | 6.00 | 14.00 | 5.70 |
| RP006014060A | 6.00 | 14.00 | 6.00 |
| RP006015040A | 6.00 | 15.00 | 4.00 |
| RP006015050A | 6.00 | 15.00 | 5.00 |
| RP006015080A | 6.00 | 15.00 | 8.00 |
| RP006015090A | 6.00 | 15.00 | 9.00 |
| RP006022060A | 6.00 | 22.00 | 6.00 |
| RP007014035A | 7.00 | 14.00 | 3.50 |
| RP007014040A | 7.00 | 14.00 | 4.00 |
| RP007015050A | 7.00 | 15.00 | 5.00 |
| RP007015070A | 7.00 | 15.00 | 7.00 |
| RP007015080A | 7.00 | 15.00 | 8.00 |
| RP008012024A | 8.00 | 12.00 | 2.40 |
| RP008014040A | 8.00 | 14.00 | 4.00 |
| RP008014050A | 8.00 | 14.00 | 5.00 |

A series - AU 93A



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | H |
| RP008014060A | 8.00 | 14.00 | 6.00 |
| RP008014070A | 8.00 | 14.00 | 7.00 |
| RP008015040A | 8.00 | 15.00 | 4.00 |
| RP008015057A | 8.00 | 15.00 | 5.70 |
| RP008015060A | 8.00 | 15.00 | 6.00 |
| RP008015070A | 8.00 | 15.00 | 7.00 |
| RP008015080A | 8.00 | 15.00 | 8.00 |
| RP008015090A | 8.00 | 15.00 | 9.00 |
| RP008016057A | 8.00 | 16.00 | 5.70 |
| RP008016060A | 8.00 | 16.00 | 6.00 |
| RP008016080A | 8.00 | 16.00 | 8.00 |
| RP008018060A | 8.00 | 18.00 | 6.00 |
| RP008018080A | 8.00 | 18.00 | 8.00 |
| RP008018090A | 8.00 | 18.00 | 9.00 |
| RP008022070A | 8.00 | 22.00 | 7.00 |
| RP008022080A | 8.00 | 22.00 | 8.00 |
| RP008022090A | 8.00 | 22.00 | 9.00 |
| RP009015080A | 9.00 | 15.00 | 8.00 |
| RP009017060A | 9.00 | 17.00 | 6.00 |
| RP009018050A | 9.00 | 18.00 | 5.00 |
| RP009019060A | 9.00 | 19.00 | 6.00 |
| RP009019070A | 9.00 | 19.00 | 7.00 |
| RP009019080A | 9.00 | 19.00 | 8.00 |
| RP010015040A | 10.00 | 15.00 | 4.00 |
| RP010016040A | 10.00 | 16.00 | 4.00 |
| RP010016050A | 10.00 | 16.00 | 5.00 |
| RP010016057A | 10.00 | 16.00 | 5.70 |
| RP010016060A | 10.00 | 16.00 | 6.00 |
| RP010016065A | 10.00 | 16.00 | 6.50 |
| RP010018050A | 10.00 | 18.00 | 5.00 |
| RP010018055A | 10.00 | 18.00 | 5.50 |
| RP010018057A | 10.00 | 18.00 | 5.70 |
| RP010018060A | 10.00 | 18.00 | 6.00 |
| RP010018070A | 10.00 | 18.00 | 7.00 |
| RP010018080A | 10.00 | 18.00 | 8.00 |
| RP010018090A | 10.00 | 18.00 | 9.00 |
| RP010020050A | 10.00 | 20.00 | 5.00 |
| RP010020060A | 10.00 | 20.00 | 6.00 |
| RP010020070A | 10.00 | 20.00 | 7.00 |
| RP010020080A | 10.00 | 20.00 | 8.00 |
| RP010020090A | 10.00 | 20.00 | 9.00 |
| RP010022060A | 10.00 | 22.00 | 6.00 |
| RP010022070A | 10.00 | 22.00 | 7.00 |
| RP010022080A | 10.00 | 22.00 | 8.00 |
| RP010022090A | 10.00 | 22.00 | 9.00 |
| RP010025080A | 10.00 | 25.00 | 8.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | H |
| RP010032100A | 10.00 | 32.00 | 10.00 |
| RP011017044A | 11.00 | 17.00 | 4.40 |
| RP011022080A | 11.00 | 22.00 | 8.00 |
| RP011026080A | 11.00 | 26.00 | 8.00 |
| RP012018040A | 12.00 | 18.00 | 4.00 |
| RP012018045A | 12.00 | 18.00 | 4.50 |
| RP012018048A | 12.00 | 18.00 | 4.80 |
| RP012018050A | 12.00 | 18.00 | 5.00 |
| RP012018060A | 12.00 | 18.00 | 6.00 |
| RP012018070A | 12.00 | 18.00 | 7.00 |
| RP012019050A | 12.00 | 19.00 | 5.00 |
| RP012020050A | 12.00 | 20.00 | 5.00 |
| RP012020055A | 12.00 | 20.00 | 5.50 |
| RP012020057A | 12.00 | 20.00 | 5.70 |
| RP012020058A | 12.00 | 20.00 | 5.80 |
| RP012020070A | 12.00 | 20.00 | 7.00 |
| RP012020080A | 12.00 | 20.00 | 8.00 |
| RP012020090A | 12.00 | 20.00 | 9.00 |
| RP012022050A | 12.00 | 22.00 | 5.00 |
| RP012022060A | 12.00 | 22.00 | 6.00 |
| RP012022070A | 12.00 | 22.00 | 7.00 |
| RP012022080A | 12.00 | 22.00 | 8.00 |
| RP012022090A | 12.00 | 22.00 | 9.00 |
| RP012024060A | 12.00 | 24.00 | 6.00 |
| RP012024080A | 12.00 | 24.00 | 8.00 |
| RP012024090A | 12.00 | 24.00 | 9.00 |
| RP012024100A | 12.00 | 24.00 | 10.00 |
| RP012025080A | 12.00 | 25.00 | 8.00 |
| RP012025090A | 12.00 | 25.00 | 9.00 |
| RP012025100A | 12.00 | 25.00 | 10.00 |
| RP012027075A | 12.00 | 27.00 | 7.50 |
| RP012028080A | 12.00 | 28.00 | 8.00 |
| RP013020045A | 13.00 | 20.00 | 4.50 |
| RP013020060A | 13.00 | 20.00 | 6.00 |
| RP013025080A | 13.00 | 25.00 | 8.00 |
| RP013025100A | 13.00 | 25.00 | 10.00 |
| RP013030090A | 13.00 | 30.00 | 9.00 |
| RP014020040A | 14.00 | 20.00 | 4.00 |
| RP014020048A | 14.00 | 20.00 | 4.80 |
| RP014020050A | 14.00 | 20.00 | 5.00 |
| RP014020060A | 14.00 | 20.00 | 6.00 |
| RP014021050A | 14.00 | 21.00 | 5.00 |
| RP014022039A | 14.00 | 22.00 | 3.90 |
| RP014022045A | 14.00 | 22.00 | 4.50 |
| RP014022050A | 14.00 | 22.00 | 5.00 |
| RP014022055A | 14.00 | 22.00 | 5.50 |

A series - AU 93A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | H |
| RP014022057A | 14.00 | 22.00 | 5.70 |
| RP014022060A | 14.00 | 22.00 | 6.00 |
| RP014022070A | 14.00 | 22.00 | 7.00 |
| RP014022080A | 14.00 | 22.00 | 8.00 |
| RP014022090A | 14.00 | 22.00 | 9.00 |
| RP014022110A | 14.00 | 22.00 | 11.00 |
| RP014024060A | 14.00 | 24.00 | 6.00 |
| RP014024080A | 14.00 | 24.00 | 8.00 |
| RP014024090A | 14.00 | 24.00 | 9.00 |
| RP014026080A | 14.00 | 26.00 | 8.00 |
| RP014028070A | 14.00 | 28.00 | 7.00 |
| RP014028100A | 14.00 | 28.00 | 10.00 |
| RP015020030A | 15.00 | 20.00 | 3.00 |
| RP015022040A | 15.00 | 22.00 | 4.00 |
| RP015022070A | 15.00 | 22.00 | 7.00 |
| RP015025050A | 15.00 | 25.00 | 5.00 |
| RP015025060A | 15.00 | 25.00 | 6.00 |
| RP015025080A | 15.00 | 25.00 | 8.00 |
| RP015025090A | 15.00 | 25.00 | 9.00 |
| RP015025100A | 15.00 | 25.00 | 10.00 |
| RP015027060A | 15.00 | 27.00 | 6.00 |
| RP015027070A | 15.00 | 27.00 | 7.00 |
| RP015028080A | 15.00 | 28.00 | 8.00 |
| RP015028100A | 15.00 | 28.00 | 10.00 |
| RP015030060A | 15.00 | 30.00 | 6.00 |
| RP015030080A | 15.00 | 30.00 | 8.00 |
| RP016022040A | 16.00 | 22.00 | 4.00 |
| RP016022050A | 16.00 | 22.00 | 5.00 |
| RP016024040A | 16.00 | 24.00 | 4.00 |
| RP016024050A | 16.00 | 24.00 | 5.00 |
| RP016024057A | 16.00 | 24.00 | 5.70 |
| RP016024060A | 16.00 | 24.00 | 6.00 |
| RP016024090A | 16.00 | 24.00 | 9.00 |
| RP016024100A | 16.00 | 24.00 | 10.00 |
| RP016025050A | 16.00 | 25.00 | 5.00 |
| RP016026050A | 16.00 | 26.00 | 5.00 |
| RP016026080A | 16.00 | 26.00 | 8.00 |
| RP016026090A | 16.00 | 26.00 | 9.00 |
| RP016026100A | 16.00 | 26.00 | 10.00 |
| RP016028060A | 16.00 | 28.00 | 6.00 |
| RP016028070A | 16.00 | 28.00 | 7.00 |
| RP016032080A | 16.00 | 32.00 | 8.00 |
| RP016032090A | 16.00 | 32.00 | 9.00 |
| RP016035090A | 16.00 | 35.00 | 9.00 |
| RP017025080A | 17.00 | 25.00 | 8.00 |
| RP017025100A | 17.00 | 25.00 | 10.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | H |
| RP017032070A | 17.00 | 32.00 | 7.00 |
| RP017032100A | 17.00 | 32.00 | 10.00 |
| RP017035060A | 17.00 | 35.00 | 6.00 |
| RP017035100A | 17.00 | 35.00 | 10.00 |
| RP018025050A | 18.00 | 25.00 | 5.00 |
| RP018025060A | 18.00 | 25.00 | 6.00 |
| RP018026050A | 18.00 | 26.00 | 5.00 |
| RP018026057A | 18.00 | 26.00 | 5.70 |
| RP018026060A | 18.00 | 26.00 | 6.00 |
| RP018026065A | 18.00 | 26.00 | 6.50 |
| RP018026080A | 18.00 | 26.00 | 8.00 |
| RP018026085A | 18.00 | 26.00 | 8.50 |
| RP018028058A | 18.00 | 28.00 | 5.80 |
| RP018028070A | 18.00 | 28.00 | 7.00 |
| RP018028080A | 18.00 | 28.00 | 8.00 |
| RP018028100A | 18.00 | 28.00 | 10.00 |
| RP018030075A | 18.00 | 30.00 | 7.50 |
| RP018030080A | 18.00 | 30.00 | 8.00 |
| RP018030085A | 18.00 | 30.00 | 8.50 |
| RP018030090A | 18.00 | 30.00 | 9.00 |
| RP018030100A | 18.00 | 30.00 | 10.00 |
| RP018032070A | 18.00 | 32.00 | 7.00 |
| RP018034080A | 18.00 | 34.00 | 8.00 |
| RP018035080A | 18.00 | 35.00 | 8.00 |
| RP018035100A | 18.00 | 35.00 | 10.00 |
| RP018036080A | 18.00 | 36.00 | 8.00 |
| RP018040110A | 18.00 | 40.00 | 11.00 |
| RP019025060A | 19.00 | 25.00 | 6.00 |
| RP019037100A | 19.00 | 37.00 | 10.00 |
| RP020025030A | 20.00 | 25.00 | 3.00 |
| RP020025037A | 20.00 | 25.00 | 3.70 |
| RP020026040A | 20.00 | 26.00 | 4.00 |
| RP020026050A | 20.00 | 26.00 | 5.00 |
| RP020026052A | 20.00 | 26.00 | 5.20 |
| RP020027050A | 20.00 | 27.00 | 5.00 |
| RP020027057A | 20.00 | 27.00 | 5.70 |
| RP020027060A | 20.00 | 27.00 | 6.00 |
| RP020028040A | 20.00 | 28.00 | 4.00 |
| RP020028050A | 20.00 | 28.00 | 5.00 |
| RP020028057A | 20.00 | 28.00 | 5.70 |
| RP020028060A | 20.00 | 28.00 | 6.00 |
| RP020028070A | 20.00 | 28.00 | 7.00 |
| RP020028080A | 20.00 | 28.00 | 8.00 |
| RP020028090A | 20.00 | 28.00 | 9.00 |
| RP020029050A | 20.00 | 29.00 | 5.00 |
| RP020030060A | 20.00 | 30.00 | 6.00 |

A series - AU 93



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | H |
| RP020030070A | 20.00 | 30.00 | 7.00 |
| RP020030072A | 20.00 | 30.00 | 7.20 |
| RP020030075A | 20.00 | 30.00 | 7.50 |
| RP020030080A | 20.00 | 30.00 | 8.00 |
| RP020030090A | 20.00 | 30.00 | 9.00 |
| RP020030100A | 20.00 | 30.00 | 10.00 |
| RP020032050A | 20.00 | 32.00 | 5.00 |
| RP020032060A | 20.00 | 32.00 | 6.00 |
| RP020032075A | 20.00 | 32.00 | 7.50 |
| RP020032080A | 20.00 | 32.00 | 8.00 |
| RP020033080A | 20.00 | 33.00 | 8.00 |
| RP020035100A | 20.00 | 35.00 | 10.00 |
| RP020035120A | 20.00 | 35.00 | 12.00 |
| RP020036080A | 20.00 | 36.00 | 8.00 |
| RP020036120A | 20.00 | 36.00 | 12.00 |
| RP020037120A | 20.00 | 37.00 | 12.00 |
| RP020038090A | 20.00 | 38.00 | 9.00 |
| RP020039100A | 20.00 | 39.00 | 10.00 |
| RP020040100A | 20.00 | 40.00 | 10.00 |
| RP020040110A | 20.00 | 40.00 | 11.00 |
| RP020040120A | 20.00 | 40.00 | 12.00 |
| RP021027045A | 21.00 | 27.00 | 4.50 |
| RP021037100A | 21.00 | 37.00 | 10.00 |
| RP021037120A | 21.00 | 37.00 | 12.00 |
| RP022028040A | 22.00 | 28.00 | 4.00 |
| RP022028045A | 22.00 | 28.00 | 4.50 |
| RP022028055A | 22.00 | 28.00 | 5.50 |
| RP022028080A | 22.00 | 28.00 | 8.00 |
| RP022028090A | 22.00 | 28.00 | 9.00 |
| RP022029050A | 22.00 | 29.00 | 5.00 |
| RP022030040A | 22.00 | 30.00 | 4.00 |
| RP022030050A | 22.00 | 30.00 | 5.00 |
| RP022030057A | 22.00 | 30.00 | 5.70 |
| RP022030060A | 22.00 | 30.00 | 6.00 |
| RP022030070A | 22.00 | 30.00 | 7.00 |
| RP022030100A | 22.00 | 30.00 | 10.00 |
| RP022032050A | 22.00 | 32.00 | 5.00 |
| RP022032070A | 22.00 | 32.00 | 7.00 |
| RP022032080A | 22.00 | 32.00 | 8.00 |
| RP022032090A | 22.00 | 32.00 | 9.00 |
| RP022032100A | 22.00 | 32.00 | 10.00 |
| RP022034060A | 22.00 | 34.00 | 6.00 |
| RP022035050A | 22.00 | 35.00 | 5.00 |
| RP022035080A | 22.00 | 35.00 | 8.00 |
| RP022035100A | 22.00 | 35.00 | 10.00 |
| RP022036080A | 22.00 | 36.00 | 8.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | H |
| RP022040100A | 22.00 | 40.00 | 10.00 |
| RP023030065A | 23.00 | 30.00 | 6.50 |
| RP024030045A | 24.00 | 30.00 | 4.50 |
| RP024030080A | 24.00 | 30.00 | 8.00 |
| RP024032060A | 24.00 | 32.00 | 6.00 |
| RP024032070A | 24.00 | 32.00 | 7.00 |
| RP024032080A | 24.00 | 32.00 | 8.00 |
| RP024034057A | 24.00 | 34.00 | 5.70 |
| RP024034100A | 24.00 | 34.00 | 10.00 |
| RP024040080A | 24.00 | 40.00 | 8.00 |
| RP024040090A | 24.00 | 40.00 | 9.00 |
| RP025030080A | 25.00 | 30.00 | 8.00 |
| RP025032040A | 25.00 | 32.00 | 4.00 |
| RP025032045A | 25.00 | 32.00 | 4.50 |
| RP025032100A | 25.00 | 32.00 | 10.00 |
| RP025033040A | 25.00 | 33.00 | 4.00 |
| RP025033045A | 25.00 | 33.00 | 4.50 |
| RP025033050A | 25.00 | 33.00 | 5.00 |
| RP025033057A | 25.00 | 33.00 | 5.70 |
| RP025033060A | 25.00 | 33.00 | 6.00 |
| RP025033070A | 25.00 | 33.00 | 7.00 |
| RP025033080A | 25.00 | 33.00 | 8.00 |
| RP025035050A | 25.00 | 35.00 | 5.00 |
| RP025035060A | 25.00 | 35.00 | 6.00 |
| RP025035070A | 25.00 | 35.00 | 7.00 |
| RP025035075A | 25.00 | 35.00 | 7.50 |
| RP025035080A | 25.00 | 35.00 | 8.00 |
| RP025035090A | 25.00 | 35.00 | 9.00 |
| RP025035100A | 25.00 | 35.00 | 10.00 |
| RP025036050A | 25.00 | 36.00 | 5.00 |
| RP025037070A | 25.00 | 37.00 | 7.00 |
| RP025037090A | 25.00 | 37.00 | 9.00 |
| RP025038095A | 25.00 | 38.00 | 9.50 |
| RP025038100A | 25.00 | 38.00 | 10.00 |
| RP025039070A | 25.00 | 39.00 | 7.00 |
| RP025040080A | 25.00 | 40.00 | 8.00 |
| RP025040100A | 25.00 | 40.00 | 10.00 |
| RP025045100A | 25.00 | 45.00 | 10.00 |
| RP026035050A | 26.00 | 35.00 | 5.00 |
| RP026036070A | 26.00 | 36.00 | 7.00 |
| RP026038080A | 26.00 | 38.00 | 8.00 |
| RP026047120A | 26.00 | 47.00 | 12.00 |
| RP027035040A | 27.00 | 35.00 | 4.00 |
| RP027036060A | 27.00 | 36.00 | 6.00 |
| RP027038060A | 27.00 | 38.00 | 6.00 |
| RP028035050A | 28.00 | 35.00 | 5.00 |

A series - AU 93A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | H |
| RP028036040A | 28.00 | 36.00 | 4.00 |
| RP028036050A | 28.00 | 36.00 | 5.00 |
| RP028036057A | 28.00 | 36.00 | 5.70 |
| RP028036058A | 28.00 | 36.00 | 5.80 |
| RP028036060A | 28.00 | 36.00 | 6.00 |
| RP028036065A | 28.00 | 36.00 | 6.50 |
| RP028036080A | 28.00 | 36.00 | 8.00 |
| RP028038070A | 28.00 | 38.00 | 7.00 |
| RP028038080A | 28.00 | 38.00 | 8.00 |
| RP028038090A | 28.00 | 38.00 | 9.00 |
| RP028038100A | 28.00 | 38.00 | 10.00 |
| RP028040080A | 28.00 | 40.00 | 8.00 |
| RP028040100A | 28.00 | 40.00 | 10.00 |
| RP028043100A | 28.00 | 43.00 | 10.00 |
| RP028044080A | 28.00 | 44.00 | 8.00 |
| RP028044100A | 28.00 | 44.00 | 10.00 |
| RP028046100A | 28.00 | 46.00 | 10.00 |
| RP028047100A | 28.00 | 47.00 | 10.00 |
| RP028048120A | 28.00 | 48.00 | 12.00 |
| RP030037058A | 30.00 | 37.00 | 5.80 |
| RP030037060A | 30.00 | 37.00 | 6.00 |
| RP030038050A | 30.00 | 38.00 | 5.00 |
| RP030038057A | 30.00 | 38.00 | 5.70 |
| RP030038058A | 30.00 | 38.00 | 5.80 |
| RP030038060A | 30.00 | 38.00 | 6.00 |
| RP030038065A | 30.00 | 38.00 | 6.50 |
| RP030038070A | 30.00 | 38.00 | 7.00 |
| RP030038080A | 30.00 | 38.00 | 8.00 |
| RP030040050A | 30.00 | 40.00 | 5.00 |
| RP030040055A | 30.00 | 40.00 | 5.50 |
| RP030040060A | 30.00 | 40.00 | 6.00 |
| RP030040065A | 30.00 | 40.00 | 6.50 |
| RP030040070A | 30.00 | 40.00 | 7.00 |
| RP030040075A | 30.00 | 40.00 | 7.50 |
| RP030040080A | 30.00 | 40.00 | 8.00 |
| RP030040100A | 30.00 | 40.00 | 10.00 |
| RP030042060A | 30.00 | 42.00 | 6.00 |
| RP030042090A | 30.00 | 42.00 | 9.00 |
| RP030042100A | 30.00 | 42.00 | 10.00 |
| RP030043065A | 30.00 | 43.00 | 6.50 |
| RP030045090A | 30.00 | 45.00 | 9.00 |
| RP030045100A | 30.00 | 45.00 | 10.00 |
| RP030050100A | 30.00 | 50.00 | 10.00 |
| RP030050120A | 30.00 | 50.00 | 12.00 |
| RP030052110A | 30.00 | 52.00 | 11.00 |
| RP031038070A | 31.00 | 38.00 | 7.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP032040040A | 32.00 | 40.00 | 4.00 |
| RP032040050A | 32.00 | 40.00 | 5.00 |
| RP032040057A | 32.00 | 40.00 | 5.70 |
| RP032040060A | 32.00 | 40.00 | 6.00 |
| RP032040070A | 32.00 | 40.00 | 7.00 |
| RP032040080A | 32.00 | 40.00 | 8.00 |
| RP032040100A | 32.00 | 40.00 | 10.00 |
| RP032042060A | 32.00 | 42.00 | 6.00 |
| RP032042070A | 32.00 | 42.00 | 7.00 |
| RP032042080A | 32.00 | 42.00 | 8.00 |
| RP032042100A | 32.00 | 42.00 | 10.00 |
| RP032045100A | 32.00 | 45.00 | 10.00 |
| RP032047100A | 32.00 | 47.00 | 10.00 |
| RP032050100A | 32.00 | 50.00 | 10.00 |
| RP032050120A | 32.00 | 50.00 | 12.00 |
| RP032052100A | 32.00 | 52.00 | 10.00 |
| RP033043100A | 33.00 | 43.00 | 10.00 |
| RP033046100A | 33.00 | 46.00 | 10.00 |
| RP034042080A | 34.00 | 42.00 | 8.00 |
| RP034045070A | 34.00 | 45.00 | 7.00 |
| RP034045080A | 34.00 | 45.00 | 8.00 |
| RP034045090A | 34.00 | 45.00 | 9.00 |
| RP034046080A | 34.00 | 46.00 | 8.00 |
| RP034074100A | 34.00 | 74.00 | 10.00 |
| RP035042080A | 35.00 | 42.00 | 8.00 |
| RP035043060A | 35.00 | 43.00 | 6.00 |
| RP035043070A | 35.00 | 43.00 | 7.00 |
| RP035043080A | 35.00 | 43.00 | 8.00 |
| RP035045060A | 35.00 | 45.00 | 6.00 |
| RP035045060A-1 | 35.50 | 45.00 | 6.00 |
| RP035045070A | 35.00 | 45.00 | 7.00 |
| RP035045075A | 35.00 | 45.00 | 7.50 |
| RP035045080A | 35.00 | 45.00 | 8.00 |
| RP035045085A | 35.00 | 45.00 | 8.50 |
| RP035045090A | 35.00 | 45.00 | 9.00 |
| RP035045100A | 35.00 | 45.00 | 10.00 |
| RP035047100A | 35.00 | 47.00 | 10.00 |
| RP035048100A | 35.00 | 48.00 | 10.00 |
| RP035050070A | 35.00 | 50.00 | 7.00 |
| RP035050080A | 35.00 | 50.00 | 8.00 |
| RP035050090A | 35.00 | 50.00 | 9.00 |
| RP035050100A | 35.00 | 50.00 | 10.00 |
| RP035050140A | 35.00 | 50.00 | 14.00 |
| RP035055100A | 35.00 | 55.00 | 10.00 |
| RP035055120A | 35.00 | 55.00 | 12.00 |
| RP036044040A | 36.00 | 44.00 | 4.00 |

A series - AU 93A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | H |
| RP036044057A | 36.00 | 44.00 | 5.70 |
| RP036044060A | 36.00 | 44.00 | 6.00 |
| RP036044070A | 36.00 | 44.00 | 7.00 |
| RP036044080A | 36.00 | 44.00 | 8.00 |
| RP036045100A | 36.00 | 45.00 | 10.00 |
| RP036046070A | 36.00 | 46.00 | 7.00 |
| RP036046080A | 36.00 | 46.00 | 8.00 |
| RP036046100A | 36.00 | 46.00 | 10.00 |
| RP036048080A | 36.00 | 48.00 | 8.00 |
| RP036050080A | 36.00 | 50.00 | 8.00 |
| RP036051100A | 36.00 | 51.00 | 10.00 |
| RP036052100A | 36.00 | 52.00 | 10.00 |
| RP036055100A | 36.00 | 55.00 | 10.00 |
| RP036070100A | 36.00 | 70.00 | 10.00 |
| RP038040080A | 38.00 | 40.00 | 8.00 |
| RP038045050A | 38.00 | 45.00 | 5.00 |
| RP038045060A | 38.00 | 45.00 | 6.00 |
| RP038045080A | 38.00 | 45.00 | 8.00 |
| RP038045100A | 38.00 | 45.00 | 10.00 |
| RP038046060A | 38.00 | 46.00 | 6.00 |
| RP038046065A | 38.00 | 46.00 | 6.50 |
| RP038050060A | 38.00 | 50.00 | 6.00 |
| RP038050090A | 38.00 | 50.00 | 9.00 |
| RP038050100A | 38.00 | 50.00 | 10.00 |
| RP038052095A | 38.00 | 52.50 | 9.50 |
| RP038055100A | 38.00 | 55.00 | 10.00 |
| RP038055120A | 38.00 | 55.00 | 12.00 |
| RP038058100A | 38.00 | 58.00 | 10.00 |
| RP038060120A | 38.00 | 60.00 | 12.00 |
| RP040048050A | 40.00 | 48.00 | 5.00 |
| RP040048057A | 40.00 | 48.00 | 5.70 |
| RP040048060A | 40.00 | 48.00 | 6.00 |
| RP040048080A | 40.00 | 48.00 | 8.00 |
| RP040048110A | 40.00 | 48.00 | 11.00 |
| RP040049095A | 40.00 | 49.50 | 9.50 |
| RP040050050A | 40.00 | 50.00 | 5.00 |
| RP040050060A | 40.00 | 50.00 | 6.00 |
| RP040050065A | 40.00 | 50.00 | 6.50 |
| RP040050070A | 40.00 | 50.00 | 7.00 |
| RP040050075A | 40.00 | 50.00 | 7.50 |
| RP040050080A | 40.00 | 50.00 | 8.00 |
| RP040050100A | 40.00 | 50.00 | 10.00 |
| RP040052080A | 40.00 | 52.00 | 8.00 |
| RP040052090A | 40.00 | 52.00 | 9.00 |
| RP040055075A | 40.00 | 55.00 | 7.50 |
| RP040055100A | 40.00 | 55.00 | 10.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | H |
| RP040056080A | 40.00 | 56.00 | 8.00 |
| RP040056100A | 40.00 | 56.00 | 10.00 |
| RP040060100A | 40.00 | 60.00 | 10.00 |
| RP040060120A | 40.00 | 60.00 | 12.00 |
| RP040060130A | 40.00 | 60.00 | 13.00 |
| RP040060180A | 40.00 | 60.00 | 18.00 |
| RP040064120A | 40.00 | 64.00 | 12.00 |
| RP040065100A | 40.00 | 65.00 | 10.00 |
| RP040065120A | 40.00 | 65.00 | 12.00 |
| RP040065130A | 40.00 | 65.00 | 13.00 |
| RP040070150A | 40.00 | 70.00 | 15.00 |
| RP040075100A | 40.00 | 75.00 | 10.00 |
| RP040080100A | 40.00 | 80.00 | 10.00 |
| RP042050050A | 42.00 | 50.00 | 5.00 |
| RP042050060A | 42.00 | 50.00 | 6.00 |
| RP042050080A | 42.00 | 50.00 | 8.00 |
| RP042050090A | 42.00 | 50.00 | 9.00 |
| RP042050100A | 42.00 | 50.00 | 10.00 |
| RP042052060A | 42.00 | 52.00 | 6.00 |
| RP042052085A | 42.00 | 52.00 | 8.50 |
| RP042052090A | 42.00 | 52.00 | 9.00 |
| RP042052100A | 42.00 | 52.00 | 10.00 |
| RP042053090A | 42.00 | 53.00 | 9.00 |
| RP042062120A | 42.00 | 62.00 | 12.00 |
| RP044054060A | 44.00 | 54.00 | 6.00 |
| RP044064100A | 44.00 | 64.00 | 10.00 |
| RP045053055A | 45.00 | 53.00 | 5.50 |
| RP045053057A | 45.00 | 53.00 | 5.70 |
| RP045053058A | 45.00 | 53.00 | 5.80 |
| RP045053060A | 45.00 | 53.00 | 6.00 |
| RP045053065A | 45.00 | 53.00 | 6.50 |
| RP045053080A | 45.00 | 53.00 | 8.00 |
| RP045053100A | 45.00 | 53.00 | 10.00 |
| RP045053120A | 45.00 | 53.00 | 12.00 |
| RP045055050A | 45.00 | 55.00 | 5.00 |
| RP045055058A | 45.00 | 55.00 | 5.80 |
| RP045055060A | 45.00 | 55.00 | 6.00 |
| RP045055065A | 45.00 | 55.00 | 6.50 |
| RP045055070A | 45.00 | 55.00 | 7.00 |
| RP045055075A | 45.00 | 55.00 | 7.50 |
| RP045055100A | 45.00 | 55.00 | 10.00 |
| RP045055110A | 45.00 | 55.00 | 11.00 |
| RP045055120A | 45.00 | 55.00 | 12.00 |
| RP045056070A | 45.00 | 56.00 | 7.00 |
| RP045057060A | 45.00 | 57.00 | 6.00 |
| RP045057095A | 45.00 | 57.70 | 9.50 |

A series - AU 93A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | H |
| RP045058120A | 45.00 | 58.00 | 12.00 |
| RP045060090A | 45.00 | 60.00 | 9.00 |
| RP045060100A | 45.00 | 60.00 | 10.00 |
| RP045063090A | 45.00 | 63.00 | 9.00 |
| RP045063100A | 45.00 | 63.00 | 10.00 |
| RP045063120A | 45.00 | 63.00 | 12.00 |
| RP045065100A | 45.00 | 65.00 | 10.00 |
| RP045065120A | 45.00 | 65.00 | 12.00 |
| RP045065180A | 45.00 | 65.00 | 18.00 |
| RP045070100A | 45.00 | 70.00 | 10.00 |
| RP045070120A | 45.00 | 70.00 | 12.00 |
| RP045075150A | 45.00 | 75.00 | 15.00 |
| RP046054080A | 46.00 | 54.00 | 8.00 |
| RP047055080A | 47.00 | 55.00 | 8.00 |
| RP047057102A | 47.00 | 57.00 | 10.20 |
| RP047062120A | 47.00 | 62.00 | 12.00 |
| RP047065120A | 47.00 | 65.00 | 12.00 |
| RP048058100A | 48.00 | 58.00 | 10.00 |
| RP048060070A | 48.00 | 60.00 | 7.00 |
| RP048060090A | 48.00 | 60.00 | 9.00 |
| RP048063100A | 48.00 | 63.00 | 10.00 |
| RP048063120A | 48.00 | 63.00 | 12.00 |
| RP048065100A | 48.00 | 65.00 | 10.00 |
| RP048068100A | 48.00 | 68.00 | 10.00 |
| RP050047100A | 50.00 | 47.00 | 10.00 |
| RP050058057A | 50.00 | 58.00 | 5.70 |
| RP050058080A | 50.00 | 58.00 | 8.00 |
| RP050060050A | 50.00 | 60.00 | 5.00 |
| RP050060060A | 50.00 | 60.00 | 6.00 |
| RP050060070A | 50.00 | 60.00 | 7.00 |
| RP050060072A | 50.00 | 60.00 | 7.20 |
| RP050060075A | 50.00 | 60.00 | 7.50 |
| RP050060080A | 50.00 | 60.00 | 8.00 |
| RP050060090A | 50.00 | 60.00 | 9.00 |
| RP050060100A | 50.00 | 60.00 | 10.00 |
| RP050060110A | 50.00 | 60.00 | 11.00 |
| RP050060120A | 50.00 | 60.00 | 12.00 |
| RP050060130A | 50.00 | 60.00 | 13.00 |
| RP050062080A | 50.00 | 62.00 | 8.00 |
| RP050062090A | 50.00 | 62.00 | 9.00 |
| RP050062095A | 50.00 | 62.70 | 9.50 |
| RP050062100A | 50.00 | 62.00 | 10.00 |
| RP050063060A | 50.00 | 63.00 | 6.00 |
| RP050063070A | 50.00 | 63.00 | 7.00 |
| RP050063080A | 50.00 | 63.00 | 8.00 |
| RP050063090A | 50.00 | 63.00 | 9.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | H |
| RP050063100A | 50.00 | 63.00 | 10.00 |
| RP050065080A | 50.00 | 65.00 | 8.00 |
| RP050065090A | 50.00 | 65.00 | 9.00 |
| RP050065100A | 50.00 | 65.00 | 10.00 |
| RP050065120A | 50.00 | 65.00 | 12.00 |
| RP050070080A | 50.00 | 70.00 | 8.00 |
| RP050070100A | 50.00 | 70.00 | 10.00 |
| RP050070120A | 50.00 | 70.00 | 12.00 |
| RP050070180A | 50.00 | 70.00 | 18.00 |
| RP050072120A | 50.00 | 72.00 | 12.00 |
| RP050074150A | 50.00 | 74.00 | 15.00 |
| RP050075120A | 50.00 | 75.00 | 12.00 |
| RP050075150A | 50.00 | 75.00 | 15.00 |
| RP050076120A | 50.00 | 76.00 | 12.00 |
| RP050080100A | 50.00 | 80.00 | 10.00 |
| RP050080180A | 50.00 | 80.00 | 18.00 |
| RP052060055A | 52.00 | 60.00 | 5.50 |
| RP052062120A | 52.00 | 62.00 | 12.00 |
| RP052068080A | 52.00 | 68.00 | 8.00 |
| RP052080150A | 52.00 | 80.00 | 15.00 |
| RP053063050A | 53.00 | 63.00 | 5.00 |
| RP053063060A | 53.00 | 63.00 | 6.00 |
| RP053063065A | 53.00 | 63.00 | 6.50 |
| RP054072100A | 54.00 | 72.00 | 10.00 |
| RP055063080A | 55.00 | 63.00 | 8.00 |
| RP055065050A | 55.00 | 65.00 | 5.00 |
| RP055065060A | 55.00 | 65.00 | 6.00 |
| RP055065070A | 55.00 | 65.00 | 7.00 |
| RP055065072A | 55.00 | 65.00 | 7.20 |
| RP055065075A | 55.00 | 65.00 | 7.50 |
| RP055065100A | 55.00 | 65.00 | 10.00 |
| RP055065120A | 55.00 | 65.00 | 12.00 |
| RP055070075A | 55.00 | 70.00 | 7.50 |
| RP055070090A | 55.00 | 70.00 | 9.00 |
| RP055070100A | 55.00 | 70.00 | 10.00 |
| RP055070120A | 55.00 | 70.00 | 12.00 |
| RP055075100A | 55.00 | 75.00 | 10.00 |
| RP055075120A | 55.00 | 75.00 | 12.00 |
| RP055075180A | 55.00 | 75.00 | 18.00 |
| RP055076100A | 55.00 | 76.00 | 10.00 |
| RP055080100A | 55.00 | 80.00 | 10.00 |
| RP055080120A | 55.00 | 80.00 | 12.00 |
| RP055080150A | 55.00 | 80.00 | 15.00 |
| RP055080180A | 55.00 | 80.00 | 18.00 |
| RP056066065A | 56.00 | 66.00 | 6.50 |
| RP056066067A | 56.00 | 66.00 | 6.70 |

A series - AU 93A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | H |
| RP056066100A | 56.00 | 66.00 | 10.00 |
| RP056070120A | 56.00 | 70.00 | 12.00 |
| RP056071085A | 56.00 | 71.00 | 8.50 |
| RP056071100A | 56.00 | 71.00 | 10.00 |
| RP056071115A | 56.00 | 71.00 | 11.50 |
| RP056076120A | 56.00 | 76.00 | 12.00 |
| RP056080150A | 56.00 | 80.00 | 15.00 |
| RP060068080A | 60.00 | 68.00 | 8.00 |
| RP060068100A | 60.00 | 68.00 | 10.00 |
| RP060068120A | 60.00 | 68.00 | 12.00 |
| RP060068125A | 60.00 | 68.00 | 12.50 |
| RP060068130A | 60.00 | 68.00 | 13.00 |
| RP060070050A | 60.00 | 70.00 | 5.00 |
| RP060070060A | 60.00 | 70.00 | 6.00 |
| RP060070070A | 60.00 | 70.00 | 7.00 |
| RP060070072A | 60.00 | 70.00 | 7.20 |
| RP060070075A | 60.00 | 70.00 | 7.50 |
| RP060070080A | 60.00 | 70.00 | 8.00 |
| RP060070100A | 60.00 | 70.00 | 10.00 |
| RP060070120A | 60.00 | 70.00 | 12.00 |
| RP060070130A | 60.00 | 70.00 | 13.00 |
| RP060072090A | 60.00 | 72.00 | 9.00 |
| RP060072100A | 60.00 | 72.00 | 10.00 |
| RP060075080A | 60.00 | 75.00 | 8.00 |
| RP060075090A | 60.00 | 75.00 | 9.00 |
| RP060075100A | 60.00 | 75.00 | 10.00 |
| RP060075120A | 60.00 | 75.00 | 12.00 |
| RP060075150A | 60.00 | 75.00 | 15.00 |
| RP060080100A | 60.00 | 80.00 | 10.00 |
| RP060080120A | 60.00 | 80.00 | 12.00 |
| RP060080135A | 60.00 | 80.00 | 13.50 |
| RP060080180A | 60.00 | 80.00 | 18.00 |
| RP060085100A | 60.00 | 85.00 | 10.00 |
| RP060085120A | 60.00 | 85.00 | 12.00 |
| RP060085125A | 60.00 | 85.00 | 12.50 |
| RP060090150A | 60.00 | 90.00 | 15.00 |
| RP061069080A | 61.00 | 69.00 | 8.00 |
| RP061080120A | 61.00 | 80.00 | 12.00 |
| RP062072125A | 62.00 | 72.00 | 12.50 |
| RP062075100A | 62.00 | 75.00 | 10.00 |
| RP063071080A | 63.00 | 71.00 | 8.00 |
| RP063073050A | 63.00 | 73.00 | 5.00 |
| RP063075085A | 63.00 | 75.00 | 8.50 |
| RP063075100A | 63.00 | 75.00 | 10.00 |
| RP063075120A | 63.00 | 75.00 | 12.00 |
| RP063078100A | 63.00 | 78.00 | 10.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| RP063078115A | 63.00 | 78.00 | 11.50 |
| RP063078125A | 63.00 | 78.00 | 12.50 |
| RP063080090A | 63.00 | 80.00 | 9.00 |
| RP063080100A | 63.00 | 80.00 | 10.00 |
| RP063083120A | 63.00 | 83.00 | 12.00 |
| RP063083130A | 63.00 | 83.00 | 13.00 |
| RP063083135A | 63.00 | 83.00 | 13.50 |
| RP063083150A | 63.00 | 83.00 | 15.00 |
| RP064072080A | 64.00 | 72.00 | 8.00 |
| RP064076090A | 64.00 | 76.00 | 9.00 |
| RP064080080A | 64.00 | 80.00 | 8.00 |
| RP065073080A | 65.00 | 73.00 | 8.00 |
| RP065073115A | 65.00 | 73.00 | 11.50 |
| RP065073120A | 65.00 | 73.00 | 12.00 |
| RP065075060A | 65.00 | 75.00 | 6.00 |
| RP065075100A | 65.00 | 75.00 | 10.00 |
| RP065075120A | 65.00 | 75.00 | 12.00 |
| RP065077090A | 65.00 | 77.00 | 9.00 |
| RP065080090A | 65.00 | 80.00 | 9.00 |
| RP065080100A | 65.00 | 80.00 | 10.00 |
| RP065080110A | 65.00 | 80.00 | 11.00 |
| RP065080115A | 65.00 | 80.00 | 11.50 |
| RP065080120A | 65.00 | 80.00 | 12.00 |
| RP065082120A | 65.00 | 82.00 | 12.00 |
| RP065085100A | 65.00 | 85.00 | 10.00 |
| RP065085120A | 65.00 | 85.00 | 12.00 |
| RP065085180A | 65.00 | 85.00 | 18.00 |
| RP065086120A | 65.00 | 86.00 | 12.00 |
| RP065090080A | 65.00 | 90.00 | 8.00 |
| RP065090120A | 65.00 | 90.00 | 12.00 |
| RP065090130A | 65.00 | 90.00 | 13.00 |
| RP065090150A | 65.00 | 90.00 | 15.00 |
| RP065090180A | 65.00 | 90.00 | 18.00 |
| RP065095120A | 65.00 | 95.00 | 12.00 |
| RP065106250A | 65.00 | 106.00 | 25.00 |
| RP066076080A | 66.00 | 76.00 | 8.00 |
| RP066080100A | 66.00 | 80.00 | 10.00 |
| RP066080130A | 66.00 | 80.00 | 13.00 |
| RP067077100A | 67.00 | 77.00 | 10.00 |
| RP067077120A | 67.00 | 77.00 | 12.00 |
| RP067080120A | 67.00 | 80.00 | 12.00 |
| RP068076080A | 68.00 | 76.00 | 8.00 |
| RP068092150A | 68.00 | 92.00 | 15.00 |
| RP070078080A | 70.00 | 78.00 | 8.00 |
| RP070080050A | 70.00 | 80.00 | 5.00 |
| RP070080060A | 70.00 | 80.00 | 6.00 |

A series - AU 93A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| RP070080065A | 70.00 | 80.00 | 6.50 |
| RP070080070A | 70.00 | 80.00 | 7.00 |
| RP070080080A | 70.00 | 80.00 | 8.00 |
| RP070080100A | 70.00 | 80.00 | 10.00 |
| RP070080120A | 70.00 | 80.00 | 12.00 |
| RP070081150A | 70.00 | 81.00 | 15.00 |
| RP070082090A | 70.00 | 82.00 | 9.00 |
| RP070082100A | 70.00 | 82.00 | 10.00 |
| RP070082120A | 70.00 | 82.00 | 12.00 |
| RP070085080A | 70.00 | 85.00 | 8.00 |
| RP070085090A | 70.00 | 85.00 | 9.00 |
| RP070085100A | 70.00 | 85.00 | 10.00 |
| RP070085115A | 70.00 | 85.00 | 11.50 |
| RP070085120A | 70.00 | 85.00 | 12.00 |
| RP070090100A | 70.00 | 90.00 | 10.00 |
| RP070090120A | 70.00 | 90.00 | 12.00 |
| RP070090135A | 70.00 | 90.00 | 13.50 |
| RP070090180A | 70.00 | 90.00 | 18.00 |
| RP070095100A | 70.00 | 95.00 | 10.00 |
| RP070095120A | 70.00 | 95.00 | 12.00 |
| RP070100150A | 70.00 | 100.00 | 15.00 |
| RP070105150A | 70.00 | 105.00 | 15.00 |
| RP071079080A | 71.00 | 79.00 | 8.00 |
| RP072078060A | 72.00 | 78.00 | 6.00 |
| RP072090100A | 72.00 | 90.00 | 10.00 |
| RP072090110A | 72.00 | 90.00 | 11.00 |
| RP072090120A | 72.00 | 90.00 | 12.00 |
| RP072096120A | 72.00 | 96.00 | 12.00 |
| RP073080080A | 73.00 | 80.00 | 8.00 |
| RP075083080A | 75.00 | 83.00 | 8.00 |
| RP075085060A | 75.00 | 85.00 | 6.00 |
| RP075085072A | 75.00 | 85.00 | 7.20 |
| RP075085100A | 75.00 | 85.00 | 10.00 |
| RP075085120A | 75.00 | 85.00 | 12.00 |
| RP075087090A | 75.00 | 87.00 | 9.00 |
| RP075090075A | 75.00 | 90.00 | 7.50 |
| RP075090090A | 75.00 | 90.00 | 9.00 |
| RP075090100A | 75.00 | 90.00 | 10.00 |
| RP075090120A | 75.00 | 90.00 | 12.00 |
| RP075090150A | 75.00 | 90.00 | 15.00 |
| RP075095100A | 75.00 | 95.00 | 10.00 |
| RP075095120A | 75.00 | 95.00 | 12.00 |
| RP075095135A | 75.00 | 95.00 | 13.50 |
| RP075100120A | 75.00 | 100.00 | 12.00 |
| RP075100150A | 75.00 | 100.00 | 15.00 |
| RP075100220A | 75.00 | 100.00 | 22.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| RP075105150A | 75.00 | 105.00 | 15.00 |
| RP076084080A | 76.00 | 84.00 | 8.00 |
| RP078086080A | 78.00 | 86.00 | 8.00 |
| RP078086125A | 78.00 | 86.00 | 12.50 |
| RP078086130A | 78.00 | 86.00 | 13.00 |
| RP078093105A | 78.00 | 93.00 | 10.50 |
| RP078096105A | 78.00 | 96.00 | 10.50 |
| RP078100150A | 78.00 | 100.00 | 15.00 |
| RP080088080A | 80.00 | 88.00 | 8.00 |
| RP080090050A | 80.00 | 90.00 | 5.00 |
| RP080090054A | 80.00 | 90.00 | 5.40 |
| RP080090060A | 80.00 | 90.00 | 6.00 |
| RP080090072A | 80.00 | 90.00 | 7.20 |
| RP080090080A | 80.00 | 90.00 | 8.00 |
| RP080090100A | 80.00 | 90.00 | 10.00 |
| RP080090120A | 80.00 | 90.00 | 12.00 |
| RP080090135A | 80.00 | 90.00 | 13.50 |
| RP080090140A | 80.00 | 90.00 | 14.00 |
| RP080092090A | 80.00 | 92.00 | 9.00 |
| RP080092115A | 80.00 | 92.00 | 11.50 |
| RP080095075A | 80.00 | 95.00 | 7.50 |
| RP080095080A | 80.00 | 95.00 | 8.00 |
| RP080095090A | 80.00 | 95.00 | 9.00 |
| RP080095100A | 80.00 | 95.00 | 10.00 |
| RP080095115A | 80.00 | 95.00 | 11.50 |
| RP080095120A | 80.00 | 95.00 | 12.00 |
| RP080100100A | 80.00 | 100.00 | 10.00 |
| RP080100115A | 80.00 | 100.00 | 11.50 |
| RP080100120A | 80.00 | 100.00 | 12.00 |
| RP080100135A | 80.00 | 100.00 | 13.50 |
| RP080100180A | 80.00 | 100.00 | 18.00 |
| RP080105120A | 80.00 | 105.00 | 12.00 |
| RP080105220A | 80.00 | 105.00 | 22.00 |
| RP081089080A | 81.00 | 89.00 | 8.00 |
| RP082092100A | 82.00 | 92.00 | 10.00 |
| RP083103140A | 83.00 | 103.00 | 14.00 |
| RP084094080A | 84.50 | 94.00 | 8.00 |
| RP084100080A | 84.00 | 100.00 | 8.00 |
| RP085093065A | 85.00 | 93.00 | 6.50 |
| RP085094150A | 85.00 | 94.00 | 15.00 |
| RP085095070A | 85.00 | 95.00 | 7.00 |
| RP085095085A | 85.00 | 95.00 | 8.50 |
| RP085095090A | 85.00 | 95.00 | 9.00 |
| RP085095120A | 85.00 | 95.00 | 12.00 |
| RP085097085A | 85.00 | 97.00 | 8.50 |
| RP085097090A | 85.00 | 97.00 | 9.00 |

A series - AU 93A



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| RP085100080A | 85.00 | 100.00 | 8.00 |
| RP085100090A | 85.00 | 100.00 | 9.00 |
| RP085100110A | 85.00 | 100.00 | 11.00 |
| RP085100120A | 85.00 | 100.00 | 12.00 |
| RP085100250A | 85.00 | 100.00 | 25.00 |
| RP085105100A | 85.00 | 105.00 | 10.00 |
| RP085105120A | 85.00 | 105.00 | 12.00 |
| RP085105150A | 85.00 | 105.00 | 15.00 |
| RP085105180A | 85.00 | 105.00 | 18.00 |
| RP085106100A | 85.00 | 106.00 | 10.00 |
| RP085110120A | 85.00 | 110.00 | 12.00 |
| RP085115150A | 85.00 | 115.00 | 15.00 |
| RP086092060A | 86.00 | 92.00 | 6.00 |
| RP087095080A | 87.00 | 95.00 | 8.00 |
| RP087102130A | 87.00 | 102.00 | 13.00 |
| RP088096080A | 88.00 | 96.00 | 8.00 |
| RP088108120A | 88.00 | 108.00 | 12.00 |
| RP089100120A | 89.00 | 100.00 | 12.00 |
| RP090096048A | 90.00 | 96.00 | 4.80 |
| RP090098080A | 90.00 | 98.00 | 8.00 |
| RP090098120A | 90.00 | 98.00 | 12.00 |
| RP090100050A | 90.00 | 100.00 | 5.00 |
| RP090100060A | 90.00 | 100.00 | 6.00 |
| RP090100065A | 90.00 | 100.00 | 6.50 |
| RP090100070A | 90.00 | 100.00 | 7.00 |
| RP090100080A | 90.00 | 100.00 | 8.00 |
| RP090100105A | 90.00 | 100.00 | 10.50 |
| RP090100120A | 90.00 | 100.00 | 12.00 |
| RP090100150A | 90.00 | 100.00 | 15.00 |
| RP090102090A | 90.00 | 102.00 | 9.00 |
| RP090105090A | 90.00 | 105.00 | 9.00 |
| RP090105115A | 90.00 | 105.00 | 11.50 |
| RP090105120A | 90.00 | 105.00 | 12.00 |
| RP090110080A | 90.00 | 110.00 | 8.00 |
| RP090110084A | 90.00 | 110.00 | 8.40 |
| RP090110100A | 90.00 | 110.00 | 10.00 |
| RP090110120A | 90.00 | 110.00 | 12.00 |
| RP090110150A | 90.00 | 110.00 | 15.00 |
| RP090110180A | 90.00 | 110.00 | 18.00 |
| RP090115120A | 90.00 | 115.00 | 12.00 |
| RP090115150A | 90.00 | 115.00 | 15.00 |
| RP090115220A | 90.00 | 115.00 | 22.00 |
| RP090120150A | 90.00 | 120.00 | 15.00 |
| RP091099080A | 91.00 | 99.00 | 8.00 |
| RP094124150A | 94.00 | 124.00 | 15.00 |
| RP095105110A | 95.00 | 105.00 | 11.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| RP095105120A | 95.00 | 105.00 | 12.00 |
| RP095110090A | 95.00 | 110.00 | 9.00 |
| RP095110100A | 95.00 | 110.00 | 10.00 |
| RP095110120A | 95.00 | 110.00 | 12.00 |
| RP095110150A | 95.00 | 110.00 | 15.00 |
| RP095112110A | 95.00 | 112.00 | 11.00 |
| RP095112115A | 95.00 | 112.00 | 11.50 |
| RP095115120A | 95.00 | 115.00 | 12.00 |
| RP095115150A | 95.00 | 115.00 | 15.00 |
| RP095115180A | 95.00 | 115.00 | 18.00 |
| RP095120120A | 95.00 | 120.00 | 12.00 |
| RP095125120A | 95.00 | 125.00 | 12.00 |
| RP097105080A | 97.00 | 105.00 | 8.00 |
| RP097105130A | 97.00 | 105.00 | 13.00 |
| RP100108080A | 100.00 | 108.00 | 8.00 |
| RP100108115A | 100.00 | 108.00 | 11.50 |
| RP100110050A | 100.00 | 110.00 | 5.00 |
| RP100110080A | 100.00 | 110.00 | 8.00 |
| RP100115090A | 100.00 | 115.00 | 9.00 |
| RP100115120A | 100.00 | 115.00 | 12.00 |
| RP100115140A | 100.00 | 115.00 | 14.00 |
| RP100120100A | 100.00 | 120.00 | 10.00 |
| RP100120120A | 100.00 | 120.00 | 12.00 |
| RP100120135A | 100.00 | 120.00 | 13.50 |
| RP100120145A | 100.00 | 120.00 | 14.50 |
| RP100120150A | 100.00 | 120.00 | 15.00 |
| RP100120180A | 100.00 | 120.00 | 18.00 |
| RP100125100A | 100.00 | 125.00 | 10.00 |
| RP100125120A | 100.00 | 125.00 | 12.00 |
| RP100125150A | 100.00 | 125.00 | 15.00 |
| RP100130120A | 100.00 | 130.00 | 12.00 |
| RP100130150A | 100.00 | 130.00 | 15.00 |
| RP100130180A | 100.00 | 130.00 | 18.00 |
| RP103111100A | 103.00 | 111.00 | 10.00 |
| RP105113065A | 105.00 | 113.00 | 6.50 |
| RP105120080A | 105.00 | 120.00 | 8.00 |
| RP105120150A | 105.00 | 120.00 | 15.00 |
| RP105125100A | 105.00 | 125.00 | 10.00 |
| RP105125120A | 105.00 | 125.00 | 12.00 |
| RP105125140A | 105.00 | 125.00 | 14.00 |
| RP105125150A | 105.00 | 125.00 | 15.00 |
| RP105125160A | 105.00 | 125.00 | 16.00 |
| RP105135180A | 105.00 | 135.00 | 18.00 |
| RP106120085A | 106.00 | 120.00 | 8.50 |
| RP107115080A | 107.00 | 115.00 | 8.00 |
| RP107130150A | 107.00 | 130.00 | 15.00 |

A series - AU 93A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| RP108116115A | 108.00 | 116.00 | 11.50 |
| RP110125096A | 110.00 | 125.00 | 9.60 |
| RP110125120A | 110.00 | 125.00 | 12.00 |
| RP110125150A | 110.00 | 125.00 | 15.00 |
| RP110130120A | 110.00 | 130.00 | 12.00 |
| RP110130145A | 110.00 | 130.00 | 14.50 |
| RP110130150A | 110.00 | 130.00 | 15.00 |
| RP110130180A | 110.00 | 130.00 | 18.00 |
| RP110135180A | 110.00 | 135.00 | 18.00 |
| RP110140180A | 110.00 | 140.00 | 18.00 |
| RP110150200A | 110.00 | 150.00 | 20.00 |
| RP112132120A | 112.00 | 132.00 | 12.00 |
| RP113125095A | 113.00 | 125.00 | 9.50 |
| RP114124100A | 114.00 | 124.00 | 10.00 |
| RP115124150A | 115.00 | 124.00 | 15.00 |
| RP115125080A | 115.00 | 125.00 | 8.00 |
| RP115125150A | 115.00 | 125.00 | 15.00 |
| RP115126150A | 115.00 | 126.00 | 15.00 |
| RP115129130A | 115.00 | 129.00 | 13.00 |
| RP115130150A | 115.00 | 130.00 | 15.00 |
| RP115135120A | 115.00 | 135.00 | 12.00 |
| RP115135150A | 115.00 | 135.00 | 15.00 |
| RP115140150A | 115.00 | 140.00 | 15.00 |
| RP115140180A | 115.00 | 140.00 | 18.00 |
| RP115140220A | 115.00 | 140.00 | 22.00 |
| RP115155200A | 115.00 | 155.00 | 20.00 |
| RP118126130A | 118.00 | 126.00 | 13.00 |
| RP120130050A | 120.00 | 130.00 | 5.00 |
| RP120130140A | 120.00 | 130.00 | 14.00 |
| RP120135150A | 120.00 | 135.00 | 15.00 |
| RP120140100A | 120.00 | 140.00 | 10.00 |
| RP120140105A | 120.00 | 140.00 | 10.50 |
| RP120140120A | 120.00 | 140.00 | 12.00 |
| RP120140150A | 120.00 | 140.00 | 15.00 |
| RP120145180A | 120.00 | 145.00 | 18.00 |
| RP120150150A | 120.00 | 150.00 | 15.00 |
| RP122130080A | 122.00 | 130.00 | 8.00 |
| RP125133065A | 125.00 | 133.00 | 6.50 |
| RP125135100A | 125.00 | 135.00 | 10.00 |
| RP125140110A | 125.00 | 140.00 | 11.00 |
| RP125140120A | 125.00 | 140.00 | 12.00 |
| RP125140150A | 125.00 | 140.00 | 15.00 |
| RP125145120A | 125.00 | 145.00 | 12.00 |
| RP125145145A | 125.00 | 145.00 | 14.50 |
| RP125145150A | 125.00 | 145.00 | 15.00 |
| RP125145180A | 125.00 | 145.00 | 18.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| RP125147120A | 125.00 | 147.00 | 12.00 |
| RP125150120A | 125.00 | 150.00 | 12.00 |
| RP125150180A | 125.00 | 150.00 | 18.00 |
| RP125155150A | 125.00 | 155.00 | 15.00 |
| RP125155180A | 125.00 | 155.00 | 18.00 |
| RP125165200A | 125.00 | 165.00 | 20.00 |
| RP126134080A | 126.00 | 134.00 | 8.00 |
| RP127142120A | 127.00 | 142.00 | 12.00 |
| RP130145150A | 130.00 | 145.00 | 15.00 |
| RP130150100A | 130.00 | 150.00 | 10.00 |
| RP130150120A | 130.00 | 150.00 | 12.00 |
| RP130150150A | 130.00 | 150.00 | 15.00 |
| RP130157150A | 130.00 | 157.00 | 15.00 |
| RP130160150A | 130.00 | 160.00 | 15.00 |
| RP130160180A | 130.00 | 160.00 | 18.00 |
| RP132144120A | 132.00 | 144.00 | 12.00 |
| RP133149110A | 133.00 | 149.00 | 11.00 |
| RP135150150A | 135.00 | 150.00 | 15.00 |
| RP135155150A | 135.00 | 155.00 | 15.00 |
| RP135160150A | 135.00 | 160.00 | 15.00 |
| RP135165150A | 135.00 | 165.00 | 15.00 |
| RP140150050A | 140.00 | 150.00 | 5.00 |
| RP140155096A | 140.00 | 155.00 | 9.60 |
| RP140155150A | 140.00 | 155.00 | 15.00 |
| RP140156058A | 140.00 | 155.50 | 5.80 |
| RP140160060A | 140.00 | 160.00 | 6.00 |
| RP140160120A | 140.00 | 160.00 | 12.00 |
| RP140160145A | 140.00 | 160.00 | 14.50 |
| RP140160150A | 140.00 | 160.00 | 15.00 |
| RP140165150A | 140.00 | 165.00 | 15.00 |
| RP140165180A | 140.00 | 165.00 | 18.00 |
| RP140170170A | 140.00 | 170.00 | 17.00 |
| RP143151130A | 143.00 | 151.00 | 13.00 |
| RP145153065A | 145.00 | 153.00 | 6.50 |
| RP145153080A | 145.00 | 153.00 | 8.00 |
| RP145160080A | 145.00 | 160.00 | 8.00 |
| RP145160090A | 145.00 | 160.00 | 9.00 |
| RP145165150A | 145.00 | 165.00 | 15.00 |
| RP145170180A | 145.00 | 170.00 | 18.00 |
| RP146170140A | 146.00 | 170.00 | 14.00 |
| RP147155100A | 147.00 | 155.00 | 10.00 |
| RP148160095A | 148.00 | 160.00 | 9.50 |
| RP150160120A | 150.00 | 160.00 | 12.00 |
| RP150160135A | 150.00 | 160.00 | 13.50 |
| RP150170150A | 150.00 | 170.00 | 15.00 |
| RP150170180A | 150.00 | 170.00 | 18.00 |

A series - AU 93A



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| RP150180135A | 150.00 | 180.00 | 13.50 |
| RP150180150A | 150.00 | 180.00 | 15.00 |
| RP150180180A | 150.00 | 180.00 | 18.00 |
| RP153165120A | 153.00 | 165.00 | 12.00 |
| RP154169110A | 154.00 | 169.00 | 11.00 |
| RP155175150A | 155.00 | 175.00 | 15.00 |
| RP155180150A | 155.00 | 180.00 | 15.00 |
| RP157170120A | 157.00 | 170.00 | 12.00 |
| RP160175075A | 160.00 | 175.00 | 7.50 |
| RP160180150A | 160.00 | 180.00 | 15.00 |
| RP160185150A | 160.00 | 185.00 | 15.00 |
| RP160185182A | 160.00 | 185.00 | 18.20 |
| RP160190150A | 160.00 | 190.00 | 15.00 |
| RP160190220A | 160.00 | 190.00 | 22.00 |
| RP165190150A | 165.00 | 190.00 | 15.00 |
| RP165215200A | 165.00 | 215.00 | 20.00 |
| RP170170180A | 170.00 | 170.00 | 18.00 |
| RP170180100A | 170.00 | 180.00 | 10.00 |
| RP170190150A | 170.00 | 190.00 | 15.00 |
| RP170195150A | 170.00 | 195.00 | 15.00 |
| RP170200150A | 170.00 | 200.00 | 15.00 |
| RP170200180A | 170.00 | 200.00 | 18.00 |
| RP170202260A | 170.00 | 202.00 | 26.00 |
| RP170212200A | 170.00 | 212.00 | 20.00 |
| RP170215200A | 170.00 | 215.00 | 20.00 |
| RP175187120A | 175.00 | 187.00 | 12.00 |
| RP175200150A | 175.00 | 200.00 | 15.00 |
| RP175215200A | 175.00 | 215.00 | 20.00 |
| RP180200150A | 180.00 | 200.00 | 15.00 |
| RP180200160A | 180.00 | 200.00 | 16.00 |
| RP180200180A | 180.00 | 200.00 | 18.00 |
| RP180205150A | 180.00 | 205.00 | 15.00 |
| RP180210150A | 180.00 | 210.00 | 15.00 |
| RP180210220A | 180.00 | 210.00 | 22.00 |
| RP180220160A | 180.00 | 220.00 | 16.00 |
| RP180220200A | 180.00 | 220.00 | 20.00 |
| RP185200075A | 185.00 | 200.00 | 7.50 |
| RP185200090A | 185.00 | 200.00 | 9.00 |
| RP185205150A | 185.00 | 205.00 | 15.00 |
| RP190204150A | 190.00 | 204.00 | 15.00 |
| RP190210150A | 190.00 | 210.00 | 15.00 |
| RP190215150A | 190.00 | 215.00 | 15.00 |
| RP190220150A | 190.00 | 220.00 | 15.00 |
| RP190220250A | 190.00 | 220.00 | 25.00 |
| RP190220260A | 190.00 | 220.00 | 26.00 |
| RP200220100A | 200.00 | 220.00 | 10.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| RP200220150A | 200.00 | 220.00 | 15.00 |
| RP200225180A | 200.00 | 225.00 | 18.00 |
| RP200230170A | 200.00 | 230.00 | 17.00 |
| RP200230180A | 200.00 | 230.00 | 18.00 |
| RP200230220A | 200.00 | 230.00 | 22.00 |
| RP200235200A | 200.00 | 235.00 | 20.00 |
| RP200238220A | 200.00 | 238.00 | 22.00 |
| RP200240200A | 200.00 | 240.00 | 20.00 |
| RP205225120A | 205.00 | 225.00 | 12.00 |
| RP205235180A | 205.00 | 235.00 | 18.00 |
| RP210235180A | 210.00 | 235.00 | 18.00 |
| RP210240180A | 210.00 | 240.00 | 18.00 |
| RP210250200A | 210.00 | 250.00 | 20.00 |
| RP212237180A | 212.00 | 237.00 | 18.00 |
| RP220240150A | 220.00 | 240.00 | 15.00 |
| RP220250150A | 220.00 | 250.00 | 15.00 |
| RP220250180A | 220.00 | 250.00 | 18.00 |
| RP220250200A | 220.00 | 250.00 | 20.00 |
| RP220255220A | 220.00 | 255.00 | 22.00 |
| RP220255300A | 220.00 | 255.00 | 30.00 |
| RP220265220A | 220.00 | 265.00 | 22.00 |
| RP224249180A | 224.00 | 249.00 | 18.00 |
| RP225245150A | 225.00 | 245.00 | 15.00 |
| RP225250180A | 225.00 | 250.00 | 18.00 |
| RP225255420A | 225.00 | 255.00 | 42.00 |
| RP225265340A | 225.00 | 265.00 | 34.00 |
| RP229263200A | 229.00 | 263.00 | 20.00 |
| RP230250120A | 230.00 | 250.00 | 12.00 |
| RP230250150A | 230.00 | 250.00 | 15.00 |
| RP230255180A | 230.00 | 255.00 | 18.00 |
| RP230260180A | 230.00 | 260.00 | 18.00 |
| RP235255120A | 235.00 | 255.00 | 12.00 |
| RP236261180A | 236.00 | 261.00 | 18.00 |
| RP240260160A | 240.00 | 260.00 | 16.00 |
| RP240260170A | 240.00 | 260.00 | 17.00 |
| RP240260180A | 240.00 | 260.00 | 18.00 |
| RP240265180A | 240.00 | 265.00 | 18.00 |
| RP245270150A | 245.00 | 270.00 | 15.00 |
| RP250280220A | 250.00 | 280.00 | 22.00 |
| RP255280180A | 255.00 | 280.00 | 18.00 |
| RP260290180A | 260.00 | 290.00 | 18.00 |
| RP260296340A | 260.00 | 296.00 | 34.00 |
| RP260300200A | 260.00 | 300.00 | 20.00 |
| RP260300260A | 260.00 | 300.00 | 26.00 |
| RP265290170A | 265.00 | 290.00 | 17.00 |
| RP265295180A | 265.00 | 295.00 | 18.00 |

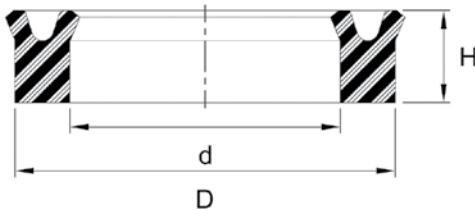
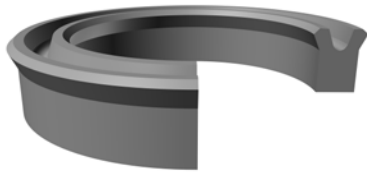
A series - AU 93A



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| RP270290170A | 270.00 | 290.00 | 17.00 |
| RP270300150A | 270.00 | 300.00 | 15.00 |
| RP270310200A | 270.00 | 310.00 | 20.00 |
| RP280300150A | 280.00 | 300.00 | 15.00 |
| RP280310180A | 280.00 | 310.00 | 18.00 |
| RP280310210A | 280.00 | 310.00 | 21.00 |
| RP296235140A | 296.00 | 235.00 | 14.00 |
| RP300330180A | 300.00 | 330.00 | 18.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| RP305320170A | 305.00 | 320.00 | 17.00 |
| RP310330170A | 310.00 | 330.00 | 17.00 |
| RP320350150A | 320.00 | 350.00 | 15.00 |
| RP320350160A | 320.00 | 350.00 | 16.00 |
| RP320360200A | 320.00 | 360.00 | 20.00 |
| RP330360220A | 330.00 | 360.00 | 22.00 |
| RP355375220A | 355.00 | 375.00 | 22.00 |
| RP360390220A | 360.00 | 390.00 | 22.00 |
| RP500540340A | 500.00 | 540.00 | 34.00 |

A/N - Symmetrical seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-----------------------|----------------------|
| Nitrile | -22°F to +212°F (-30°C to +100°C) | ≤250 psi (≤17 bar) | < 1.6 ft/s (0.5 m/s) |

A/N-style is similar in design to the A-type seals, manufactured out of a softer elastomeric material, and is used for either pneumatic or low-pressure hydraulic systems

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|------|
| | d | D | H |
| RP003007050A/N | 3.00 | 7.00 | 5.00 |
| RP003008040A/N | 3.00 | 8.50 | 4.00 |
| RP003010050A/N | 3.00 | 10.00 | 5.00 |
| RP003010060A/N | 3.00 | 10.00 | 6.00 |
| RP004007030A/N | 4.00 | 7.50 | 3.00 |
| RP004010040A/N | 4.00 | 10.00 | 4.00 |
| RP004010045A/N | 4.00 | 10.00 | 4.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|------|
| | d | D | H |
| RP004010050A/N | 4.00 | 10.00 | 5.00 |
| RP004011080A/N | 4.00 | 11.00 | 8.00 |
| RP004012040A/N | 4.00 | 12.00 | 4.00 |
| RP004012055A/N | 4.00 | 12.00 | 5.50 |
| RP005011050A/N | 5.00 | 11.00 | 5.00 |
| RP005011070A/N | 5.00 | 11.00 | 7.00 |
| RP005012050A/N | 5.00 | 12.00 | 5.00 |

A/N series - NBR 90A



| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|------|
| | d | D | H |
| RP005012055A/N | 5.00 | 12.00 | 5.50 |
| RP005012060A/N | 5.00 | 12.00 | 6.00 |
| RP005013040A/N | 5.00 | 13.00 | 4.00 |
| RP005013060A/N | 5.00 | 13.00 | 6.00 |
| RP005014045A/N | 5.00 | 14.00 | 4.50 |
| RP005014060A/N | 5.00 | 14.00 | 6.00 |
| RP005015050A/N | 5.00 | 15.00 | 5.00 |
| RP006010030A/N | 6.00 | 10.00 | 3.00 |
| RP006010040A/N | 6.00 | 10.00 | 4.00 |
| RP006012040A/N | 6.00 | 12.00 | 4.00 |
| RP006012045A/N | 6.00 | 12.00 | 4.50 |
| RP006012050A/N | 6.00 | 12.00 | 5.00 |
| RP006012055A/N | 6.00 | 12.00 | 5.50 |
| RP006012060A/N | 6.00 | 12.00 | 6.00 |
| RP006012065A/N | 6.00 | 12.00 | 6.50 |
| RP006012070A/N | 6.00 | 12.00 | 7.00 |
| RP006012080A/N | 6.00 | 12.00 | 8.00 |
| RP006014040A/N | 6.00 | 14.00 | 4.00 |
| RP006015050A/N | 6.00 | 15.00 | 5.00 |
| RP006015060A/N | 6.00 | 15.00 | 6.00 |
| RP006015080A/N | 6.00 | 15.00 | 8.00 |
| RP006015090A/N | 6.00 | 15.00 | 9.00 |
| RP006016050A/N | 6.00 | 16.00 | 5.00 |
| RP006016060A/N | 6.00 | 16.00 | 6.00 |
| RP006017060A/N | 6.00 | 17.00 | 6.00 |
| RP006018080A/N | 6.00 | 18.00 | 8.00 |
| RP006020080A/N | 6.00 | 20.00 | 8.00 |
| RP006022080A/N | 6.00 | 22.00 | 8.00 |
| RP007014035A/N | 7.00 | 14.00 | 3.50 |
| RP007015040A/N | 7.00 | 15.00 | 4.00 |
| RP007015050A/N | 7.00 | 15.00 | 5.00 |
| RP007015070A/N | 7.00 | 15.00 | 7.00 |
| RP007015080A/N | 7.00 | 15.00 | 8.00 |
| RP008012040A/N | 8.00 | 12.00 | 4.00 |
| RP008012050A/N | 8.00 | 12.00 | 5.00 |
| RP008013050A/N | 8.00 | 13.00 | 5.00 |
| RP008014040A/N | 8.00 | 14.00 | 4.00 |
| RP008014050A/N | 8.00 | 14.00 | 5.00 |
| RP008014060A/N | 8.00 | 14.00 | 6.00 |
| RP008014070A/N | 8.00 | 14.00 | 7.00 |
| RP008015040A/N | 8.00 | 15.00 | 4.00 |
| RP008015060A/N | 8.00 | 15.00 | 6.00 |
| RP008015080A/N | 8.00 | 15.00 | 8.00 |
| RP008015090A/N | 8.00 | 15.00 | 9.00 |
| RP008016040A/N | 8.00 | 16.00 | 4.00 |
| RP008016060A/N | 8.00 | 16.00 | 6.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP008016080A/N | 8.00 | 16.00 | 8.00 |
| RP008017060A/N | 8.00 | 17.00 | 6.00 |
| RP008018050A/N | 8.00 | 18.00 | 5.00 |
| RP008018060A/N | 8.00 | 18.00 | 6.00 |
| RP008018080A/N | 8.00 | 18.00 | 8.00 |
| RP008018090A/N | 8.00 | 18.00 | 9.00 |
| RP008018100A/N | 8.00 | 18.00 | 10.00 |
| RP008020060A/N | 8.00 | 20.00 | 6.00 |
| RP008022070A/N | 8.00 | 22.00 | 7.00 |
| RP008022080A/N | 8.00 | 22.00 | 8.00 |
| RP008022090A/N | 8.00 | 22.00 | 9.00 |
| RP008025060A/N | 8.00 | 25.00 | 6.00 |
| RP009015080A/N | 9.00 | 15.00 | 8.00 |
| RP009017040A/N | 9.00 | 17.00 | 4.00 |
| RP009017060A/N | 9.00 | 17.00 | 6.00 |
| RP009018050A/N | 9.00 | 18.00 | 5.00 |
| RP009019060A/N | 9.00 | 19.00 | 6.00 |
| RP009019070A/N | 9.00 | 19.00 | 7.00 |
| RP009030100A/N | 9.50 | 30.00 | 10.00 |
| RP010014025A/N | 10.00 | 14.00 | 2.50 |
| RP010015050A/N | 10.00 | 15.00 | 5.00 |
| RP010016040A/N | 10.00 | 16.00 | 4.00 |
| RP010016050A/N | 10.00 | 16.00 | 5.00 |
| RP010016060A/N | 10.00 | 16.00 | 6.00 |
| RP010018040A/N | 10.00 | 18.00 | 4.00 |
| RP010018050A/N | 10.00 | 18.00 | 5.00 |
| RP010018060A/N | 10.00 | 18.00 | 6.00 |
| RP010018070A/N | 10.00 | 18.00 | 7.00 |
| RP010018080A/N | 10.00 | 18.00 | 8.00 |
| RP010018090A/N | 10.00 | 18.00 | 9.00 |
| RP010020050A/N | 10.00 | 20.00 | 5.00 |
| RP010020060A/N | 10.00 | 20.00 | 6.00 |
| RP010020070A/N | 10.00 | 20.00 | 7.00 |
| RP010020080A/N | 10.00 | 20.00 | 8.00 |
| RP010020090A/N | 10.00 | 20.00 | 9.00 |
| RP010022060A/N | 10.00 | 22.00 | 6.00 |
| RP010022070A/N | 10.00 | 22.00 | 7.00 |
| RP010022080A/N | 10.00 | 22.00 | 8.00 |
| RP010022090A/N | 10.00 | 22.00 | 9.00 |
| RP010025060A/N | 10.00 | 25.00 | 6.00 |
| RP010025075A/N | 10.00 | 25.00 | 7.50 |
| RP010025080A/N | 10.00 | 25.00 | 8.00 |
| RP010025100A/N | 10.00 | 25.00 | 10.00 |
| RP010026080A/N | 10.00 | 26.00 | 8.00 |
| RP010026095A/N | 10.00 | 26.00 | 9.50 |
| RP010028080A/N | 10.00 | 28.00 | 8.00 |

A/N series - NBR 90A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP010028100A/N | 10.00 | 28.00 | 10.00 |
| RP010030100A/N | 10.00 | 30.00 | 10.00 |
| RP010032060A/N | 10.00 | 32.00 | 6.00 |
| RP010032100A/N | 10.00 | 32.00 | 10.00 |
| RP011017032A/N | 11.00 | 17.00 | 3.20 |
| RP011021070A/N | 11.50 | 21.50 | 7.00 |
| RP011026080A/N | 11.00 | 26.00 | 8.00 |
| RP011027080A/N | 11.00 | 27.00 | 8.00 |
| RP012017065A/N | 12.60 | 17.50 | 6.50 |
| RP012018040A/N | 12.00 | 18.00 | 4.00 |
| RP012018050A/N | 12.00 | 18.00 | 5.00 |
| RP012018060A/N | 12.00 | 18.00 | 6.00 |
| RP012018070A/N | 12.00 | 18.00 | 7.00 |
| RP012020040A/N | 12.00 | 20.00 | 4.00 |
| RP012020050A/N | 12.00 | 20.00 | 5.00 |
| RP012020055A/N | 12.00 | 20.00 | 5.50 |
| RP012020080A/N | 12.00 | 20.00 | 8.00 |
| RP012020090A/N | 12.00 | 20.00 | 9.00 |
| RP012022050A/N | 12.00 | 22.00 | 5.00 |
| RP012022060A/N | 12.00 | 22.00 | 6.00 |
| RP012022070A/N | 12.00 | 22.00 | 7.00 |
| RP012022080A/N | 12.00 | 22.00 | 8.00 |
| RP012022090A/N | 12.00 | 22.00 | 9.00 |
| RP012024060A/N | 12.00 | 24.00 | 6.00 |
| RP012024080A/N | 12.00 | 24.00 | 8.00 |
| RP012024090A/N | 12.00 | 24.00 | 9.00 |
| RP012024100A/N | 12.00 | 24.00 | 10.00 |
| RP012025080A/N | 12.00 | 25.00 | 8.00 |
| RP012025090A/N | 12.00 | 25.00 | 9.00 |
| RP012025100A/N | 12.00 | 25.00 | 10.00 |
| RP012025110A/N | 12.00 | 25.00 | 11.00 |
| RP012026070A/N | 12.00 | 26.00 | 7.00 |
| RP012026080A/N | 12.00 | 26.00 | 8.00 |
| RP012026100A/N | 12.00 | 26.00 | 10.00 |
| RP012028100A/N | 12.00 | 28.00 | 10.00 |
| RP012030090A/N | 12.00 | 30.00 | 9.00 |
| RP012032100A/N | 12.00 | 32.00 | 10.00 |
| RP012034100A/N | 12.00 | 34.00 | 10.00 |
| RP012035120A/N | 12.00 | 35.00 | 12.00 |
| RP012040100A/N | 12.00 | 40.00 | 10.00 |
| RP013020030A/N | 13.00 | 20.00 | 3.00 |
| RP013023050A/N | 13.00 | 23.00 | 5.00 |
| RP013024060A/N | 13.00 | 24.00 | 6.00 |
| RP013025080A/N | 13.00 | 25.00 | 8.00 |
| RP013025100A/N | 13.00 | 25.00 | 10.00 |
| RP013030090A/N | 13.00 | 30.00 | 9.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP013030100A/N | 13.00 | 30.00 | 10.00 |
| RP013035150A/N | 13.00 | 35.00 | 15.00 |
| RP013036120A/N | 13.00 | 36.00 | 12.00 |
| RP014020040A/N | 14.00 | 20.00 | 4.00 |
| RP014020050A/N | 14.00 | 20.00 | 5.00 |
| RP014020060A/N | 14.00 | 20.00 | 6.00 |
| RP014022040A/N | 14.00 | 22.00 | 4.00 |
| RP014022050A/N | 14.00 | 22.00 | 5.00 |
| RP014022060A/N | 14.00 | 22.00 | 6.00 |
| RP014022070A/N | 14.00 | 22.00 | 7.00 |
| RP014022080A/N | 14.00 | 22.00 | 8.00 |
| RP014022090A/N | 14.00 | 22.00 | 9.00 |
| RP014022120A/N | 14.00 | 22.00 | 12.00 |
| RP014024050A/N | 14.00 | 24.00 | 5.00 |
| RP014024060A/N | 14.00 | 24.00 | 6.00 |
| RP014024080A/N | 14.00 | 24.00 | 8.00 |
| RP014024090A/N | 14.00 | 24.00 | 9.00 |
| RP014026060A/N | 14.00 | 26.00 | 6.00 |
| RP014028070A/N | 14.00 | 28.00 | 7.00 |
| RP014028100A/N | 14.00 | 28.00 | 10.00 |
| RP014030080A/N | 14.00 | 30.00 | 8.00 |
| RP014032080A/N | 14.00 | 32.00 | 8.00 |
| RP014032100A/N | 14.00 | 32.00 | 10.00 |
| RP015020030A/N | 15.00 | 20.00 | 3.00 |
| RP015022040A/N | 15.00 | 22.00 | 4.00 |
| RP015022055A/N | 15.00 | 22.00 | 5.50 |
| RP015024045A/N | 15.00 | 24.00 | 4.50 |
| RP015024070A/N | 15.00 | 24.00 | 7.00 |
| RP015025050A/N | 15.00 | 25.00 | 5.00 |
| RP015025060A/N | 15.00 | 25.00 | 6.00 |
| RP015025080A/N | 15.00 | 25.00 | 8.00 |
| RP015025090A/N | 15.00 | 25.00 | 9.00 |
| RP015025100A/N | 15.00 | 25.00 | 10.00 |
| RP015027060A/N | 15.00 | 27.00 | 6.00 |
| RP015027070A/N | 15.00 | 27.00 | 7.00 |
| RP015028080A/N | 15.00 | 28.00 | 8.00 |
| RP015028100A/N | 15.00 | 28.00 | 10.00 |
| RP015028110A/N | 15.00 | 28.00 | 11.00 |
| RP015030060A/N | 15.00 | 30.00 | 6.00 |
| RP015030075A/N | 15.00 | 30.00 | 7.50 |
| RP015030080A/N | 15.00 | 30.00 | 8.00 |
| RP015030100A/N | 15.00 | 30.00 | 10.00 |
| RP015032085A/N | 15.00 | 32.00 | 8.50 |
| RP015035100A/N | 15.00 | 35.00 | 10.00 |
| RP016022030A/N | 16.00 | 22.00 | 3.00 |
| RP016022040A/N | 16.00 | 22.00 | 4.00 |

A/N series - NBR 90A



| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | h |
| RP016022045A/N | 16.00 | 22.00 | 4.50 |
| RP016022050A/N | 16.00 | 22.00 | 5.00 |
| RP016022055A/N | 16.00 | 22.00 | 5.50 |
| RP016022060A/N | 16.00 | 22.00 | 6.00 |
| RP016024050A/N | 16.00 | 24.00 | 5.00 |
| RP016024060A/N | 16.00 | 24.00 | 6.00 |
| RP016024090A/N | 16.00 | 24.00 | 9.00 |
| RP016024100A/N | 16.00 | 24.00 | 10.00 |
| RP016025050A/N | 16.00 | 25.00 | 5.00 |
| RP016025080A/N | 16.00 | 25.00 | 8.00 |
| RP016026050A/N | 16.00 | 26.00 | 5.00 |
| RP016026060A/N | 16.00 | 26.00 | 6.00 |
| RP016026080A/N | 16.00 | 26.00 | 8.00 |
| RP016026090A/N | 16.00 | 26.00 | 9.00 |
| RP016026100A/N | 16.00 | 26.00 | 10.00 |
| RP016027055A/N | 16.00 | 27.00 | 5.50 |
| RP016028060A/N | 16.00 | 28.00 | 6.00 |
| RP016028070A/N | 16.00 | 28.00 | 7.00 |
| RP016028075A/N | 16.00 | 28.00 | 7.50 |
| RP016028090A/N | 16.00 | 28.00 | 9.00 |
| RP016029060A/N | 16.00 | 29.00 | 6.00 |
| RP016030060A/N | 16.00 | 30.00 | 6.00 |
| RP016032080A/N | 16.00 | 32.00 | 8.00 |
| RP016032090A/N | 16.00 | 32.00 | 9.00 |
| RP016032100A/N | 16.00 | 32.00 | 10.00 |
| RP016032110A/N | 16.00 | 32.00 | 11.00 |
| RP016035090A/N | 16.00 | 35.00 | 9.00 |
| RP016036100A/N | 16.00 | 36.00 | 10.00 |
| RP016040120A/N | 16.00 | 40.00 | 12.00 |
| RP017025040A/N | 17.00 | 25.00 | 4.00 |
| RP017025100A/N | 17.00 | 25.00 | 10.00 |
| RP017032070A/N | 17.00 | 32.00 | 7.00 |
| RP017035060A/N | 17.00 | 35.00 | 6.00 |
| RP017035100A/N | 17.00 | 35.00 | 10.00 |
| RP017038100A/N | 17.00 | 38.00 | 10.00 |
| RP018024040A/N | 18.00 | 24.00 | 4.00 |
| RP018024050A/N | 18.00 | 24.00 | 5.00 |
| RP018025040A/N | 18.00 | 25.00 | 4.00 |
| RP018025050A/N | 18.00 | 25.00 | 5.00 |
| RP018025055A/N | 18.00 | 25.00 | 5.50 |
| RP018026040A/N | 18.00 | 26.00 | 4.00 |
| RP018026050A/N | 18.00 | 26.00 | 5.00 |
| RP018026065A/N | 18.00 | 26.00 | 6.50 |
| RP018026075A/N | 18.00 | 26.00 | 7.50 |
| RP018026080A/N | 18.00 | 26.00 | 8.00 |
| RP018026085A/N | 18.00 | 26.00 | 8.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | h |
| RP018026095A/N | 18.00 | 26.00 | 9.50 |
| RP018028050A/N | 18.00 | 28.00 | 5.00 |
| RP018028060A/N | 18.00 | 28.00 | 6.00 |
| RP018028080A/N | 18.00 | 28.00 | 8.00 |
| RP018028100A/N | 18.00 | 28.00 | 10.00 |
| RP018030060A/N | 18.00 | 30.00 | 6.00 |
| RP018030075A/N | 18.00 | 30.00 | 7.50 |
| RP018030080A/N | 18.00 | 30.00 | 8.00 |
| RP018030085A/N | 18.00 | 30.00 | 8.50 |
| RP018030090A/N | 18.00 | 30.00 | 9.00 |
| RP018030100A/N | 18.00 | 30.00 | 10.00 |
| RP018032070A/N | 18.00 | 32.00 | 7.00 |
| RP018034080A/N | 18.00 | 34.00 | 8.00 |
| RP018034120A/N | 18.00 | 34.00 | 12.00 |
| RP018035085A/N | 18.00 | 35.00 | 8.50 |
| RP018035100A/N | 18.00 | 35.00 | 10.00 |
| RP018035120A/N | 18.00 | 35.00 | 12.00 |
| RP018036060A/N | 18.00 | 36.00 | 6.00 |
| RP018038100A/N | 18.00 | 38.00 | 10.00 |
| RP018040100A/N | 18.00 | 40.00 | 10.00 |
| RP018040110A/N | 18.00 | 40.00 | 11.00 |
| RP019025060A/N | 19.00 | 25.00 | 6.00 |
| RP019026050A/N | 19.00 | 26.00 | 5.00 |
| RP019034080A/N | 19.00 | 34.00 | 8.00 |
| RP019034100A/N | 19.00 | 34.00 | 10.00 |
| RP019037100A/N | 19.00 | 37.00 | 10.00 |
| RP020025030A/N | 20.00 | 25.00 | 3.00 |
| RP020027060A/N | 20.00 | 27.00 | 6.00 |
| RP020028040A/N | 20.00 | 28.00 | 4.00 |
| RP020028050A/N | 20.00 | 28.00 | 5.00 |
| RP020028060A/N | 20.00 | 28.00 | 6.00 |
| RP020028080A/N | 20.00 | 28.00 | 8.00 |
| RP020028090A/N | 20.00 | 28.00 | 9.00 |
| RP020029050A/N | 20.00 | 29.00 | 5.00 |
| RP020029055A/N | 20.00 | 29.00 | 5.50 |
| RP020030050A/N | 20.00 | 30.00 | 5.00 |
| RP020030060A/N | 20.00 | 30.00 | 6.00 |
| RP020030080A/N | 20.00 | 30.00 | 8.00 |
| RP020030090A/N | 20.00 | 30.00 | 9.00 |
| RP020030100A/N | 20.00 | 30.00 | 10.00 |
| RP020030110A/N | 20.00 | 30.00 | 11.00 |
| RP020032060A/N | 20.00 | 32.00 | 6.00 |
| RP020032075A/N | 20.00 | 32.00 | 7.50 |
| RP020032080A/N | 20.00 | 32.00 | 8.00 |
| RP020032085A/N | 20.00 | 32.00 | 8.50 |
| RP020033060A/N | 20.00 | 33.00 | 6.00 |

A/N series - NBR 90A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP020035075A/N | 20.00 | 35.00 | 7.50 |
| RP020035100A/N | 20.00 | 35.00 | 10.00 |
| RP020035120A/N | 20.00 | 35.00 | 12.00 |
| RP020035130A/N | 20.00 | 35.00 | 13.00 |
| RP020036080A/N | 20.00 | 36.00 | 8.00 |
| RP020036100A/N | 20.00 | 36.00 | 10.00 |
| RP020038085A/N | 20.00 | 38.00 | 8.50 |
| RP020038090A/N | 20.00 | 38.00 | 9.00 |
| RP020038100A/N | 20.00 | 38.00 | 10.00 |
| RP020039100A/N | 20.00 | 39.00 | 10.00 |
| RP020040050A/N | 20.00 | 40.00 | 5.00 |
| RP020040100A/N | 20.00 | 40.00 | 10.00 |
| RP020040110A/N | 20.00 | 40.00 | 11.00 |
| RP020040120A/N | 20.00 | 40.00 | 12.00 |
| RP020043120A/N | 20.00 | 43.00 | 12.00 |
| RP020045120A/N | 20.00 | 45.00 | 12.00 |
| RP021033060A/N | 21.00 | 33.00 | 6.00 |
| RP021037120A/N | 21.00 | 37.00 | 12.00 |
| RP022028050A/N | 22.00 | 28.00 | 5.00 |
| RP022028060A/N | 22.00 | 28.00 | 6.00 |
| RP022028080A/N | 22.00 | 28.00 | 8.00 |
| RP022028090A/N | 22.00 | 28.00 | 9.00 |
| RP022030040A/N | 22.00 | 30.00 | 4.00 |
| RP022030050A/N | 22.00 | 30.00 | 5.00 |
| RP022030060A/N | 22.00 | 30.00 | 6.00 |
| RP022030070A/N | 22.00 | 30.00 | 7.00 |
| RP022030075A/N | 22.00 | 30.00 | 7.50 |
| RP022030100A/N | 22.00 | 30.00 | 10.00 |
| RP022032050A/N | 22.00 | 32.00 | 5.00 |
| RP022032060A/N | 22.00 | 32.00 | 6.00 |
| RP022032070A/N | 22.00 | 32.00 | 7.00 |
| RP022032080A/N | 22.00 | 32.00 | 8.00 |
| RP022032090A/N | 22.00 | 32.00 | 9.00 |
| RP022032100A/N | 22.00 | 32.00 | 10.00 |
| RP022032110A/N | 22.00 | 32.00 | 11.00 |
| RP022034060A/N | 22.00 | 34.00 | 6.00 |
| RP022034100A/N | 22.00 | 34.00 | 10.00 |
| RP022035070A/N | 22.00 | 35.00 | 7.00 |
| RP022035100A/N | 22.00 | 35.00 | 10.00 |
| RP022035110A/N | 22.00 | 35.00 | 11.00 |
| RP022036080A/N | 22.00 | 36.00 | 8.00 |
| RP022037100A/N | 22.00 | 37.00 | 10.00 |
| RP022038080A/N | 22.00 | 38.00 | 8.00 |
| RP022038100A/N | 22.00 | 38.00 | 10.00 |
| RP022040100A/N | 22.00 | 40.00 | 10.00 |
| RP022042100A/N | 22.00 | 42.00 | 10.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP022046120A/N | 22.00 | 46.00 | 12.00 |
| RP023032050A/N | 23.00 | 32.00 | 5.00 |
| RP023035060A/N | 23.00 | 35.00 | 6.00 |
| RP023035100A/N | 23.00 | 35.00 | 10.00 |
| RP023038100A/N | 23.00 | 38.00 | 10.00 |
| RP023043100A/N | 23.00 | 43.00 | 10.00 |
| RP024030050A/N | 24.00 | 30.00 | 5.00 |
| RP024031050A/N | 24.00 | 31.00 | 5.00 |
| RP024032040A/N | 24.00 | 32.00 | 4.00 |
| RP024032070A/N | 24.00 | 32.00 | 7.00 |
| RP024032080A/N | 24.00 | 32.00 | 8.00 |
| RP024034050A/N | 24.00 | 34.00 | 5.00 |
| RP024034100A/N | 24.00 | 34.00 | 10.00 |
| RP024036060A/N | 24.00 | 36.00 | 6.00 |
| RP024036075A/N | 24.00 | 36.00 | 7.50 |
| RP024037060A/N | 24.00 | 37.00 | 6.00 |
| RP024040080A/N | 24.00 | 40.00 | 8.00 |
| RP024040090A/N | 24.00 | 40.00 | 9.00 |
| RP024040100A/N | 24.00 | 40.00 | 10.00 |
| RP024040120A/N | 24.00 | 40.00 | 12.00 |
| RP024044100A/N | 24.00 | 44.00 | 10.00 |
| RP024050120A/N | 24.00 | 50.00 | 12.00 |
| RP025032040A/N | 25.00 | 32.00 | 4.00 |
| RP025032070A/N | 25.00 | 32.00 | 7.00 |
| RP025033040A/N | 25.00 | 33.00 | 4.00 |
| RP025033050A/N | 25.00 | 33.00 | 5.00 |
| RP025033070A/N | 25.00 | 33.00 | 7.00 |
| RP025035050A/N | 25.00 | 35.00 | 5.00 |
| RP025035055A/N | 25.00 | 35.00 | 5.50 |
| RP025035060A/N | 25.00 | 35.00 | 6.00 |
| RP025035070A/N | 25.00 | 35.00 | 7.00 |
| RP025035080A/N | 25.00 | 35.00 | 8.00 |
| RP025035090A/N | 25.00 | 35.00 | 9.00 |
| RP025035100A/N | 25.00 | 35.00 | 10.00 |
| RP025035110A/N | 25.00 | 35.00 | 11.00 |
| RP025036050A/N | 25.00 | 36.00 | 5.00 |
| RP025037060A/N | 25.00 | 37.00 | 6.00 |
| RP025037070A/N | 25.00 | 37.00 | 7.00 |
| RP025038070A/N | 25.00 | 38.00 | 7.00 |
| RP025038080A/N | 25.00 | 38.00 | 8.00 |
| RP025038090A/N | 25.00 | 38.00 | 9.00 |
| RP025038100A/N | 25.00 | 38.00 | 10.00 |
| RP025038110A/N | 25.00 | 38.00 | 11.00 |
| RP025039070A/N | 25.00 | 39.00 | 7.00 |
| RP025040060A/N | 25.00 | 40.00 | 6.00 |
| RP025040075A/N | 25.00 | 40.00 | 7.50 |

A/N series - NBR 90A



| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP025040080A/N | 25.00 | 40.00 | 8.00 |
| RP025040100A/N | 25.00 | 40.00 | 10.00 |
| RP025040110A/N | 25.00 | 40.00 | 11.00 |
| RP025042080A/N | 25.00 | 42.00 | 8.00 |
| RP025042085A/N | 25.00 | 42.00 | 8.50 |
| RP025045100A/N | 25.00 | 45.00 | 10.00 |
| RP025045120A/N | 25.00 | 45.00 | 12.00 |
| RP025047120A/N | 25.00 | 47.00 | 12.00 |
| RP025050100A/N | 25.00 | 50.00 | 10.00 |
| RP025050120A/N | 25.00 | 50.00 | 12.00 |
| RP025052120A/N | 25.00 | 52.00 | 12.00 |
| RP026034040A/N | 26.00 | 34.00 | 4.00 |
| RP026035050A/N | 26.00 | 35.00 | 5.00 |
| RP026036050A/N | 26.00 | 36.00 | 5.00 |
| RP026036060A/N | 26.00 | 36.00 | 6.00 |
| RP026036070A/N | 26.00 | 36.00 | 7.00 |
| RP026038060A/N | 26.00 | 38.00 | 6.00 |
| RP026042080A/N | 26.00 | 42.00 | 8.00 |
| RP026046100A/N | 26.00 | 46.00 | 10.00 |
| RP026047120A/N | 26.00 | 47.00 | 12.00 |
| RP026056140A/N | 26.00 | 56.00 | 14.00 |
| RP027035040A/N | 27.00 | 35.00 | 4.00 |
| RP027036060A/N | 27.00 | 36.00 | 6.00 |
| RP027038060A/N | 27.00 | 38.00 | 6.00 |
| RP027042100A/N | 27.00 | 42.00 | 10.00 |
| RP028035050A/N | 28.00 | 35.00 | 5.00 |
| RP028035055A/N | 28.00 | 35.00 | 5.50 |
| RP028035060A/N | 28.00 | 35.00 | 6.00 |
| RP028036040A/N | 28.00 | 36.00 | 4.00 |
| RP028036050A/N | 28.00 | 36.00 | 5.00 |
| RP028036060A/N | 28.00 | 36.00 | 6.00 |
| RP028036065A/N | 28.00 | 36.00 | 6.50 |
| RP028036075A/N | 28.00 | 36.00 | 7.50 |
| RP028038050A/N | 28.00 | 38.00 | 5.00 |
| RP028038060A/N | 28.00 | 38.00 | 6.00 |
| RP028038070A/N | 28.00 | 38.00 | 7.00 |
| RP028038080A/N | 28.00 | 38.00 | 8.00 |
| RP028038090A/N | 28.00 | 38.00 | 9.00 |
| RP028038100A/N | 28.00 | 38.00 | 10.00 |
| RP028040060A/N | 28.00 | 40.00 | 6.00 |
| RP028040075A/N | 28.00 | 40.00 | 7.50 |
| RP028040100A/N | 28.00 | 40.00 | 10.00 |
| RP028041060A/N | 28.00 | 41.00 | 6.00 |
| RP028043100A/N | 28.00 | 43.00 | 10.00 |
| RP028044080A/N | 28.00 | 44.00 | 8.00 |
| RP028045100A/N | 28.00 | 45.00 | 10.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP028046100A/N | 28.00 | 46.00 | 10.00 |
| RP028047100A/N | 28.00 | 47.00 | 10.00 |
| RP028048100A/N | 28.00 | 48.00 | 10.00 |
| RP028048120A/N | 28.00 | 48.00 | 12.00 |
| RP029037040A/N | 29.00 | 37.00 | 4.00 |
| RP029045080A/N | 29.00 | 45.00 | 8.00 |
| RP030037060A/N | 30.00 | 37.00 | 6.00 |
| RP030037080A/N | 30.00 | 37.00 | 8.00 |
| RP030038040A/N | 30.00 | 38.00 | 4.00 |
| RP030038050A/N | 30.00 | 38.00 | 5.00 |
| RP030038060A/N | 30.00 | 38.00 | 6.00 |
| RP030038065A/N | 30.00 | 38.00 | 6.50 |
| RP030038070A/N | 30.00 | 38.00 | 7.00 |
| RP030038120A/N | 30.00 | 38.00 | 12.00 |
| RP030040050A/N | 30.00 | 40.00 | 5.00 |
| RP030040055A/N | 30.00 | 40.00 | 5.50 |
| RP030040060A/N | 30.00 | 40.00 | 6.00 |
| RP030040065A/N | 30.00 | 40.00 | 6.50 |
| RP030040070A/N | 30.00 | 40.00 | 7.00 |
| RP030040090A/N | 30.00 | 40.00 | 9.00 |
| RP030040100A/N | 30.00 | 40.00 | 10.00 |
| RP030040110A/N | 30.00 | 40.00 | 11.00 |
| RP030040115A/N | 30.00 | 40.00 | 11.50 |
| RP030041080A/N | 30.00 | 41.00 | 8.00 |
| RP030042060A/N | 30.00 | 42.00 | 6.00 |
| RP030042090A/N | 30.00 | 42.00 | 9.00 |
| RP030042100A/N | 30.00 | 42.00 | 10.00 |
| RP030042110A/N | 30.00 | 42.00 | 11.00 |
| RP030043065A/N | 30.00 | 43.00 | 6.50 |
| RP030045075A/N | 30.00 | 45.00 | 7.50 |
| RP030045090A/N | 30.00 | 45.00 | 9.00 |
| RP030045100A/N | 30.00 | 45.00 | 10.00 |
| RP030045110A/N | 30.00 | 45.00 | 11.00 |
| RP030047100A/N | 30.00 | 47.00 | 10.00 |
| RP030048090A/N | 30.00 | 48.00 | 9.00 |
| RP030050100A/N | 30.00 | 50.00 | 10.00 |
| RP030050110A/N | 30.00 | 50.00 | 11.00 |
| RP030050120A/N | 30.00 | 50.00 | 12.00 |
| RP030050130A/N | 30.00 | 50.00 | 13.00 |
| RP030052110A/N | 30.00 | 52.00 | 11.00 |
| RP030054120A/N | 30.00 | 54.00 | 12.00 |
| RP030055120A/N | 30.00 | 55.00 | 12.00 |
| RP030055150A/N | 30.00 | 55.00 | 15.00 |
| RP030060150A/N | 30.00 | 60.00 | 15.00 |
| RP031038070A/N | 31.00 | 38.00 | 7.00 |
| RP031044060A/N | 31.50 | 44.50 | 6.00 |

A/N series - NBR 90A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP032040040A/N | 32.00 | 40.00 | 4.00 |
| RP032040050A/N | 32.00 | 40.00 | 5.00 |
| RP032040055A/N | 32.00 | 40.00 | 5.50 |
| RP032040060A/N | 32.00 | 40.00 | 6.00 |
| RP032040070A/N | 32.00 | 40.00 | 7.00 |
| RP032040080A/N | 32.00 | 40.00 | 8.00 |
| RP032040100A/N | 32.00 | 40.00 | 10.00 |
| RP032042050A/N | 32.00 | 42.00 | 5.00 |
| RP032042060A/N | 32.00 | 42.00 | 6.00 |
| RP032042100A/N | 32.00 | 42.00 | 10.00 |
| RP032042110A/N | 32.00 | 42.00 | 11.00 |
| RP032044060A/N | 32.00 | 44.00 | 6.00 |
| RP032044075A/N | 32.00 | 44.00 | 7.50 |
| RP032045065A/N | 32.00 | 45.00 | 6.50 |
| RP032045100A/N | 32.00 | 45.00 | 10.00 |
| RP032045110A/N | 32.00 | 45.00 | 11.00 |
| RP032047100A/N | 32.00 | 47.00 | 10.00 |
| RP032048080A/N | 32.00 | 48.00 | 8.00 |
| RP032050090A/N | 32.00 | 50.00 | 9.00 |
| RP032050100A/N | 32.00 | 50.00 | 10.00 |
| RP032050120A/N | 32.00 | 50.00 | 12.00 |
| RP032050135A/N | 32.00 | 50.00 | 13.50 |
| RP032052100A/N | 32.00 | 52.00 | 10.00 |
| RP032058130A/N | 32.00 | 58.00 | 13.00 |
| RP033043050A/N | 33.00 | 43.00 | 5.00 |
| RP033043060A/N | 33.00 | 43.00 | 6.00 |
| RP033045060A/N | 33.00 | 45.00 | 6.00 |
| RP033055120A/N | 33.00 | 55.00 | 12.00 |
| RP034044050A/N | 34.00 | 44.00 | 5.00 |
| RP034045070A/N | 34.00 | 45.00 | 7.00 |
| RP034045080A/N | 34.00 | 45.00 | 8.00 |
| RP034045090A/N | 34.00 | 45.00 | 9.00 |
| RP034046080A/N | 34.00 | 46.00 | 8.00 |
| RP034050150A/N | 34.00 | 50.00 | 15.00 |
| RP034074100A/N | 34.00 | 74.00 | 10.00 |
| RP035042080A/N | 35.00 | 42.00 | 8.00 |
| RP035043070A/N | 35.00 | 43.00 | 7.00 |
| RP035045050A/N | 35.00 | 45.00 | 5.00 |
| RP035045060A/N | 35.00 | 45.00 | 6.00 |
| RP035045080A/N | 35.00 | 45.00 | 8.00 |
| RP035045090A/N | 35.00 | 45.00 | 9.00 |
| RP035045100A/N | 35.00 | 45.00 | 10.00 |
| RP035045110A/N | 35.00 | 45.00 | 11.00 |
| RP035047060A/N | 35.00 | 47.00 | 6.00 |
| RP035048100A/N | 35.00 | 48.00 | 10.00 |
| RP035048110A/N | 35.00 | 48.00 | 11.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP035050070A/N | 35.00 | 50.00 | 7.00 |
| RP035050075A/N | 35.00 | 50.00 | 7.50 |
| RP035050080A/N | 35.00 | 50.00 | 8.00 |
| RP035050090A/N | 35.00 | 50.00 | 9.00 |
| RP035050095A/N | 35.00 | 50.00 | 9.50 |
| RP035050100A/N | 35.00 | 50.00 | 10.00 |
| RP035050110A/N | 35.00 | 50.00 | 11.00 |
| RP035051080A/N | 35.00 | 51.00 | 8.00 |
| RP035052100A/N | 35.00 | 52.00 | 10.00 |
| RP035052120A/N | 35.00 | 52.00 | 12.00 |
| RP035055100A/N | 35.00 | 55.00 | 10.00 |
| RP035055110A/N | 35.00 | 55.00 | 11.00 |
| RP035055120A/N | 35.00 | 55.00 | 12.00 |
| RP035055130A/N | 35.00 | 55.00 | 13.00 |
| RP035056100A/N | 35.00 | 56.00 | 10.00 |
| RP035060120A/N | 35.00 | 60.00 | 12.00 |
| RP036045100A/N | 36.00 | 45.00 | 10.00 |
| RP036046050A/N | 36.00 | 46.00 | 5.00 |
| RP036046060A/N | 36.00 | 46.00 | 6.00 |
| RP036046070A/N | 36.00 | 46.00 | 7.00 |
| RP036046080A/N | 36.00 | 46.00 | 8.00 |
| RP036046100A/N | 36.00 | 46.00 | 10.00 |
| RP036048060A/N | 36.00 | 48.00 | 6.00 |
| RP036048075A/N | 36.00 | 48.00 | 7.50 |
| RP036050070A/N | 36.00 | 50.00 | 7.00 |
| RP036050080A/N | 36.00 | 50.00 | 8.00 |
| RP036051071A/N | 36.00 | 51.00 | 7.10 |
| RP036051075A/N | 36.00 | 51.00 | 7.50 |
| RP036051100A/N | 36.00 | 51.00 | 10.00 |
| RP036052100A/N | 36.00 | 52.00 | 10.00 |
| RP036055100A/N | 36.00 | 55.00 | 10.00 |
| RP036070100A/N | 36.00 | 70.00 | 10.00 |
| RP038045050A/N | 38.00 | 45.00 | 5.00 |
| RP038045055A/N | 38.00 | 45.00 | 5.50 |
| RP038045060A/N | 38.00 | 45.00 | 6.00 |
| RP038045075A/N | 38.00 | 45.00 | 7.50 |
| RP038046065A/N | 38.00 | 46.00 | 6.50 |
| RP038046120A/N | 38.00 | 46.00 | 12.00 |
| RP038048050A/N | 38.00 | 48.00 | 5.00 |
| RP038050060A/N | 38.00 | 50.00 | 6.00 |
| RP038050090A/N | 38.00 | 50.00 | 9.00 |
| RP038050100A/N | 38.00 | 50.00 | 10.00 |
| RP038050120A/N | 38.00 | 50.00 | 12.00 |
| RP038052095A/N | 38.00 | 52.50 | 9.50 |
| RP038053100A/N | 38.00 | 53.00 | 10.00 |
| RP038055100A/N | 38.00 | 55.00 | 10.00 |

A/N series - NBR 90A



| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP038055110A/N | 38.00 | 55.00 | 11.00 |
| RP038056090A/N | 38.00 | 56.00 | 9.00 |
| RP038058100A/N | 38.00 | 58.00 | 10.00 |
| RP038058110A/N | 38.00 | 58.00 | 11.00 |
| RP038058120A/N | 38.00 | 58.00 | 12.00 |
| RP038060120A/N | 38.00 | 60.00 | 12.00 |
| RP038074060A/N | 38.00 | 74.00 | 6.00 |
| RP039045040A/N | 39.00 | 45.00 | 4.00 |
| RP040046040A/N | 40.00 | 46.00 | 4.00 |
| RP040048050A/N | 40.00 | 48.00 | 5.00 |
| RP040048080A/N | 40.00 | 48.00 | 8.00 |
| RP040048110A/N | 40.00 | 48.00 | 11.00 |
| RP040048120A/N | 40.00 | 48.00 | 12.00 |
| RP040050050A/N | 40.00 | 50.00 | 5.00 |
| RP040050060A/N | 40.00 | 50.00 | 6.00 |
| RP040050065A/N | 40.00 | 50.00 | 6.50 |
| RP040050070A/N | 40.00 | 50.00 | 7.00 |
| RP040050075A/N | 40.00 | 50.00 | 7.50 |
| RP040050090A/N | 40.00 | 50.00 | 9.00 |
| RP040050100A/N | 40.00 | 50.00 | 10.00 |
| RP040050110A/N | 40.00 | 50.00 | 11.00 |
| RP040052060A/N | 40.00 | 52.00 | 6.00 |
| RP040052070A/N | 40.00 | 52.00 | 7.00 |
| RP040052075A/N | 40.00 | 52.00 | 7.50 |
| RP040052080A/N | 40.00 | 52.00 | 8.00 |
| RP040052100A/N | 40.00 | 52.00 | 10.00 |
| RP040052120A/N | 40.00 | 52.00 | 12.00 |
| RP040055075A/N | 40.00 | 55.00 | 7.50 |
| RP040055095A/N | 40.00 | 55.00 | 9.50 |
| RP040055100A/N | 40.00 | 55.00 | 10.00 |
| RP040055110A/N | 40.00 | 55.00 | 11.00 |
| RP040056080A/N | 40.00 | 56.00 | 8.00 |
| RP040056100A/N | 40.00 | 56.00 | 10.00 |
| RP040056110A/N | 40.00 | 56.00 | 11.00 |
| RP040058100A/N | 40.00 | 58.00 | 10.00 |
| RP040060100A/N | 40.00 | 60.00 | 10.00 |
| RP040060110A/N | 40.00 | 60.00 | 11.00 |
| RP040060120A/N | 40.00 | 60.00 | 12.00 |
| RP040060130A/N | 40.00 | 60.00 | 13.00 |
| RP040060140A/N | 40.00 | 60.00 | 14.00 |
| RP040060180A/N | 40.00 | 60.00 | 18.00 |
| RP040062120A/N | 40.00 | 62.00 | 12.00 |
| RP040064120A/N | 40.00 | 64.00 | 12.00 |
| RP040065120A/N | 40.00 | 65.00 | 12.00 |
| RP040065130A/N | 40.00 | 65.00 | 13.00 |
| RP040065150A/N | 40.00 | 65.00 | 15.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP040070150A/N | 40.00 | 70.00 | 15.00 |
| RP040070160A/N | 40.00 | 70.00 | 16.00 |
| RP040076120A/N | 40.00 | 76.00 | 12.00 |
| RP041056085A/N | 41.00 | 56.00 | 8.50 |
| RP041056100A/N | 41.00 | 56.00 | 10.00 |
| RP042050050A/N | 42.00 | 50.00 | 5.00 |
| RP042050060A/N | 42.00 | 50.00 | 6.00 |
| RP042050080A/N | 42.00 | 50.00 | 8.00 |
| RP042050090A/N | 42.00 | 50.00 | 9.00 |
| RP042050100A/N | 42.00 | 50.00 | 10.00 |
| RP042052050A/N | 42.00 | 52.00 | 5.00 |
| RP042052060A/N | 42.00 | 52.00 | 6.00 |
| RP042052090A/N | 42.00 | 52.00 | 9.00 |
| RP042052100A/N | 42.00 | 52.00 | 10.00 |
| RP042054060A/N | 42.00 | 54.00 | 6.00 |
| RP042055065A/N | 42.00 | 55.00 | 6.50 |
| RP042055080A/N | 42.00 | 55.00 | 8.00 |
| RP042057100A/N | 42.00 | 57.00 | 10.00 |
| RP042062100A/N | 42.00 | 62.00 | 10.00 |
| RP042062120A/N | 42.00 | 62.00 | 12.00 |
| RP042062150A/N | 42.00 | 62.00 | 15.00 |
| RP042062180A/N | 42.00 | 62.00 | 18.00 |
| RP043050120A/N | 43.00 | 50.00 | 12.00 |
| RP043055060A/N | 43.00 | 55.00 | 6.00 |
| RP043063100A/N | 43.00 | 63.00 | 10.00 |
| RP044054040A/N | 44.00 | 54.00 | 4.00 |
| RP044055060A/N | 44.00 | 55.00 | 6.00 |
| RP044056060A/N | 44.00 | 56.00 | 6.00 |
| RP044056075A/N | 44.00 | 56.00 | 7.50 |
| RP044057090A/N | 44.00 | 57.00 | 9.00 |
| RP044064100A/N | 44.00 | 64.00 | 10.00 |
| RP045052080A/N | 45.00 | 52.00 | 8.00 |
| RP045053120A/N | 45.00 | 53.00 | 12.00 |
| RP045055050A/N | 45.00 | 55.00 | 5.00 |
| RP045055060A/N | 45.00 | 55.00 | 6.00 |
| RP045055065A/N | 45.00 | 55.00 | 6.50 |
| RP045055075A/N | 45.00 | 55.00 | 7.50 |
| RP045055100A/N | 45.00 | 55.00 | 10.00 |
| RP045055110A/N | 45.00 | 55.00 | 11.00 |
| RP045056070A/N | 45.00 | 56.00 | 7.00 |
| RP045057060A/N | 45.00 | 57.00 | 6.00 |
| RP045058065A/N | 45.00 | 58.00 | 6.50 |
| RP045058100A/N | 45.00 | 58.00 | 10.00 |
| RP045058120A/N | 45.00 | 58.00 | 12.00 |
| RP045060070A/N | 45.00 | 60.00 | 7.00 |
| RP045060075A/N | 45.00 | 60.00 | 7.50 |

A/N series - NBR 90A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP045060090A/N | 45.00 | 60.00 | 9.00 |
| RP045060100A/N | 45.00 | 60.00 | 10.00 |
| RP045060110A/N | 45.00 | 60.00 | 11.00 |
| RP045063090A/N | 45.00 | 63.00 | 9.00 |
| RP045063100A/N | 45.00 | 63.00 | 10.00 |
| RP045063110A/N | 45.00 | 63.00 | 11.00 |
| RP045063120A/N | 45.00 | 63.00 | 12.00 |
| RP045065100A/N | 45.00 | 65.00 | 10.00 |
| RP045065110A/N | 45.00 | 65.00 | 11.00 |
| RP045065120A/N | 45.00 | 65.00 | 12.00 |
| RP045065130A/N | 45.00 | 65.00 | 13.00 |
| RP045069120A/N | 45.00 | 69.00 | 12.00 |
| RP045070120A/N | 45.00 | 70.00 | 12.00 |
| RP045075150A/N | 45.00 | 75.00 | 15.00 |
| RP046054065A/N | 46.00 | 54.00 | 6.50 |
| RP046056050A/N | 46.00 | 56.00 | 5.00 |
| RP046058060A/N | 46.00 | 58.00 | 6.00 |
| RP046070120A/N | 46.00 | 70.00 | 12.00 |
| RP047065120A/N | 47.00 | 65.00 | 12.00 |
| RP047066100A/N | 47.00 | 66.70 | 10.00 |
| RP048058100A/N | 48.00 | 58.00 | 10.00 |
| RP048058110A/N | 48.00 | 58.00 | 11.00 |
| RP048060060A/N | 48.00 | 60.00 | 6.00 |
| RP048060075A/N | 48.00 | 60.00 | 7.50 |
| RP048063090A/N | 48.00 | 63.00 | 9.00 |
| RP048063100A/N | 48.00 | 63.00 | 10.00 |
| RP048063120A/N | 48.00 | 63.00 | 12.00 |
| RP048065100A/N | 48.00 | 65.00 | 10.00 |
| RP048068100A/N | 48.00 | 68.00 | 10.00 |
| RP048068120A/N | 48.00 | 68.00 | 12.00 |
| RP048070100A/N | 48.00 | 70.00 | 10.00 |
| RP048072120A/N | 48.00 | 72.00 | 12.00 |
| RP049065080A/N | 49.00 | 65.00 | 8.00 |
| RP050056080A/N | 50.00 | 56.00 | 8.00 |
| RP050057100A/N | 50.00 | 57.00 | 10.00 |
| RP050060050A/N | 50.00 | 60.00 | 5.00 |
| RP050060060A/N | 50.00 | 60.00 | 6.00 |
| RP050060070A/N | 50.00 | 60.00 | 7.00 |
| RP050060080A/N | 50.00 | 60.00 | 8.00 |
| RP050060100A/N | 50.00 | 60.00 | 10.00 |
| RP050060110A/N | 50.00 | 60.00 | 11.00 |
| RP050060120A/N | 50.00 | 60.00 | 12.00 |
| RP050062060A/N | 50.00 | 62.00 | 6.00 |
| RP050062090A/N | 50.00 | 62.00 | 9.00 |
| RP050062100A/N | 50.00 | 62.00 | 10.00 |
| RP050063060A/N | 50.00 | 63.00 | 6.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP050063065A/N | 50.00 | 63.00 | 6.50 |
| RP050063070A/N | 50.00 | 63.00 | 7.00 |
| RP050063080A/N | 50.00 | 63.00 | 8.00 |
| RP050063090A/N | 50.00 | 63.00 | 9.00 |
| RP050063100A/N | 50.00 | 63.00 | 10.00 |
| RP050065075A/N | 50.00 | 65.00 | 7.50 |
| RP050065090A/N | 50.00 | 65.00 | 9.00 |
| RP050065100A/N | 50.00 | 65.00 | 10.00 |
| RP050065110A/N | 50.00 | 65.00 | 11.00 |
| RP050065120A/N | 50.00 | 65.00 | 12.00 |
| RP050068120A/N | 50.00 | 68.00 | 12.00 |
| RP050070075A/N | 50.00 | 70.00 | 7.50 |
| RP050070080A/N | 50.00 | 70.00 | 8.00 |
| RP050070100A/N | 50.00 | 70.00 | 10.00 |
| RP050070110A/N | 50.00 | 70.00 | 11.00 |
| RP050070120A/N | 50.00 | 70.00 | 12.00 |
| RP050070180A/N | 50.00 | 70.00 | 18.00 |
| RP050070190A/N | 50.00 | 70.00 | 19.00 |
| RP050072120A/N | 50.00 | 72.00 | 12.00 |
| RP050073130A/N | 50.00 | 73.00 | 13.00 |
| RP050074120A/N | 50.00 | 74.00 | 12.00 |
| RP050075120A/N | 50.00 | 75.00 | 12.00 |
| RP050075150A/N | 50.00 | 75.00 | 15.00 |
| RP050076120A/N | 50.00 | 76.00 | 12.00 |
| RP050080150A/N | 50.00 | 80.00 | 15.00 |
| RP050090180A/N | 50.00 | 90.00 | 18.00 |
| RP051060090A/N | 51.00 | 60.50 | 9.00 |
| RP051063060A/N | 51.00 | 63.00 | 6.00 |
| RP051064090A/N | 51.00 | 64.00 | 9.00 |
| RP052062060A/N | 52.00 | 62.00 | 6.00 |
| RP052062120A/N | 52.00 | 62.00 | 12.00 |
| RP052062130A/N | 52.00 | 62.00 | 13.00 |
| RP052064060A/N | 52.00 | 64.00 | 6.00 |
| RP052064075A/N | 52.00 | 64.00 | 7.50 |
| RP052068080A/N | 52.00 | 68.00 | 8.00 |
| RP052072120A/N | 52.00 | 72.00 | 12.00 |
| RP052075120A/N | 52.00 | 75.00 | 12.00 |
| RP052080150A/N | 52.00 | 80.00 | 15.00 |
| RP053063050A/N | 53.00 | 63.00 | 5.00 |
| RP053063060A/N | 53.00 | 63.00 | 6.00 |
| RP053063065A/N | 53.00 | 63.00 | 6.50 |
| RP053063075A/N | 53.00 | 63.00 | 7.50 |
| RP053065060A/N | 53.00 | 65.00 | 6.00 |
| RP053065100A/N | 53.00 | 65.00 | 10.00 |
| RP054066060A/N | 54.00 | 66.00 | 6.00 |
| RP054072100A/N | 54.00 | 72.00 | 10.00 |

A/N series - NBR 90A



| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP055063120A/N | 55.00 | 63.00 | 12.00 |
| RP055065050A/N | 55.00 | 65.00 | 5.00 |
| RP055065060A/N | 55.00 | 65.00 | 6.00 |
| RP055065100A/N | 55.00 | 65.00 | 10.00 |
| RP055065110A/N | 55.00 | 65.00 | 11.00 |
| RP055065120A/N | 55.00 | 65.00 | 12.00 |
| RP055065130A/N | 55.00 | 65.00 | 13.00 |
| RP055067060A/N | 55.00 | 67.00 | 6.00 |
| RP055068065A/N | 55.00 | 68.00 | 6.50 |
| RP055068075A/N | 55.00 | 68.00 | 7.50 |
| RP055070075A/N | 55.00 | 70.00 | 7.50 |
| RP055070090A/N | 55.00 | 70.00 | 9.00 |
| RP055070100A/N | 55.00 | 70.00 | 10.00 |
| RP055070120A/N | 55.00 | 70.00 | 12.00 |
| RP055070130A/N | 55.00 | 70.00 | 13.00 |
| RP055075100A/N | 55.00 | 75.00 | 10.00 |
| RP055075120A/N | 55.00 | 75.00 | 12.00 |
| RP055075130A/N | 55.00 | 75.00 | 13.00 |
| RP055076100A/N | 55.00 | 76.00 | 10.00 |
| RP055080100A/N | 55.00 | 80.00 | 10.00 |
| RP055080120A/N | 55.00 | 80.00 | 12.00 |
| RP055080130A/N | 55.00 | 80.00 | 13.00 |
| RP055080150A/N | 55.00 | 80.00 | 15.00 |
| RP055085100A/N | 55.00 | 85.00 | 10.00 |
| RP055085150A/N | 55.00 | 85.00 | 15.00 |
| RP056066050A/N | 56.00 | 66.00 | 5.00 |
| RP056066060A/N | 56.00 | 66.00 | 6.00 |
| RP056070120A/N | 56.00 | 70.00 | 12.00 |
| RP056071100A/N | 56.00 | 71.00 | 10.00 |
| RP056075070A/N | 56.00 | 75.00 | 7.00 |
| RP056076100A/N | 56.00 | 76.00 | 10.00 |
| RP056076120A/N | 56.00 | 76.00 | 12.00 |
| RP056080150A/N | 56.00 | 80.00 | 15.00 |
| RP058070060A/N | 58.00 | 70.00 | 6.00 |
| RP058077095A/N | 58.00 | 77.00 | 9.50 |
| RP058078120A/N | 58.00 | 78.00 | 12.00 |
| RP058080100A/N | 58.00 | 80.00 | 10.00 |
| RP059080140A/N | 59.00 | 80.00 | 14.00 |
| RP060068080A/N | 60.00 | 68.00 | 8.00 |
| RP060068125A/N | 60.00 | 68.00 | 12.50 |
| RP060070050A/N | 60.00 | 70.00 | 5.00 |
| RP060070060A/N | 60.00 | 70.00 | 6.00 |
| RP060070070A/N | 60.00 | 70.00 | 7.00 |
| RP060070075A/N | 60.00 | 70.00 | 7.50 |
| RP060070080A/N | 60.00 | 70.00 | 8.00 |
| RP060070090A/N | 60.00 | 70.00 | 9.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|-------|
| | d | D | H |
| RP060070100A/N | 60.00 | 70.00 | 10.00 |
| RP060070120A/N | 60.00 | 70.00 | 12.00 |
| RP060070130A/N | 60.00 | 70.00 | 13.00 |
| RP060071070A/N | 60.00 | 71.00 | 7.00 |
| RP060072110A/N | 60.00 | 72.00 | 11.00 |
| RP060074070A/N | 60.00 | 74.00 | 7.00 |
| RP060075075A/N | 60.00 | 75.00 | 7.50 |
| RP060075080A/N | 60.00 | 75.00 | 8.00 |
| RP060075090A/N | 60.00 | 75.00 | 9.00 |
| RP060075100A/N | 60.00 | 75.00 | 10.00 |
| RP060075110A/N | 60.00 | 75.00 | 11.00 |
| RP060075120A/N | 60.00 | 75.00 | 12.00 |
| RP060075130A/N | 60.00 | 75.00 | 13.00 |
| RP060076080A/N | 60.00 | 76.00 | 8.00 |
| RP060080100A/N | 60.00 | 80.00 | 10.00 |
| RP060080110A/N | 60.00 | 80.00 | 11.00 |
| RP060080120A/N | 60.00 | 80.00 | 12.00 |
| RP060080130A/N | 60.00 | 80.00 | 13.00 |
| RP060080180A/N | 60.00 | 80.00 | 18.00 |
| RP060080190A/N | 60.00 | 80.00 | 19.00 |
| RP060084120A/N | 60.00 | 84.00 | 12.00 |
| RP060085120A/N | 60.00 | 85.00 | 12.00 |
| RP060085125A/N | 60.00 | 85.00 | 12.50 |
| RP060085135A/N | 60.00 | 85.00 | 13.50 |
| RP060085150A/N | 60.00 | 85.00 | 15.00 |
| RP060090150A/N | 60.00 | 90.00 | 15.00 |
| RP060090160A/N | 60.00 | 90.00 | 16.00 |
| RP060095130A/N | 60.00 | 95.00 | 13.00 |
| RP061069065A/N | 61.00 | 69.00 | 6.50 |
| RP061073060A/N | 61.00 | 73.00 | 6.00 |
| RP061080120A/N | 61.00 | 80.00 | 12.00 |
| RP062072125A/N | 62.00 | 72.00 | 12.50 |
| RP062078080A/N | 62.00 | 78.00 | 8.00 |
| RP062082100A/N | 62.00 | 82.00 | 10.00 |
| RP062088120A/N | 62.00 | 88.00 | 12.00 |
| RP063072060A/N | 63.00 | 72.00 | 6.00 |
| RP063073050A/N | 63.00 | 73.00 | 5.00 |
| RP063073060A/N | 63.00 | 73.00 | 6.00 |
| RP063073120A/N | 63.00 | 73.00 | 12.00 |
| RP063075100A/N | 63.00 | 75.00 | 10.00 |
| RP063075110A/N | 63.00 | 75.00 | 11.00 |
| RP063075120A/N | 63.00 | 75.00 | 12.00 |
| RP063078100A/N | 63.00 | 78.00 | 10.00 |
| RP063080125A/N | 63.00 | 80.00 | 12.50 |
| RP063083120A/N | 63.00 | 83.00 | 12.00 |
| RP063083130A/N | 63.00 | 83.00 | 13.00 |

A/N series - NBR 90A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|-------|
| | d | D | H |
| RP063083150A/N | 63.00 | 83.00 | 15.00 |
| RP063083160A/N | 63.00 | 83.00 | 16.00 |
| RP063093150A/N | 63.00 | 93.00 | 15.00 |
| RP064076090A/N | 64.00 | 76.00 | 9.00 |
| RP064080080A/N | 64.00 | 80.00 | 8.00 |
| RP065073120A/N | 65.00 | 73.00 | 12.00 |
| RP065075050A/N | 65.00 | 75.00 | 5.00 |
| RP065075060A/N | 65.00 | 75.00 | 6.00 |
| RP065075100A/N | 65.00 | 75.00 | 10.00 |
| RP065075120A/N | 65.00 | 75.00 | 12.00 |
| RP065075130A/N | 65.00 | 75.00 | 13.00 |
| RP065080075A/N | 65.00 | 80.00 | 7.50 |
| RP065080090A/N | 65.00 | 80.00 | 9.00 |
| RP065080110A/N | 65.00 | 80.00 | 11.00 |
| RP065080120A/N | 65.00 | 80.00 | 12.00 |
| RP065080130A/N | 65.00 | 80.00 | 13.00 |
| RP065082120A/N | 65.00 | 82.00 | 12.00 |
| RP065085100A/N | 65.00 | 85.00 | 10.00 |
| RP065085110A/N | 65.00 | 85.00 | 11.00 |
| RP065085120A/N | 65.00 | 85.00 | 12.00 |
| RP065085130A/N | 65.00 | 85.00 | 13.00 |
| RP065086120A/N | 65.00 | 86.00 | 12.00 |
| RP065090080A/N | 65.00 | 90.00 | 8.00 |
| RP065090120A/N | 65.00 | 90.00 | 12.00 |
| RP065090130A/N | 65.00 | 90.00 | 13.00 |
| RP065090150A/N | 65.00 | 90.00 | 15.00 |
| RP065095120A/N | 65.00 | 95.00 | 12.00 |
| RP065095130A/N | 65.00 | 95.00 | 13.00 |
| RP065100120A/N | 65.00 | 100.00 | 12.00 |
| RP066076100A/N | 66.00 | 76.00 | 10.00 |
| RP066077060A/N | 66.00 | 77.00 | 6.00 |
| RP066080100A/N | 66.00 | 80.00 | 10.00 |
| RP067077060A/N | 67.00 | 77.00 | 6.00 |
| RP067077120A/N | 67.00 | 77.00 | 12.00 |
| RP067077130A/N | 67.00 | 77.00 | 13.00 |
| RP067080120A/N | 67.00 | 80.00 | 12.00 |
| RP068076065A/N | 68.00 | 76.00 | 6.50 |
| RP068078100A/N | 68.00 | 78.00 | 10.00 |
| RP068080120A/N | 68.00 | 80.00 | 12.00 |
| RP068092150A/N | 68.00 | 92.00 | 15.00 |
| RP070080050A/N | 70.00 | 80.00 | 5.00 |
| RP070080060A/N | 70.00 | 80.00 | 6.00 |
| RP070080070A/N | 70.00 | 80.00 | 7.00 |
| RP070080080A/N | 70.00 | 80.00 | 8.00 |
| RP070080090A/N | 70.00 | 80.00 | 9.00 |
| RP070080100A/N | 70.00 | 80.00 | 10.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|-------|
| | d | D | H |
| RP070080110A/N | 70.00 | 80.00 | 11.00 |
| RP070080120A/N | 70.00 | 80.00 | 12.00 |
| RP070080130A/N | 70.00 | 80.00 | 13.00 |
| RP070081150A/N | 70.00 | 81.00 | 15.00 |
| RP070082120A/N | 70.00 | 82.00 | 12.00 |
| RP070085075A/N | 70.00 | 85.00 | 7.50 |
| RP070085080A/N | 70.00 | 85.00 | 8.00 |
| RP070085090A/N | 70.00 | 85.00 | 9.00 |
| RP070085105A/N | 70.00 | 85.00 | 10.50 |
| RP070085120A/N | 70.00 | 85.00 | 12.00 |
| RP070085130A/N | 70.00 | 85.00 | 13.00 |
| RP070090100A/N | 70.00 | 90.00 | 10.00 |
| RP070090120A/N | 70.00 | 90.00 | 12.00 |
| RP070090130A/N | 70.00 | 90.00 | 13.00 |
| RP070090150A/N | 70.00 | 90.00 | 15.00 |
| RP070090180A/N | 70.00 | 90.00 | 18.00 |
| RP070090190A/N | 70.00 | 90.00 | 19.00 |
| RP070095120A/N | 70.00 | 95.00 | 12.00 |
| RP070095130A/N | 70.00 | 95.00 | 13.00 |
| RP070095150A/N | 70.00 | 95.00 | 15.00 |
| RP070100100A/N | 70.00 | 100.00 | 10.00 |
| RP070100150A/N | 70.00 | 100.00 | 15.00 |
| RP070105100A/N | 70.00 | 105.00 | 10.00 |
| RP071080060A/N | 71.00 | 80.00 | 6.00 |
| RP072080100A/N | 72.00 | 80.00 | 10.00 |
| RP072080120A/N | 72.00 | 80.00 | 12.00 |
| RP072082050A/N | 72.00 | 82.00 | 5.00 |
| RP072084060A/N | 72.00 | 84.00 | 6.00 |
| RP072090100A/N | 72.00 | 90.00 | 10.00 |
| RP072090110A/N | 72.00 | 90.00 | 11.00 |
| RP072090120A/N | 72.00 | 90.00 | 12.00 |
| RP073093110A/N | 73.00 | 93.00 | 11.00 |
| RP074080080A/N | 74.00 | 80.00 | 8.00 |
| RP074090080A/N | 74.00 | 90.00 | 8.00 |
| RP075083120A/N | 75.00 | 83.00 | 12.00 |
| RP075085050A/N | 75.00 | 85.00 | 5.00 |
| RP075085060A/N | 75.00 | 85.00 | 6.00 |
| RP075085100A/N | 75.00 | 85.00 | 10.00 |
| RP075085120A/N | 75.00 | 85.00 | 12.00 |
| RP075085130A/N | 75.00 | 85.00 | 13.00 |
| RP075090075A/N | 75.00 | 90.00 | 7.50 |
| RP075090085A/N | 75.00 | 90.00 | 8.50 |
| RP075090090A/N | 75.00 | 90.00 | 9.00 |
| RP075090100A/N | 75.00 | 90.00 | 10.00 |
| RP075090105A/N | 75.00 | 90.00 | 10.50 |
| RP075090130A/N | 75.00 | 90.00 | 13.00 |

A/N series - NBR 90A



| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|-------|
| | d | D | H |
| RP075095100A/N | 75.00 | 95.00 | 10.00 |
| RP075095120A/N | 75.00 | 95.00 | 12.00 |
| RP075095130A/N | 75.00 | 95.00 | 13.00 |
| RP075095150A/N | 75.00 | 95.00 | 15.00 |
| RP075100120A/N | 75.00 | 100.00 | 12.00 |
| RP075100150A/N | 75.00 | 100.00 | 15.00 |
| RP075105150A/N | 75.00 | 105.00 | 15.00 |
| RP078086080A/N | 78.00 | 86.00 | 8.00 |
| RP078088050A/N | 78.00 | 88.00 | 5.00 |
| RP078093105A/N | 78.00 | 93.00 | 10.50 |
| RP078093115A/N | 78.00 | 93.00 | 11.50 |
| RP078102120A/N | 78.00 | 102.00 | 12.00 |
| RP078104125A/N | 78.00 | 104.00 | 12.50 |
| RP080090050A/N | 80.00 | 90.00 | 5.00 |
| RP080090060A/N | 80.00 | 90.00 | 6.00 |
| RP080090100A/N | 80.00 | 90.00 | 10.00 |
| RP080090110A/N | 80.00 | 90.00 | 11.00 |
| RP080090120A/N | 80.00 | 90.00 | 12.00 |
| RP080090130A/N | 80.00 | 90.00 | 13.00 |
| RP080092100A/N | 80.00 | 92.00 | 10.00 |
| RP080093080A/N | 80.00 | 93.00 | 8.00 |
| RP080094060A/N | 80.00 | 94.00 | 6.00 |
| RP080095075A/N | 80.00 | 95.00 | 7.50 |
| RP080095080A/N | 80.00 | 95.00 | 8.00 |
| RP080095090A/N | 80.00 | 95.00 | 9.00 |
| RP080095120A/N | 80.00 | 95.00 | 12.00 |
| RP080095130A/N | 80.00 | 95.00 | 13.00 |
| RP080100100A/N | 80.00 | 100.00 | 10.00 |
| RP080100110A/N | 80.00 | 100.00 | 11.00 |
| RP080100120A/N | 80.00 | 100.00 | 12.00 |
| RP080100130A/N | 80.00 | 100.00 | 13.00 |
| RP080100150A/N | 80.00 | 100.00 | 15.00 |
| RP080100180A/N | 80.00 | 100.00 | 18.00 |
| RP080101120A/N | 80.00 | 101.60 | 12.00 |
| RP080105120A/N | 80.00 | 105.00 | 12.00 |
| RP080105150A/N | 80.00 | 105.00 | 15.00 |
| RP080110150A/N | 80.00 | 110.00 | 15.00 |
| RP080110180A/N | 80.00 | 110.00 | 18.00 |
| RP080115125A/N | 80.00 | 115.00 | 12.50 |
| RP080115150A/N | 80.00 | 115.00 | 15.00 |
| RP082092100A/N | 82.00 | 92.00 | 10.00 |
| RP082092110A/N | 82.00 | 92.00 | 11.00 |
| RP082100090A/N | 82.00 | 100.00 | 9.00 |
| RP082104125A/N | 82.00 | 104.00 | 12.50 |
| RP082108120A/N | 82.00 | 108.00 | 12.00 |
| RP083103140A/N | 83.00 | 103.00 | 14.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|-------|
| | d | D | H |
| RP084103140A/N | 84.00 | 103.00 | 14.00 |
| RP085095075A/N | 85.00 | 95.00 | 7.50 |
| RP085095085A/N | 85.00 | 95.00 | 8.50 |
| RP085095090A/N | 85.00 | 95.00 | 9.00 |
| RP085095120A/N | 85.00 | 95.00 | 12.00 |
| RP085095130A/N | 85.00 | 95.00 | 13.00 |
| RP085100075A/N | 85.00 | 100.00 | 7.50 |
| RP085100090A/N | 85.00 | 100.00 | 9.00 |
| RP085100120A/N | 85.00 | 100.00 | 12.00 |
| RP085100130A/N | 85.00 | 100.00 | 13.00 |
| RP085105100A/N | 85.00 | 105.00 | 10.00 |
| RP085105120A/N | 85.00 | 105.00 | 12.00 |
| RP085105130A/N | 85.00 | 105.00 | 13.00 |
| RP085105150A/N | 85.00 | 105.00 | 15.00 |
| RP085105180A/N | 85.00 | 105.00 | 18.00 |
| RP085110120A/N | 85.00 | 110.00 | 12.00 |
| RP085110150A/N | 85.00 | 110.00 | 15.00 |
| RP085115150A/N | 85.00 | 115.00 | 15.00 |
| RP085115160A/N | 85.00 | 115.00 | 16.00 |
| RP086098120A/N | 86.00 | 98.00 | 12.00 |
| RP086105160A/N | 86.00 | 105.00 | 16.00 |
| RP086106100A/N | 86.00 | 106.00 | 10.00 |
| RP088096065A/N | 88.00 | 96.00 | 6.50 |
| RP088100060A/N | 88.00 | 100.00 | 6.00 |
| RP088108120A/N | 88.00 | 108.00 | 12.00 |
| RP089100120A/N | 89.00 | 100.00 | 12.00 |
| RP090098120A/N | 90.00 | 98.00 | 12.00 |
| RP090100050A/N | 90.00 | 100.00 | 5.00 |
| RP090100080A/N | 90.00 | 100.00 | 8.00 |
| RP090100090A/N | 90.00 | 100.00 | 9.00 |
| RP090100120A/N | 90.00 | 100.00 | 12.00 |
| RP090100130A/N | 90.00 | 100.00 | 13.00 |
| RP090100150A/N | 90.00 | 100.00 | 15.00 |
| RP090105075A/N | 90.00 | 105.00 | 7.50 |
| RP090105090A/N | 90.00 | 105.00 | 9.00 |
| RP090105120A/N | 90.00 | 105.00 | 12.00 |
| RP090105130A/N | 90.00 | 105.00 | 13.00 |
| RP090110100A/N | 90.00 | 110.00 | 10.00 |
| RP090110120A/N | 90.00 | 110.00 | 12.00 |
| RP090110130A/N | 90.00 | 110.00 | 13.00 |
| RP090110150A/N | 90.00 | 110.00 | 15.00 |
| RP090110180A/N | 90.00 | 110.00 | 18.00 |
| RP090110190A/N | 90.00 | 110.00 | 19.00 |
| RP090112120A/N | 90.00 | 112.00 | 12.00 |
| RP090115015A/N | 90.00 | 115.00 | 1.50 |
| RP090115120A/N | 90.00 | 115.00 | 12.00 |

A/N series - NBR 90A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|-------|
| | d | D | H |
| RP090115150A/N | 90.00 | 115.00 | 15.00 |
| RP090120150A/N | 90.00 | 120.00 | 15.00 |
| RP090120180A/N | 90.00 | 120.00 | 18.00 |
| RP091099065A/N | 91.00 | 99.00 | 6.50 |
| RP092116120A/N | 92.00 | 116.00 | 12.00 |
| RP093123150A/N | 93.00 | 123.00 | 15.00 |
| RP094124150A/N | 94.00 | 124.00 | 15.00 |
| RP095103120A/N | 95.00 | 103.00 | 12.00 |
| RP095105050A/N | 95.00 | 105.00 | 5.00 |
| RP095105110A/N | 95.00 | 105.00 | 11.00 |
| RP095105120A/N | 95.00 | 105.00 | 12.00 |
| RP095110075A/N | 95.00 | 110.00 | 7.50 |
| RP095110090A/N | 95.00 | 110.00 | 9.00 |
| RP095110120A/N | 95.00 | 110.00 | 12.00 |
| RP095110130A/N | 95.00 | 110.00 | 13.00 |
| RP095110150A/N | 95.00 | 110.00 | 15.00 |
| RP095110160A/N | 95.00 | 110.00 | 16.00 |
| RP095112110A/N | 95.00 | 112.00 | 11.00 |
| RP095112120A/N | 95.00 | 112.00 | 12.00 |
| RP095115075A/N | 95.00 | 115.00 | 7.50 |
| RP095115100A/N | 95.00 | 115.00 | 10.00 |
| RP095115120A/N | 95.00 | 115.00 | 12.00 |
| RP095115130A/N | 95.00 | 115.00 | 13.00 |
| RP095115150A/N | 95.00 | 115.00 | 15.00 |
| RP095115180A/N | 95.00 | 115.00 | 18.00 |
| RP095115190A/N | 95.00 | 115.00 | 19.00 |
| RP095120120A/N | 95.00 | 120.00 | 12.00 |
| RP095120130A/N | 95.00 | 120.00 | 13.00 |
| RP095120150A/N | 95.00 | 120.00 | 15.00 |
| RP095125130A/N | 95.00 | 125.00 | 13.00 |
| RP095125150A/N | 95.00 | 125.00 | 15.00 |
| RP096104115A/N | 96.00 | 104.00 | 11.50 |
| RP096105110A/N | 96.00 | 105.00 | 11.00 |
| RP097105080A/N | 97.00 | 105.00 | 8.00 |
| RP098108100A/N | 98.00 | 108.00 | 10.00 |
| RP098112085A/N | 98.00 | 112.00 | 8.50 |
| RP100110050A/N | 100.00 | 110.00 | 5.00 |
| RP100112090A/N | 100.00 | 112.00 | 9.00 |
| RP100114100A/N | 100.00 | 114.00 | 10.00 |
| RP100115075A/N | 100.00 | 115.00 | 7.50 |
| RP100115090A/N | 100.00 | 115.00 | 9.00 |
| RP100115120A/N | 100.00 | 115.00 | 12.00 |
| RP100115130A/N | 100.00 | 115.00 | 13.00 |
| RP100115140A/N | 100.00 | 115.00 | 14.00 |
| RP100117120A/N | 100.00 | 117.50 | 12.00 |
| RP100120100A/N | 100.00 | 120.00 | 10.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|-------|
| | d | D | H |
| RP100120120A/N | 100.00 | 120.00 | 12.00 |
| RP100120130A/N | 100.00 | 120.00 | 13.00 |
| RP100120150A/N | 100.00 | 120.00 | 15.00 |
| RP100120180A/N | 100.00 | 120.00 | 18.00 |
| RP100125120A/N | 100.00 | 125.00 | 12.00 |
| RP100125130A/N | 100.00 | 125.00 | 13.00 |
| RP100125150A/N | 100.00 | 125.00 | 15.00 |
| RP100125160A/N | 100.00 | 125.00 | 16.00 |
| RP100125180A/N | 100.00 | 125.00 | 18.00 |
| RP100130150A/N | 100.00 | 130.00 | 15.00 |
| RP100130180A/N | 100.00 | 130.00 | 18.00 |
| RP100140200A/N | 100.00 | 140.00 | 20.00 |
| RP105120075A/N | 105.00 | 120.00 | 7.50 |
| RP105120080A/N | 105.00 | 120.00 | 8.00 |
| RP105120090A/N | 105.00 | 120.00 | 9.00 |
| RP105120150A/N | 105.00 | 120.00 | 15.00 |
| RP105125100A/N | 105.00 | 125.00 | 10.00 |
| RP105125120A/N | 105.00 | 125.00 | 12.00 |
| RP105125130A/N | 105.00 | 125.00 | 13.00 |
| RP105125150A/N | 105.00 | 125.00 | 15.00 |
| RP105125160A/N | 105.00 | 125.00 | 16.00 |
| RP105130120A/N | 105.00 | 130.00 | 12.00 |
| RP105130180A/N | 105.00 | 130.00 | 18.00 |
| RP105135180A/N | 105.00 | 135.00 | 18.00 |
| RP106118120A/N | 106.00 | 118.00 | 12.00 |
| RP106120085A/N | 106.00 | 120.00 | 8.50 |
| RP106130180A/N | 106.00 | 130.00 | 18.00 |
| RP107115065A/N | 107.00 | 115.00 | 6.50 |
| RP107127160A/N | 107.00 | 127.40 | 16.00 |
| RP108127095A/N | 108.00 | 127.00 | 9.50 |
| RP110125075A/N | 110.00 | 125.00 | 7.50 |
| RP110125120A/N | 110.00 | 125.00 | 12.00 |
| RP110125130A/N | 110.00 | 125.00 | 13.00 |
| RP110125150A/N | 110.00 | 125.00 | 15.00 |
| RP110130100A/N | 110.00 | 130.00 | 10.00 |
| RP110130120A/N | 110.00 | 130.00 | 12.00 |
| RP110130150A/N | 110.00 | 130.00 | 15.00 |
| RP110130160A/N | 110.00 | 130.00 | 16.00 |
| RP110130180A/N | 110.00 | 130.00 | 18.00 |
| RP110130190A/N | 110.00 | 130.00 | 19.00 |
| RP110135120A/N | 110.00 | 135.00 | 12.00 |
| RP110135180A/N | 110.00 | 135.00 | 18.00 |
| RP110140150A/N | 110.00 | 140.00 | 15.00 |
| RP110140180A/N | 110.00 | 140.00 | 18.00 |
| RP110150200A/N | 110.00 | 150.00 | 20.00 |
| RP112125090A/N | 112.00 | 125.00 | 9.00 |

A/N series - NBR 90A



| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|-------|
| | d | D | H |
| RP113125095A/N | 113.00 | 125.00 | 9.50 |
| RP113125105A/N | 113.00 | 125.00 | 10.50 |
| RP114124100A/N | 114.00 | 124.00 | 10.00 |
| RP115123120A/N | 115.00 | 123.00 | 12.00 |
| RP115125080A/N | 115.00 | 125.00 | 8.00 |
| RP115125150A/N | 115.00 | 125.00 | 15.00 |
| RP115125160A/N | 115.00 | 125.00 | 16.00 |
| RP115126150A/N | 115.00 | 126.00 | 15.00 |
| RP115129130A/N | 115.00 | 129.00 | 13.00 |
| RP115130075A/N | 115.00 | 130.00 | 7.50 |
| RP115130150A/N | 115.00 | 130.00 | 15.00 |
| RP115135120A/N | 115.00 | 135.00 | 12.00 |
| RP115135150A/N | 115.00 | 135.00 | 15.00 |
| RP115135160A/N | 115.00 | 135.00 | 16.00 |
| RP115140120A/N | 115.00 | 140.00 | 12.00 |
| RP115140150A/N | 115.00 | 140.00 | 15.00 |
| RP115140180A/N | 115.00 | 140.00 | 18.00 |
| RP115145120A/N | 115.00 | 145.00 | 12.00 |
| RP115145180A/N | 115.00 | 145.00 | 18.00 |
| RP120130140A/N | 120.00 | 130.00 | 14.00 |
| RP120130150A/N | 120.00 | 130.00 | 15.00 |
| RP120135075A/N | 120.00 | 135.00 | 7.50 |
| RP120135100A/N | 120.00 | 135.00 | 10.00 |
| RP120135150A/N | 120.00 | 135.00 | 15.00 |
| RP120135160A/N | 120.00 | 135.00 | 16.00 |
| RP120140100A/N | 120.00 | 140.00 | 10.00 |
| RP120140120A/N | 120.00 | 140.00 | 12.00 |
| RP120140140A/N | 120.00 | 140.00 | 14.00 |
| RP120140150A/N | 120.00 | 140.00 | 15.00 |
| RP120140160A/N | 120.00 | 140.00 | 16.00 |
| RP120145180A/N | 120.00 | 145.00 | 18.00 |
| RP120150150A/N | 120.00 | 150.00 | 15.00 |
| RP120150180A/N | 120.00 | 150.00 | 18.00 |
| RP125140075A/N | 125.00 | 140.00 | 7.50 |
| RP125140090A/N | 125.00 | 140.00 | 9.00 |
| RP125140110A/N | 125.00 | 140.00 | 11.00 |
| RP125140120A/N | 125.00 | 140.00 | 12.00 |
| RP125140130A/N | 125.00 | 140.00 | 13.00 |
| RP125140150A/N | 125.00 | 140.00 | 15.00 |
| RP125145100A/N | 125.00 | 145.00 | 10.00 |
| RP125145120A/N | 125.00 | 145.00 | 12.00 |
| RP125145150A/N | 125.00 | 145.00 | 15.00 |
| RP125145160A/N | 125.00 | 145.00 | 16.00 |
| RP125145180A/N | 125.00 | 145.00 | 18.00 |
| RP125145190A/N | 125.00 | 145.00 | 19.00 |
| RP125147120A/N | 125.00 | 147.00 | 12.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|-------|
| | d | D | H |
| RP125150180A/N | 125.00 | 150.00 | 18.00 |
| RP125154200A/N | 125.00 | 154.00 | 20.00 |
| RP125155150A/N | 125.00 | 155.00 | 15.00 |
| RP125155160A/N | 125.00 | 155.00 | 16.00 |
| RP125155180A/N | 125.00 | 155.00 | 18.00 |
| RP127142120A/N | 127.00 | 142.00 | 12.00 |
| RP127151160A/N | 127.00 | 151.00 | 16.00 |
| RP128158180A/N | 128.00 | 158.00 | 18.00 |
| RP130140150A/N | 130.00 | 140.00 | 15.00 |
| RP130145150A/N | 130.00 | 145.00 | 15.00 |
| RP130150100A/N | 130.00 | 150.00 | 10.00 |
| RP130150120A/N | 130.00 | 150.00 | 12.00 |
| RP130150140A/N | 130.00 | 150.00 | 14.00 |
| RP130150150A/N | 130.00 | 150.00 | 15.00 |
| RP130150160A/N | 130.00 | 150.00 | 16.00 |
| RP130155180A/N | 130.00 | 155.00 | 18.00 |
| RP130160130A/N | 130.00 | 160.00 | 13.00 |
| RP130160150A/N | 130.00 | 160.00 | 15.00 |
| RP130160180A/N | 130.00 | 160.00 | 18.00 |
| RP132144120A/N | 132.00 | 144.00 | 12.00 |
| RP133149110A/N | 133.00 | 149.00 | 11.00 |
| RP135143120A/N | 135.00 | 143.00 | 12.00 |
| RP135150090A/N | 135.00 | 150.00 | 9.00 |
| RP135150100A/N | 135.00 | 150.00 | 10.00 |
| RP135150150A/N | 135.00 | 150.00 | 15.00 |
| RP135160120A/N | 135.00 | 160.00 | 12.00 |
| RP135160180A/N | 135.00 | 160.00 | 18.00 |
| RP135165120A/N | 135.00 | 165.00 | 12.00 |
| RP135165150A/N | 135.00 | 165.00 | 15.00 |
| RP135165180A/N | 135.00 | 165.00 | 18.00 |
| RP136150085A/N | 136.00 | 150.00 | 8.50 |
| RP140154100A/N | 140.00 | 154.00 | 10.00 |
| RP140160080A/N | 140.00 | 160.00 | 8.00 |
| RP140160100A/N | 140.00 | 160.00 | 10.00 |
| RP140160150A/N | 140.00 | 160.00 | 15.00 |
| RP140165180A/N | 140.00 | 165.00 | 18.00 |
| RP140170150A/N | 140.00 | 170.00 | 15.00 |
| RP140170180A/N | 140.00 | 170.00 | 18.00 |
| RP140170200A/N | 140.00 | 170.00 | 20.00 |
| RP140175150A/N | 140.00 | 175.00 | 15.00 |
| RP140175200A/N | 140.00 | 175.00 | 20.00 |
| RP145160080A/N | 145.00 | 160.00 | 8.00 |
| RP145165120A/N | 145.00 | 165.00 | 12.00 |
| RP145165180A/N | 145.00 | 165.00 | 18.00 |
| RP145170150A/N | 145.00 | 170.00 | 15.00 |
| RP145170180A/N | 145.00 | 170.00 | 18.00 |

A/N series - NBR 90A

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|-------|
| | d | D | H |
| RP145175150A/N | 145.00 | 175.00 | 15.00 |
| RP145175180A/N | 145.00 | 175.00 | 18.00 |
| RP150165160A/N | 150.00 | 165.00 | 16.00 |
| RP150170100A/N | 150.00 | 170.00 | 10.00 |
| RP150170150A/N | 150.00 | 170.00 | 15.00 |
| RP150170180A/N | 150.00 | 170.00 | 18.00 |
| RP150180150A/N | 150.00 | 180.00 | 15.00 |
| RP150180180A/N | 150.00 | 180.00 | 18.00 |
| RP155163120A/N | 155.00 | 163.00 | 12.00 |
| RP155185150A/N | 155.00 | 185.00 | 15.00 |
| RP160168120A/N | 160.00 | 168.00 | 12.00 |
| RP160170150A/N | 160.00 | 170.00 | 15.00 |
| RP160175090A/N | 160.00 | 175.00 | 9.00 |
| RP160180140A/N | 160.00 | 180.00 | 14.00 |
| RP160180150A/N | 160.00 | 180.00 | 15.00 |
| RP160185150A/N | 160.00 | 185.00 | 15.00 |
| RP160190150A/N | 160.00 | 190.00 | 15.00 |
| RP160190220A/N | 160.00 | 190.00 | 22.00 |
| RP160195170A/N | 160.00 | 195.00 | 17.00 |
| RP160200200A/N | 160.00 | 200.00 | 20.00 |
| RP165180090A/N | 165.00 | 180.00 | 9.00 |
| RP165195150A/N | 165.00 | 195.00 | 15.00 |
| RP168180140A/N | 168.00 | 180.00 | 14.00 |
| RP170200150A/N | 170.00 | 200.00 | 15.00 |
| RP170200200A/N | 170.00 | 200.00 | 20.00 |
| RP170200220A/N | 170.00 | 200.00 | 22.00 |
| RP170210200A/N | 170.00 | 210.00 | 20.00 |
| RP170210220A/N | 170.00 | 210.00 | 22.00 |
| RP175205150A/N | 175.00 | 205.00 | 15.00 |
| RP175205180A/N | 175.00 | 205.00 | 18.00 |
| RP180200100A/N | 180.00 | 200.00 | 10.00 |
| RP180204120A/N | 180.00 | 204.00 | 12.00 |
| RP180210150A/N | 180.00 | 210.00 | 15.00 |
| RP180210220A/N | 180.00 | 210.00 | 22.00 |
| RP180220200A/N | 180.00 | 220.00 | 20.00 |
| RP180220220A/N | 180.00 | 220.00 | 22.00 |
| RP185195120A/N | 185.00 | 195.00 | 12.00 |
| RP185200090A/N | 185.00 | 200.00 | 9.00 |
| RP185215150A/N | 185.00 | 215.00 | 15.00 |
| RP190210150A/N | 190.00 | 210.00 | 15.00 |
| RP190220150A/N | 190.00 | 220.00 | 15.00 |
| RP190220220A/N | 190.00 | 220.00 | 22.00 |
| RP190220250A/N | 190.00 | 220.00 | 25.00 |
| RP190230200A/N | 190.00 | 230.00 | 20.00 |
| RP195225150A/N | 195.00 | 225.00 | 15.00 |
| RP200220180A/N | 200.00 | 220.00 | 18.00 |

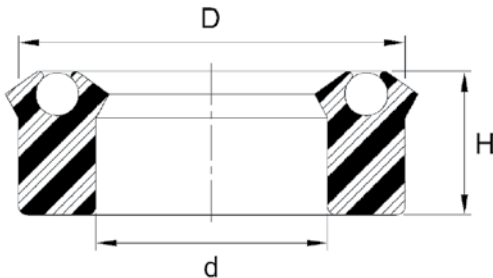
| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|-------|
| | d | D | H |
| RP200230150A/N | 200.00 | 230.00 | 15.00 |
| RP200230220A/N | 200.00 | 230.00 | 22.00 |
| RP200240200A/N | 200.00 | 240.00 | 20.00 |
| RP205230150A/N | 205.00 | 230.00 | 15.00 |
| RP210240200A/N | 210.00 | 240.00 | 20.00 |
| RP210250200A/N | 210.00 | 250.00 | 20.00 |
| RP215230075A/N | 215.00 | 230.00 | 7.50 |
| RP220250150A/N | 220.00 | 250.00 | 15.00 |
| RP220250200A/N | 220.00 | 250.00 | 20.00 |
| RP220260200A/N | 220.00 | 260.00 | 20.00 |
| RP225250180A/N | 225.00 | 250.00 | 18.00 |
| RP225255150A/N | 225.00 | 255.00 | 15.00 |
| RP230255150A/N | 230.00 | 255.00 | 15.00 |
| RP230260220A/N | 230.00 | 260.00 | 22.00 |
| RP230270200A/N | 230.00 | 270.00 | 20.00 |
| RP235275200A/N | 235.00 | 275.00 | 20.00 |
| RP240260160A/N | 240.00 | 260.00 | 16.00 |
| RP240270180A/N | 240.00 | 270.00 | 18.00 |
| RP240272160A/N | 240.00 | 272.00 | 16.00 |
| RP240280200A/N | 240.00 | 280.00 | 20.00 |
| RP250275120A/N | 250.00 | 275.00 | 12.00 |
| RP250280250A/N | 250.00 | 280.00 | 25.00 |
| RP250290200A/N | 250.00 | 290.00 | 20.00 |
| RP255275200A/N | 255.00 | 275.00 | 20.00 |
| RP255280200A/N | 255.00 | 280.00 | 20.00 |
| RP255285200A/N | 255.00 | 285.00 | 20.00 |
| RP255290200A/N | 255.00 | 290.00 | 20.00 |
| RP260285120A/N | 260.00 | 285.00 | 12.00 |
| RP260300200A/N | 260.00 | 300.00 | 20.00 |
| RP270300220A/N | 270.00 | 300.00 | 22.00 |
| RP270310200A/N | 270.00 | 310.00 | 20.00 |
| RP280300140A/N | 280.00 | 300.00 | 14.00 |
| RP280310150A/N | 280.00 | 310.00 | 15.00 |
| RP280320200A/N | 280.00 | 320.00 | 20.00 |
| RP280330250A/N | 280.00 | 330.00 | 25.00 |
| RP290330200A/N | 290.00 | 330.00 | 20.00 |
| RP300320150A/N | 300.00 | 320.00 | 15.00 |
| RP300325200A/N | 300.00 | 325.00 | 20.00 |
| RP300330160A/N | 300.00 | 330.00 | 16.00 |
| RP300330200A/N | 300.00 | 330.00 | 20.00 |
| RP300330220A/N | 300.00 | 330.00 | 22.00 |
| RP300336180A/N | 300.00 | 336.00 | 18.00 |
| RP300340200A/N | 300.00 | 340.00 | 20.00 |
| RP305335250A/N | 305.00 | 335.00 | 25.00 |
| RP310350200A/N | 310.00 | 350.00 | 20.00 |
| RP320350150A/N | 320.00 | 350.00 | 15.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|-------|
| | d | D | H |
| RP320350220A/N | 320.00 | 350.00 | 22.00 |
| RP320360200A/N | 320.00 | 360.00 | 20.00 |
| RP330366180A/N | 330.00 | 366.00 | 18.00 |
| RP330370200A/N | 330.00 | 370.00 | 20.00 |
| RP335367240A/N | 335.00 | 367.00 | 24.00 |
| RP340380200A/N | 340.00 | 380.00 | 20.00 |
| RP342355220A/N | 342.00 | 355.00 | 22.00 |
| RP350400250A/N | 350.00 | 400.00 | 25.00 |
| RP360400200A/N | 360.00 | 400.00 | 20.00 |
| RP360420300A/N | 360.00 | 420.00 | 30.00 |
| RP375395120A/N | 375.00 | 395.00 | 12.00 |
| RP375400220A/N | 375.00 | 400.00 | 22.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|-------|
| | d | D | H |
| RP380420200A/N | 380.00 | 420.00 | 20.00 |
| RP390415150A/N | 390.00 | 415.00 | 15.00 |
| RP400430150A/N | 400.00 | 430.00 | 15.00 |
| RP400440200A/N | 400.00 | 440.00 | 20.00 |
| RP400450250A/N | 400.00 | 450.00 | 25.00 |
| RP410450200A/N | 410.00 | 450.00 | 20.00 |
| RP420440200A/N | 420.00 | 440.00 | 20.00 |
| RP420450150A/N | 420.00 | 450.00 | 15.00 |
| RP420450200A/N | 420.00 | 450.00 | 20.00 |
| RP440480250A/N | 440.00 | 480.00 | 25.00 |
| RP450500250A/N | 450.00 | 500.00 | 25.00 |
| RP470490200A/N | 470.00 | 490.00 | 20.00 |



B - Symmetrical seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|----------------------|--------------------------------------|-------------------------|----------------------|
| Polyurethane/Nitrile | -50°F to +230°F (-45°C to +110°C) | ≤5000 psi (≤345 bar) | < 1.6 ft/s (0.5 m/s) |

B-type rod/piston seal is a squeeze seal with a symmetrical profile. The polyurethane shell provides high wear resistance and the O'Ring loader functions as a pre-loading device to insure high seal ability at low pressures or vacuum, and the back-beveled lips allows for excellent film cutting ability.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department.

B series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | H |
| RP006014057B | 6.00 | 14.00 | 5.70 |
| RP008016057B | 8.00 | 16.00 | 5.70 |
| RP010018057B | 10.00 | 18.00 | 5.70 |
| RP010020073B | 10.00 | 20.00 | 7.30 |
| RP012020057B | 12.00 | 20.00 | 5.70 |
| RP012022073B | 12.00 | 22.00 | 7.30 |
| RP013020050B | 13.00 | 20.00 | 5.00 |
| RP013023073B | 13.00 | 23.00 | 7.30 |
| RP014022057B | 14.00 | 22.00 | 5.70 |
| RP014024073B | 14.00 | 24.00 | 7.30 |
| RP014030114B | 14.00 | 30.00 | 11.40 |
| RP015023057B | 15.00 | 23.00 | 5.70 |
| RP016022045B | 16.00 | 22.20 | 4.50 |
| RP016024057B | 16.00 | 24.00 | 5.70 |
| RP016026073B | 16.00 | 26.00 | 7.30 |
| RP018024050B | 18.00 | 24.00 | 5.00 |
| RP018026057B | 18.00 | 26.00 | 5.70 |
| RP018028073B | 18.00 | 28.00 | 7.30 |
| RP019029073B | 19.00 | 29.00 | 7.30 |
| RP020028055B | 20.00 | 28.00 | 5.50 |
| RP020028057B | 20.00 | 28.00 | 5.70 |
| RP020028065B | 20.00 | 28.00 | 6.50 |
| RP020030073B | 20.00 | 30.00 | 7.30 |
| RP022030057B | 22.00 | 30.00 | 5.70 |
| RP022032073B | 22.00 | 32.00 | 7.30 |
| RP022035100B | 22.00 | 35.00 | 10.00 |
| RP024030050B | 24.00 | 30.00 | 5.00 |
| RP024032070B | 24.00 | 32.00 | 7.00 |
| RP025033057B | 25.00 | 33.00 | 5.70 |
| RP025035070B | 25.00 | 35.00 | 7.00 |
| RP025035073B | 25.00 | 35.00 | 7.30 |
| RP025040100B | 25.00 | 40.00 | 10.00 |
| RP025040110B | 25.00 | 40.00 | 11.00 |
| RP028035065B | 28.00 | 35.00 | 6.50 |
| RP028036057B | 28.00 | 36.00 | 5.70 |
| RP028038073B | 28.00 | 38.00 | 7.30 |
| RP028043114B | 28.00 | 43.00 | 11.40 |
| RP030038057B | 30.00 | 38.00 | 5.70 |
| RP030038070B | 30.00 | 38.00 | 7.00 |
| RP030040070B | 30.00 | 40.00 | 7.00 |
| RP030040075B | 30.00 | 40.00 | 7.50 |
| RP030042100B | 30.00 | 42.00 | 10.00 |
| RP030045080B | 30.00 | 45.00 | 8.00 |
| RP030045114B | 30.00 | 45.00 | 11.40 |
| RP032040057B | 32.00 | 40.00 | 5.70 |
| RP032040060B | 32.00 | 40.00 | 6.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | H |
| RP032042063B | 32.00 | 42.00 | 6.30 |
| RP032042069B | 32.00 | 42.00 | 6.90 |
| RP032042073B | 32.00 | 42.00 | 7.30 |
| RP032047114B | 32.00 | 47.00 | 11.40 |
| RP035043057B | 35.00 | 43.00 | 5.70 |
| RP035043060B | 35.00 | 43.00 | 6.00 |
| RP035043065B | 35.00 | 43.00 | 6.50 |
| RP035045080B | 35.00 | 45.00 | 8.00 |
| RP035045100B | 35.00 | 45.00 | 10.00 |
| RP035047100B | 35.00 | 47.00 | 10.00 |
| RP035050114B | 35.00 | 50.00 | 11.40 |
| RP036044057B | 36.00 | 44.00 | 5.70 |
| RP036046073B | 36.00 | 46.00 | 7.30 |
| RP036051114B | 36.00 | 51.00 | 11.40 |
| RP038050070B | 38.00 | 50.00 | 7.00 |
| RP040048057B | 40.00 | 48.00 | 5.70 |
| RP040050073B | 40.00 | 50.00 | 7.30 |
| RP040050100B | 40.00 | 50.00 | 10.00 |
| RP040052100B | 40.00 | 52.00 | 10.00 |
| RP040055100B | 40.00 | 55.00 | 10.00 |
| RP040055114B | 40.00 | 55.00 | 11.40 |
| RP042050065B | 42.00 | 50.00 | 6.50 |
| RP045053073B | 45.00 | 53.00 | 7.30 |
| RP045055073B | 45.00 | 55.00 | 7.30 |
| RP045055080B | 45.00 | 55.00 | 8.00 |
| RP045055100B | 45.00 | 55.00 | 10.00 |
| RP045060114B | 45.00 | 60.00 | 11.40 |
| RP045065114B | 45.00 | 65.00 | 11.40 |
| RP048060100B | 48.00 | 60.00 | 10.00 |
| RP050058080B | 50.00 | 58.00 | 8.00 |
| RP050060073B | 50.00 | 60.00 | 7.30 |
| RP050060075B | 50.00 | 60.00 | 7.50 |
| RP050060100B | 50.00 | 60.00 | 10.00 |
| RP050060114B | 50.00 | 60.00 | 11.40 |
| RP050062095B | 50.00 | 62.00 | 9.50 |
| RP050063100B | 50.00 | 63.00 | 10.00 |
| RP050065114B | 50.00 | 65.00 | 11.40 |
| RP050070146B | 50.00 | 70.00 | 14.60 |
| RP052062073B | 52.00 | 62.00 | 7.30 |
| RP053063073B | 53.00 | 63.00 | 7.30 |
| RP055065073B | 55.00 | 65.00 | 7.30 |
| RP055065110B | 55.00 | 65.00 | 11.00 |
| RP055070110B | 55.00 | 70.00 | 11.00 |
| RP055075145B | 55.00 | 75.00 | 14.50 |
| RP056066100B | 56.00 | 66.00 | 10.00 |
| RP056071114B | 56.00 | 71.00 | 11.40 |

B series - AU/NBR

SYMMETRICAL SEALS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| RP056076146B | 56.00 | 76.00 | 14.60 |
| RP060068070B | 60.00 | 68.00 | 7.00 |
| RP060068114B | 60.00 | 68.00 | 11.40 |
| RP060068130B | 60.00 | 68.00 | 13.00 |
| RP060070073B | 60.00 | 70.00 | 7.30 |
| RP060070105B | 60.00 | 70.00 | 10.50 |
| RP060070120B | 60.00 | 70.00 | 12.00 |
| RP060072090B | 60.00 | 72.00 | 9.00 |
| RP060072100B | 60.00 | 72.00 | 10.00 |
| RP060075135B | 60.00 | 75.00 | 13.50 |
| RP060080120B | 60.00 | 80.00 | 12.00 |
| RP060080140B | 60.00 | 80.00 | 14.00 |
| RP062070073B | 62.00 | 70.00 | 7.30 |
| RP063073055B | 63.00 | 73.00 | 5.50 |
| RP063075087B | 63.00 | 75.00 | 8.70 |
| RP063078114B | 63.00 | 78.00 | 11.40 |
| RP063083145B | 63.00 | 83.00 | 14.50 |
| RP064080120B | 64.00 | 80.00 | 12.00 |
| RP065073070B | 65.00 | 73.00 | 7.00 |
| RP065075100B | 65.00 | 75.00 | 10.00 |
| RP065085120B | 65.00 | 85.00 | 12.00 |
| RP065085150B | 65.00 | 85.00 | 15.00 |
| RP068088150B | 68.00 | 88.00 | 15.00 |
| RP070080114B | 70.00 | 80.00 | 11.40 |
| RP070082087B | 70.00 | 82.00 | 8.70 |
| RP070082095B | 70.00 | 82.00 | 9.50 |
| RP070085095B | 70.00 | 85.00 | 9.50 |
| RP070085114B | 70.00 | 85.00 | 11.40 |
| RP070090120B | 70.00 | 90.00 | 12.00 |
| RP070090145B | 70.00 | 90.00 | 14.50 |
| RP073080070B | 73.00 | 80.00 | 7.00 |
| RP075083065B | 75.00 | 83.00 | 6.50 |
| RP075085105B | 75.00 | 85.00 | 10.50 |
| RP075090114B | 75.00 | 90.00 | 11.40 |
| RP075090124B | 75.00 | 90.00 | 12.40 |
| RP078086130B | 78.00 | 86.00 | 13.00 |
| RP080088065B | 80.00 | 88.00 | 6.50 |
| RP080090100B | 80.00 | 90.00 | 10.00 |
| RP080092114B | 80.00 | 92.00 | 11.40 |
| RP080092090B | 80.00 | 92.00 | 9.00 |
| RP080095114B | 80.00 | 95.00 | 11.40 |
| RP080100095B | 80.00 | 100.00 | 9.50 |
| RP080100120B | 80.00 | 100.00 | 12.00 |
| RP080100135B | 80.00 | 100.00 | 13.50 |
| RP080100150B | 80.00 | 100.00 | 15.00 |
| RP081095146B | 81.00 | 95.00 | 14.60 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| RP082092100B | 82.00 | 92.00 | 10.00 |
| RP085095095B | 85.00 | 95.00 | 9.50 |
| RP085100095B | 85.00 | 100.00 | 9.50 |
| RP085100120B | 85.00 | 100.00 | 12.00 |
| RP085105145B | 85.00 | 105.00 | 14.50 |
| RP090100114B | 90.00 | 100.00 | 11.40 |
| RP090100120B | 90.00 | 100.00 | 12.00 |
| RP090105114B | 90.00 | 105.00 | 11.40 |
| RP090110120B | 90.00 | 110.00 | 12.00 |
| RP090110145B | 90.00 | 110.00 | 14.50 |
| RP095105114B | 95.00 | 105.00 | 11.40 |
| RP095110114B | 95.00 | 110.00 | 11.40 |
| RP097105130B | 97.00 | 105.00 | 13.00 |
| RP098110120B | 98.00 | 110.00 | 12.00 |
| RP100108065B | 100.00 | 108.00 | 6.50 |
| RP100110114B | 100.00 | 110.00 | 11.40 |
| RP100115110B | 100.00 | 115.00 | 11.00 |
| RP100115146B | 100.00 | 115.00 | 14.60 |
| RP100120120B | 100.00 | 120.00 | 12.00 |
| RP100120145B | 100.00 | 120.00 | 14.50 |
| RP100125182B | 100.00 | 125.00 | 18.20 |
| RP105115100B | 105.00 | 115.00 | 10.00 |
| RP105120114B | 105.00 | 120.00 | 11.40 |
| RP105125145B | 105.00 | 125.00 | 14.50 |
| RP108123143B | 108.00 | 123.00 | 14.30 |
| RP108127159B | 108.00 | 127.00 | 15.90 |
| RP110120105B | 110.00 | 120.00 | 10.50 |
| RP110125114B | 110.00 | 125.00 | 11.40 |
| RP110130120B | 110.00 | 130.00 | 12.00 |
| RP110130145B | 110.00 | 130.00 | 14.50 |
| RP110135182B | 110.00 | 135.00 | 18.20 |
| RP112127090B | 112.00 | 127.00 | 9.00 |
| RP115123130B | 115.00 | 123.00 | 13.00 |
| RP115125114B | 115.00 | 125.00 | 11.40 |
| RP115130114B | 115.00 | 130.00 | 11.40 |
| RP118126130B | 118.00 | 126.00 | 13.00 |
| RP120130114B | 120.00 | 130.00 | 11.40 |
| RP120135114B | 120.00 | 135.00 | 11.40 |
| RP120140150B | 120.00 | 140.00 | 15.00 |
| RP125135114B | 125.00 | 135.00 | 11.40 |
| RP125140114B | 125.00 | 140.00 | 11.40 |
| RP125145145B | 125.00 | 145.00 | 14.50 |
| RP125150182B | 125.00 | 150.00 | 18.20 |
| RP130145090B | 130.00 | 145.00 | 9.00 |
| RP130145145B | 130.00 | 145.00 | 14.50 |
| RP131138045B | 131.00 | 138.00 | 4.50 |

B series - AU/NBR

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| RP135155145B | 135.00 | 155.00 | 14.50 |
| RP140150105B | 140.00 | 150.00 | 10.50 |
| RP140150114B | 140.00 | 150.00 | 11.40 |
| RP140160145B | 140.00 | 160.00 | 14.50 |
| RP140165182B | 140.00 | 165.00 | 18.20 |
| RP143151130B | 143.00 | 151.00 | 13.00 |
| RP145155114B | 145.00 | 155.00 | 11.40 |
| RP145165145B | 145.00 | 165.00 | 14.50 |
| RP150160114B | 150.00 | 160.00 | 11.40 |
| RP155175150B | 155.00 | 175.00 | 15.00 |
| RP160168130B | 160.00 | 168.00 | 13.00 |
| RP160180150B | 160.00 | 180.00 | 15.00 |
| RP160185182B | 160.00 | 185.00 | 18.20 |
| RP160190227B | 160.00 | 190.00 | 22.70 |
| RP165190182B | 165.00 | 190.00 | 18.20 |
| RP170180114B | 170.00 | 180.00 | 11.40 |
| RP170190150B | 170.00 | 190.00 | 15.00 |
| RP170195190B | 170.00 | 195.00 | 19.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| RP171179130B | 171.00 | 179.00 | 13.00 |
| RP175185114B | 175.00 | 185.00 | 11.40 |
| RP180190114B | 180.00 | 190.00 | 11.40 |
| RP180200150B | 180.00 | 200.00 | 15.00 |
| RP180210227B | 180.00 | 210.00 | 22.70 |
| RP200220180B | 200.00 | 220.00 | 18.00 |
| RP200225182B | 200.00 | 225.00 | 18.20 |
| RP200230227B | 200.00 | 230.00 | 22.70 |
| RP204220160B | 204.00 | 220.00 | 16.00 |
| RP205225182B | 205.00 | 225.00 | 18.20 |
| RP210230145B | 210.00 | 230.00 | 14.50 |
| RP218230090B | 218.00 | 230.00 | 9.00 |
| RP220240150B | 220.00 | 240.00 | 15.00 |
| RP220250227B | 220.00 | 250.00 | 22.70 |
| RP240260145B | 240.00 | 260.00 | 14.50 |
| RP250280227B | 250.00 | 280.00 | 22.70 |
| RP280310227B | 280.00 | 310.00 | 22.70 |
| RP290320225B | 290.00 | 320.00 | 22.50 |
| RP360385200B | 360.00 | 385.00 | 20.00 |

OTHER PROFILES ARE ALSO AVAILABLE ON REQUEST

Though this product offering contains a wide selection of commonly used parts in the marketplace, it is possible that you haven't found the exact part you were looking for.

We have many other seal profiles available on request, please do not hesitate to contact us and we will do our best to help you locate the required part.











SYMMETRICAL SEALS



SYMMETRICAL SEALS



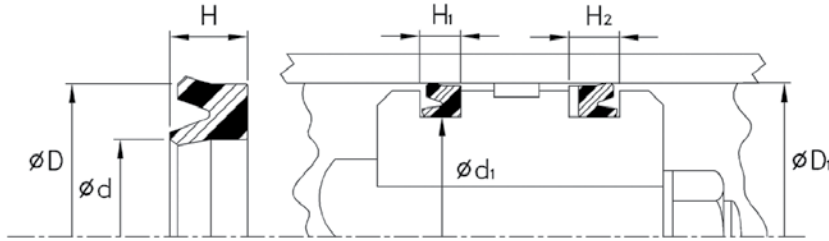


| | | | |
|---|----------------------|---|----|
|  | PB | L | 2 |
|  | PB-1 | L | 9 |
|  | PB/N | L | 11 |
|  | PH | L | 17 |
|  | PR | L | 18 |
|  | KR | L | 20 |
|  | PZ | L | 21 |
|  | PZ/B | L | 22 |
|  | P1B | L | 24 |
|  | P1B-1 | L | 25 |
|  | P2B | L | 27 |
|  | ST/N - BACK-UP RINGS | L | 30 |
|  | P2B/U | L | 31 |
|  | P2E | L | 33 |
|  | P2G | L | 34 |
|  | P3C | L | 36 |
|  | P4A | L | 37 |
|  | P5B, P5B-1 | L | 39 |

PB - Piston seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|---------------------|
| Polyurethane | -40°F to +212°F (-40°C to +100°C) | ≤5800 psi (≤400 bar) | <1.6 ft/s (0.5 m/s) |



N.B.: $H_2 = H_1 + \text{B.UP RING THICKNESS}$

The **PB-style** is a non-symmetrical hydraulic piston type U-cup. Being uni-directional in design, two PB seals must be used, back to back, in separate grooves to provide bi-directional pressure sealing.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|---------------|-----------------|-------------------------|-------|-------|--------------------|-----------------|-------|-----------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P018008075PB | 18.00 | +0.070-.000 | 18.00 | 8.00 | 7.50 | 8.00 | +0.000 -.090 | 8.50 | +0.250 -.000 |
| P020010060PB | 20.00 | +0.084 -.000 | 20.00 | 10.00 | 6.00 | 10.00 | | 7.00 | |
| P020010075PB | 20.00 | | 20.00 | 10.00 | 7.50 | 10.00 | | 8.50 | |
| P020010080PB | 20.00 | | 20.00 | 10.00 | 8.00 | 10.00 | | 9.00 | |
| P020012050PB | 20.00 | | 20.00 | 12.00 | 5.00 | 12.00 | ▼ | 6.00 | |
| P022014050PB | 22.00 | | 22.00 | 14.00 | 5.00 | 14.00 | +0.000 -.110 | 6.00 | |
| P024014075PB | 24.00 | | 24.00 | 14.00 | 7.50 | 14.00 | | 8.50 | |
| P025015060PB | 25.00 | | 25.00 | 15.00 | 6.00 | 15.00 | | 7.00 | |
| P025015080PB | 25.00 | | 25.00 | 15.00 | 8.00 | 15.00 | | 9.00 | |
| P025017050PB | 25.00 | | 25.00 | 17.00 | 5.00 | 17.00 | | 6.00 | |
| P026016075PB | 26.00 | | 26.00 | 16.00 | 7.50 | 16.00 | | 8.50 | |
| P026018050PB | 26.00 | | 26.00 | 18.00 | 5.00 | 18.00 | | 6.00 | |
| P028015100PB | 28.00 | | 28.00 | 15.00 | 10.00 | 15.00 | ▼ | 11.00 | |
| P028020050PB | 28.00 | | 28.00 | 20.00 | 5.00 | 20.00 | +0.000 -.130 | 6.00 | |
| P028022063PB | 28.00 | | 28.00 | 22.20 | 6.30 | 22.20 | | 7.30 | |
| P030020050PB | 30.00 | | 30.00 | 20.00 | 5.00 | 20.00 | | 6.00 | |
| P030020060PB | 30.00 | | 30.00 | 20.00 | 6.00 | 20.00 | | 7.00 | |
| P030020080PB | 30.00 | ▼ | 30.00 | 20.00 | 8.00 | 20.00 | | 9.00 | |
| P031018100PB | 31.00 | +0.100 -.000 | 31.00 | 18.00 | 10.00 | 18.00 | | 11.00 | |
| P032022060PB | 32.00 | | 32.00 | 22.00 | 6.00 | 22.00 | | 7.00 | |
| P033020100PB | 33.00 | | 33.00 | 20.00 | 10.00 | 20.00 | | 11.00 | |
| P033025050PB | 33.00 | | 33.00 | 25.00 | 5.00 | 25.00 | | 6.00 | |
| P035025060PB | 35.00 | ▼ | 35.00 | 25.00 | 6.00 | 25.00 | ▼ | 7.00 | ▼ |



PB series - AU 93A

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P035025080PB | 35.00 | + .100 - .000 | 35.00 | 25.00 | 8.00 | 25.00 | + .000 - .130 | 9.00 | + .250 - .000 |
| P035025100PB | 35.00 | | 35.00 | 25.00 | 10.00 | 25.00 | | 11.00 | |
| P035027050PB | 35.00 | | 35.00 | 27.00 | 5.00 | 27.00 | | 6.00 | |
| P038025100PB | 38.00 | | 38.00 | 25.00 | 10.00 | 25.00 | | 11.00 | |
| P038029070PB | 38.00 | | 38.00 | 29.00 | 7.00 | 29.00 | ▼ | 8.00 | |
| P038032060PB | 38.00 | | 38.00 | 32.00 | 6.00 | 32.00 | + .000/- .160 | 7.00 | |
| P040025090PB | 40.00 | | 40.00 | 25.00 | 9.00 | 25.00 | + .000 - .130 | 10.00 | |
| P040025100PB | 40.00 | | 40.00 | 25.00 | 10.00 | 25.00 | | 11.00 | |
| P040027080PB | 40.00 | | 40.00 | 27.00 | 8.00 | 27.00 | | 9.00 | |
| P040027100PB | 40.00 | | 40.00 | 27.00 | 10.00 | 27.00 | | 11.00 | |
| P040030060PB | 40.00 | | 40.00 | 30.00 | 6.00 | 30.00 | | 7.00 | |
| P040030080PB | 40.00 | | 40.00 | 30.00 | 8.00 | 30.00 | | 9.00 | |
| P041028100PB | 41.00 | | 41.00 | 28.00 | 10.00 | 28.00 | | 11.00 | |
| P043030100PB | 43.00 | | 43.00 | 30.00 | 10.00 | 30.00 | | 11.00 | |
| P045030090PB | 45.00 | | 45.00 | 30.00 | 9.00 | 30.00 | | 10.00 | |
| P045030100PB | 45.00 | | 45.00 | 30.00 | 10.00 | 30.00 | ▼ | 11.00 | |
| P045032080PB | 45.00 | | 45.00 | 32.00 | 8.00 | 32.00 | + .000 - .160 | 9.00 | |
| P045032100PB | 45.00 | | 45.00 | 32.00 | 10.00 | 32.00 | | 11.00 | |
| P045035060PB | 45.00 | | 45.00 | 35.00 | 6.00 | 35.00 | | 7.00 | |
| P045035080PB | 45.00 | | 45.00 | 35.00 | 8.00 | 35.00 | | 9.00 | |
| P050034100PB | 50.00 | | 50.00 | 34.00 | 10.00 | 34.00 | | 11.00 | |
| P050034120PB | 50.00 | | 50.00 | 34.00 | 12.00 | 34.00 | | 13.00 | |
| P050035090PB | 50.00 | | 50.00 | 35.00 | 9.00 | 35.00 | | 10.00 | |
| P050035100PB | 50.00 | | 50.00 | 35.00 | 10.00 | 35.00 | | 11.00 | |
| P050035120PB | 50.00 | | 50.00 | 35.00 | 12.00 | 35.00 | | 13.00 | |
| P050040060PB | 50.00 | | 50.00 | 40.00 | 6.00 | 40.00 | | 7.00 | |
| P050040080PB | 50.00 | | 50.00 | 40.00 | 8.00 | 40.00 | | 9.00 | |
| P050040100PB | 50.00 | ▼ | 50.00 | 40.00 | 10.00 | 40.00 | | 11.00 | |
| P055040090PB | 55.00 | + .120 - .000 | 55.00 | 40.00 | 9.00 | 40.00 | | 10.00 | |
| P055040100PB | 55.00 | | 55.00 | 40.00 | 10.00 | 40.00 | | 11.00 | |
| P055041100PB | 55.00 | | 55.00 | 41.00 | 10.00 | 41.00 | | 11.00 | |
| P055045060PB | 55.00 | | 55.00 | 45.00 | 6.00 | 45.00 | | 7.00 | |
| P055045100PB | 55.00 | | 55.00 | 45.00 | 10.00 | 45.00 | | 11.00 | |
| P055046130PB | 55.00 | | 55.00 | 46.00 | 13.00 | 46.00 | | 14.00 | |
| P056040100PB | 56.00 | | 56.00 | 40.00 | 10.00 | 40.00 | | 11.00 | |
| P056040120PB | 56.00 | | 56.00 | 40.00 | 12.00 | 40.00 | | 13.00 | |
| P056041090PB | 56.00 | | 56.00 | 41.00 | 9.00 | 41.00 | | 10.00 | |
| P056041100PB | 56.00 | | 56.00 | 41.00 | 10.00 | 41.00 | | 11.00 | |
| P056045070PB | 56.00 | | 56.00 | 45.00 | 7.00 | 45.00 | | 8.00 | |
| P056046060PB | 56.00 | | 56.00 | 46.00 | 6.00 | 46.00 | | 7.00 | |
| P056046080PB | 56.00 | | 56.00 | 46.00 | 8.00 | 46.00 | | 9.00 | |
| P056046100PB | 56.00 | | 56.00 | 46.00 | 10.00 | 46.00 | | 11.00 | |
| P058048060PB | 58.00 | | 58.00 | 48.00 | 6.00 | 48.00 | | 7.00 | |
| P060045090PB | 60.00 | | 60.00 | 45.00 | 9.00 | 45.00 | | 10.00 | |
| P060045100PB | 60.00 | | 60.00 | 45.00 | 10.00 | 45.00 | | 11.00 | |
| P060050060PB | 60.00 | ▼ | 60.00 | 50.00 | 6.00 | 50.00 | ▼ | 7.00 | ▼ |

PB series - AU 93A

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P060050080PB | 60.00 | +0.120 -0.000 | 60.00 | 50.00 | 8.00 | 50.00 | +0.000 -0.160 | 9.00 | +0.250 -0.000 |
| P061045120PB | 61.00 | | 61.00 | 45.00 | 12.00 | 45.00 | | 13.00 | |
| P063047100PB | 63.00 | | 63.00 | 47.00 | 10.00 | 47.00 | | 11.00 | |
| P063047120PB | 63.00 | | 63.00 | 47.00 | 12.00 | 47.00 | | 13.00 | |
| P063048090PB | 63.00 | | 63.00 | 48.00 | 9.00 | 48.00 | | 10.00 | |
| P063048100PB | 63.00 | | 63.00 | 48.00 | 10.00 | 48.00 | ▼ | 11.00 | |
| P063053060PB | 63.00 | | 63.00 | 53.00 | 6.00 | 53.00 | +0.000 -0.190 | 7.00 | |
| P063053080PB | 63.00 | | 63.00 | 53.00 | 8.00 | 53.00 | | 9.00 | |
| P065050090PB | 65.00 | | 65.00 | 50.00 | 9.00 | 50.00 | +0.000 -0.160 | 10.00 | |
| P065050100PB | 65.00 | | 65.00 | 50.00 | 10.00 | 50.00 | | 11.00 | |
| P065055060PB | 65.00 | | 65.00 | 55.00 | 6.00 | 55.00 | +0.000 -0.190 | 7.00 | |
| P065055080PB | 65.00 | | 65.00 | 55.00 | 8.00 | 55.00 | | 9.00 | |
| P066050120PB | 66.00 | | 66.00 | 50.00 | 12.00 | 50.00 | +0.000 -0.160 | 13.00 | |
| P066056060PB | 66.00 | | 66.00 | 56.00 | 6.00 | 56.00 | +0.000 -0.190 | 7.00 | |
| P069053120PB | 69.00 | | 69.00 | 53.00 | 12.00 | 53.00 | | 13.00 | |
| P070050120PB | 70.00 | | 70.00 | 50.00 | 12.00 | 50.00 | +0.000 -0.160 | 13.00 | |
| P070055090PB | 70.00 | | 70.00 | 55.00 | 9.00 | 55.00 | +0.000 -0.190 | 10.00 | |
| P070555100PB | 70.00 | | 70.00 | 55.00 | 10.00 | 55.00 | | 11.00 | |
| P070060060PB | 70.00 | | 70.00 | 60.00 | 6.00 | 60.00 | | 7.00 | |
| P070060080PB | 70.00 | | 70.00 | 60.00 | 8.00 | 60.00 | | 9.00 | |
| P070060100PB | 70.00 | | 70.00 | 60.00 | 10.00 | 60.00 | | 11.00 | |
| P071051120PB | 71.00 | | 71.00 | 51.00 | 12.00 | 51.00 | | 13.00 | |
| P071055100PB | 71.00 | | 71.00 | 55.00 | 10.00 | 55.00 | | 11.00 | |
| P071055120PB | 71.00 | | 71.00 | 55.00 | 12.00 | 55.00 | | 13.00 | |
| P071056090PB | 71.00 | | 71.00 | 56.00 | 9.00 | 56.00 | | 10.00 | |
| P071056100PB | 71.00 | | 71.00 | 56.00 | 10.00 | 56.00 | | 11.00 | |
| P071060070PB | 71.00 | | 71.00 | 60.00 | 7.00 | 60.00 | | 8.00 | |
| P071061060PB | 71.00 | | 71.00 | 61.00 | 6.00 | 61.00 | | 7.00 | |
| P071061080PB | 71.00 | | 71.00 | 61.00 | 8.00 | 61.00 | | 9.00 | |
| P073063060PB | 73.00 | | 73.00 | 63.00 | 6.00 | 63.00 | | 7.00 | |
| P075055120PB | 75.00 | | 75.00 | 55.00 | 12.00 | 55.00 | | 13.00 | |
| P075060090PB | 75.00 | | 75.00 | 60.00 | 9.00 | 60.00 | | 10.00 | |
| P075060100PB | 75.00 | | 75.00 | 60.00 | 10.00 | 60.00 | | 11.00 | |
| P075065060PB | 75.00 | | 75.00 | 65.00 | 6.00 | 65.00 | | 7.00 | |
| P075065080PB | 75.00 | | 75.00 | 65.00 | 8.00 | 65.00 | | 9.00 | |
| P076060120PB | 76.00 | | 76.00 | 60.00 | 12.00 | 60.00 | | 13.00 | |
| P077067060PB | 77.00 | | 77.00 | 67.00 | 6.00 | 67.00 | | 7.00 | |
| P080047160PB | 80.00 | | 80.00 | 47.00 | 16.00 | 47.00 | | 17.00 | |
| P080060120PB | 80.00 | | 80.00 | 60.00 | 12.00 | 60.00 | | 13.00 | |
| P080064100PB | 80.00 | | 80.00 | 64.00 | 10.00 | 64.00 | | 11.00 | |
| P080064120PB | 80.00 | | 80.00 | 64.00 | 12.00 | 64.00 | | 13.00 | |
| P080065090PB | 80.00 | | 80.00 | 65.00 | 9.00 | 65.00 | | 10.00 | |
| P080065100PB | 80.00 | | 80.00 | 65.00 | 10.00 | 65.00 | | 11.00 | |
| P080070060PB | 80.00 | | 80.00 | 70.00 | 6.00 | 70.00 | | 7.00 | |
| P080070080PB | 80.00 | | 80.00 | 70.00 | 8.00 | 70.00 | | 9.00 | |
| P080071060PB | 80.00 | ▼ | 80.00 | 71.00 | 6.00 | 71.00 | ▼ | 7.00 | ▼ |

PB series - AU 93A

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P085065120PB | 85.00 | + .140 - .000 | 85.00 | 65.00 | 12.00 | 65.00 | + .000 - .190 | 13.00 | + .250 - .000 |
| P085070090PB | 85.00 | | 85.00 | 70.00 | 9.00 | 70.00 | | 10.00 | |
| P085070100PB | 85.00 | | 85.00 | 70.00 | 10.00 | 70.00 | | 11.00 | |
| P085075060PB | 85.00 | | 85.00 | 75.00 | 6.00 | 75.00 | | 7.00 | |
| P085075080PB | 85.00 | | 85.00 | 75.00 | 8.00 | 75.00 | | 9.00 | |
| P090070120PB | 90.00 | | 90.00 | 70.00 | 12.00 | 70.00 | | 13.00 | |
| P090070150PB | 90.00 | | 90.00 | 70.00 | 15.00 | 70.00 | | 16.00 | |
| P090075090PB | 90.00 | | 90.00 | 75.00 | 9.00 | 75.00 | | 10.00 | |
| P090075100PB | 90.00 | | 90.00 | 75.00 | 10.00 | 75.00 | | 11.00 | |
| P090080060PB | 90.00 | | 90.00 | 80.00 | 6.00 | 80.00 | | 7.00 | |
| P090080080PB | 90.00 | | 90.00 | 80.00 | 8.00 | 80.00 | | 9.00 | |
| P090080090PB | 90.00 | | 90.00 | 80.00 | 9.00 | 80.00 | | 10.00 | |
| P095075120PB | 95.00 | | 95.00 | 75.00 | 12.00 | 75.00 | | 13.00 | |
| P095075150PB | 95.00 | | 95.00 | 75.00 | 15.00 | 75.00 | | 16.00 | |
| P095080060PB | 95.00 | | 95.00 | 80.00 | 6.00 | 80.00 | | 7.00 | |
| P095080090PB | 95.00 | | 95.00 | 80.00 | 9.00 | 80.00 | | 10.00 | |
| P095080100PB | 95.00 | | 95.00 | 80.00 | 10.00 | 80.00 | ▼ | 11.00 | |
| P095085060PB | 95.00 | | 95.00 | 85.00 | 6.00 | 85.00 | + .000 - .220 | 7.00 | |
| P100075180PB | 100.00 | | 100.00 | 75.00 | 18.00 | 75.00 | + .000 - .190 | 19.00 | |
| P100080120PB | 100.00 | | 100.00 | 80.00 | 12.00 | 80.00 | ▼ | 13.00 | |
| P100080150PB | 100.00 | | 100.00 | 80.00 | 15.00 | 80.00 | ▼ | 16.00 | |
| P100085090PB | 100.00 | | 100.00 | 85.00 | 9.00 | 85.00 | + .000 - .220 | 10.00 | |
| P100085100PB | 100.00 | | 100.00 | 85.00 | 10.00 | 85.00 | | 11.00 | |
| P105085150PB | 105.00 | | 105.00 | 85.00 | 15.00 | 85.00 | | 16.00 | |
| P105090090PB | 105.00 | | 105.00 | 90.00 | 9.00 | 90.00 | | 10.00 | |
| P110085180PB | 110.00 | | 110.00 | 85.00 | 18.00 | 85.00 | | 19.00 | |
| P110090120PB | 110.00 | | 110.00 | 90.00 | 12.00 | 90.00 | | 13.00 | |
| P110090150PB | 110.00 | | 110.00 | 90.00 | 15.00 | 90.00 | | 16.00 | |
| P110095090PB | 110.00 | | 110.00 | 95.00 | 9.00 | 95.00 | | 10.00 | |
| P110095100PB | 110.00 | | 110.00 | 95.00 | 10.00 | 95.00 | | 11.00 | |
| P112092120PB | 112.00 | | 112.00 | 92.00 | 12.00 | 92.00 | | 13.00 | |
| P112092150PB | 112.00 | | 112.00 | 92.00 | 15.00 | 92.00 | | 16.00 | |
| P112097090PB | 112.00 | | 112.00 | 97.00 | 9.00 | 97.00 | | 10.00 | |
| P112097100PB | 112.00 | | 112.00 | 97.00 | 10.00 | 97.00 | | 11.00 | |
| P112098085PB | 112.00 | | 112.00 | 98.00 | 8.50 | 98.00 | | 9.50 | |
| P115095150PB | 115.00 | | 115.00 | 95.00 | 15.00 | 95.00 | | 16.00 | |
| P115100090PB | 115.00 | | 115.00 | 100.00 | 9.00 | 100.00 | | 10.00 | |
| P120100120PB | 120.00 | | 120.00 | 100.00 | 12.00 | 100.00 | | 13.00 | |
| P120100150PB | 120.00 | | 120.00 | 100.00 | 15.00 | 100.00 | | 16.00 | |
| P120105090PB | 120.00 | | 120.00 | 105.00 | 9.00 | 105.00 | | 10.00 | |
| P120105100PB | 120.00 | | 120.00 | 105.00 | 10.00 | 105.00 | | 11.00 | |
| P120106085PB | 120.00 | ▼ | 120.00 | 106.00 | 8.50 | 106.00 | | 9.50 | |
| P125105120PB | 125.00 | + .160 - .000 | 125.00 | 105.00 | 12.00 | 105.00 | | 13.00 | |
| P125105150PB | 125.00 | | 125.00 | 105.00 | 15.00 | 105.00 | | 16.00 | |
| P125105160PB | 125.00 | | 125.00 | 105.00 | 16.00 | 105.00 | | 17.00 | |
| P125110090PB | 125.00 | ▼ | 125.00 | 110.00 | 9.00 | 110.00 | ▼ | 10.00 | ▼ |

PB series - AU 93A

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P125110100PB | 125.00 | + .160 - .000 | 125.00 | 110.00 | 10.00 | 110.00 | + .000 - .220 | 11.00 | + .250 - .000 |
| P125112090PB | 125.00 | | 125.00 | 112.00 | 9.00 | 112.00 | | 10.00 | |
| P130100120PB | 130.00 | | 130.00 | 100.00 | 12.00 | 100.00 | | 13.00 | |
| P130110150PB | 130.00 | | 130.00 | 110.00 | 15.00 | 110.00 | | 16.00 | |
| P130110160PB | 130.00 | | 130.00 | 110.00 | 16.00 | 110.00 | | 17.00 | |
| P130115090PB | 130.00 | | 130.00 | 115.00 | 9.00 | 115.00 | | 10.00 | |
| P130115100PB | 130.00 | | 130.00 | 115.00 | 10.00 | 115.00 | | 11.00 | |
| P132112150PB | 132.00 | | 132.00 | 112.00 | 15.00 | 112.00 | | 16.00 | |
| P135115130PB | 135.00 | | 135.00 | 115.00 | 13.00 | 115.00 | | 14.00 | |
| P140120120PB | 140.00 | | 140.00 | 120.00 | 12.00 | 120.00 | | 13.00 | |
| P140120150PB | 140.00 | | 140.00 | 120.00 | 15.00 | 120.00 | | 16.00 | |
| P140120160PB | 140.00 | | 140.00 | 120.00 | 16.00 | 120.00 | ▼ | 17.00 | |
| P140125090PB | 140.00 | | 140.00 | 125.00 | 9.00 | 125.00 | + .000 - .250 | 10.00 | |
| P140125100PB | 140.00 | | 140.00 | 125.00 | 10.00 | 125.00 | | 11.00 | |
| P145130090PB | 145.00 | | 145.00 | 130.00 | 9.00 | 130.00 | | 10.00 | |
| P150125190PB | 150.00 | | 150.00 | 125.00 | 19.00 | 125.00 | | 20.00 | |
| P150125200PB | 150.00 | | 150.00 | 125.00 | 20.00 | 125.00 | | 21.00 | |
| P150130120PB | 150.00 | | 150.00 | 130.00 | 12.00 | 130.00 | | 13.00 | |
| P150130160PB | 150.00 | | 150.00 | 130.00 | 16.00 | 130.00 | | 17.00 | |
| P150135090PB | 150.00 | | 150.00 | 135.00 | 9.00 | 135.00 | | 10.00 | |
| P150135100PB | 150.00 | | 150.00 | 135.00 | 10.00 | 135.00 | | 11.00 | |
| P150136085PB | 150.00 | | 150.00 | 136.00 | 8.50 | 136.00 | | 9.50 | |
| P155140090PB | 155.00 | | 155.00 | 140.00 | 9.00 | 140.00 | | 10.00 | |
| P157132200PB | 157.00 | | 157.00 | 132.00 | 20.00 | 132.00 | | 21.00 | |
| P160135160PB | 160.00 | | 160.00 | 135.00 | 16.00 | 135.00 | | 17.00 | |
| P160135190PB | 160.00 | | 160.00 | 135.00 | 19.00 | 135.00 | | 20.00 | |
| P160135200PB | 160.00 | | 160.00 | 135.00 | 20.00 | 135.00 | | 21.00 | |
| P160140120PB | 160.00 | | 160.00 | 140.00 | 12.00 | 140.00 | | 13.00 | |
| P160140160PB | 160.00 | | 160.00 | 140.00 | 16.00 | 140.00 | | 17.00 | |
| P160145090PB | 160.00 | | 160.00 | 145.00 | 9.00 | 145.00 | | 10.00 | |
| P160145100PB | 160.00 | | 160.00 | 145.00 | 10.00 | 145.00 | | 11.00 | |
| P165140190PB | 165.00 | | 165.00 | 140.00 | 19.00 | 140.00 | | 20.00 | |
| P165140200PB | 165.00 | | 165.00 | 140.00 | 20.00 | 140.00 | | 21.00 | |
| P165145090PB | 165.00 | | 165.00 | 145.00 | 9.00 | 145.00 | | 10.00 | |
| P170145190PB | 170.00 | | 170.00 | 145.00 | 19.00 | 145.00 | | 20.00 | |
| P170145200PB | 170.00 | | 170.00 | 145.00 | 20.00 | 145.00 | | 21.00 | |
| P170150120PB | 170.00 | | 170.00 | 150.00 | 12.00 | 150.00 | | 13.00 | |
| P170150160PB | 170.00 | | 170.00 | 150.00 | 16.00 | 150.00 | | 17.00 | |
| P170155090PB | 170.00 | | 170.00 | 155.00 | 9.00 | 155.00 | | 10.00 | |
| P170155100PB | 170.00 | | 170.00 | 155.00 | 10.00 | 155.00 | | 11.00 | |
| P175150200PB | 175.00 | | 175.00 | 150.00 | 20.00 | 150.00 | | 21.00 | |
| P175155120PB | 175.00 | | 175.00 | 155.00 | 12.00 | 155.00 | | 13.00 | |
| P175160090PB | 175.00 | | 175.00 | 160.00 | 9.00 | 160.00 | | 10.00 | |
| P180155160PB | 180.00 | | 180.00 | 155.00 | 16.00 | 155.00 | | 17.00 | |
| P180155190PB | 180.00 | | 180.00 | 155.00 | 19.00 | 155.00 | | 20.00 | |
| P180155200PB | 180.00 | ▼ | 180.00 | 155.00 | 20.00 | 155.00 | ▼ | 21.00 | ▼ |

PB series - AU 93A

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P180160120PB | 180.00 | +0.160 -0.000 | 180.00 | 160.00 | 12.00 | 160.00 | +0.000 -0.250 | 13.00 | +0.250 -0.000 |
| P180160160PB | 180.00 | | 180.00 | 160.00 | 16.00 | 160.00 | | 17.00 | |
| P180160200PB | 180.00 | | 180.00 | 160.00 | 20.00 | 160.00 | | 21.00 | |
| P180165090PB | 180.00 | | 180.00 | 165.00 | 9.00 | 165.00 | | 10.00 | |
| P180165100PB | 180.00 | | 180.00 | 165.00 | 10.00 | 165.00 | | 11.00 | |
| P180165120PB | 180.00 | | 180.00 | 165.00 | 12.00 | 165.00 | | 13.00 | |
| P180165160PB | 180.00 | | 180.00 | 165.00 | 16.00 | 165.00 | | 17.00 | |
| P180165190PB | 180.00 | | 180.00 | 165.00 | 19.00 | 165.00 | | 20.00 | |
| P180170065PB | 180.00 | ▼ | 180.00 | 170.00 | 6.50 | 170.00 | | 7.50 | |
| P190165150PB | 190.00 | +0.185 -0.000 | 190.00 | 165.00 | 15.00 | 165.00 | | 16.00 | |
| P190165200PB | 190.00 | | 190.00 | 165.00 | 20.00 | 165.00 | | 21.00 | |
| P190170120PB | 190.00 | | 190.00 | 170.00 | 12.00 | 170.00 | | 13.00 | |
| P190170160PB | 190.00 | | 190.00 | 170.00 | 16.00 | 170.00 | | 17.00 | |
| P190175090PB | 190.00 | | 190.00 | 175.00 | 9.00 | 175.00 | | 10.00 | |
| P190175100PB | 190.00 | | 190.00 | 175.00 | 10.00 | 175.00 | | 11.00 | |
| P200175160PB | 200.00 | | 200.00 | 175.00 | 16.00 | 175.00 | | 17.00 | |
| P200175190PB | 200.00 | | 200.00 | 175.00 | 19.00 | 175.00 | | 20.00 | |
| P200175200PB | 200.00 | | 200.00 | 175.00 | 20.00 | 175.00 | | 21.00 | |
| P200180120PB | 200.00 | | 200.00 | 180.00 | 12.00 | 180.00 | | 13.00 | |
| P200180160PB | 200.00 | | 200.00 | 180.00 | 16.00 | 180.00 | | 17.00 | |
| P205180150PB | 205.00 | | 205.00 | 180.00 | 15.00 | 180.00 | | 16.00 | |
| P205180190PB | 205.00 | | 205.00 | 180.00 | 19.00 | 180.00 | | 20.00 | |
| P205180200PB | 205.00 | | 205.00 | 180.00 | 20.00 | 180.00 | ▼ | 21.00 | |
| P210185160PB | 210.00 | | 210.00 | 185.00 | 16.00 | 185.00 | +0.000 -0.250 | 17.00 | |
| P210185200PB | 210.00 | | 210.00 | 185.00 | 20.00 | 185.00 | | 21.00 | |
| P210190120PB | 210.00 | | 210.00 | 190.00 | 12.00 | 190.00 | | 13.00 | |
| P210190160PB | 210.00 | | 210.00 | 190.00 | 16.00 | 190.00 | | 17.00 | |
| P215190160PB | 215.00 | | 215.00 | 190.00 | 16.00 | 190.00 | | 17.00 | |
| P220195160PB | 220.00 | | 220.00 | 195.00 | 16.00 | 195.00 | | 17.00 | |
| P220195200PB | 220.00 | | 220.00 | 195.00 | 20.00 | 195.00 | | 21.00 | |
| P220200120PB | 220.00 | | 220.00 | 200.00 | 12.00 | 200.00 | | 13.00 | |
| P220200160PB | 220.00 | | 220.00 | 200.00 | 16.00 | 200.00 | | 17.00 | |
| P224199160PB | 224.00 | | 224.00 | 199.00 | 16.00 | 199.00 | | 17.00 | |
| P224199200PB | 224.00 | | 224.00 | 199.00 | 20.00 | 199.00 | | 21.00 | |
| P224204120PB | 224.00 | | 224.00 | 204.00 | 12.00 | 204.00 | | 13.00 | |
| P224204160PB | 224.00 | | 224.00 | 204.00 | 16.00 | 204.00 | | 17.00 | |
| P225200160PB | 225.00 | | 225.00 | 200.00 | 16.00 | 200.00 | | 17.00 | |
| P225200190PB | 225.00 | | 225.00 | 200.00 | 19.00 | 200.00 | | 20.00 | |
| P225200200PB | 225.00 | | 225.00 | 200.00 | 20.00 | 200.00 | | 21.00 | |
| P225205120PB | 225.00 | | 225.00 | 205.00 | 12.00 | 205.00 | | 13.00 | |
| P225205160PB | 225.00 | | 225.00 | 205.00 | 16.00 | 205.00 | | 17.00 | |
| P230205160PB | 230.00 | | 230.00 | 205.00 | 16.00 | 205.00 | | 17.00 | |
| P230205190PB | 230.00 | | 230.00 | 205.00 | 19.00 | 205.00 | | 20.00 | |
| P230205200PB | 230.00 | | 230.00 | 205.00 | 20.00 | 205.00 | | 21.00 | |
| P230210120PB | 230.00 | | 230.00 | 210.00 | 12.00 | 210.00 | | 13.00 | |
| P230210160PB | 230.00 | ▼ | 230.00 | 210.00 | 16.00 | 210.00 | ▼ | 17.00 | ▼ |

PB series - AU 93A

PISTON SEALS

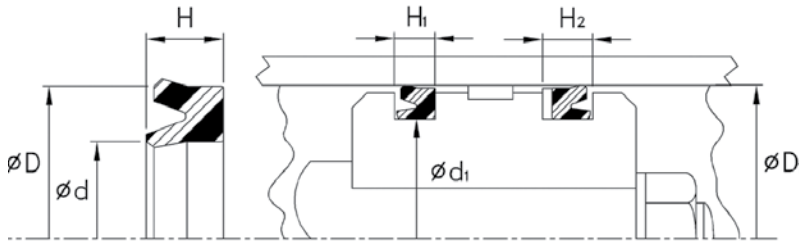


| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P235210200PB | 235.00 | + .185 - .000 | 235.00 | 210.00 | 20.00 | 210.00 | + .000 - .290 | 21.00 | + .250 - .000 |
| P240215160PB | 240.00 | | 240.00 | 215.00 | 16.00 | 215.00 | | 17.00 | |
| P240215190PB | 240.00 | | 240.00 | 215.00 | 19.00 | 215.00 | | 20.00 | |
| P240215200PB | 240.00 | | 240.00 | 215.00 | 20.00 | 215.00 | | 21.00 | |
| P240220120PB | 240.00 | | 240.00 | 220.00 | 12.00 | 220.00 | | 13.00 | |
| P240220160PB | 240.00 | | 240.00 | 220.00 | 16.00 | 220.00 | | 17.00 | |
| P250225160PB | 250.00 | | 250.00 | 225.00 | 16.00 | 225.00 | | 17.00 | |
| P250225190PB | 250.00 | | 250.00 | 225.00 | 19.00 | 225.00 | | 20.00 | |
| P250225200PB | 250.00 | | 250.00 | 225.00 | 20.00 | 225.00 | | 21.00 | |
| P250230120PB | 250.00 | | 250.00 | 230.00 | 12.00 | 230.00 | | 13.00 | |
| P250230160PB | 250.00 | ▼ | 250.00 | 230.00 | 16.00 | 230.00 | | 17.00 | |
| P255230190PB | 255.00 | + .210 - .000 | 255.00 | 230.00 | 19.00 | 230.00 | | 20.00 | |
| P260235160PB | 260.00 | | 260.00 | 235.00 | 16.00 | 235.00 | | 17.00 | |
| P260235290PB | 260.00 | | 260.00 | 235.00 | 19.00 | 235.00 | | 20.00 | |
| P260240120PB | 260.00 | | 260.00 | 240.00 | 12.00 | 240.00 | | 13.00 | |
| P260240160PB | 260.00 | | 260.00 | 240.00 | 16.00 | 240.00 | | 17.00 | |
| P270245160PB | 270.00 | | 270.00 | 245.00 | 16.00 | 245.00 | | 17.00 | |
| P270245190PB | 270.00 | | 270.00 | 245.00 | 19.00 | 245.00 | | 20.00 | |
| P270250120PB | 270.00 | | 270.00 | 250.00 | 12.00 | 250.00 | | 13.00 | |
| P270250160PB | 270.00 | | 270.00 | 250.00 | 16.00 | 250.00 | | 17.00 | |
| P275250190PB | 275.00 | | 275.00 | 250.00 | 19.00 | 250.00 | | 20.00 | |
| P275250200PB | 275.00 | | 275.00 | 250.00 | 20.00 | 250.00 | | 21.00 | |
| P280250190PB | 280.00 | | 280.00 | 250.00 | 19.00 | 250.00 | ▼ | 20.00 | |
| P280255160PB | 280.00 | | 280.00 | 255.00 | 16.00 | 255.00 | + .000 - .320 | 17.00 | |
| P280255190PB | 280.00 | | 280.00 | 255.00 | 19.00 | 255.00 | | 20.00 | |
| P290260190PB | 290.00 | | 290.00 | 260.00 | 19.00 | 260.00 | | 20.00 | |
| P290265160PB | 290.00 | | 290.00 | 265.00 | 16.00 | 265.00 | | 17.00 | |
| P290265190PB | 290.00 | | 290.00 | 265.00 | 19.00 | 265.00 | | 20.00 | |
| P290265240PB | 290.00 | | 290.00 | 265.00 | 24.00 | 265.00 | | 25.00 | |
| P297265250PB | 297.00 | | 297.00 | 265.00 | 25.00 | 265.00 | | 25.00 | |
| P300270190PB | 300.00 | | 300.00 | 270.00 | 19.00 | 270.00 | | 20.00 | |
| P300270240PB | 300.00 | | 300.00 | 270.00 | 24.00 | 270.00 | | 25.00 | |
| P300270250PB | 300.00 | | 300.00 | 270.00 | 25.00 | 270.00 | | 25.00 | |
| P300275160PB | 300.00 | | 300.00 | 275.00 | 16.00 | 275.00 | | 17.00 | |
| P300275190PB | 300.00 | | 300.00 | 275.00 | 19.00 | 275.00 | | 20.00 | |
| P305280160PB | 305.00 | | 305.00 | 280.00 | 16.00 | 280.00 | | 17.00 | |
| P312280240PB | 312.00 | ▼ | 312.00 | 280.00 | 24.00 | 280.00 | | 25.00 | |
| P320290190PB | 320.00 | + .230 - .000 | 320.00 | 290.00 | 19.00 | 290.00 | | 20.00 | |
| P320295160PB | 320.00 | | 320.00 | 295.00 | 16.00 | 295.00 | | 17.00 | |
| P325295200PB | 325.00 | | 325.00 | 295.00 | 20.00 | 295.00 | | 21.00 | |
| P330300190PB | 330.00 | | 330.00 | 300.00 | 19.00 | 300.00 | | 20.00 | |
| P332300240PB | 332.00 | | 332.00 | 300.00 | 24.00 | 300.00 | ▼ | 25.00 | |
| P350330200PB | 350.00 | | 350.00 | 330.00 | 20.00 | 330.00 | + .000 - .360 | 21.00 | |
| P390345200PB | 390.00 | ▼ | 390.00 | 345.00 | 20.00 | 345.00 | ▼ | 21.00 | |
| P420390190PB | 420.00 | + .250 - .000 | 420.00 | 390.00 | 19.00 | 390.00 | ▼ | 20.00 | |
| P750720200PB | 750.00 | | 750.00 | 720.00 | 20.00 | 720.00 | + .000 - .400 | 21.00 | ▼ |

PB-1 - Piston seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|---------------------------------------|-----------------------|-------------------|
| Polyurethane | -31 °F à +176 °F (-35 °C à +80 °C) | ≤290 psi (≤20 bar) | <3.3 ft/s (1 m/s) |



N.B.: $H_2 = H_1 + \text{B.UP RING THICKNESS}$

The **PB-1-style** is a non-symmetrical pneumatic and low-pressure hydraulic piston type U-cup. Being Uni-directional in design, two PB seals must be used, back to back, in separate grooves to provide bi-directional pressure sealing.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|---------------|-------------|-------------------------|-------|------|--------------------|--------|------|--------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P006003020PB-1 | 6.00 | +048/-0.000 | 6.00 | 3.00 | 2.00 | 3.00 | +0.000 | 2.50 | +0.200 |
| P008004030PB-1 | 8.00 | +0.058 | 8.00 | 4.00 | 3.00 | 4.00 | -0.030 | 3.00 | -0.000 |
| P008005027PB-1 | 8.00 | -0.000 | 8.00 | 4.80 | 2.30 | 4.80 | | 2.70 | |
| P009005035PB-1 | 9.00 | | 9.00 | 5.00 | 3.25 | 5.00 | | 3.50 | |
| P010006030PB-1 | 10.00 | | 10.00 | 6.00 | 2.55 | 6.00 | | 3.00 | |
| P010006035PB-1 | 10.00 | ▼ | 10.00 | 6.00 | 3.25 | 6.00 | ▼ | 3.50 | |
| P012007030PB-1 | 12.00 | +0.070 | 12.00 | 7.00 | 2.55 | 7.00 | +0.000 | 3.00 | |
| P013008030PB-1 | 13.00 | -0.000 | 13.00 | 8.00 | 2.55 | 8.00 | -0.036 | 3.00 | |
| P014008030PB-1 | 14.00 | | 14.00 | 8.00 | 2.55 | 8.00 | | 3.00 | |
| P015009030PB-1 | 15.00 | | 15.00 | 9.00 | 2.55 | 9.00 | | 3.00 | |
| P016010030PB-1 | 16.00 | | 16.00 | 10.00 | 2.55 | 10.00 | ▼ | 3.00 | |
| P017011030PB-1 | 17.00 | | 17.00 | 11.00 | 2.55 | 11.00 | +0.000 | 3.00 | |
| P018012030PB-1 | 18.00 | ▼ | 18.00 | 12.00 | 2.55 | 12.00 | -0.043 | 3.00 | |
| P020014030PB-1 | 20.00 | +0.084 | 20.00 | 14.00 | 2.55 | 14.00 | | 3.00 | |
| P022016030PB-1 | 22.00 | -0.000 | 22.00 | 16.00 | 2.55 | 16.00 | | 3.00 | |
| P025017055PB-1 | 25.00 | | 25.00 | 17.00 | 5.50 | 17.00 | | 6.00 | |
| P025017060PB-1 | 25.00 | | 25.00 | 17.00 | 5.50 | 17.00 | ▼ | 6.00 | |
| P025019035PB-1 | 25.00 | | 25.00 | 19.00 | 3.25 | 19.00 | +0.000 | 3.50 | |
| P030022035PB-1 | 30.00 | ▼ | 30.00 | 22.00 | 3.25 | 22.00 | -0.052 | 3.50 | |
| P032024035PB-1 | 32.00 | +0.100 | 32.00 | 24.00 | 3.50 | 24.00 | | 3.50 | |
| P032024055PB-1 | 32.00 | -0.000 | 32.00 | 24.00 | 5.50 | 24.00 | | 6.00 | |
| P032024060PB-1 | 32.00 | | 32.00 | 24.00 | 5.50 | 24.00 | | 6.00 | |
| P032025050PB-1 | 32.00 | | 32.00 | 25.00 | 4.50 | 25.00 | | 5.00 | |
| P036028035PB-1 | 36.00 | | 36.00 | 28.00 | 3.25 | 28.00 | | 3.50 | |
| P038030070PB-1 | 38.00 | | 38.00 | 30.00 | 6.35 | 30.00 | | 7.00 | |
| P040030070PB-1 | 40.00 | ▼ | 40.00 | 30.00 | 7.00 | 30.00 | ▼ | 7.50 | ▼ |



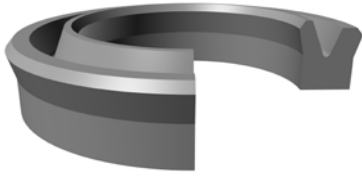
PB-1 series - AU 93A

PISTON SEALS

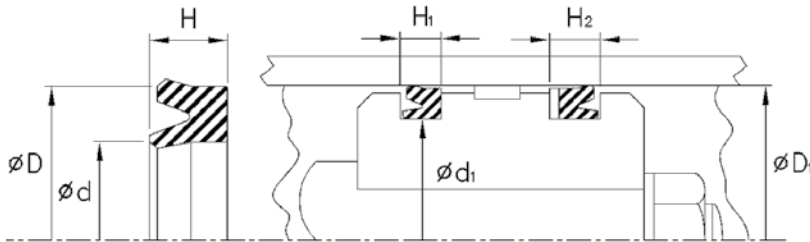


| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|---------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P040030075PB-1 | 40.00 | +0.100 -0.000 | 40.00 | 30.00 | 7.00 | 30.00 | +0.000/-0.052 | 7.50 | +0.200 -0.000 |
| P040032035PB-1 | 40.00 | | 40.00 | 32.00 | 3.25 | 32.00 | +0.000 -0.062 | 3.50 | |
| P042030065PB-1 | 42.00 | | 42.00 | 30.00 | 6.00 | 30.00 | | 6.50 | |
| P042034035PB-1 | 42.00 | | 42.00 | 34.00 | 3.25 | 34.00 | | 3.50 | |
| P045037035PB-1 | 45.00 | | 45.00 | 37.00 | 3.25 | 37.00 | | 3.50 | |
| P046036050PB-1 | 46.00 | | 46.00 | 36.00 | 3.25 | 36.00 | | 5.00 | |
| P050040070PB-1 | 50.00 | | 50.00 | 40.00 | 7.00 | 40.00 | | 7.50 | |
| P050040075PB-1 | 50.00 | | 50.00 | 40.00 | 7.50 | 40.00 | | 7.50 | |
| P050042035PB-1 | 50.00 | ▼ | 50.00 | 42.00 | 3.25 | 42.00 | | 3.50 | |
| P052042045PB-1 | 52.00 | +0.120 -0.000 | 52.00 | 42.00 | 4.25 | 42.00 | | 4.50 | |
| P055045075PB-1 | 55.00 | | 55.00 | 45.00 | 7.00 | 45.00 | | 7.50 | |
| P058048045PB-1 | 58.00 | | 58.00 | 48.00 | 4.25 | 48.00 | | 4.50 | |
| P060050057PB-1 | 60.00 | | 60.00 | 50.00 | 5.70 | 50.00 | | 5.70 | |
| P060050075PB-1 | 60.00 | | 60.00 | 50.00 | 7.00 | 50.00 | ▼ | 7.50 | |
| P063053045PB-1 | 63.00 | | 63.00 | 53.00 | 4.50 | 53.00 | +0.000 -0.074 | 4.50 | |
| P063053070PB-1 | 63.00 | | 63.00 | 53.00 | 7.00 | 53.00 | | 7.50 | |
| P063053075PB-1 | 63.00 | | 63.00 | 53.00 | 7.00 | 53.00 | | 7.50 | |
| P065055075PB-1 | 65.00 | | 65.00 | 55.00 | 7.00 | 55.00 | | 7.50 | |
| P070058095PB-1 | 70.00 | | 70.00 | 58.00 | 8.50 | 58.00 | | 9.50 | |
| P070060075PB-1 | 70.00 | | 70.00 | 60.00 | 7.50 | 60.00 | | 7.50 | |
| P075065075PB-1 | 75.00 | | 75.00 | 65.00 | 7.50 | 65.00 | | 7.50 | |
| P080068085PB-1 | 80.00 | | 80.00 | 68.00 | 8.50 | 68.00 | | 9.50 | |
| P080068095PB-1 | 80.00 | | 80.00 | 68.00 | 8.50 | 68.00 | | 9.50 | |
| P080070045PB-1 | 80.00 | ▼ | 80.00 | 70.00 | 4.25 | 70.00 | | 4.50 | |
| P090080045PB-1 | 90.00 | +0.140 -0.000 | 90.00 | 80.00 | 4.25 | 80.00 | | 4.50 | |
| P100088085PB-1 | 100.00 | | 100.00 | 88.00 | 8.50 | 88.00 | ▼ | 9.50 | |
| P100088095PB-1 | 100.00 | | 100.00 | 88.00 | 8.50 | 88.00 | +0.000 -0.087 | 9.50 | |
| P100090045PB-1 | 100.00 | | 100.00 | 90.00 | 4.25 | 90.00 | | 4.50 | |
| P120105110PB-1 | 120.00 | ▼ | 120.00 | 105.00 | 10.00 | 105.00 | | 11.00 | |
| P125105085PB-1 | 125.00 | +0.160 -0.000 | 125.00 | 105.00 | 8.25 | 105.00 | | 8.50 | |
| P125110100PB-1 | 125.00 | | 125.00 | 110.00 | 10.00 | 110.00 | | 11.00 | |
| P125110110PB-1 | 125.00 | | 125.00 | 110.00 | 10.00 | 110.00 | | 11.00 | |
| P130115110PB-1 | 130.00 | | 130.00 | 115.00 | 10.00 | 115.00 | | 11.00 | |
| P140120085PB-1 | 140.00 | | 140.00 | 120.00 | 8.50 | 120.00 | ▼ | 8.50 | |
| P155135085PB-1 | 155.00 | | 155.00 | 135.00 | 8.50 | 135.00 | +0.000 -0.100 | 8.50 | |
| P160140085PB-1 | 160.00 | | 160.00 | 140.00 | 8.25 | 140.00 | | 8.50 | |
| P160140094PB-1 | 160.00 | ▼ | 160.00 | 140.00 | 8.40 | 140.00 | ▼ | 9.40 | |
| P254244063PB-1 | 254.00 | +0.210/-0.000 | 254.00 | 244.00 | 5.70 | 244.00 | +0.000/-0.115 | 6.30 | ▼ |

PB/N - Piston seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|------------------------------------|-------------------------|---------------------|
| Nitrile | -22°F à +212°F (-30°C à +100°C) | ≤1500 psi (≤100 bar) | <1.6 ft/s (0.5 m/s) |



N.B.: $H_2 = H_1 + \text{B.UP RING THICKNESS}$

The **PB/N-style** is a single-acting piston seal with an asymmetrical designed manufactured in homogeneous rubber material. It is particularly well suited for pneumatic or low pressure (1500 psi/100bar) hydraulic applications. Two **PB/N-style** seals can be used, back to back, in separate grooves to provide bi-directional sealing.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|------------------|---------------|-----------------|-------------------------|------|------|--------------------|-----------------|------|-----------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P004001017PB/N | 4.00 | +0.075 -.000 | 4.00 | 1.50 | 1.70 | 1.50 | +0.000 -.025 | 2.20 | +0.200 -.000 |
| P005002022PB/N | 5.00 | | 5.00 | 2.00 | 2.20 | 2.00 | | 2.70 | |
| P006002020PB/N | 6.00 | | 6.00 | 2.50 | 2.00 | 2.50 | | 2.50 | |
| P006003030PB/N | 6.00 | | 6.00 | 3.00 | 3.00 | 3.00 | | 3.50 | |
| P007004020PB/N | 7.50 | +0.090 -.000 | 7.50 | 4.00 | 2.00 | 4.00 | +0.000-.030 | 2.50 | |
| P008003035PB/N | 8.00 | | 8.00 | 3.00 | 3.50 | 3.00 | +0.000-.025 | 4.00 | |
| P008005040PB/N | 8.00 | | 8.00 | 5.00 | 4.00 | 5.00 | +0.000 -.030 | 4.50 | |
| P009004035PB/N | 9.50 | | 9.50 | 4.50 | 3.50 | 4.50 | | 4.00 | |
| P010003040PB/N | 10.00 | | 10.00 | 3.00 | 4.00 | 3.00 | +0.000 -.025 | 4.50 | |
| P010003060PB/N | 10.00 | | 10.00 | 3.00 | 6.00 | 3.00 | | 6.50 | |
| P010050003PB/N | 10.00 | | 10.00 | 5.00 | 3.00 | 5.00 | +0.000 -.030 | 3.50 | |
| P010005035PB/N | 10.00 | | 10.00 | 5.00 | 3.50 | 5.00 | | 4.00 | |
| P010006042PB/N | 10.00 | | 10.00 | 6.00 | 4.20 | 6.00 | | 4.70 | |
| P011006040PB/N | 11.00 | +0.110 -.000 | 11.00 | 6.00 | 4.00 | 6.00 | | 4.50 | |
| P011006040PB/N-1 | 11.50 | | 11.50 | 6.00 | 4.00 | 6.00 | | 4.50 | |
| P012004080PB/N | 12.00 | | 12.00 | 4.00 | 8.00 | 4.00 | | 8.50 | |
| P012006040PB/N | 12.00 | | 12.00 | 6.00 | 4.00 | 6.00 | | 4.50 | |
| P012006080PB/N | 12.00 | | 12.00 | 6.00 | 8.00 | 6.00 | | 8.50 | |
| P012007040PB/N | 12.00 | | 12.00 | 7.00 | 4.00 | 7.00 | +0.000 -.036 | 4.50 | |
| P012008030PB/N | 12.00 | | 12.00 | 8.00 | 3.00 | 8.00 | | 3.50 | |
| P013007040PB/N | 13.00 | | 13.00 | 7.00 | 4.00 | 7.00 | | 4.50 | |
| P013007065PB/N | 13.00 | | 13.00 | 7.00 | 6.50 | 7.00 | | 7.00 | |
| P013008040PB/N | 13.50 | | 13.50 | 8.00 | 4.00 | 8.00 | | 4.50 | |



PB/N series - NBR 90A

PISTON SEALS



| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P014006055PB/N | 14.00 | + .110 - .000 | 14.00 | 6.00 | 5.50 | 6.00 | + .000 - .030 | 6.00 | + .200 - .000 |
| P014006080PB/N | 14.00 | | 14.00 | 6.00 | 8.00 | 6.00 | | 8.50 | |
| P014008040PB/N | 14.00 | | 14.00 | 8.00 | 4.00 | 8.00 | + .000 - .036 | 4.50 | |
| P015006080PB/N | 15.00 | | 15.00 | 6.00 | 8.00 | 6.00 | + .000 - .020 | 8.50 | |
| P015007055PB/N | 15.00 | | 15.00 | 7.00 | 5.50 | 7.00 | + .000 - .036 | 6.00 | |
| P015008050PB/N | 15.00 | | 15.00 | 8.00 | 5.00 | 8.00 | | 5.50 | |
| P015010040PB/N | 15.70 | | 15.70 | 10.00 | 4.00 | 10.00 | | 4.50 | |
| P016008055PB/N | 16.00 | | 16.00 | 8.00 | 5.50 | 8.00 | | 6.00 | |
| P016008060PB/N | 16.00 | | 16.00 | 8.00 | 6.00 | 8.00 | | 6.50 | |
| P016009050PB/N | 16.00 | | 16.00 | 9.00 | 5.00 | 9.00 | | 5.50 | |
| P016010040PB/N | 16.00 | | 16.00 | 10.00 | 4.00 | 10.00 | | 4.50 | |
| P016010050PB/N | 16.00 | | 16.00 | 10.00 | 5.00 | 10.00 | | 5.50 | |
| P016010060PB/N | 16.00 | | 16.00 | 10.00 | 6.00 | 10.00 | | 6.50 | |
| P017009080PB/N | 17.00 | | 17.00 | 9.00 | 8.00 | 9.00 | | 8.50 | |
| P017011030PB/N | 17.50 | | 17.50 | 11.70 | 3.00 | 11.70 | + .000 - .043 | 3.50 | |
| P018010055PB/N | 18.00 | | 18.00 | 10.00 | 5.50 | 10.00 | + .000 - .036 | 6.00 | |
| P018010100PB/N | 18.00 | | 18.00 | 10.00 | 10.00 | 10.00 | | 11.00 | |
| P020010070PB/N | 20.00 | + .130 - .000 | 20.00 | 10.00 | 7.00 | 10.00 | | 7.50 | |
| P020010075PB/N | 20.00 | | 20.00 | 10.00 | 7.50 | 10.00 | | 8.00 | |
| P020012055PB/N | 20.00 | | 20.00 | 12.00 | 5.50 | 12.00 | + .000 - .043 | 6.00 | |
| P020014040PB/N | 20.00 | | 20.00 | 14.00 | 4.00 | 14.00 | | 4.50 | |
| P020014042PB/N | 20.00 | | 20.00 | 14.00 | 4.20 | 14.00 | | 4.70 | |
| P020014060PB/N | 20.00 | | 20.00 | 14.00 | 6.00 | 14.00 | | 6.50 | |
| P022012060PB/N | 22.00 | | 22.00 | 12.00 | 6.00 | 12.00 | | 6.50 | |
| P022014055PB/N | 22.00 | | 22.00 | 14.00 | 5.50 | 14.00 | | 6.00 | |
| P022016050PB/N | 22.00 | | 22.00 | 16.00 | 5.00 | 16.00 | | 5.50 | |
| P024014075PB/N | 24.00 | | 24.00 | 14.00 | 7.50 | 14.00 | | 8.00 | |
| P024016050PB/N | 24.00 | | 24.00 | 16.00 | 5.00 | 16.00 | | 5.50 | |
| P024016055PB/N | 24.00 | | 24.00 | 16.00 | 5.50 | 16.00 | | 6.00 | |
| P024016090PB/N | 24.00 | | 24.00 | 16.00 | 9.00 | 16.00 | | 10.00 | |
| P024017065PB/N | 24.00 | | 24.00 | 17.00 | 6.50 | 17.00 | | 7.00 | |
| P025012097PB/N | 25.00 | | 25.00 | 12.00 | 9.70 | 12.00 | | 10.70 | |
| P025015050PB/N | 25.00 | | 25.00 | 15.00 | 5.00 | 15.00 | | 5.50 | |
| P025015075PB/N | 25.00 | | 25.00 | 15.00 | 7.50 | 15.00 | | 8.00 | |
| P025015058PB/N | 25.00 | | 25.00 | 15.50 | 5.80 | 15.50 | | 6.30 | |
| P025017045PB/N | 25.00 | | 25.00 | 17.00 | 4.50 | 17.00 | | 5.00 | |
| P025017055PB/N | 25.00 | | 25.00 | 17.00 | 5.50 | 17.00 | | 6.00 | |
| P025017065PB/N | 25.00 | | 25.00 | 17.00 | 6.50 | 17.00 | | 7.00 | |
| P026018055PB/N | 26.00 | | 26.00 | 18.00 | 5.50 | 18.00 | | 6.00 | |
| P027017080PB/N | 27.00 | | 27.00 | 17.00 | 8.00 | 17.00 | | 8.50 | |
| P028016090PB/N | 28.00 | | 28.00 | 16.00 | 9.00 | 16.00 | | 10.00 | |
| P028018070PB/N | 28.00 | | 28.00 | 18.00 | 7.00 | 18.00 | | 7.50 | |
| P028018080PB/N | 28.00 | | 28.00 | 18.00 | 8.00 | 18.00 | | 8.50 | |
| P028020055PB/N | 28.00 | | 28.00 | 20.00 | 5.50 | 20.00 | + .000 - .052 | 6.00 | |
| P030015102PB/N | 30.00 | | 30.00 | 15.00 | 10.20 | 15.00 | + .000 - .043 | 11.20 | |
| P030018080PB/N | 30.00 | | 30.00 | 18.00 | 8.00 | 18.00 | | 8.50 | |

PB/N series - NBR 90A

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P030020065PB/N | 30.00 | +0.130 -0.000 | 30.00 | 20.00 | 6.50 | 20.00 | +0.000 -0.052 | 7.00 | +0.200 -0.000 |
| P030020070PB/N | 30.00 | | 30.00 | 20.00 | 7.00 | 20.00 | | 7.50 | |
| P030020080PB/N | 30.00 | | 30.00 | 20.00 | 8.00 | 20.00 | | 8.50 | |
| P030022055PB/N | 30.00 | ▼ | 30.00 | 22.00 | 5.50 | 22.00 | ▼ | 6.00 | |
| P032016120PB/N | 32.00 | +0.160 -0.000 | 32.00 | 16.00 | 12.00 | 16.00 | +0.000 -0.043 | 13.00 | |
| P032018120PB/N | 32.00 | | 32.00 | 18.00 | 12.00 | 18.00 | | 13.00 | |
| P032020065PB/N | 32.00 | | 32.00 | 20.00 | 6.50 | 20.00 | +0.000 -0.052 | 7.00 | |
| P032022050PB/N | 32.00 | | 32.00 | 22.00 | 5.00 | 22.00 | | 5.50 | |
| P032022070PB/N | 32.00 | | 32.00 | 22.00 | 7.00 | 22.00 | | 7.50 | |
| P032024055PB/N | 32.00 | | 32.00 | 24.00 | 5.50 | 24.00 | | 6.00 | |
| P032024070PB/N | 32.00 | | 32.00 | 24.00 | 7.00 | 24.00 | | 7.50 | |
| P034024070PB/N | 34.00 | | 34.00 | 24.00 | 7.00 | 24.00 | | 7.50 | |
| P034025065PB/N | 34.00 | | 34.00 | 25.00 | 6.50 | 25.00 | | 7.00 | |
| P035025065PB/N | 35.00 | | 35.00 | 25.00 | 6.50 | 25.00 | | 7.00 | |
| P035025070PB/N | 35.00 | | 35.00 | 25.00 | 7.00 | 25.00 | | 7.50 | |
| P035025080PB/N | 35.00 | | 35.00 | 25.00 | 8.00 | 25.00 | | 8.50 | |
| P036024060PB/N | 36.00 | | 36.00 | 24.00 | 6.00 | 24.00 | | 6.50 | |
| P036024090PB/N | 36.00 | | 36.00 | 24.00 | 9.00 | 24.00 | | 10.00 | |
| P036026070PB/N | 36.00 | | 36.00 | 26.00 | 7.00 | 26.00 | | 7.50 | |
| P037021120PB/N | 37.00 | | 37.00 | 21.00 | 12.00 | 21.00 | | 13.00 | |
| P037029055PB/N | 37.00 | | 37.00 | 29.00 | 5.50 | 29.00 | | 6.00 | |
| P038026100PB/N | 38.00 | | 38.00 | 26.00 | 10.00 | 26.00 | | 11.00 | |
| P038028070PB/N | 38.00 | | 38.00 | 28.00 | 7.00 | 28.00 | | 7.50 | |
| P038028080PB/N | 38.00 | | 38.00 | 28.00 | 8.00 | 28.00 | | 8.50 | |
| P040028060PB/N | 40.00 | | 40.00 | 28.00 | 6.00 | 28.00 | | 6.50 | |
| P040028090PB/N | 40.00 | | 40.00 | 28.00 | 9.00 | 28.00 | | 10.00 | |
| P040030065PB/N | 40.00 | | 40.00 | 30.00 | 6.50 | 30.00 | | 7.00 | |
| P040030070PB/N | 40.00 | | 40.00 | 30.00 | 7.00 | 30.00 | ▼ | 7.50 | |
| P040032055PB/N | 40.00 | | 40.00 | 32.00 | 5.50 | 32.00 | +0.000 -0.062 | 6.00 | |
| P040033080PB/N | 40.00 | | 40.00 | 33.00 | 8.00 | 33.00 | | 8.50 | |
| P042030060PB/N | 42.00 | | 42.00 | 30.00 | 6.00 | 30.00 | +0.000 -0.052 | 6.50 | |
| P044028120PB/N | 44.00 | | 44.00 | 28.00 | 12.00 | 28.00 | | 13.00 | |
| P045029120PB/N | 45.00 | | 45.00 | 29.00 | 12.00 | 29.00 | ▼ | 13.00 | |
| P045033090PB/N | 45.00 | | 45.00 | 33.00 | 9.00 | 33.00 | +0.000 -0.062 | 10.00 | |
| P045035070PB/N | 45.00 | | 45.00 | 35.00 | 7.00 | 35.00 | | 7.50 | |
| P045037060PB/N | 45.00 | | 45.00 | 37.00 | 6.00 | 37.00 | | 6.50 | |
| P046036070PB/N | 46.00 | | 46.00 | 36.00 | 7.00 | 36.00 | | 7.50 | |
| P047031120PB/N | 47.00 | | 47.00 | 31.00 | 12.00 | 31.00 | | 13.00 | |
| P048040055PB/N | 48.00 | | 48.00 | 40.00 | 5.50 | 40.00 | ▼ | 6.00 | |
| P050030150PB/N | 50.00 | | 50.00 | 30.00 | 15.00 | 30.00 | +0.000 -0.052 | 16.00 | |
| P050034120PB/N | 50.00 | | 50.00 | 34.00 | 12.00 | 34.00 | +0.000 -0.062 | 13.00 | |
| P050036100PB/N | 50.00 | | 50.00 | 36.00 | 10.00 | 36.00 | | 11.00 | |
| P050038060PB/N | 50.00 | | 50.00 | 38.00 | 6.00 | 38.00 | | 6.50 | |
| P050038070PB/N | 50.00 | | 50.00 | 38.00 | 7.00 | 38.00 | | 7.50 | |
| P050038090PB/N | 50.00 | | 50.00 | 38.00 | 9.00 | 38.00 | | 10.00 | |
| P050040070PB/N | 50.00 | ▼ | 50.00 | 40.00 | 7.00 | 40.00 | ▼ | 7.50 | ▼ |

PB/N series - NBR 90A

PISTON SEALS



| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P050040080PB/N | 50.00 | +0.160 -0.000 | 50.00 | 40.00 | 8.00 | 40.00 | +0.000 -0.062 | 8.50 | +0.200 -0.000 |
| P050042080PB/N | 50.00 | | 50.00 | 42.00 | 8.00 | 42.00 | | 8.50 | |
| P052036120PB/N | 52.00 | +0.190 -0.000 | 52.00 | 36.00 | 12.00 | 36.00 | | 13.00 | |
| P052042070PB/N | 52.00 | | 52.00 | 42.00 | 7.00 | 42.00 | | 7.50 | |
| P052042075PB/N | 52.00 | | 52.00 | 42.00 | 7.50 | 42.00 | | 8.00 | |
| P054046080PB/N | 54.00 | | 54.00 | 46.00 | 8.00 | 46.00 | | 8.50 | |
| P055045070PB/N | 55.00 | | 55.00 | 45.00 | 7.00 | 45.00 | | 7.50 | |
| P055045075PB/N | 55.00 | | 55.00 | 45.00 | 7.50 | 45.00 | | 8.00 | |
| P055047080PB/N | 55.00 | | 55.00 | 47.00 | 8.00 | 47.00 | | 8.50 | |
| P057041120PB/N | 57.00 | | 57.00 | 41.00 | 12.00 | 41.00 | | 13.00 | |
| P058048120PB/N | 58.00 | | 58.00 | 48.00 | 12.00 | 48.00 | | 13.00 | |
| P060040120PB/N | 60.00 | | 60.00 | 40.00 | 12.00 | 40.00 | | 13.00 | |
| P060040150PB/N | 60.00 | | 60.00 | 40.00 | 15.00 | 40.00 | | 16.00 | |
| P060044120PB/N | 60.00 | | 60.00 | 44.00 | 12.00 | 44.00 | | 13.00 | |
| P060048075PB/N | 60.00 | | 60.00 | 48.00 | 7.50 | 48.00 | | 8.00 | |
| P060048090PB/N | 60.00 | | 60.00 | 48.00 | 9.00 | 48.00 | | 10.00 | |
| P060050070PB/N | 60.00 | | 60.00 | 50.00 | 7.00 | 50.00 | | 7.50 | |
| P060050100PB/N | 60.00 | | 60.00 | 50.00 | 10.00 | 50.00 | | 11.00 | |
| P062046120PB/N | 62.00 | | 62.00 | 46.00 | 12.00 | 46.00 | | 13.00 | |
| P062047100PB/N | 62.00 | | 62.00 | 47.00 | 10.00 | 47.00 | ▼ | 11.00 | |
| P062052070PB/N | 62.00 | | 62.00 | 52.00 | 7.00 | 52.00 | +0.000 -0.074 | 7.50 | |
| P062052075PB/N | 62.00 | | 62.00 | 52.00 | 7.50 | 52.00 | | 8.00 | |
| P063045120PB/N | 63.00 | | 63.00 | 45.00 | 12.00 | 45.00 | +0.00/-062 | 13.00 | |
| P063051060PB/N | 63.00 | | 63.00 | 51.00 | 6.00 | 51.00 | +0.000 -0.074 | 6.50 | |
| P063051090PB/N | 63.00 | | 63.00 | 51.00 | 9.00 | 51.00 | | 10.00 | |
| P063053070PB/N | 63.00 | | 63.00 | 53.00 | 7.00 | 53.00 | ▼ | 7.50 | |
| P065049120PB/N | 65.00 | | 65.00 | 49.00 | 12.00 | 49.00 | +0.00/-062 | 13.00 | |
| P065053060PB/N | 65.00 | | 65.00 | 53.00 | 6.00 | 53.00 | +0.000 -0.074 | 6.50 | |
| P065053100PB/N | 65.00 | | 65.00 | 53.00 | 10.00 | 53.00 | | 11.00 | |
| P065055070PB/N | 65.00 | | 65.00 | 55.00 | 7.00 | 55.00 | | 7.50 | |
| P065055120PB/N | 65.00 | | 65.00 | 55.00 | 12.00 | 55.00 | | 13.00 | |
| P067057070PB/N | 67.00 | | 67.00 | 57.00 | 7.00 | 57.00 | ▼ | 7.50 | |
| P068048140PB/N | 68.00 | | 68.00 | 48.00 | 14.00 | 48.00 | +0.00/-062 | 15.00 | |
| P068058070PB/N | 68.00 | | 68.00 | 58.00 | 7.00 | 58.00 | +0.00/-074 | 7.50 | |
| P070050140PB/N | 70.00 | | 70.00 | 50.00 | 14.00 | 50.00 | +0.000 -0.062 | 15.00 | |
| P070050150PB/N | 70.00 | | 70.00 | 50.00 | 15.00 | 50.00 | | 16.00 | |
| P070054080PB/N | 70.00 | | 70.00 | 54.00 | 8.00 | 54.00 | +0.000 -0.074 | 8.50 | |
| P070054120PB/N | 70.00 | | 70.00 | 54.00 | 12.00 | 54.00 | | 13.00 | |
| P070058070PB/N | 70.00 | | 70.00 | 58.00 | 7.00 | 58.00 | | 7.50 | |
| P070058085PB/N | 70.00 | | 70.00 | 58.00 | 8.50 | 58.00 | | 9.00 | |
| P070060075PB/N | 70.00 | | 70.00 | 60.00 | 7.50 | 60.00 | | 8.00 | |
| P070062060PB/N | 70.00 | | 70.00 | 62.00 | 6.00 | 62.00 | | 6.50 | |
| P074062085PB/N | 74.00 | | 74.00 | 62.00 | 8.50 | 62.00 | | 9.00 | |
| P075055120PB/N | 75.00 | | 75.00 | 55.00 | 12.00 | 55.00 | | 13.00 | |
| P075059120PB/N | 75.00 | | 75.00 | 59.00 | 12.00 | 59.00 | | 13.00 | |
| P075063085PB/N | 75.00 | ▼ | 75.00 | 63.00 | 8.50 | 63.00 | ▼ | 9.00 | ▼ |

PB/N series - NBR 90A

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|---------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P075065075PB/N | 75.00 | +0.190 -0.000 | 75.00 | 65.00 | 7.50 | 65.00 | +0.000 -0.074 | 8.00 | +0.200 -0.000 |
| P080060100PB/N | 80.00 | | 80.00 | 60.00 | 10.00 | 60.00 | | 11.00 | |
| P080060140PB/N | 80.00 | | 80.00 | 60.00 | 14.00 | 60.00 | | 15.00 | |
| P080063160PB/N | 80.00 | | 80.00 | 63.00 | 16.00 | 63.00 | | 17.00 | |
| P080064080PB/N | 80.00 | | 80.00 | 64.00 | 8.00 | 64.00 | | 8.50 | |
| P080064100PB/N | 80.00 | | 80.00 | 64.00 | 10.00 | 64.00 | | 11.00 | |
| P080064120PB/N | 80.00 | | 80.00 | 64.00 | 12.00 | 64.00 | | 13.00 | |
| P080068085PB/N | 80.00 | | 80.00 | 68.00 | 8.50 | 68.00 | | 9.00 | |
| P080070075PB/N | 80.00 | | 80.00 | 70.50 | 7.50 | 70.50 | | 8.00 | |
| P080072120PB/N | 80.00 | ▼ | 80.00 | 72.00 | 12.00 | 72.00 | | 13.00 | |
| P082062150PB/N | 82.00 | +0.220 -0.000 | 82.00 | 62.00 | 15.00 | 62.00 | | 16.00 | |
| P085073085PB/N | 85.00 | | 85.00 | 73.00 | 8.50 | 73.00 | | 9.00 | |
| P085075075PB/N | 85.00 | | 85.00 | 75.00 | 7.50 | 75.00 | | 8.00 | |
| P085075080PB/N | 85.00 | | 85.00 | 75.00 | 8.00 | 75.00 | | 8.50 | |
| P085075100PB/N | 85.00 | | 85.00 | 75.00 | 10.00 | 75.00 | | 11.00 | |
| P090070120PB/N | 90.00 | | 90.00 | 70.00 | 12.00 | 70.00 | | 13.00 | |
| P090070150PB/N | 90.00 | | 90.00 | 70.00 | 15.00 | 70.00 | | 16.00 | |
| P090074080PB/N | 90.00 | | 90.00 | 74.00 | 8.00 | 74.00 | | 8.50 | |
| P090078085PB/N | 90.00 | | 90.00 | 78.00 | 8.50 | 78.00 | | 9.00 | |
| P092072150PB/N | 92.00 | | 92.00 | 72.00 | 15.00 | 72.00 | | 16.00 | |
| P100080150PB/N | 100.00 | | 100.00 | 80.00 | 15.00 | 80.00 | ▼ | 16.00 | |
| P100082125PB/N | 100.00 | | 100.00 | 82.00 | 12.50 | 82.00 | +0.000 -0.087 | 13.50 | |
| P100082135PB/N | 100.00 | | 100.00 | 82.00 | 13.50 | 82.00 | | 14.50 | |
| P100084080PB/N | 100.00 | | 100.00 | 84.00 | 8.00 | 84.00 | | 8.50 | |
| P100085095PB/N | 100.00 | | 100.00 | 85.00 | 9.50 | 85.00 | | 10.50 | |
| P100085120PB/N | 100.00 | | 100.00 | 85.00 | 12.00 | 85.00 | | 13.00 | |
| P100088085PB/N | 100.00 | | 100.00 | 88.00 | 8.50 | 88.00 | | 9.00 | |
| P100090070PB/N | 100.00 | | 100.00 | 90.00 | 7.00 | 90.00 | | 7.50 | |
| P100090105PB/N | 100.00 | | 100.00 | 90.00 | 10.50 | 90.00 | | 11.50 | |
| P105085150PB/N | 105.00 | | 105.00 | 85.00 | 15.00 | 85.00 | | 16.00 | |
| P105090080PB/N | 105.00 | | 105.00 | 90.00 | 8.00 | 90.00 | | 8.50 | |
| P105095100PB/N | 105.00 | | 105.00 | 95.00 | 10.00 | 95.00 | | 11.00 | |
| P110090150PB/N | 110.00 | | 110.00 | 90.00 | 15.00 | 90.00 | | 16.00 | |
| P110095100PB/N | 110.00 | | 110.00 | 95.00 | 10.00 | 95.00 | | 11.00 | |
| P110098085PB/N | 110.00 | | 110.00 | 98.00 | 8.50 | 98.00 | | 9.00 | |
| P115095140PB/N | 115.00 | | 115.00 | 95.00 | 14.00 | 95.00 | | 15.00 | |
| P115095150PB/N | 115.00 | | 115.00 | 95.00 | 15.00 | 95.00 | | 16.00 | |
| P120096160PB/N | 120.00 | | 120.00 | 96.00 | 16.00 | 96.00 | | 17.00 | |
| P120100150PB/N | 120.00 | | 120.00 | 100.00 | 15.00 | 100.00 | | 16.00 | |
| P120105100PB/N | 120.00 | | 120.00 | 105.00 | 10.00 | 105.00 | | 11.00 | |
| P120106140PB/N | 120.00 | ▼ | 120.00 | 106.00 | 14.00 | 106.00 | | 15.00 | |
| P125103160PB/N | 125.00 | +0.250 -0.000 | 125.00 | 103.00 | 16.00 | 103.00 | | 17.00 | |
| P125105160PB/N | 125.00 | | 125.00 | 105.00 | 16.00 | 105.00 | | 17.00 | |
| P125107125PB/N | 125.00 | | 125.00 | 107.00 | 12.50 | 107.00 | | 13.50 | |
| P125109080PB/N | 125.00 | | 125.00 | 109.00 | 8.00 | 109.00 | | 8.50 | |
| P125110100PB/N | 125.00 | ▼ | 125.00 | 110.00 | 10.00 | 110.00 | ▼ | 11.00 | ▼ |

PB/N series - NBR 90A

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|---------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P130110150PB/N | 130.00 | +0.250 -0.000 | 130.00 | 110.00 | 15.00 | 110.00 | +0.000 -0.087 | 16.00 | +0.200 -0.000 |
| P130115100PB/N | 130.00 | | 130.00 | 115.00 | 10.00 | 115.00 | | 11.00 | |
| P135115140PB/N | 135.00 | | 135.00 | 115.00 | 14.00 | 115.00 | | 15.00 | |
| P135120112PB/N | 135.00 | | 135.00 | 120.00 | 11.20 | 120.00 | | 12.20 | |
| P136116140PB/N | 136.00 | | 136.00 | 116.00 | 14.00 | 116.00 | | 15.00 | |
| P140115180PB/N | 140.00 | | 140.00 | 115.00 | 18.00 | 115.00 | | 19.00 | |
| P140120100PB/N | 140.00 | | 140.00 | 120.00 | 10.00 | 120.00 | | 11.00 | |
| P140120140PB/N | 140.00 | | 140.00 | 120.00 | 14.00 | 120.00 | | 15.00 | |
| P140120160PB/N | 140.00 | | 140.00 | 120.00 | 16.00 | 120.00 | ▼ | 17.00 | |
| P140125100PB/N | 140.00 | | 140.00 | 125.00 | 10.00 | 125.00 | +0.000 -0.100 | 11.00 | |
| P145130100PB/N | 145.00 | | 145.00 | 130.00 | 10.00 | 130.00 | | 11.00 | |
| P150130120PB/N | 150.00 | | 150.00 | 130.00 | 12.00 | 130.00 | | 13.00 | |
| P150130150PB/N | 150.00 | | 150.00 | 130.00 | 15.00 | 130.00 | | 16.00 | |
| P150135100PB/N | 150.00 | | 150.00 | 135.00 | 10.00 | 135.00 | | 11.00 | |
| P150140140PB/N | 150.00 | | 150.00 | 140.00 | 14.00 | 140.00 | | 15.00 | |
| P155130180PB/N | 155.00 | | 155.00 | 130.00 | 18.00 | 130.00 | | 19.00 | |
| P160130250PB/N | 160.00 | | 160.00 | 130.00 | 25.00 | 130.00 | | 26.00 | |
| P160140100PB/N | 160.00 | | 160.00 | 140.00 | 10.00 | 140.00 | | 11.00 | |
| P160140140PB/N | 160.00 | | 160.00 | 140.00 | 14.00 | 140.00 | | 15.00 | |
| P160144160PB/N | 160.00 | | 160.00 | 144.00 | 16.00 | 144.00 | | 17.00 | |
| P160145100PB/N | 160.00 | | 160.00 | 145.00 | 10.00 | 145.00 | | 11.00 | |
| P170160150PB/N | 170.00 | | 170.00 | 160.00 | 15.00 | 160.00 | | 16.00 | |
| P175145180PB/N | 175.00 | | 175.00 | 145.00 | 18.00 | 145.00 | | 19.00 | |
| P175155140PB/N | 175.00 | | 175.00 | 155.00 | 14.00 | 155.00 | | 15.00 | |
| P180160140PB/N | 180.00 | | 180.00 | 160.00 | 14.00 | 160.00 | | 15.00 | |
| P180160150PB/N | 180.00 | ▼ | 180.00 | 160.00 | 15.00 | 160.00 | | 16.00 | |
| P185174150PB/N | 185.00 | +0.290 -0.000 | 185.00 | 174.00 | 15.00 | 174.00 | | 16.00 | |
| P190170140PB/N | 190.00 | | 190.00 | 170.00 | 14.00 | 170.00 | | 15.00 | |
| P190170150PB/N | 190.00 | | 190.00 | 170.00 | 15.00 | 170.00 | | 16.00 | |
| P200170250PB/N | 200.00 | | 200.00 | 170.00 | 25.00 | 170.00 | | 26.00 | |
| P200176120PB/N | 200.00 | | 200.00 | 176.00 | 12.00 | 176.00 | | 13.00 | |
| P200180140PB/N | 200.00 | | 200.00 | 180.00 | 14.00 | 180.00 | ▼ | 15.00 | |
| P200185150PB/N | 200.00 | | 200.00 | 185.00 | 15.00 | 185.00 | +0.000 -0.115 | 16.00 | |
| P200186155PB/N | 200.00 | | 200.00 | 186.00 | 15.50 | 186.00 | | 16.50 | |
| P220199150PB/N | 220.00 | | 220.00 | 199.00 | 15.00 | 199.00 | | 16.00 | |
| P220200140PB/N | 220.00 | | 220.00 | 200.00 | 14.00 | 200.00 | | 15.00 | |
| P225200175PB/N | 225.00 | | 225.00 | 200.00 | 17.50 | 200.00 | | 18.50 | |
| P230215112PB/N | 230.00 | | 230.00 | 215.00 | 11.20 | 215.00 | | 12.20 | |
| P240220140PB/N | 240.00 | | 240.00 | 220.00 | 14.00 | 220.00 | | 15.00 | |
| P250225180PB/N | 250.00 | | 250.00 | 225.00 | 18.00 | 225.00 | | 19.00 | |
| P250226160PB/N | 250.00 | | 250.00 | 226.00 | 16.00 | 226.00 | | 17.00 | |
| P250230140PB/N | 250.00 | ▼ | 250.00 | 230.00 | 14.00 | 230.00 | | 15.00 | |
| P260240140PB/N | 260.00 | +0.320 -0.000 | 260.00 | 240.00 | 14.00 | 240.00 | | 15.00 | |
| P280250150PB/N | 280.00 | | 280.00 | 250.00 | 15.00 | 250.00 | | 16.00 | |
| P280250220PB/N | 280.00 | | 280.00 | 250.00 | 22.00 | 250.00 | ▼ | 23.00 | |
| P280260140PB/N | 280.00 | ▼ | 280.00 | 260.00 | 14.00 | 260.00 | +0.000/-0.130 | 15.00 | ▼ |

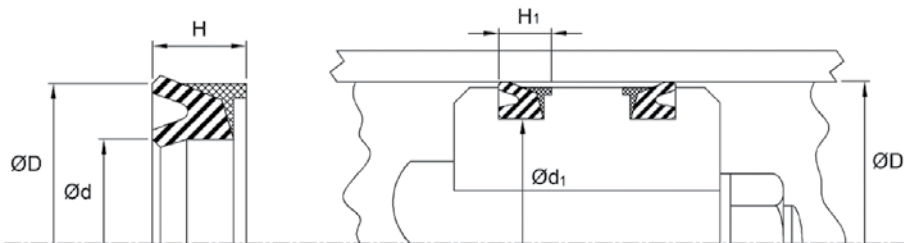
PB/N series - NBR 90A

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|---------------|------------------|-------------------------|--------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P300270225PB/N | 300.00 | +0.320 -0.000 | 300.00 | 270.00 | 22.50 | 270.00 | +0.000 -0.130 | 23.50 | +0.200 -0.000 |
| P300280150PB/N | 300.00 | | 300.00 | 280.00 | 15.00 | 280.00 | | 16.00 | |
| P315290170PB/N | 315.00 | ↓ | 315.00 | 290.00 | 17.00 | 290.00 | | 18.00 | |
| P320295140PB/N | 320.00 | +0.360 -0.000 | 320.00 | 295.00 | 14.00 | 295.00 | | 15.00 | |
| P320295170PB/N | 320.00 | | 320.00 | 295.00 | 17.00 | 295.00 | | 18.00 | |
| P350320210PB/N | 350.00 | ↓ | 350.00 | 320.00 | 21.00 | 320.00 | +0.000 -0.140 | 22.00 | |
| P420395190PB/N | 420.00 | +0.400/-0.000 | 420.00 | 395.00 | 19.00 | 395.00 | | 20.00 | ↓ |

PH - Piston seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|---------------------|
| Nitrile/Nylon | -20°F to +220°F (-29°C to +104°C) | ≤3000 psi (≤205 bar) | <1.6 ft/s (0.5 m/s) |



The **PH-style** is a single-acting piston seals using a nitrile (NBR) sealing lip for excellent sealability mated to a fitted reinforced nylon anti-extrusion ring.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P045027121PH | 45.00 | +0.100/-0.000 | 45.00 | 27.00 | 12.10 | 27.00 | +0.000/-0.052 | 12.50 | +0.300 -0.000 |
| P050032121PH | 50.00 | +0.120 -0.000 | 50.00 | 32.00 | 12.10 | 32.00 | +0.000 -0.062 | 12.50 | |
| P055037121PH | 55.00 | | 55.00 | 37.00 | 12.10 | 37.00 | | 12.50 | |
| P060042121PH | 60.00 | | 60.00 | 42.00 | 12.10 | 43.00 | | 12.50 | |
| P065047121PH | 65.00 | | 65.00 | 47.00 | 12.10 | 47.00 | | 12.50 | |
| P070048145PH | 70.00 | | 70.00 | 48.00 | 14.50 | 48.00 | | 15.50 | |
| P080058145PH | 80.00 | ↓ | 80.00 | 58.00 | 14.50 | 58.00 | +0.000 -0.074 | 15.50 | |
| P085063145PH | 85.00 | +0.140 -0.000 | 85.00 | 63.00 | 14.50 | 63.00 | | 15.50 | |
| P090068145PH | 90.00 | | 90.00 | 68.00 | 14.50 | 68.00 | | 15.50 | ↓ |



PH series - NBR/NYLON

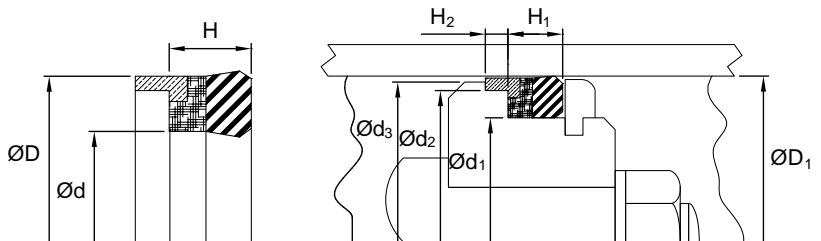
PISTON SEALS

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|--------------|---------------|-----------------|-------------------------|--------|-------|--------------------|-----------------|-------|-----------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P100078145PH | 100.00 | +0.140 -.000 | 100.00 | 78.00 | 14.50 | 78.00 | +0.000 -.074 | 15.50 | +0.300 -.000 |
| P110088145PH | 110.00 | | 110.00 | 88.00 | 14.50 | 88.00 | +0.000 -.087 | 15.50 | |
| P115093145PH | 115.00 | | 115.00 | 93.00 | 14.50 | 93.00 | | 15.50 | |
| P120098145PH | 120.00 | | 120.00 | 98.00 | 14.50 | 98.00 | | 15.50 | |
| P125103145PH | 125.00 | +0.160 -.000 | 125.00 | 103.00 | 14.50 | 103.00 | | 15.50 | |
| P130108145PH | 130.00 | | 130.00 | 108.00 | 14.50 | 108.00 | | 15.50 | |
| P135113145PH | 135.00 | | 135.00 | 113.00 | 14.50 | 113.00 | | 15.50 | |
| P140118145PH | 140.00 | | 140.00 | 118.00 | 14.50 | 118.00 | | 15.50 | |
| P145123145PH | 145.00 | | 145.00 | 123.00 | 14.50 | 123.00 | +0.000 -.100 | 15.50 | |
| P150128145PH | 150.00 | | 150.00 | 128.00 | 14.50 | 128.00 | | 15.50 | |
| P160138145PH | 160.00 | | 160.00 | 138.00 | 14.50 | 138.00 | | 15.50 | |
| P170148145PH | 170.00 | | 170.00 | 148.00 | 14.50 | 148.00 | | 15.50 | |
| P180158145PH | 180.00 | | 180.00 | 158.00 | 14.50 | 158.00 | | 15.50 | |
| P190168145PH | 190.00 | +0.185 -.000 | 190.00 | 168.00 | 14.50 | 168.00 | | 15.50 | |
| P200178145PH | 200.00 | | 200.00 | 178.00 | 14.50 | 178.00 | | 15.50 | |
| P225203145PH | 225.00 | | 225.00 | 203.00 | 14.50 | 203.00 | +0.000 -.115 | 15.50 | |
| P230208145PH | 230.00 | | 230.00 | 208.00 | 14.50 | 208.00 | | 15.50 | |
| P250225163PH | 250.00 | | 250.00 | 225.00 | 16.30 | 225.00 | | 17.50 | |

PR - Piston seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|--------------------------|--------------------------------------|-------------------------|----------------------|
| Neo-Fabric/ Polyamide | -22°F to +212°F (-30°C to +100°C) | ≤7250 psi (≤500 bar) | < 1.6 ft/s (0.5 m/s) |



Single acting piston seal, suitable for medium duty application; Seal set consists of two elements:
 a) acetal antiextrusion wear ring.
 b) high specification NBR 80° shore and NBR impregnated cotton sealing element.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

PR series - NBR/NEOFAB/PA

PISTON SEALS



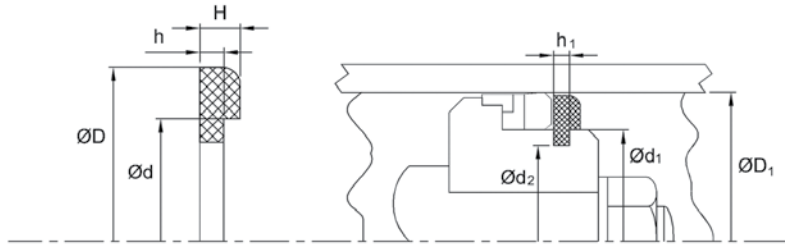
| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | | | |
|--------------|---------------|------------------|-------------------------|--------|--------|--------------------|------------------|------------------|------------------|------------------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | d2 +.050/-050 | d3 +.100/-100 | H1 +.400/-600 | H2 +.100/-000 |
| P025012095PR | 25.00 | + .130 - .000 | 25.00 | 12.00 | 9.50 | 12.00 | + .055 - .055 | 21.50 | 24.10 | 10.00 | 6.40 |
| P040028090PR | 40.00 | + .160 - .000 | 40.00 | 28.00 | 9.00 | 28.00 | + .065 - .065 | 35.40 | 39.00 | 9.50 | 6.40 |
| P050030140PR | 50.00 | | 50.00 | 30.00 | 14.00 | 30.00 | + .080 - .080 | 44.30 | 48.30 | 14.50 | 6.40 |
| P045035085PR | 45.00 | ▼ | 45.00 | 35.00 | 8.50 | 35.00 | + .065 - .065 | 42.00 | 43.99 | 9.00 | 6.40 |
| P050038094PR | 50.00 | | 50.00 | 38.00 | 9.40 | 38.00 | + .080 - .080 | 46.54 | 49.00 | 9.90 | 6.40 |
| P055040105PR | 55.00 | + .190 - .000 | 55.00 | 40.00 | 10.50 | 40.00 | | 50.40 | 53.65 | 11.00 | 6.40 |
| P060040140PR | 60.00 | ▼ | 60.00 | 40.00 | 14.00 | 40.00 | 54.20 | 58.06 | 14.50 | 6.40 | |
| P058043105PR | 58.00 | | 58.00 | 43.00 | 10.50 | 43.00 | 52.20 | 56.65 | 11.00 | 6.40 | |
| P060045105PR | 60.00 | ▼ | 60.00 | 45.00 | 10.50 | 45.00 | 54.40 | 58.65 | 11.00 | 6.40 | |
| P065045140PR | 65.00 | | 65.00 | 45.00 | 14.00 | 45.00 | 59.20 | 63.07 | 14.50 | 6.40 | |
| P065050100PR | 65.00 | ▼ | 65.00 | 50.00 | 10.00 | 50.00 | 60.40 | 63.22 | 10.50 | 6.40 | |
| P065050105PR | 65.00 | | 65.00 | 50.00 | 10.50 | 50.00 | 60.40 | 63.22 | 11.00 | 6.40 | |
| P070050140PR | 70.00 | ▼ | 70.00 | 50.00 | 14.00 | 50.00 | 64.20 | 68.05 | 14.50 | 6.40 | |
| P080060140PR | 80.00 | | 80.00 | 60.00 | 14.00 | 60.00 | + .095 - .095 | 74.20 | 78.34 | 14.50 | 6.40 |
| P080065110PR | 80.00 | 80.00 | 65.00 | 11.00 | 65.00 | 75.40 | | 78.45 | 11.50 | 6.40 | |
| P085070120PR | 85.00 | + .220 - .000 | 85.00 | 70.00 | 12.00 | 70.00 | 80.30 | 83.44 | 12.50 | 6.40 | |
| P090070140PR | 90.00 | | 90.00 | 70.00 | 14.00 | 70.00 | 84.20 | 88.30 | 14.50 | 6.40 | |
| P095075140PR | 95.00 | ▼ | 95.00 | 75.00 | 14.00 | 75.00 | 89.20 | 93.30 | 14.50 | 6.40 | |
| P100080140PR | 100.00 | | 100.00 | 80.00 | 14.00 | 80.00 | 94.20 | 98.30 | 14.50 | 6.40 | |
| P104085140PR | 104.50 | ▼ | 104.50 | 85.00 | 14.00 | 85.00 | + .110 - .110 | 98.70 | 102.47 | 14.50 | 6.40 |
| P105085140PR | 105.00 | | 105.00 | 85.00 | 14.00 | 85.00 | | 99.10 | 102.97 | 14.50 | 6.40 |
| P110090125PR | 110.00 | ▼ | 110.00 | 90.00 | 12.50 | 90.00 | 104.20 | 108.33 | 13.00 | 6.40 | |
| P115095140PR | 115.00 | | 115.00 | 95.00 | 14.00 | 95.00 | 109.10 | 112.85 | 14.50 | 6.40 | |
| P120100125PR | 120.00 | 120.00 | 100.00 | 12.50 | 100.00 | 114.20 | 118.33 | 13.00 | 6.40 | | |
| P125100140PR | 125.00 | + .160 - .000 | 125.00 | 100.00 | 14.00 | 100.00 | 118.10 | 122.96 | 14.50 | 6.40 | |
| P125105120PR | 125.00 | | 125.00 | 105.00 | 12.00 | 105.00 | 119.10 | 123.31 | 12.50 | 6.40 | |
| P130110120PR | 130.00 | ▼ | 130.00 | 110.00 | 12.00 | 110.00 | 122.60 | 127.96 | 12.50 | 6.40 | |
| P140120120PR | 140.00 | | 140.00 | 120.00 | 12.00 | 120.00 | 134.10 | 137.99 | 12.50 | 6.40 | |



KR - Piston seals - Metric



| Standard Material | Temperature Range |
|-------------------|--------------------------------------|
| Polyacetal | -40°F to +230°F (-40°C to +110°C) |



These split rings made of acetal material are primarily used as retaining devices when used in conjunction with **PR-style** piston seals.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

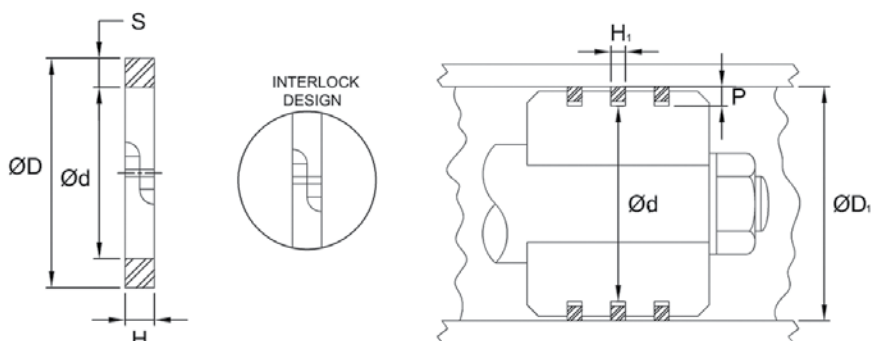
| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | |
|-------------|---------------|------------------|-------------------------|--------|--------|---|--------------------|--------|------------------|------|------------------|
| | D1 | Tol. | D | d | h | H | d1 | d2 | Tol. | h1 | Tol. |
| KR034022 | 34.00 | + .160 - .000 | 34.00 | 22.00 | 22.00 | | 6.00 | 17.60 | + .025 - .025 | 2.60 | + .020 + .010 |
| KR040026 | 40.00 | | 40.00 | 26.00 | 26.00 | | 6.00 | 21.60 | | 3.10 | |
| KR045035 | 45.00 | | 45.00 | 35.00 | 35.00 | | 5.00 | 30.60 | | 3.10 | |
| KR050030 | 50.00 | | 50.00 | 30.00 | 30.00 | | 6.50 | 25.60 | | 3.30 | |
| KR050040 | 50.00 | ▼ | 50.00 | 40.00 | 40.00 | | 5.00 | 35.60 | | 2.60 | |
| KR055040 | 55.00 | + .190 - .000 | 55.00 | 40.00 | 40.00 | | 6.00 | 35.60 | | 3.10 | |
| KR060040 | 60.00 | | 60.00 | 40.00 | 40.00 | | 6.00 | 35.60 | | 3.30 | |
| KR063045 | 63.00 | | 63.00 | 45.00 | 45.00 | | 6.00 | 40.60 | | 3.30 | |
| KR065045 | 65.00 | | 65.00 | 45.00 | 45.00 | | 6.50 | 40.60 | | 3.30 | |
| KR065050 | 65.00 | | 65.00 | 50.00 | 50.00 | | 6.00 | 45.60 | | 3.10 | |
| KR070050 | 70.00 | | 70.00 | 50.00 | 50.00 | | 6.50 | 45.60 | | 3.30 | |
| KR080060 | 80.00 | | 80.00 | 60.00 | 60.00 | | 6.50 | 55.60 | | 3.30 | |
| KR080065 | 80.00 | ▼ | 80.00 | 65.00 | 65.00 | | 6.50 | 60.60 | | 3.30 | |
| KR085070 | 85.00 | + .220 - .000 | 85.00 | 70.00 | 70.00 | | 6.00 | 65.60 | | 3.10 | |
| KR090070 | 90.00 | | 90.00 | 70.00 | 70.00 | | 6.50 | 65.60 | | 3.30 | |
| KR095075 | 95.00 | | 95.00 | 75.00 | 75.00 | | 6.50 | 70.60 | | 3.30 | |
| KR100080 | 100.00 | | 100.00 | 80.00 | 80.00 | | 6.50 | 75.60 | | 3.30 | |
| KR104085 | 104.50 | | 104.50 | 85.00 | 85.00 | | 6.00 | 80.60 | | 3.10 | |
| KR104085-1 | 104.50 | | 104.50 | 85.00 | 85.00 | | 6.50 | 80.60 | | 3.10 | |
| KR105085 | 105.00 | | 105.00 | 85.00 | 85.00 | | 6.50 | 80.60 | | 3.30 | |
| KR110090 | 110.00 | | 110.00 | 90.00 | 90.00 | | 6.50 | 85.60 | | 3.30 | |
| KR115095 | 115.00 | | 115.00 | 95.00 | 95.00 | | 6.50 | 90.60 | | 3.30 | |
| KR120100 | 120.00 | | 120.00 | 100.00 | 100.00 | | 6.50 | 85.60 | | 3.30 | |
| KR125105 | 125.00 | | 125.00 | 105.00 | 105.00 | | 6.50 | 100.60 | | 3.30 | |
| KR130110 | 130.00 | ▼ | 130.00 | 110.00 | 110.00 | | 6.50 | 105.60 | ▼ | 3.30 | ▼ |



PZ - Piston seals - Metric



| Standard Material |
|----------------------|
| Cast or ductile iron |



These metallic piston rings are low wear, highly extrusion resistant seals used in hydraulic applications. They are bi-directional in use, and can pass open ports without clipping the joint tips.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Housing Dimensions | |
|--------------|---------------|------------------|---------------------|---------------------|
| | D1 | Tol. | d1 + .000/- .050 | H1 + .130/- .000 |
| P040036020PZ | 40.00 | + .080 - .000 | 36.00 | 2.00 |
| P045040025PZ | 45.00 | | 40.60 | 2.50 |
| P050045025PZ | 50.00 | | 45.40 | 2.50 |
| P050046020PZ | 50.00 | | 46.00 | 2.00 |
| P055050030PZ | 55.00 | ▼ | 50.00 | 3.00 |
| P090082040PZ | 90.00 | + .100 - .000 | 82.50 | 4.00 |
| P090083040PZ | 90.00 | | 83.00 | 4.00 |
| P095087040PZ | 95.00 | | 87.10 | 4.00 |
| P100090040PZ | 100.00 | | 90.60 | 4.00 |
| P100091047PZ | 100.00 | | 91.60 | 4.70 |
| P105096040PZ | 105.00 | | 96.20 | 4.00 |
| P110099064PZ | 110.00 | | 99.00 | 6.40 |
| P115105040PZ | 115.00 | | 105.60 | 4.00 |
| P115106040PZ | 115.00 | | 105.60 | 4.00 |
| P120110040PZ | 120.00 | | 110.00 | 4.00 |
| P125115040PZ | 125.00 | | 115.40 | 4.00 |
| P130119040PZ | 130.00 | | 119.20 | 4.00 |
| P130122063PZ | 130.00 | | 122.50 | 6.30 |
| P135124040PZ | 135.00 | ▼ | 124.00 | 4.00 |

| Ref.Number | Bore Diameter | | Housing Dimensions | |
|--------------|---------------|------------------|---------------------|---------------------|
| | D1 | Tol. | d1 + .000/- .050 | H1 + .130/- .000 |
| P135127063PZ | 135.00 | + .100 - .000 | 127.50 | 6.30 |
| P140128040PZ | 140.00 | | 128.60 | 4.00 |
| P140129040PZ | 140.00 | | 128.60 | 4.00 |
| P145133040PZ | 145.00 | | 133.00 | 4.00 |
| P150136050PZ | 150.00 | | 136.00 | 5.04 |
| P150137040PZ | 150.00 | | 137.40 | 4.00 |
| P160146040PZ | 160.00 | | 146.90 | 4.00 |
| P160146078PZ | 160.00 | | 146.40 | 7.88 |
| P160147040PZ | 160.00 | | 146.90 | 4.00 |
| P160148078PZ | 160.00 | | 148.90 | 7.88 |
| P170155079PZ | 170.00 | | 155.00 | 7.95 |
| P170156040PZ | 170.00 | ▼ | 156.00 | 4.00 |
| P180168074PZ | 180.00 | + .130 - .000 | 168.00 | 7.40 |
| P180168080PZ | 180.00 | | 168.00 | 8.00 |
| P185169040PZ | 185.00 | | 169.90 | 4.00 |
| P185170040PZ | 185.00 | | 169.90 | 4.00 |
| P200186078PZ | 200.00 | | 186.40 | 7.88 |
| P250231049PZ | 250.00 | | 231.40 | 4.95 |
| P250232096PZ | 250.00 | ▼ | 232.00 | 9.60 |

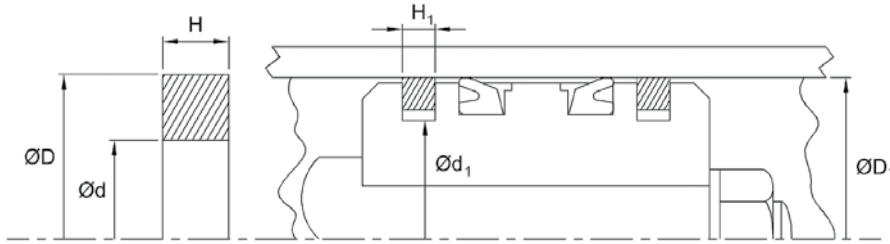
PISTON SEALS



PZ/B - Piston seals - Metric



| Standard Material | Temperature Range |
|-------------------|--|
| Brass | -450 °F to +450 °F (-268 °C to +232 °C) |



SAE 660 split piston rings for high shock / high load applications, commonly used in conjunction with **PH-style** piston seals.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

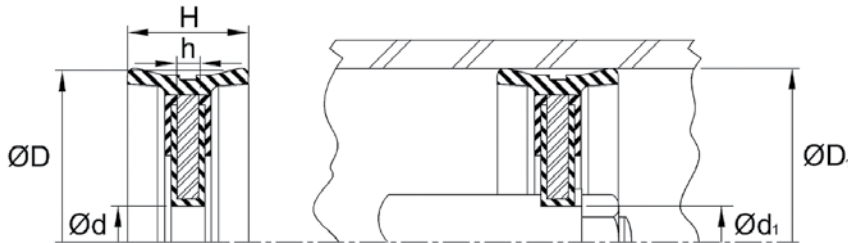
| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|----------------|---------------|------------------|-------------------------|---|---|--------------------|------------------|------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P125113060PZ/B | 125.00 | + .100 - .000 | | | | 112.00 | + .000 - .500 | 6.00 | + .500 - .000 |
| P130118060PZ/B | 130.00 | | | | | 117.00 | | 6.00 | |
| P140128060PZ/B | 140.00 | | | | | 127.00 | | 6.00 | |
| P150138060PZ/B | 150.00 | | | | | 137.00 | | 6.00 | |
| P160148060PZ/B | 160.00 | | | | | 147.00 | | 6.00 | |
| P170158060PZ/B | 170.00 | ↓ | | | | 157.00 | | 6.00 | |
| P180168060PZ/B | 180.00 | + .130 - .000 | | | | 167.00 | | 6.00 | |
| P190178060PZ/B | 190.00 | | | | | 177.00 | ↓ | 6.00 | ↓ |



P1B - Piston seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-----------------------|-------------------|
| Nitrile/Steel | -22°F to +212°F (-30°C to +100°C) | ≤174 psi (≤12 bar) | <3.3 ft/s (1 m/s) |



The **P1B-style** is a complete pneumatic piston with a double cup seal and a vulcanized metal disc support. It is fixed to the piston rod with a lock nut to avoid loosening during service.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|-------|------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | h | H | D1 | Tol. | d1 | Tol. |
| P016004120P1B | 16.00 | +0.110 -0.000 | 16.00 | 4.00 | 3.00 | 12.00 | 16.00 | +0.110 -0.000 | 4.00 | +0.048 -0.000 |
| P016005120P1B | 16.00 | | 16.00 | 5.00 | 3.00 | 12.00 | 16.00 | | 5.00 | |
| P020005120P1B | 20.00 | +0.130 -0.000 | 20.00 | 5.00 | 3.00 | 12.00 | 20.00 | +0.130 -0.000 | 5.00 | |
| P020006120P1B | 20.00 | | 20.00 | 6.00 | 3.00 | 12.00 | 20.00 | | 6.00 | |
| P025006120P1B | 25.00 | | 25.00 | 6.00 | 3.00 | 12.00 | 25.00 | | 6.00 | ↓ |
| P025008120P1B | 25.00 | ↓ | 25.00 | 8.00 | 3.00 | 12.00 | 25.00 | ↓ | 8.00 | +0.058/-0.000 |
| P032005180P1B | 32.00 | +0.160 -0.000 | 32.00 | 5.00 | 3.00 | 18.00 | 32.00 | +0.160 -0.000 | 5.00 | +0.048 -0.000 |
| P032006150P1B | 32.00 | | 32.00 | 6.00 | 3.00 | 15.00 | 32.00 | | 6.00 | |
| P032008150P1B | 32.00 | | 32.00 | 8.00 | 3.00 | 15.00 | 32.00 | | 8.00 | +0.058 -0.000 |
| P035008150P1B | 35.00 | | 35.00 | 8.00 | 3.00 | 15.00 | 35.00 | | 8.00 | |
| P040008180P1B | 40.00 | | 40.00 | 8.00 | 4.00 | 18.00 | 40.00 | | 8.00 | |
| P040008200P1B | 40.00 | | 40.00 | 8.00 | 4.00 | 20.00 | 40.00 | | 8.00 | |
| P040010180P1B | 40.00 | | 40.00 | 10.00 | 4.00 | 18.00 | 40.00 | | 10.00 | |
| P050008200P1B | 50.00 | | 50.00 | 8.00 | 4.00 | 20.00 | 50.00 | | 8.00 | |
| P050010180P1B | 50.00 | | 50.00 | 10.00 | 4.00 | 18.00 | 50.00 | | 10.00 | ↓ |
| P050016205P1B | 50.00 | ↓ | 50.00 | 16.00 | 4.00 | 20.50 | 50.00 | ↓ | 16.00 | +0.070 -0.000 |
| P060012210P1B | 60.00 | +0.190 -0.000 | 60.00 | 12.00 | 4.00 | 21.00 | 60.00 | +0.190 -0.000 | 12.00 | +0.084 -0.000 |
| P060018210P1B | 60.00 | | 60.00 | 18.00 | 4.00 | 21.00 | 60.00 | | 18.00 | +0.084 -0.000 |
| P060022210P1B | 60.00 | | 60.00 | 22.00 | 4.00 | 21.00 | 60.00 | | 22.00 | +0.070 -0.000 |
| P063012220P1B | 63.00 | | 63.00 | 12.00 | 5.00 | 22.00 | 63.00 | | 12.00 | +0.070 -0.000 |
| P063016215P1B | 63.00 | | 63.00 | 16.00 | 4.00 | 21.50 | 63.00 | | 16.00 | |
| P070012220P1B | 70.00 | | 70.00 | 12.00 | 5.00 | 22.00 | 70.00 | | 12.00 | ↓ |
| P070033220P1B | 70.00 | | 70.00 | 33.00 | 5.00 | 22.00 | 70.00 | | 33.00 | +0.100/-0.000 |
| P080012225P1B | 80.00 | | 80.00 | 12.00 | 5.00 | 22.50 | 80.00 | | 12.00 | +0.070 -0.000 |
| P080016225P1B | 80.00 | ↓ | 80.00 | 16.00 | 5.00 | 22.50 | 80.00 | ↓ | 16.00 | |



P1B series - NBR/STEEL

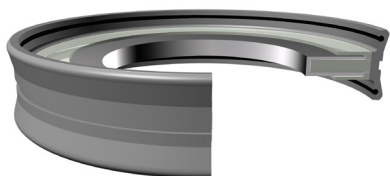
PISTON SEALS



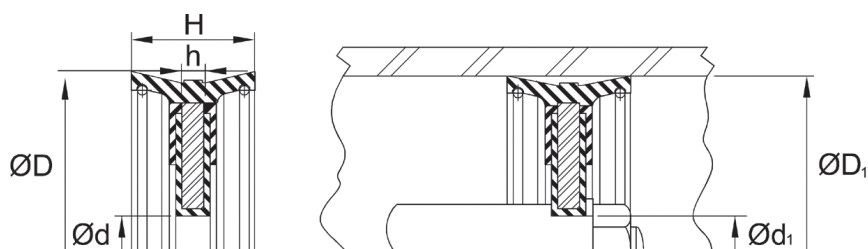
| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|-------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | h | H | D1 | Tol. | d1 | Tol. |
| P080016250P1B | 80.00 | +0.190 -0.000 | 80.00 | 16.00 | 6.00 | 25.00 | 80.00 | +0.190 -0.000 | 16.00 | +0.070/-0.000 |
| P080020225P1B | 80.00 | | 80.00 | 20.00 | 5.00 | 22.50 | 80.00 | | 20.00 | +0.084/-0.000 |
| P100012250P1B | 100.00 | +0.220 -0.000 | 100.00 | 12.00 | 6.00 | 25.00 | 100.00 | +0.220 -0.000 | 12.00 | +0.070 -0.000 |
| P100016250P1B | 100.00 | | 100.00 | 16.00 | 6.00 | 25.00 | 100.00 | | 16.00 | |
| P100020260P1B | 100.00 | ▼ | 100.00 | 20.00 | 6.00 | 26.00 | 100.00 | ▼ | 20.00 | +0.084 -0.000 |
| P125020260P1B | 125.00 | +0.250 -0.000 | 125.00 | 20.00 | 5.00 | 26.00 | 125.00 | +0.250 -0.000 | 20.00 | |
| P125020280P1B | 125.00 | | 125.00 | 20.00 | 7.00 | 28.00 | 125.00 | | 20.00 | |
| P125020300P1B | 125.00 | | 125.00 | 20.00 | 7.00 | 30.00 | 125.00 | | 20.00 | |
| P130020290P1B | 130.00 | | 130.00 | 20.00 | 8.00 | 29.00 | 130.00 | | 20.00 | |
| P140020300P1B | 140.00 | | 140.00 | 22.00 | 6.00 | 29.00 | 140.00 | | 22.00 | |
| P140022290P1B | 140.00 | | 140.00 | 22.00 | 6.00 | 29.00 | 140.00 | | 22.00 | |
| P150020290P1B | 150.00 | | 150.00 | 20.00 | 10.00 | 29.00 | 150.00 | | 20.00 | |
| P160027290P1B | 160.00 | | 160.00 | 27.00 | 6.00 | 29.00 | 160.00 | | 27.00 | |
| P160030290P1B | 160.00 | ▼ | 160.00 | 30.00 | 6.00 | 29.00 | 160.00 | ▼ | 30.00 | |
| P200027350P1B | 200.00 | +0.290 -0.000 | 200.00 | 27.00 | 10.00 | 35.00 | 200.00 | +0.290 -0.000 | 27.00 | |
| P200030350P1B | 200.00 | | 200.00 | 30.00 | 10.00 | 35.00 | 200.00 | | 30.00 | ▼ |



P1B-1 Piston seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-----------------------|---------------------|
| Nitrile/Steel | -22°F to +212°F (-30°C to +100°C) | ≤580 psi (≤40 bar) | <1.6 ft/s (0.5 m/s) |



The **P1B-1-style** is of similar design to the P1B-series but with added axial length for increased pressure resistance and better stability.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-----------------|---------------|------------------|-------------------------|-------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | h | H | D1 | Tol. | d1 | Tol. |
| P025008220P1B-1 | 25.00 | +0.130 -0.000 | 25.00 | 8.00 | 3.00 | 22.00 | 25.00 | +0.130 -0.000 | 8.00 | +0.000 -0.090 |
| P026008220P1B-1 | 26.00 | +0.130 -0.000 | 26.00 | 8.00 | 3.00 | 22.00 | 26.00 | +0.130 -0.000 | 8.00 | +0.000 -0.090 |
| P035008260P1B-1 | 35.00 | +0.160 -0.000 | 35.00 | 8.00 | 3.00 | 26.00 | 35.00 | +0.160 -0.000 | 8.00 | +0.000 -0.110 |
| P040010250P1B-1 | 40.00 | +0.160 -0.000 | 40.00 | 10.00 | 3.00 | 25.00 | 40.00 | +0.160 -0.000 | 10.00 | +0.000 -0.110 |
| P045010250P1B-1 | 45.00 | +0.160 -0.000 | 45.00 | 10.00 | 4.00 | 25.00 | 45.00 | +0.160 -0.000 | 10.00 | +0.000 -0.110 |
| P050010250P1B-1 | 50.00 | +0.160 -0.000 | 50.00 | 10.00 | 4.00 | 25.00 | 50.00 | +0.160 -0.000 | 10.00 | +0.000 -0.110 |
| P050016230P1B-1 | 50.00 | +0.160 -0.000 | 50.00 | 16.00 | 5.00 | 23.00 | 50.00 | +0.160 -0.000 | 16.00 | +0.000/-0.110 |
| P055010250P1B-1 | 55.00 | +0.190 -0.000 | 55.00 | 10.00 | 4.00 | 25.00 | 55.00 | +0.190 -0.000 | 10.00 | +0.000/-0.090 |
| P060012260P1B-1 | 60.00 | +0.190 -0.000 | 60.00 | 12.00 | 4.00 | 26.00 | 60.00 | +0.190 -0.000 | 12.00 | +0.000 -0.110 |
| P063012250P1B-1 | 63.00 | +0.190 -0.000 | 63.00 | 12.00 | 4.00 | 25.00 | 63.00 | +0.190 -0.000 | 12.00 | +0.000 -0.110 |
| P065012250P1B-1 | 65.00 | +0.190 -0.000 | 65.00 | 12.00 | 4.00 | 25.00 | 65.00 | +0.190 -0.000 | 12.00 | +0.000 -0.110 |
| P070012300P1B-1 | 70.00 | +0.190 -0.000 | 70.00 | 12.00 | 5.00 | 30.00 | 70.00 | +0.190 -0.000 | 12.00 | +0.000 -0.110 |
| P075012300P1B-1 | 75.00 | +0.190 -0.000 | 75.00 | 12.00 | 5.00 | 30.00 | 75.00 | +0.190 -0.000 | 12.00 | +0.000 -0.110 |
| P080012300P1B-1 | 80.00 | +0.190 -0.000 | 80.00 | 12.00 | 5.00 | 30.00 | 80.00 | +0.190 -0.000 | 12.00 | +0.000 -0.110 |
| P085012350P1B-1 | 85.00 | +0.220 -0.000 | 85.00 | 12.00 | 6.00 | 35.00 | 85.00 | +0.220 -0.000 | 12.00 | +0.000 -0.110 |
| P090012350P1B-1 | 90.00 | +0.220 -0.000 | 90.00 | 12.00 | 6.00 | 35.00 | 90.00 | +0.220 -0.000 | 12.00 | +0.000 -0.110 |
| P100012350P1B-1 | 100.00 | +0.220 -0.000 | 100.00 | 12.00 | 6.00 | 35.00 | 100.00 | +0.220 -0.000 | 12.00 | +0.000 -0.110 |
| P110012400P1B-1 | 110.00 | +0.220 -0.000 | 110.00 | 12.00 | 6.00 | 40.00 | 110.00 | +0.220 -0.000 | 12.00 | +0.000 -0.110 |
| P120020400P1B-1 | 120.00 | +0.250 -0.000 | 120.00 | 20.00 | 8.00 | 40.00 | 120.00 | +0.250 -0.000 | 20.00 | +0.000 -0.130 |
| P125020400P1B-1 | 125.00 | +0.250 -0.000 | 125.00 | 20.00 | 8.00 | 40.00 | 125.00 | +0.250 -0.000 | 20.00 | +0.000 -0.130 |
| P130020400P1B-1 | 130.00 | +0.250 -0.000 | 130.00 | 20.00 | 8.00 | 40.00 | 130.00 | +0.250 -0.000 | 20.00 | +0.000 -0.130 |
| P140020400P1B-1 | 140.00 | +0.250 -0.000 | 140.00 | 20.00 | 8.00 | 40.00 | 140.00 | +0.250 -0.000 | 20.00 | +0.000 -0.130 |
| P145020450P1B-1 | 145.00 | +0.250 -0.000 | 145.00 | 20.00 | 10.00 | 45.00 | 145.00 | +0.250 -0.000 | 20.00 | +0.000 -0.130 |

P1B-1 Piston seals - NBR/STEEL/S.STEEL



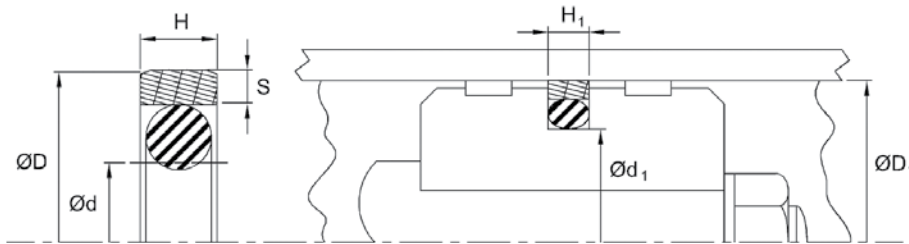
| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|-----------------|---------------|------------------|-------------------------|-------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | h | H | D1 | Tol. | d1 | Tol. |
| P150020400P1B-1 | 150.00 | +0.250 -0.000 | 150.00 | 20.00 | 10.00 | 40.00 | 150.00 | +0.250 -0.000 | 20.00 | +0.130 -0.000 |
| P160020400P1B-1 | 160.00 | | 160.00 | 20.00 | 10.00 | 40.00 | 160.00 | | 20.00 | |
| P175020400P1B-1 | 175.00 | | 175.00 | 20.00 | 10.00 | 40.00 | 175.00 | | 20.00 | |
| P180020400P1B-1 | 180.00 | | 180.00 | 20.00 | 10.00 | 40.00 | 180.00 | | 20.00 | |
| P200020400P1B-1 | 200.00 | +0.290 -0.000 | 200.00 | 20.00 | 10.00 | 40.00 | 200.00 | +0.290 -0.000 | 20.00 | |
| P230030400P1B-1 | 230.00 | | 230.00 | 30.00 | 12.00 | 40.00 | 230.00 | | 30.00 | |
| P250030400P1B-1 | 250.00 | | 250.00 | 30.00 | 12.00 | 40.00 | 250.00 | | 30.00 | |
| P300060400P1B-1 | 300.00 | +0.320/-0.000 | 300.00 | 60.00 | 12.00 | 40.00 | 300.00 | +0.320/-0.000 | 60.00 | +0.000/-0.090 |



P2B - Piston seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|------------------------------------|-------------------------|---------------------|
| PTFE/Nitrile | -30°F à +230°F (-34°C à +110°C) | ≤5800 psi (≤400 bar) | < 12 ft/s (3.7 m/s) |



P2B-style seals are two-part sealing units combining a low-friction, PTFE-based dynamic sealing element and an elastomeric loader ring insuring a fully energized device for both low and high pressure applications.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|------|------|------|--------------------|------------------|------|------------------|
| | D1 | Tol. | D | S | H | EXP. | d1 | Tol. | H1 | Tol. |
| P008003022P2B | 8.00 | +0.036 -0.000 | 8.00 | 1.05 | 2.00 | -006 | 3.10 | +0.000 -0.030 | 2.20 | +0.200 -0.000 |
| P010005022P2B | 10.00 | | 10.00 | 1.05 | 2.00 | -009 | 5.10 | | 2.20 | |
| P012007022P2B | 12.00 | +0.043/-0.000 | 12.00 | 1.05 | 2.00 | -011 | 7.10 | +0.000 -0.036 | 2.20 | |
| P015007032P2B | 15.00 | +0.036 -0.000 | 15.00 | 1.65 | 2.95 | -109 | 7.50 | | 3.20 | |
| P016008032P2B | 16.00 | | 16.00 | 1.65 | 2.95 | -109 | 8.50 | ▼ | 3.20 | |
| P016011022P2B | 16.00 | | 16.00 | 1.05 | 2.00 | -013 | 11.10 | +0.000 -0.043 | 2.20 | |
| P018010032P2B | 18.00 | | 18.00 | 1.65 | 2.95 | -111 | 10.50 | | 3.20 | |
| P018013022P2B | 18.00 | ▼ | 18.00 | 1.05 | 2.00 | -014 | 13.10 | | 2.20 | |
| P020012032P2B | 20.00 | +0.052 -0.000 | 20.00 | 1.65 | 2.95 | -112 | 12.50 | | 3.20 | |
| P020015022P2B | 20.00 | | 20.00 | 1.05 | 2.00 | -015 | 15.10 | | 2.20 | |
| P022014032P2B | 22.00 | | 22.00 | 1.65 | 2.95 | -113 | 14.50 | | 3.20 | |
| P022017022P2B | 22.00 | | 22.00 | 1.05 | 2.00 | -017 | 17.10 | | 2.20 | |
| P024016032P2B | 24.00 | | 24.00 | 1.65 | 2.95 | -114 | 16.50 | | 3.20 | |
| P025014042P2B | 25.00 | | 25.00 | 2.65 | 3.95 | -207 | 14.00 | | 4.20 | |
| P025017032P2B | 25.00 | | 25.00 | 1.65 | 2.95 | -115 | 17.50 | ▼ | 3.20 | |
| P028020032P2B | 28.00 | | 28.00 | 1.65 | 2.95 | -117 | 20.50 | +0.000 -0.052 | 3.20 | |
| P030022032P2B | 30.00 | ▼ | 30.00 | 1.65 | 2.95 | -118 | 22.50 | | 3.20 | |
| P032024032P2B | 32.00 | +0.062 -0.000 | 32.00 | 1.65 | 2.95 | -119 | 24.50 | | 3.20 | |
| P035027032P2B | 35.00 | | 35.00 | 1.65 | 2.95 | -121 | 27.50 | | 3.20 | |
| P036025042P2B | 36.00 | ▼ | 36.00 | 2.65 | 3.95 | -214 | 25.00 | ▼ | 4.20 | ▼ |



P2B series - PTFE/NBR

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|---------------|-----------------|-------------------------|------|------|--------------|--------------------|-----------------|------|-----------------|
| | D1 | Tol. | D | S | H | EXP. | d1 | Tol. | H1 | Tol. |
| P036028032P2B | 36.00 | +0.062 -.000 | 36.00 | 1.65 | 2.95 | -122 | 28.50 | +0.000/-0.052 | 3.20 | +0.200 -.000 |
| P038030032P2B | 38.00 | | 38.00 | 1.65 | 2.95 | -123 | 30.50 | +0.000 -.062 | 3.20 | |
| P039031032P2B | 39.00 | | 39.00 | 1.65 | 2.95 | -124 | 31.50 | | 3.20 | |
| P040029042P2B | 40.00 | | 40.00 | 2.65 | 3.95 | -216 | 29.00 | | 4.20 | |
| P040032032P2B | 40.00 | | 40.00 | 1.65 | 2.95 | -124 | 32.50 | | 3.20 | |
| P042031042P2B | 42.00 | | 42.00 | 2.65 | 3.95 | -217 | 31.00 | | 4.20 | |
| P045034042P2B | 45.00 | | 45.00 | 2.65 | 3.95 | -219 | 34.00 | | 4.20 | |
| P048037042P2B | 48.00 | | 48.00 | 2.65 | 3.95 | -221 | 37.00 | | 4.20 | |
| P050034063P2B | 50.00 | | 50.00 | 3.50 | 6.05 | -324 | 34.50 | | 6.30 | |
| P050039042P2B | 50.00 | ▼ | 50.00 | 2.65 | 3.95 | -222 | 39.00 | | 4.20 | |
| P055044042P2B | 55.00 | +0.074 -.000 | 55.00 | 2.65 | 3.95 | -224 | 44.00 | | 4.20 | |
| P056045042P2B | 56.00 | | 56.00 | 2.65 | 3.95 | -327 | 45.00 | | 4.20 | |
| P060049042P2B | 60.00 | | 60.00 | 2.65 | 3.95 | -225 | 49.00 | ▼ | 4.20 | |
| P063052042P2B | 63.00 | | 63.00 | 2.65 | 3.95 | -226 | 52.00 | +0.000 -.074 | 4.20 | |
| P064053042P2B | 64.00 | | 64.00 | 2.65 | 3.95 | -226 | 53.00 | | 4.20 | |
| P065054042P2B | 65.00 | | 65.00 | 2.65 | 3.95 | -330 | 54.00 | | 4.20 | |
| P070054063P2B | 70.00 | | 70.00 | 3.50 | 6.05 | -330 | 54.50 | | 6.30 | |
| P070059042P2B | 70.00 | | 70.00 | 2.65 | 3.95 | -228 | 59.00 | | 4.20 | |
| P075064042P2B | 75.00 | | 75.00 | 2.65 | 3.95 | -230 | 64.00 | | 4.20 | |
| P080059081P2B | 80.00 | | 80.00 | 4.90 | 7.75 | 58.00 X 7.00 | 59.00 | | 8.10 | |
| P080064063P2B | 80.00 | | 80.00 | 3.50 | 6.05 | -333 | 64.50 | | 6.30 | |
| P080069042P2B | 80.00 | ▼ | 80.00 | 2.65 | 3.95 | 68.00 X 3.50 | 69.00 | | 4.20 | |
| P085064081P2B | 85.00 | +0.087 -.000 | 85.00 | 4.90 | 7.75 | -409 | 64.00 | | 8.10 | |
| P085069063P2B | 85.00 | | 85.00 | 3.50 | 6.05 | -335 | 69.50 | | 6.30 | |
| P089073063P2B | 89.00 | | 89.00 | 3.50 | 6.05 | -336 | 73.50 | | 6.30 | |
| P090069081P2B | 90.00 | | 90.00 | 4.90 | 7.75 | 68.00 X 7.00 | 69.00 | | 8.10 | |
| P090074063P2B | 90.00 | | 90.00 | 3.50 | 6.05 | -336 | 74.50 | | 6.30 | |
| P095074081P2B | 95.00 | | 95.00 | 4.90 | 7.75 | 73.00 X 7.00 | 74.00 | | 8.10 | |
| P095079063P2B | 95.00 | | 95.00 | 3.50 | 6.05 | -338 | 79.50 | | 6.30 | |
| P100079081P2B | 100.00 | | 100.00 | 4.90 | 7.75 | -414 | 79.00 | ▼ | 8.10 | |
| P100084063P2B | 100.00 | | 100.00 | 3.50 | 6.05 | -339 | 84.50 | +0.000 -.087 | 6.30 | |
| P100089042P2B | 100.00 | | 100.00 | 2.65 | 3.95 | -238 | 89.00 | | 4.20 | |
| P105084081P2B | 105.00 | | 105.00 | 4.90 | 7.75 | -415 | 84.00 | | 8.10 | |
| P105089063P2B | 105.00 | | 105.00 | 3.50 | 6.05 | -341 | 89.50 | | 6.30 | |
| P110089081P2B | 110.00 | | 110.00 | 4.90 | 7.75 | -417 | 89.00 | | 8.10 | |
| P110094063P2B | 110.00 | | 110.00 | 3.50 | 6.05 | -343 | 94.50 | | 6.30 | |
| P115094081P2B | 115.00 | | 115.00 | 4.90 | 7.75 | -419 | 94.00 | | 8.10 | |
| P115099063P2B | 115.00 | | 115.00 | 3.50 | 6.05 | -344 | 99.50 | | 6.30 | |
| P120099081P2B | 120.00 | | 120.00 | 4.90 | 7.75 | -420 | 99.00 | | 8.10 | |
| P120104063P2B | 120.00 | ▼ | 120.00 | 3.50 | 6.05 | -346 | 104.50 | | 6.30 | |
| P125104081P2B | 125.00 | +0.100 -.000 | 125.00 | 4.90 | 7.75 | -421 | 104.00 | | 8.10 | |
| P125109063P2B | 125.00 | | 125.00 | 3.50 | 6.05 | -347 | 109.50 | | 6.30 | |
| P130109081P2B | 130.00 | | 130.00 | 4.90 | 7.75 | -422 | 109.00 | | 8.10 | |
| P130114063P2B | 130.00 | | 130.00 | 3.50 | 6.05 | -349 | 114.50 | | 6.30 | |
| P135114081P2B | 135.00 | | 135.00 | 4.90 | 7.75 | -425 | 114.00 | | 8.10 | |
| P140119081P2B | 140.00 | ▼ | 140.00 | 4.90 | 7.75 | -426 | 119.00 | ▼ | 8.10 | ▼ |

P2B series - PTFE/NBR

PISTON SEALS

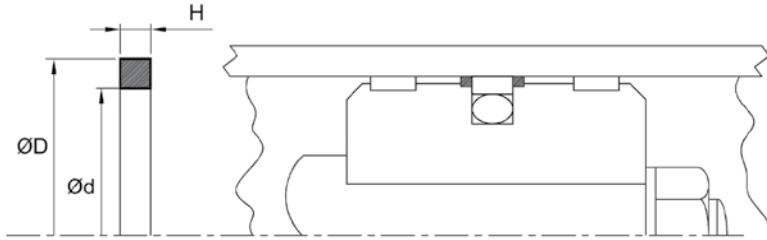


| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|------|------|------|--------------------|------------------|------|------------------|
| | D1 | Tol. | D | S | H | EXP. | d1 | Tol. | H1 | Tol. |
| P140124063P2B | 140.00 | +0.100 -0.000 | 140.00 | 3.50 | 6.05 | -352 | 124.50 | +0.000 -0.100 | 6.30 | +0.200 -0.000 |
| P145124081P2B | 145.00 | | 145.00 | 4.90 | 7.75 | -428 | 124.00 | | 8.10 | |
| P150129081P2B | 150.00 | | 150.00 | 4.90 | 7.75 | -430 | 129.00 | | 8.10 | |
| P155134081P2B | 155.00 | | 155.00 | 4.90 | 7.75 | -431 | 134.00 | | 8.10 | |
| P160139081P2B | 160.00 | | 160.00 | 4.90 | 7.75 | -433 | 139.00 | | 8.10 | |
| P165144081P2B | 165.00 | | 165.00 | 4.90 | 7.75 | -434 | 144.00 | | 8.10 | |
| P170149081P2B | 170.00 | | 170.00 | 4.90 | 7.75 | -436 | 149.00 | | 8.10 | |
| P175154081P2B | 175.00 | | 175.00 | 4.90 | 7.75 | -437 | 154.00 | | 8.10 | |
| P180159081P2B | 180.00 | ▼ | 180.00 | 4.90 | 7.75 | -438 | 159.00 | | 8.10 | |
| P185164081P2B | 185.00 | +0.115 -0.000 | 185.00 | 4.90 | 7.75 | -439 | 164.00 | | 8.10 | |
| P190169081P2B | 190.00 | | 190.00 | 4.90 | 7.75 | -439 | 169.00 | | 8.10 | |
| P195174081P2B | 195.00 | | 195.00 | 4.90 | 7.75 | -440 | 174.00 | | 8.10 | |
| P200179081P2B | 200.00 | | 200.00 | 4.90 | 7.75 | -441 | 179.00 | ▼ | 8.10 | |
| P205184081P2B | 205.00 | | 205.00 | 4.90 | 7.75 | -442 | 184.00 | +0.000 -0.115 | 8.10 | |
| P210189081P2B | 210.00 | | 210.00 | 4.90 | 7.75 | -443 | 189.00 | | 8.10 | |
| P220199081P2B | 220.00 | | 220.00 | 4.90 | 7.75 | -444 | 199.00 | | 8.10 | |
| P225204081P2B | 225.00 | | 225.00 | 4.90 | 7.75 | -445 | 204.00 | | 8.10 | |
| P230209081P2B | 230.00 | | 230.00 | 4.90 | 7.75 | -445 | 209.00 | | 8.10 | |
| P240219081P2B | 240.00 | | 240.00 | 4.90 | 7.75 | -446 | 219.00 | | 8.10 | |
| P250229081P2B | 250.00 | ▼ | 250.00 | 4.90 | 7.75 | -447 | 229.50 | | 8.10 | |
| P260239081P2B | 260.00 | +0.130 -0.000 | 260.00 | 4.90 | 7.75 | -447 | 239.00 | | 8.10 | |
| P270249081P2B | 270.00 | | 270.00 | 4.90 | 7.75 | -448 | 249.00 | ▼ | 8.10 | |
| P280259081P2B | 280.00 | | 280.00 | 4.90 | 7.75 | -449 | 259.00 | +0.000 -0.130 | 8.10 | |
| P290269081P2B | 290.00 | | 290.00 | 4.90 | 7.75 | -450 | 269.00 | | 8.10 | |
| P300279081P2B | 300.00 | | 300.00 | 4.90 | 7.75 | -451 | 279.00 | | 8.10 | |
| P310289081P2B | 310.00 | ▼ | 310.00 | 4.90 | 7.75 | -451 | 289.00 | | 8.10 | |
| P320299081P2B | 320.00 | +0.140 -0.000 | 320.00 | 4.90 | 7.75 | -452 | 299.00 | | 8.10 | |
| P330305081P2B | 330.00 | | 330.00 | 6.65 | 7.75 | -453 | 305.50 | ▼ | 8.10 | |
| P340315081P2B | 340.00 | | 340.00 | 6.65 | 7.75 | -453 | 315.50 | +0.000 -0.140 | 8.10 | |
| P350325081P2B | 350.00 | | 350.00 | 6.65 | 7.75 | -454 | 325.50 | | 8.10 | |
| P360335081P2B | 360.00 | | 360.00 | 6.65 | 7.75 | -455 | 335.50 | | 8.10 | |
| P370345081P2B | 370.00 | | 370.00 | 6.65 | 7.75 | -456 | 345.50 | | 8.10 | |
| P380355081P2B | 380.00 | | 380.00 | 6.65 | 7.75 | -457 | 355.50 | | 8.10 | |
| P390365081P2B | 390.00 | | 390.00 | 6.65 | 7.75 | -457 | 365.50 | | 8.10 | |
| P400375081P2B | 400.00 | ▼ | 400.00 | 6.65 | 7.75 | -458 | 375.50 | | 8.10 | |
| P410395081P2B | 410.00 | +0.155 -0.000 | 410.00 | 6.65 | 7.75 | -459 | 385.50 | | 8.10 | |
| P420395081P2B | 420.00 | | 420.00 | 6.65 | 7.75 | -460 | 395.50 | ▼ | 8.10 | |
| P430405081P2B | 430.00 | | 430.00 | 6.65 | 7.75 | -461 | 405.50 | +0.000 -0.155 | 8.10 | |
| P440415081P2B | 440.00 | | 440.00 | 6.65 | 7.75 | -461 | 415.50 | | 8.10 | |
| P450425081P2B | 450.00 | | 450.00 | 6.65 | 7.75 | -462 | 425.50 | | 8.10 | |
| P460435081P2B | 460.00 | | 460.00 | 6.65 | 7.75 | -463 | 435.50 | | 8.10 | |
| P470445081P2B | 470.00 | | 470.00 | 6.65 | 7.75 | -464 | 445.50 | | 8.10 | |
| P480455081P2B | 480.00 | | 480.00 | 6.65 | 7.75 | -464 | 455.50 | | 8.10 | |
| P490465081P2B | 490.00 | | 490.00 | 6.65 | 7.75 | -465 | 465.50 | | 8.10 | |
| P500475081P2B | 500.00 | ▼ | 500.00 | 6.65 | 7.75 | -466 | 475.50 | ▼ | 8.10 | ▼ |

ST/N - Back-up Rings - Metric



| Standard Material | Temperature Range |
|-------------------|--------------------------------------|
| Nylon | -40°F to +220°F (-40°C to +104°C) |



PISTON SEALS

These nylon back-up rings are primarily used as anti-extrusion devices to be used along side two-piece **P2B-type** seals.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

| Ref.Number | Nominal Seal Dimensions | | |
|-----------------|-------------------------|--------|------|
| | d | D | H |
| BU090095025ST/N | 90.00 | 95.00 | 2.50 |
| BU095100025ST/N | 95.00 | 100.00 | 2.50 |
| BU100105025ST/N | 100.00 | 105.00 | 2.50 |
| BU105110025ST/N | 105.00 | 110.00 | 2.50 |
| BU110115025ST/N | 110.00 | 115.00 | 2.50 |
| BU115120025ST/N | 115.00 | 120.00 | 2.50 |
| BU120125025ST/N | 120.00 | 125.00 | 2.50 |
| BU130135025ST/N | 130.00 | 135.00 | 2.50 |
| BU089095030ST/N | 89.00 | 95.00 | 3.00 |
| BU104110030ST/N | 104.00 | 110.00 | 3.00 |
| BU109115030ST/N | 109.00 | 115.00 | 3.00 |

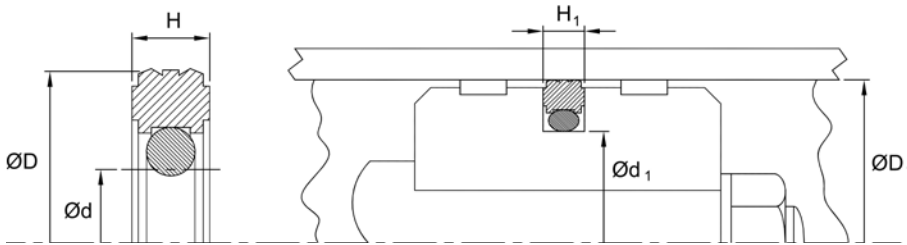
| Ref.Number | Nominal Seal Dimensions | | |
|-----------------|-------------------------|--------|------|
| | d | D | H |
| BU114120030ST/N | 114.00 | 120.00 | 3.00 |
| BU119125030ST/N | 119.00 | 125.00 | 3.00 |
| BU124130030ST/N | 124.00 | 130.00 | 3.00 |
| BU129135030ST/N | 129.00 | 135.00 | 3.00 |
| BU134140030ST/N | 134.00 | 140.00 | 3.00 |
| BU139145030ST/N | 139.00 | 145.00 | 3.00 |
| BU144150030ST/N | 144.00 | 150.00 | 3.00 |
| BU154160030ST/N | 154.00 | 160.00 | 3.00 |
| BU159165030ST/N | 159.00 | 165.00 | 3.00 |
| BU164170030ST/N | 164.00 | 170.00 | 3.00 |
| BU174180030ST/N | 174.00 | 180.00 | 3.00 |
| BU184190030ST/N | 184.00 | 190.00 | 3.00 |



P2B/U - Piston seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|----------------------|--------------------------------------|--------------------------|---------------------|
| Polyurethane/Nitrile | -22°F to +212°F (-30°C to +100°C) | ≤5 800 psi (≤400 bar) | <1.6 ft/s (0.5 m/s) |



Similar to the **P2E-style**, the **P2B/U-style** uses the aid of two compact sealing edge. This bi-directional piston seal offers perfect fluid control, constant preload as well as reduced friction and wear.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-----------------|---------------|------------------|-------------------------|------|------|--------------------|------------------|------|------------------|
| | D1 | Tol. | D | H | EXP | d1 | Tol. | H1 | Tol. |
| P015007032P2B/U | 15.00 | +0.070 -0.000 | 15.00 | 2.95 | -108 | 7.50 | +0.100 -0.000 | 3.20 | +0.200 -0.000 |
| P016008032P2B/U | 16.00 | | 16.00 | 2.95 | -109 | 8.50 | | 3.20 | |
| P016011022P2B/U | 16.00 | ▼ | 16.00 | 2.00 | -013 | 11.10 | | 2.20 | |
| P020012032P2B/U | 20.00 | +0.084 -0.000 | 20.00 | 2.95 | -112 | 12.50 | | 3.20 | |
| P022014032P2B/U | 22.00 | | 22.00 | 2.95 | -113 | 14.50 | | 3.20 | |
| P025014042P2B/U | 25.00 | | 25.00 | 3.95 | -207 | 14.00 | | 4.20 | |
| P025017032P2B/U | 25.00 | | 25.00 | 2.95 | -115 | 17.50 | | 3.20 | |
| P030022032P2B/U | 30.00 | | 30.00 | 2.95 | -118 | 22.50 | | 3.20 | |
| P030025022P2B/U | 30.00 | | 30.00 | 2.00 | -021 | 25.10 | | 2.20 | |
| P032021042P2B/U | 32.00 | ▼ | 32.00 | 3.95 | -211 | 21.00 | | 4.20 | |
| P032024032P2B/U | 32.00 | +0.100 -0.000 | 32.00 | 2.95 | -119 | 24.50 | | 3.20 | |
| P035024042P2B/U | 35.00 | | 35.00 | 3.95 | -213 | 24.00 | | 4.20 | |
| P035027032P2B/U | 35.00 | | 35.00 | 2.95 | -121 | 27.50 | | 3.20 | |
| P038030032P2B/U | 38.00 | | 38.00 | 2.95 | -123 | 30.50 | | 3.20 | |
| P040024063P2B/U | 40.00 | | 40.00 | 6.05 | -317 | 24.50 | | 6.30 | |
| P040029042P2B/U | 40.00 | | 40.00 | 3.95 | -216 | 29.00 | | 4.20 | |
| P040032032P2B/U | 40.00 | | 40.00 | 2.95 | -124 | 32.50 | | 3.20 | |
| P042031042P2B/U | 42.00 | | 42.00 | 3.95 | -217 | 31.00 | | 4.20 | |
| P045029063P2B/U | 45.00 | | 45.00 | 6.05 | -320 | 29.50 | | 6.30 | |
| P045034042P2B/U | 45.00 | | 45.00 | 3.95 | -219 | 34.00 | | 4.20 | |
| P048037042P2B/U | 48.00 | | 48.00 | 3.95 | -221 | 37.00 | | 4.20 | |
| P049038042P2B/U | 49.00 | ▼ | 49.00 | 3.95 | -222 | 38.00 | ▼ | 4.20 | ▼ |



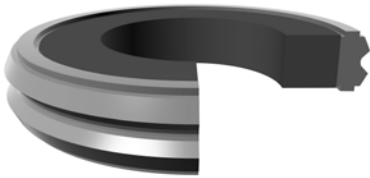
P2B/U series - AU NBR

PISTON SEALS

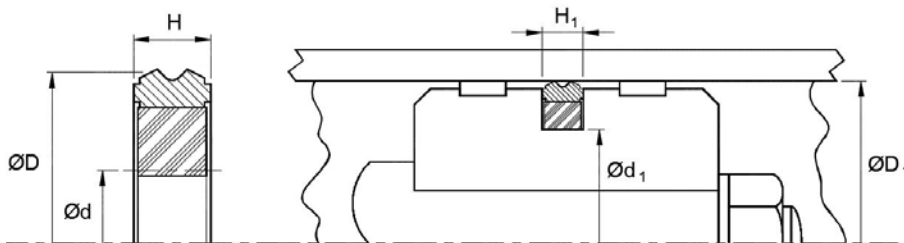


| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|-----------------|---------------|------------------|-------------------------|------|------|--------------------|------------------|------|------------------|
| | D1 | Tol. | D | H | EXP | d1 | Tol. | H1 | Tol. |
| P050034063P2B/U | 50.00 | +0.100 -0.000 | 50.00 | 6.05 | -324 | 34.50 | +0.100 -0.000 | 6.30 | +0.200 -0.000 |
| P050039042P2B/U | 50.00 | | 50.00 | 3.95 | -222 | 39.00 | | 4.20 | |
| P052036063P2B/U | 52.00 | ▼ | 52.00 | 6.05 | -325 | 36.50 | | 6.30 | |
| P054043042P2B/U | 54.00 | +0.120 -0.000 | 54.00 | 3.95 | | 43.00 | | 4.20 | |
| P055039063P2B/U | 55.00 | | 55.00 | 6.05 | -325 | 39.50 | | 6.30 | |
| P055044042P2B/U | 55.00 | | 55.00 | 3.95 | -224 | 44.00 | | 4.20 | |
| P057046042P2B/U | 57.00 | | 57.00 | 3.95 | | 46.00 | | 4.20 | |
| P060044063P2B/U | 60.00 | | 60.00 | 6.05 | -327 | 44.50 | | 6.30 | |
| P060049042P2B/U | 60.00 | | 60.00 | 3.95 | -225 | 49.00 | | 4.20 | |
| P063047063P2B/U | 63.00 | | 63.00 | 6.05 | -328 | 47.50 | | 6.30 | |
| P063052042P2B/U | 63.00 | | 63.00 | 3.95 | -226 | 52.00 | | 4.20 | |
| P065049063P2B/U | 65.00 | | 65.00 | 6.05 | -328 | 49.50 | | 6.30 | |
| P065054042P2B/U | 65.00 | | 65.00 | 3.95 | -227 | 54.00 | | 4.20 | |
| P070054063P2B/U | 70.00 | | 70.00 | 6.05 | -330 | 54.50 | | 6.30 | |
| P070059042P2B/U | 70.00 | | 70.00 | 3.95 | -228 | 59.00 | | 4.20 | |
| P075059063P2B/U | 75.00 | | 75.00 | 6.05 | -331 | 59.50 | | 6.30 | |
| P075064042P2B/U | 75.00 | | 75.00 | 3.95 | -230 | 64.00 | | 4.20 | |
| P080064063P2B/U | 80.00 | | 80.00 | 6.05 | -333 | 64.50 | | 6.30 | |
| P080069042P2B/U | 80.00 | ▼ | 80.00 | 3.95 | | 69.00 | | 4.20 | |
| P085069063P2B/U | 85.00 | +0.140 -0.000 | 85.00 | 6.05 | -335 | 69.50 | | 6.30 | |
| P090069081P2B/U | 90.00 | | 90.00 | 7.75 | 68X7 | 69.00 | | 8.10 | |
| P090074063P2B/U | 90.00 | | 90.00 | 6.05 | -336 | 74.50 | | 6.30 | |
| P095079063P2B/U | 95.00 | | 95.00 | 6.05 | -338 | 79.50 | | 6.30 | |
| P100084063P2B/U | 100.00 | | 100.00 | 6.05 | -339 | 84.50 | | 6.30 | |
| P105089063P2B/U | 105.00 | | 105.00 | 6.05 | -341 | 89.50 | | 6.30 | |
| P110094063P2B/U | 110.00 | | 110.00 | 6.05 | -343 | 94.50 | | 6.30 | |
| P115094081P2B/U | 115.00 | | 115.00 | 7.75 | 94X7 | 94.00 | | 8.10 | |
| P120104063P2B/U | 120.00 | ▼ | 120.00 | 6.05 | -346 | 104.50 | | 6.30 | |
| P125109063P2B/U | 125.00 | +0.160 -0.000 | 125.00 | 6.05 | -347 | 109.50 | | 6.30 | |
| P130114063P2B/U | 130.00 | | 130.00 | 6.05 | -349 | 114.50 | | 6.30 | |
| P140119081P2B/U | 140.00 | | 140.00 | 7.75 | -426 | 119.00 | | 8.10 | |
| P140124063P2B/U | 140.00 | | 140.00 | 6.05 | -352 | 124.50 | | 6.30 | |
| P150129081P2B/U | 150.00 | | 150.00 | 7.75 | -429 | 129.00 | | 8.10 | |
| P160139081P2B/U | 160.00 | | 160.00 | 7.75 | -433 | 139.00 | | 8.10 | |
| P170149081P2B/U | 170.00 | | 170.00 | 7.75 | -436 | 149.00 | | 8.10 | |
| P180159081P2B/U | 180.00 | ▼ | 180.00 | 7.75 | -438 | 159.00 | | 8.10 | |
| P200179081P2B/U | 200.00 | +0.185 -0.000 | 200.00 | 7.75 | -441 | 179.00 | | 8.10 | |
| P220199081P2B/U | 220.00 | | 220.00 | 7.75 | -444 | 199.00 | | 8.10 | |
| P250229081P2B/U | 250.00 | ▼ | 250.00 | 7.75 | -447 | 229.00 | ▼ | 8.10 | ▼ |

P2E - Piston seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|--------------------------|--------------------------------------|-------------------------|-------------------------|
| Polyurethane/ Nitrile | -22°F to +212°F (-30°C to +100°C) | ≤5800 psi (≤400 bar) | <1.5 ft/s (0.46 m/s) |



This two-piece assembly has a tough polyurethane outside sealing ring offering both stability and extrusion resistance. An elastomeric expander ring offers constant preload to insure good low-pressure sealing ability.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

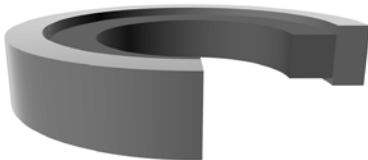
| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|---------------|-----------------|-------------------------|---|-------|------|--------------------|-----------------|-------|-----------------|
| | D1 | Tol. | D | S | H | EXP. | d1 | Tol. | H1 | Tol. |
| P020012032P2E | 20.00 | +0.052 -.000 | 20.00 | | 3.00 | | 12.50 | +0.000 -.043 | 3.20 | +0.200 -.000 |
| P025017032P2E | 25.00 | | 25.00 | | 3.00 | | 17.50 | | 3.20 | |
| P030022032P2E | 30.00 | ▼ | 30.00 | | 3.00 | | 22.50 | +0.000 -.052 | 3.20 | |
| P032024032P2E | 32.00 | +0.062 -.000 | 32.00 | | 3.00 | | 24.50 | | 3.20 | |
| P040029042P2E | 40.00 | | 40.00 | | 4.00 | | 29.00 | ▼ | 4.20 | |
| P045034042P2E | 45.00 | | 45.00 | | 4.00 | | 34.00 | +0.000 -.062 | 4.20 | |
| P050034063P2E | 50.00 | ▼ | 50.00 | | 6.00 | | 34.50 | | 6.30 | |
| P050039042P2E | 50.00 | ▼ | 50.00 | | 4.00 | | 39.00 | | 4.20 | |
| P055039063P2E | 55.00 | +0.074 -.000 | 55.00 | | 6.00 | | 39.50 | | 6.30 | |
| P060044063P2E | 60.00 | | 60.00 | | 6.00 | | 44.50 | | 6.30 | |
| P060049042P2E | 60.00 | | 60.00 | | 4.00 | | 49.00 | | 4.20 | |
| P063047063P2E | 63.00 | | 63.00 | | 6.00 | | 47.50 | ▼ | 6.30 | |
| P063052042P2E | 63.00 | | 63.00 | | 4.00 | | 52.00 | +0.000/-0.074 | 4.20 | |
| P065049063P2E | 65.00 | | 65.00 | | 6.00 | | 49.50 | +0.000/-0.062 | 6.30 | |
| P070054063P2E | 70.00 | | 70.00 | | 6.00 | | 54.50 | +0.000 -.074 | 6.30 | |
| P070059042P2E | 70.00 | | 70.00 | | 4.00 | | 59.00 | | 4.20 | |
| P075059063P2E | 75.00 | | 75.00 | | 6.00 | | 59.50 | | 6.30 | |
| P080059081P2E | 80.00 | | 80.00 | | 7.80 | | 59.00 | | 8.10 | |
| P080059105P2E | 80.00 | | 80.00 | | 10.00 | | 59.00 | | 10.50 | |
| P080064063P2E | 80.00 | ▼ | 80.00 | | 6.00 | | 64.50 | | 6.30 | |
| P085069063P2E | 85.00 | +0.087 -.000 | 85.00 | | 6.00 | | 69.50 | | 6.30 | |
| P090069105P2E | 90.00 | | 90.00 | | 10.00 | | 69.00 | | 10.50 | |
| P090074063P2E | 90.00 | ▼ | 90.00 | | 6.00 | | 74.50 | ▼ | 6.30 | ▼ |



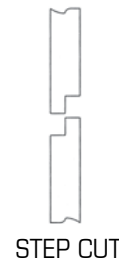
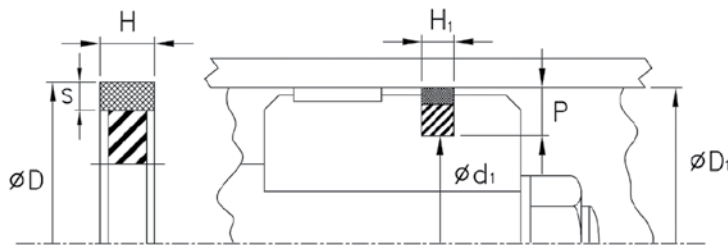
P2E series - AU/NBR

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|---|-------|------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | S | H | EXP. | d1 | Tol. | H1 | Tol. |
| P095089063P2E | 95.00 | +0.087 -0.000 | 95.00 | | 6.00 | | 79.50 | +0.000 -0.074 | 6.30 | +0.200 -0.000 |
| P100079081P2E | 100.00 | | 100.00 | | 7.80 | | 79.00 | | 8.10 | |
| P100084063P2E | 100.00 | | 100.00 | | 6.00 | | 84.50 | +0.000 -0.087 | 6.30 | |
| P105089063P2E | 105.00 | | 105.00 | | 6.00 | | 89.50 | | 6.30 | |
| P110089081P2E | 110.00 | | 110.00 | | 7.80 | | 89.00 | | 8.10 | |
| P110094063P2E | 110.00 | | 110.00 | | 6.00 | | 94.50 | | 6.30 | |
| P115094081P2E | 115.00 | | 115.00 | | 7.80 | | 94.00 | | 8.10 | |
| P120099081P2E | 120.00 | | 120.00 | | 7.80 | | 99.00 | | 8.10 | |
| P120099105P2E | 120.00 | | 120.00 | | 10.00 | | 99.00 | | 10.50 | |
| P125104081P2E | 125.00 | +0.100 -0.000 | 125.00 | | 7.80 | | 104.00 | | 8.10 | |
| P125104105P2E | 125.00 | | 125.00 | | 10.00 | | 104.00 | | 10.50 | |
| P125109063P2E | 125.00 | | 125.00 | | 6.00 | | 109.50 | | 6.30 | |
| P130109081P2E | 130.00 | | 130.00 | | 7.80 | | 109.00 | | 8.10 | |
| P140119081P2E | 140.00 | | 140.00 | | 7.80 | | 119.00 | | 8.10 | |
| P140119105P2E | 140.00 | | 140.00 | | 10.00 | | 119.00 | | 10.50 | |
| P150129105P2E | 150.00 | | 150.00 | | 10.00 | | 129.00 | | 10.50 | |
| P160139081P2E | 160.00 | | 160.00 | | 7.80 | | 139.00 | +0.000 -0.100 | 8.10 | |
| P180159081P2E | 180.00 | | 180.00 | | 7.80 | | 159.00 | | 8.10 | |

P2G - Piston seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|---------------------------|-------------------|
| Nylon/Nitrile | -22°F to +230°F (-30°C to +110°C) | ≤11 600 psi (≤800 bar) | <3.3 ft/s (1 m/s) |



The **P2G-style** is a high pressure, two-part seal set, consisting of a stepped-cut Nylon sealing ring and an elastomeric loader ring for producing pre-load.

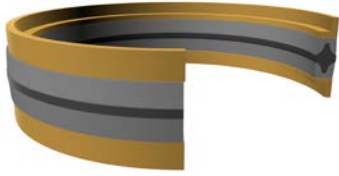
Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

P2G series - NYLON/NBR

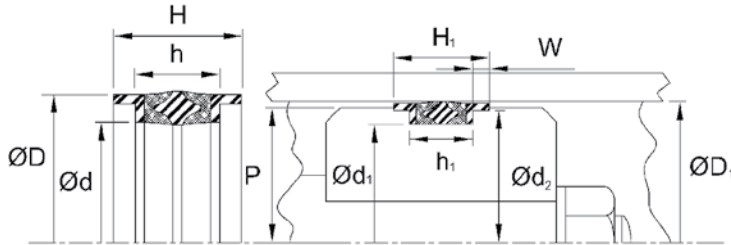


| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|---|---|------|--------------------|------------------|------|------------------|
| | D1 | Tol. | D | S | H | EXP. | d1 | Tol. | H1 | Tol. |
| P032021042P2G | 32.00 | +0.062 -0.000 | 32.00 | | | | 21.00 | +0.000 -0.052 | 4.20 | +0.200 -0.000 |
| P040026058P2G | 40.00 | | 40.00 | | | | 26.30 | | 5.80 | |
| P040029042P2G | 40.00 | | 40.00 | | | | 29.00 | ▼ | 4.20 | |
| P050034063P2G | 50.00 | | 50.00 | | | | 34.50 | +0.000 -0.062 | 6.30 | |
| P050036058P2G | 50.00 | | 50.00 | | | | 36.30 | | 5.80 | |
| P050039042P2G | 50.00 | ▼ | 50.00 | | | | 39.00 | | 4.20 | |
| P060041070P2G | 60.00 | +0.074 -0.000 | 60.00 | | | | 41.70 | | 7.00 | |
| P063044070P2G | 63.00 | | 63.00 | | | | 44.70 | | 7.00 | |
| P063047063P2G | 63.00 | | 63.00 | | | | 47.50 | ▼ | 6.30 | |
| P070051070P2G | 70.00 | | 70.00 | | | | 51.70 | +0.000 -0.074 | 7.00 | |
| P070059042P2G | 70.00 | | 70.00 | | | | 59.00 | | 4.20 | |
| P075054081P2G | 75.00 | | 75.00 | | | | 54.00 | | 8.10 | |
| P075059063P2G | 75.00 | | 75.00 | | | | 59.50 | | 6.30 | |
| P080059081P2G | 80.00 | | 80.00 | | | | 59.00 | | 8.10 | |
| P080064063P2G | 80.00 | ▼ | 80.00 | | | | 64.50 | | 6.30 | |
| P085064081P2G | 85.00 | +0.087 -0.000 | 85.00 | | | | 64.00 | | 8.10 | |
| P090069081P2G | 90.00 | | 90.00 | | | | 69.00 | | 8.10 | |
| P090074063P2G | 90.00 | | 90.00 | | | | 74.50 | | 6.30 | |
| P095074081P2G | 95.00 | | 95.00 | | | | 74.00 | | 8.10 | |
| P100079081P2G | 100.00 | | 100.00 | | | | 79.00 | ▼ | 8.10 | |
| P100084063P2G | 100.00 | | 100.00 | | | | 84.50 | +0.000 -0.087 | 6.30 | |
| P105084081P2G | 105.00 | | 105.00 | | | | 84.00 | | 8.10 | |
| P110089081P2G | 110.00 | | 110.00 | | | | 89.00 | | 8.10 | |
| P115094081P2G | 115.00 | | 115.00 | | | | 94.00 | | 8.10 | |
| P120099081P2G | 120.00 | ▼ | 120.00 | | | | 99.00 | | 8.10 | |
| P125104081P2G | 125.00 | +0.100 -0.000 | 125.00 | | | | 104.00 | | 8.10 | |
| P125109063P2G | 125.00 | | 125.00 | | | | 109.50 | | 6.30 | |
| P130109081P2G | 130.00 | | 130.00 | | | | 109.00 | | 8.10 | |
| P140119081P2G | 140.00 | | 140.00 | | | | 119.00 | | 8.10 | |
| P150129081P2G | 150.00 | | 150.00 | | | | 129.00 | | 8.10 | |
| P160139081P2G | 160.00 | | 160.00 | | | | 139.00 | | 8.10 | |
| P160144063P2G | 160.00 | | 160.00 | | | | 144.50 | | 6.30 | |
| P180159081P2G | 180.00 | ▼ | 180.00 | | | | 159.00 | | 8.10 | |
| P190169081P2G | 190.00 | +0.115 -0.000 | 190.00 | | | | 169.00 | | 8.10 | |
| P200179081P2G | 200.00 | | 200.00 | | | | 179.00 | ▼ | 8.10 | |
| P210189081P2G | 210.00 | | 210.00 | | | | 189.00 | +0.000 -0.115 | 8.10 | |
| P220199081P2G | 220.00 | | 220.00 | | | | 199.00 | | 8.10 | |
| P230209081P2G | 230.00 | | 230.00 | | | | 209.00 | | 8.10 | |
| P240225081P2G | 240.00 | | 240.00 | | | | 225.00 | | 8.10 | |
| P250229081P2G | 250.00 | ▼ | 250.00 | | | | 229.00 | | 8.10 | |
| P260239081P2G | 260.00 | +0.130 -0.000 | 260.00 | | | | 239.00 | ▼ | 8.10 | |
| P280255081P2G | 280.00 | | 280.00 | | | | 255.50 | +0.000 -0.130 | 8.10 | |
| P300272095P2G | 300.00 | ▼ | 300.00 | | | | 272.00 | | 9.50 | |
| P320292095P2G | 320.00 | +0.140 -0.000 | 320.00 | | | | 292.00 | | 9.50 | |
| P330302095P2G | 330.00 | | 330.00 | | | | 302.00 | ▼ | 9.50 | |
| P350322095P2G | 350.00 | ▼ | 350.00 | | | | 322.00 | +0.000/-0.140 | 9.50 | ▼ |

P3C - Piston seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|-------------------------|----------------------|
| Neo-Fabric/Acetal | -22°F to +212°F (-30°C to +100°C) | ≤6000 psi (≤415 bar) | < 1.6 ft/s (0.5 m/s) |



The **P3C-style**, double-acting piston seal, is a heavy-duty seal assembly used for split pistons. The center portion of the seal is manufactured from fabric-reinforced nitrile, and an acetal L-Shaped bearing ring is located at either end to protect from extrusion damage.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

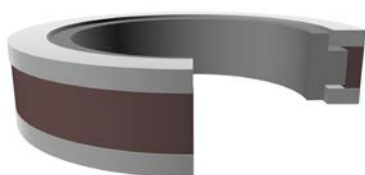
| Ref. Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | | |
|---------------|---------------|------------------|-------------------------|--------|-------|-------|--------------------|------------------|--------|------------------|--|-------|------|
| | D1 | Tol. | D | d | h | H | d1 | Tol. | d2 | Tol. | P | h1 | W |
| | | | | | | | | | | | +.070/- .070 +.200/- .000 +.100/- .000 | | |
| P030022135P3C | 30.00 | + .160 - .000 | 30.00 | 22.00 | 13.50 | 19.90 | 22.00 | + .000 - .130 | 26.00 | - .020 - .053 | 29.40 | 13.50 | 3.20 |
| P032024155P3C | 32.00 | | 32.00 | 24.00 | 15.50 | 21.90 | 24.00 | | 28.00 | | 31.40 | 15.50 | 3.20 |
| P035027155P3C | 35.00 | | 35.00 | 27.00 | 15.50 | 21.90 | 27.00 | | 31.00 | - .025 | 34.40 | 15.50 | 3.20 |
| P040032150P3C | 40.00 | | 40.00 | 32.00 | 15.00 | 23.40 | 32.00 | + .000 - .160 | 36.00 | - .064 | 39.40 | 15.00 | 4.20 |
| P045037155P3C | 45.00 | | 45.00 | 37.00 | 15.50 | 23.90 | 37.00 | | 41.00 | | 44.40 | 15.50 | 4.20 |
| P050038205P3C | 50.00 | | 50.00 | 38.00 | 20.50 | 28.90 | 38.00 | | 46.00 | | 49.40 | 20.50 | 4.20 |
| P055043205P3C | 55.00 | + .190 - .000 | 55.00 | 43.00 | 20.50 | 28.90 | 43.00 | | 51.00 | - .030 - .076 | 54.40 | 20.50 | 4.20 |
| P060048205P3C | 60.00 | | 60.00 | 48.00 | 20.50 | 28.90 | 48.00 | | 56.00 | | 59.40 | 20.50 | 4.20 |
| P063051205P3C | 63.00 | | 63.00 | 51.00 | 20.50 | 28.90 | 51.00 | + .000 - .190 | 59.00 | | 62.40 | 20.50 | 4.20 |
| P065053205P3C | 65.00 | | 65.00 | 53.00 | 20.50 | 28.90 | 53.00 | | 61.00 | | 64.40 | 20.50 | 4.20 |
| P070058205P3C | 70.00 | | 70.00 | 58.00 | 20.50 | 28.90 | 58.00 | | 66.00 | | 69.40 | 20.50 | 4.20 |
| P075063205P3C | 75.00 | | 75.00 | 63.00 | 20.50 | 28.90 | 63.00 | | 71.00 | | 74.40 | 20.50 | 4.20 |
| P080066225P3C | 80.00 | | 80.00 | 66.00 | 22.50 | 32.90 | 66.00 | | 76.00 | | 79.40 | 22.50 | 5.20 |
| P085071225P3C | 85.00 | + .220 - .000 | 85.00 | 71.00 | 22.50 | 32.90 | 71.00 | | 81.00 | - .036 - .090 | 84.40 | 22.50 | 5.20 |
| P090076225P3C | 90.00 | | 90.00 | 76.00 | 22.50 | 32.90 | 76.00 | | 86.00 | | 89.40 | 22.50 | 5.20 |
| P100086225P3C | 100.00 | | 100.00 | 86.00 | 22.50 | 32.90 | 86.00 | + .000 - .220 | 96.00 | | 99.40 | 22.50 | 5.20 |
| P105091225P3C | 105.00 | | 105.00 | 91.00 | 22.50 | 32.90 | 91.00 | | 101.00 | | 104.40 | 22.50 | 5.20 |
| P110096225P3C | 110.00 | | 110.00 | 96.00 | 22.50 | 32.90 | 96.00 | | 106.00 | | 109.40 | 22.50 | 5.20 |
| P120106225P3C | 120.00 | | 120.00 | 106.00 | 22.50 | 32.90 | 106.00 | | 116.00 | | 119.40 | 22.50 | 5.20 |
| P125108265P3C | 125.00 | + .250 - .000 | 125.00 | 108.00 | 26.50 | 40.90 | 108.00 | | 121.00 | - .043 - .106 | 124.40 | 26.50 | 7.20 |
| P140123265P3C | 140.00 | | 140.00 | 123.00 | 26.50 | 40.90 | 123.00 | + .000 - .250 | 136.00 | | 139.40 | 26.50 | 7.20 |
| P150133265P3C | 150.00 | | 150.00 | 133.00 | 26.50 | 40.90 | 133.00 | | 146.00 | | 149.40 | 26.50 | 7.20 |



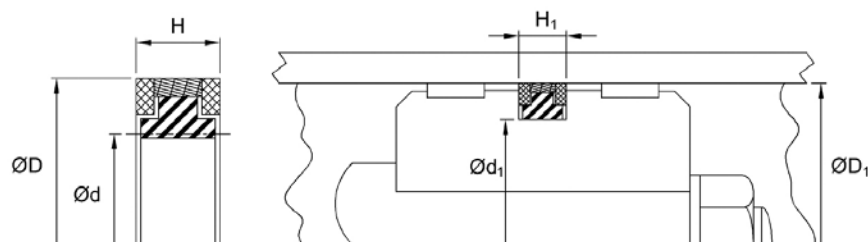
P3C series - NEOFAB/PA

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | | | |
|---------------|---------------|------------------|-------------------------|--------|-------|-------|--------------------|------------------|--------|------------------|--------|-------|------|
| | D1 | Tol. | D | d | h | H | d1 | Tol. | d2 | Tol. | P | h1 | W |
| P160143265P3C | 160.00 | +0.250 -0.000 | 160.00 | 143.00 | 26.50 | 40.90 | 143.00 | +0.000 -0.250 | 156.00 | -0.043 -0.106 | 159.40 | 26.50 | 7.20 |
| P180163265P3C | 180.00 | | 180.00 | 163.00 | 26.50 | 40.90 | 163.00 | | 176.00 | | 179.40 | 26.50 | 7.20 |
| P200180315P3C | 200.00 | +0.290 -0.000 | 200.00 | 180.00 | 31.50 | 49.90 | 180.00 | ↓ | 196.00 | -0.050 -0.122 | 199.40 | 31.50 | 9.20 |
| P220200315P3C | 220.00 | | 220.00 | 200.00 | 31.50 | 50.50 | 200.00 | +0.000 -0.290 | 216.00 | | 219.40 | 31.50 | 9.20 |
| P250230315P3C | 250.00 | ↓ | 250.00 | 230.00 | 31.50 | 50.50 | 230.00 | | 246.00 | ↓ | 249.40 | 31.50 | 9.20 |

P4A - Piston seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|------------------------|--------------------------------------|-------------------------|-------------------|
| PTFE/Nylon/ Nitrile | -40°F to +250°F (-40°C to +121°C) | ≤6500 psi (≤440 bar) | <5 ft/s (1.5 m/s) |



This is a Bi-Directional, piston seal for heavy duty applications. The PTFE cap and custom elastomer ring provide a low friction seal with excellent leakage control. The anti-extrusion rings allow for larger than normal piston clearances.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|---------------|---------------|------------------|-------------------------|-------|-------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P050036085P4A | 50.00 | +0.050 -0.000 | 50.00 | 36.00 | 8.50 | 36.00 | +0.000 -0.050 | 9.00 | +0.250 -0.000 |
| P050040075P4A | 50.00 | | 50.00 | 40.00 | 7.50 | 40.00 | | 8.00 | |
| P060046085P4A | 60.00 | ↓ | 60.00 | 46.00 | 8.50 | 46.00 | ↓ | 9.00 | |
| P063048105P4A | 63.00 | +0.080/-0.000 | 63.00 | 48.00 | 10.50 | 48.00 | +0.000/-0.080 | 11.00 | |
| P063053075P4A | 63.00 | +0.050/-0.000 | 63.00 | 53.00 | 7.50 | 53.00 | +0.000/-0.050 | 8.00 | |
| P065050105P4A | 65.00 | +0.080/-0.000 | 65.00 | 50.00 | 10.50 | 50.00 | +0.000/-0.080 | 11.00 | |
| P065051085P4A | 65.00 | +0.050/-0.000 | 65.00 | 51.00 | 8.50 | 51.00 | +0.000/-0.050 | 9.00 | |
| P070055105P4A | 70.00 | +0.080 -0.000 | 70.00 | 55.00 | 10.50 | 55.00 | +0.000 -0.080 | 11.00 | |
| P070055120P4A | 70.00 | | 70.00 | 55.00 | 12.00 | 55.00 | | 12.50 | |
| P070060075P4A | 70.00 | +0.050/-0.000 | 70.00 | 60.00 | 7.50 | 60.00 | +0.000/-0.050 | 8.00 | |
| P075060105P4A | 75.00 | +0.080/-0.000 | 75.00 | 60.00 | 10.50 | 60.00 | +0.000/-0.080 | 11.00 | ↓ |



P4A series - BR.PTFE/NBR/NYLON

PISTON SEALS

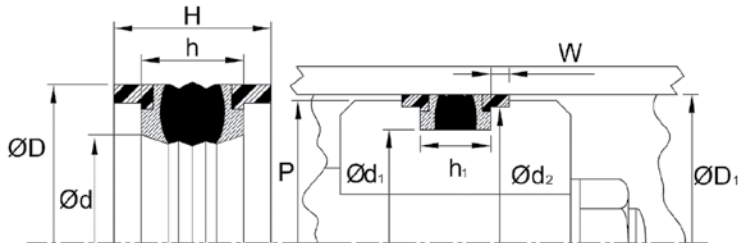


| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housing Dimensions | | | |
|---------------|---------------|---------------|-------------------------|--------|-------|--------------------|---------------|-------|---------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| P075063085P4A | 75.00 | +0.050/-0.000 | 75.00 | 63.00 | 8.50 | 63.00 | +0.000/-0.050 | 9.00 | +0.250/-0.000 |
| P080065105P4A | 80.00 | +0.080/-0.000 | 80.00 | 65.00 | 10.50 | 65.00 | +0.000/-0.080 | 11.00 | |
| P080065115P4A | 80.00 | | 80.00 | 65.00 | 11.50 | 65.00 | | 12.00 | |
| P085070105P4A | 85.00 | | 85.00 | 70.00 | 10.50 | 70.00 | | 11.00 | |
| P090075105P4A | 90.00 | | 90.00 | 75.00 | 10.50 | 75.00 | | 11.00 | |
| P090075115P4A | 90.00 | | 90.00 | 75.00 | 11.50 | 75.00 | ▼ | 12.00 | |
| P090075125P4A | 90.00 | | 90.00 | 75.00 | 12.50 | 75.00 | +0.000/-0.100 | 13.00 | |
| P095080105P4A | 95.00 | | 95.00 | 80.00 | 10.50 | 80.00 | +0.000/-0.080 | 11.00 | |
| P100085120P4A | 100.00 | | 100.00 | 85.00 | 12.00 | 85.00 | | 12.50 | |
| P105090120P4A | 105.00 | | 105.00 | 90.00 | 12.00 | 90.00 | | 12.50 | |
| P110095120P4A | 110.00 | | 110.00 | 95.00 | 12.00 | 95.00 | | 12.50 | |
| P115100120P4A | 115.00 | | 115.00 | 100.00 | 12.00 | 100.00 | ▼ | 12.50 | |
| P120100155P4A | 120.00 | | 120.00 | 100.00 | 15.50 | 100.00 | +0.000/-0.100 | 15.50 | |
| P120105120P4A | 120.00 | ▼ | 120.00 | 105.00 | 12.00 | 105.00 | +0.000/-0.080 | 12.50 | |
| P125102155P4A | 125.00 | +0.100/-0.000 | 125.00 | 102.00 | 15.50 | 102.00 | +0.000/-0.100 | 16.00 | |
| P125105155P4A | 125.00 | | 125.00 | 105.00 | 15.50 | 105.00 | | 16.00 | |
| P130107155P4A | 130.00 | | 130.00 | 107.00 | 15.50 | 107.00 | | 16.00 | |
| P135112155P4A | 135.00 | | 135.00 | 112.00 | 15.50 | 112.00 | | 16.00 | |
| P140117155P4A | 140.00 | | 140.00 | 117.00 | 15.50 | 117.00 | | 16.00 | |
| P140120155P4A | 140.00 | ▼ | 140.00 | 120.00 | 15.50 | 120.00 | ▼ | 16.00 | |
| P140120185P4A | 140.00 | +0.080/-0.000 | 140.00 | 120.00 | 18.50 | 120.00 | +0.000/-0.080 | 19.00 | |
| P145122155P4A | 145.00 | +0.100/-0.000 | 145.00 | 122.00 | 15.50 | 122.00 | +0.000/-0.100 | 16.00 | |
| P150127155P4A | 150.00 | | 150.00 | 127.00 | 15.50 | 127.00 | | 16.00 | |
| P150130185P4A | 150.00 | +0.130/-0.000 | 150.00 | 130.00 | 18.50 | 130.00 | +0.000/-0.080 | 19.00 | |
| P155132155P4A | 155.00 | +0.100/-0.000 | 155.00 | 132.00 | 15.50 | 132.00 | +0.000/-0.100 | 16.00 | |
| P160137155P4A | 160.00 | | 160.00 | 137.00 | 15.50 | 137.00 | | 16.00 | |
| P160140155P4A | 160.00 | ▼ | 160.00 | 140.00 | 15.50 | 140.00 | ▼ | 16.00 | |
| P160140185P4A | 160.00 | +0.130/-0.000 | 160.00 | 140.00 | 18.50 | 140.00 | +0.000/-0.080 | 19.00 | |
| P165142155P4A | 165.00 | +0.100/-0.000 | 165.00 | 142.00 | 15.50 | 142.00 | +0.000/-0.100 | 16.00 | |
| P170147155P4A | 170.00 | | 170.00 | 147.00 | 15.50 | 147.00 | | 16.00 | |
| P180157155P4A | 180.00 | | 180.00 | 157.00 | 15.50 | 157.00 | | 16.00 | |
| P180160155P4A | 180.00 | | 180.00 | 160.00 | 15.50 | 160.00 | | 16.00 | |
| P185162155P4A | 185.00 | | 185.00 | 162.00 | 15.50 | 162.00 | | 16.00 | |
| P190167155P4A | 190.00 | | 190.00 | 167.00 | 15.50 | 167.00 | | 16.00 | |
| P200177155P4A | 200.00 | | 200.00 | 177.00 | 15.50 | 177.00 | | 16.00 | |
| P210187155P4A | 210.00 | | 210.00 | 187.00 | 15.50 | 187.00 | | 16.00 | |
| P220197155P4A | 220.00 | | 220.00 | 197.00 | 15.50 | 197.00 | | 16.00 | |
| P225202155P4A | 225.00 | | 225.00 | 202.00 | 15.50 | 202.00 | | 16.00 | |
| P230207155P4A | 230.00 | | 230.00 | 207.00 | 15.50 | 207.00 | ▼ | 16.00 | |
| P240217155P4A | 240.00 | ▼ | 240.00 | 217.00 | 15.50 | 217.00 | +0.000/-0.130 | 16.00 | |
| P250222170P4A | 250.00 | +0.130/-0.000 | 250.00 | 222.00 | 17.00 | 222.00 | | 17.50 | |
| P260232170P4A | 260.00 | | 260.00 | 232.00 | 17.00 | 232.00 | | 17.50 | |
| P270242170P4A | 270.00 | | 270.00 | 242.00 | 17.00 | 242.00 | | 17.50 | |
| P280252170P4A | 280.00 | | 280.00 | 252.00 | 17.00 | 252.00 | | 17.50 | |
| P300272170P4A | 300.00 | | 300.00 | 272.00 | 17.00 | 272.00 | | 17.50 | |
| P320292170P4A | 320.00 | ▼ | 320.00 | 292.00 | 17.00 | 292.00 | ▼ | 17.50 | ▼ |

P5B, P5B-1 Piston seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|---------------------------------|------------------------------------|-------------------------|----------------------|
| Nitrile/Polyamide/ Polyester | -40°F à +230°F (-40°C à +110°C) | ≤5800 psi (≤400 bar) | < 1.6 ft/s (0.5 m/s) |



P5B seals are designed for easy installation on one-piece pistons. Using a homogeneous center ring for excellent sealability, split nylon rings are added for extrusion resistance as well as split bearing rings for guiding.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other size available on request.

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | |
|---------------|---------------|------------------|-------------------------|-------|-------|-------|--------------------|-------|-------|-------|------|
| | D1 | Tol. | D | d | h | H | d1 | d2 | P | h1 | W |
| P020011135P5B | 20.00 | +0.084 -0.000 | 20.00 | 11.00 | 13.50 | 17.70 | 11.00 | 17.00 | 19.00 | 13.50 | 2.10 |
| P022013135P5B | 22.00 | | 22.00 | 13.00 | 13.50 | 17.70 | 13.00 | 19.00 | 21.00 | 13.50 | 2.10 |
| P025012120P5B | 25.00 | | 25.00 | 12.00 | 12.00 | 24.70 | 12.00 | 21.45 | 23.80 | 12.00 | 6.35 |
| P025015125P5B | 25.00 | | 25.00 | 15.00 | 12.50 | 20.50 | 15.00 | 22.00 | 24.00 | 12.50 | 4.00 |
| P025015164P5B | 25.00 | | 25.00 | 15.00 | 16.40 | 29.10 | 15.00 | 21.45 | 23.50 | 16.40 | 6.35 |
| P025016135P5B | 25.00 | | 25.00 | 16.00 | 13.50 | 17.70 | 16.00 | 22.00 | 24.00 | 13.50 | 2.10 |
| P025017088P5B | 25.00 | | 25.00 | 17.50 | 8.80 | 15.00 | 17.50 | 21.30 | 24.00 | 8.80 | 3.10 |
| P025017100P5B | 25.00 | | 25.00 | 17.00 | 10.00 | 18.00 | 17.00 | 22.00 | 24.00 | 10.00 | 4.00 |
| P025017135P5B | 25.00 | | 25.00 | 17.00 | 13.50 | 19.90 | 17.00 | 21.00 | 24.40 | 13.50 | 3.20 |
| P028019135P5B | 28.00 | | 28.00 | 19.00 | 13.50 | 17.70 | 19.00 | 25.00 | 27.00 | 13.50 | 2.10 |
| P030017154P5B | 30.00 | | 30.00 | 17.00 | 15.40 | 28.10 | 17.00 | 26.50 | 28.50 | 15.40 | 6.35 |
| P030021135P5B | 30.00 | | 30.00 | 21.00 | 13.50 | 17.70 | 21.00 | 27.00 | 29.00 | 13.50 | 2.10 |
| P030022125P5B | 30.00 | ▼ | 30.00 | 22.00 | 12.50 | 18.90 | 22.00 | 26.00 | 29.40 | 13.50 | 3.20 |
| P032019154P5B | 32.00 | +0.100 -0.000 | 32.00 | 19.00 | 15.40 | 28.10 | 19.00 | 28.50 | 30.70 | 15.40 | 6.35 |
| P032022125P5B | 32.00 | | 32.00 | 22.00 | 12.50 | 20.50 | 22.00 | 29.00 | 31.00 | 12.50 | 4.00 |
| P032022155P5B | 32.00 | | 32.00 | 22.00 | 15.50 | 20.70 | 22.00 | 28.00 | 31.00 | 15.50 | 2.60 |
| P032022164P5B | 32.00 | | 32.00 | 22.00 | 16.40 | 29.10 | 22.00 | 28.50 | 30.50 | 16.40 | 6.35 |
| P032024100P5B | 32.00 | | 32.00 | 24.00 | 10.00 | 18.00 | 24.00 | 29.00 | 31.00 | 10.00 | 4.00 |
| P032024155P5B | 32.00 | | 32.00 | 24.00 | 15.50 | 21.90 | 24.00 | 28.00 | 31.40 | 15.50 | 3.20 |
| P035025155P5B | 35.00 | | 35.00 | 25.00 | 15.50 | 20.70 | 25.00 | 31.00 | 34.00 | 15.50 | 2.60 |
| P035025164P5B | 35.00 | ▼ | 35.00 | 25.00 | 16.40 | 29.10 | 25.00 | 31.40 | 33.50 | 16.40 | 6.35 |



P5B, P5B-1 series - NBR/NYLON/PA

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | |
|-----------------|---------------|------------------|-------------------------|-------|-------|-------|--------------------|--------------------|------------------|-------------------|------------------|
| | D1 | Tol. | D | d | h | H | d1 +1.00/-0.00 | d2 +0.00/-0.050 | P +2.00/-2.00 | h1 +2.00/-0.00 | W +1.00/-1.00 |
| P035027155P5B | 35.00 | +0.100 -0.000 | 35.00 | 27.00 | 15.50 | 21.90 | 27.00 | 31.00 | 34.40 | 15.50 | 3.20 |
| P036026155P5B | 36.00 | | 36.00 | 26.00 | 15.50 | 20.70 | 26.00 | 32.00 | 35.00 | 15.50 | 2.60 |
| P040024180P5B | 40.00 | | 40.00 | 24.00 | 18.00 | 30.70 | 24.00 | 35.40 | 38.50 | 18.00 | 6.35 |
| P040024184P5B | 40.00 | | 40.00 | 24.00 | 18.40 | 31.10 | 24.00 | 35.40 | 38.70 | 18.40 | 6.35 |
| P040026155P5B | 40.00 | | 40.00 | 26.00 | 15.50 | 20.70 | 26.00 | 36.00 | 39.00 | 15.50 | 2.60 |
| P040030113P5B | 40.00 | | 40.00 | 30.00 | 11.30 | 19.30 | 30.00 | 35.40 | 38.00 | 11.30 | 4.00 |
| P040030125P5B | 40.00 | | 40.00 | 30.00 | 12.50 | 20.50 | 30.00 | 37.00 | 39.00 | 12.50 | 4.00 |
| P040030164P5B | 40.00 | | 40.00 | 30.00 | 16.40 | 29.10 | 30.00 | 35.40 | 38.70 | 16.40 | 6.35 |
| P040032100P5B | 40.00 | | 40.00 | 32.00 | 10.00 | 18.00 | 32.00 | 37.00 | 39.00 | 10.00 | 4.00 |
| P040032155P5B | 40.00 | | 40.00 | 32.00 | 15.50 | 21.90 | 32.00 | 36.00 | 39.40 | 15.50 | 3.20 |
| P042028155P5B | 42.00 | | 42.00 | 28.00 | 15.50 | 20.70 | 28.00 | 38.00 | 41.00 | 15.50 | 2.60 |
| P045029184P5B | 45.00 | | 45.00 | 29.00 | 18.40 | 31.10 | 29.00 | 40.40 | 43.70 | 18.40 | 6.35 |
| P045029320P5B-1 | 45.00 | | 45.00 | 29.00 | 32.00 | 44.70 | 29.00 | 38.80 | 42.85 | 32.00 | 6.35 |
| P045031155P5B | 45.00 | | 45.00 | 31.00 | 15.50 | 20.70 | 31.00 | 41.00 | 44.00 | 15.50 | 2.60 |
| P045035164P5B | 45.00 | | 45.00 | 35.00 | 16.40 | 29.10 | 35.00 | 40.40 | 43.50 | 16.40 | 6.35 |
| P045037155P5B | 45.00 | | 45.00 | 37.00 | 15.50 | 21.90 | 37.00 | 41.00 | 44.40 | 15.50 | 3.20 |
| P050034184P5B | 50.00 | | 50.00 | 34.00 | 18.40 | 31.10 | 34.00 | 45.40 | 48.70 | 18.40 | 6.35 |
| P050034205P5B | 50.00 | | 50.00 | 34.00 | 20.50 | 26.70 | 34.00 | 46.00 | 49.00 | 20.50 | 3.10 |
| P050034320P5B | 50.00 | | 50.00 | 34.00 | 32.00 | 44.70 | 34.00 | 43.77 | 47.85 | 32.00 | 6.35 |
| P050034320P5B-1 | 50.00 | | 50.00 | 34.00 | 32.00 | 44.70 | 34.00 | 43.77 | 47.85 | 32.00 | 6.35 |
| P050035200P5B | 50.00 | | 50.00 | 35.00 | 20.00 | 30.00 | 35.00 | 46.00 | 48.50 | 20.00 | 5.00 |
| P050038205P5B | 50.00 | | 50.00 | 38.00 | 20.50 | 28.90 | 38.00 | 46.00 | 49.40 | 20.50 | 4.20 |
| P050040110P5B | 50.00 | | 50.00 | 40.00 | 11.00 | 19.00 | 40.00 | 45.44 | 49.00 | 11.00 | 4.00 |
| P050040125P5B | 50.00 | ▼ | 50.00 | 40.00 | 12.50 | 20.50 | 40.00 | 47.00 | 49.00 | 12.50 | 4.00 |
| P055039184P5B | 55.00 | +0.120 -0.000 | 55.00 | 39.00 | 18.40 | 31.10 | 39.00 | 50.40 | 53.70 | 18.40 | 6.35 |
| P055039205P5B | 55.00 | | 55.00 | 39.00 | 20.50 | 26.70 | 39.00 | 51.00 | 54.00 | 20.50 | 3.10 |
| P055040320P5B-1 | 55.00 | | 55.00 | 40.00 | 32.00 | 44.70 | 40.00 | 48.77 | 52.85 | 32.00 | 6.35 |
| P055045113P5B | 55.00 | | 55.00 | 45.00 | 11.30 | 19.30 | 45.00 | 50.50 | 54.00 | 11.30 | 4.00 |
| P055045125P5B | 55.00 | | 55.00 | 45.00 | 12.50 | 20.50 | 45.00 | 52.00 | 54.00 | 12.50 | 4.00 |
| P056040205P5B | 56.00 | | 56.00 | 40.00 | 20.50 | 26.70 | 40.00 | 52.00 | 55.00 | 20.50 | 3.10 |
| P060044184P5B | 60.00 | | 60.00 | 44.00 | 18.40 | 31.10 | 44.00 | 55.40 | 58.70 | 18.40 | 6.35 |
| P060044205P5B | 60.00 | | 60.00 | 44.00 | 20.50 | 26.70 | 44.00 | 56.00 | 59.00 | 20.50 | 3.10 |
| P060044320P5B-1 | 60.00 | | 60.00 | 44.00 | 32.00 | 44.70 | 44.00 | 53.80 | 57.80 | 32.00 | 6.35 |
| P060048205P5B | 60.00 | | 60.00 | 48.00 | 20.50 | 28.90 | 48.00 | 56.00 | 59.40 | 20.50 | 4.20 |
| P063047184P5B | 63.00 | | 63.00 | 47.00 | 18.40 | 31.10 | 47.00 | 58.40 | 61.50 | 18.40 | 6.35 |
| P063047194P5B | 63.00 | | 63.00 | 47.00 | 19.40 | 32.10 | 47.00 | 58.40 | 61.70 | 19.40 | 6.35 |
| P063047205P5B | 63.00 | | 63.00 | 47.00 | 20.50 | 26.70 | 47.00 | 59.00 | 62.00 | 20.50 | 3.10 |
| P063047320P5B-1 | 63.00 | | 63.00 | 47.00 | 32.00 | 44.70 | 47.00 | 56.74 | 60.81 | 32.00 | 6.35 |
| P063048200P5B | 63.00 | | 63.00 | 48.00 | 20.00 | 30.00 | 48.00 | 59.00 | 61.50 | 20.00 | 5.00 |
| P063051205P5B | 63.00 | | 63.00 | 51.00 | 20.50 | 28.90 | 51.00 | 59.00 | 62.40 | 20.50 | 4.20 |
| P063053113P5B | 63.00 | | 63.00 | 53.00 | 11.30 | 19.30 | 53.00 | 58.50 | 61.50 | 11.30 | 4.00 |
| P065049205P5B | 65.00 | | 65.00 | 49.00 | 20.50 | 26.70 | 49.00 | 61.00 | 64.00 | 20.50 | 3.10 |
| P065049320P5B | 65.00 | | 65.00 | 49.00 | 32.00 | 44.70 | 49.00 | 58.70 | 62.80 | 32.00 | 6.35 |
| P065050184P5B | 65.00 | | 65.00 | 50.00 | 18.40 | 31.10 | 50.00 | 60.41 | 63.64 | 18.40 | 6.35 |
| P070050224P5B | 70.00 | | 70.00 | 50.00 | 22.40 | 35.10 | 50.00 | 64.20 | 68.30 | 22.40 | 6.35 |
| P070050350P5B-1 | 70.00 | ▼ | 70.00 | 50.00 | 35.00 | 54.00 | 50.00 | 62.61 | 67.54 | 35.00 | 9.50 |

P5B, P5B-1 series - NBR/NYLON/PA

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | |
|-----------------|---------------|------------------|-------------------------|-------|-------|-------|--------------------|---------------|---------------|---------------|---------------|
| | D1 | Tol. | D | d | h | H | d1 | d2 | P | h1 | W |
| | | | | | | | + .100/- .000 | + .000/- .050 | + .200/- .200 | + .200/- .000 | + .100/- .100 |
| P070055200P5B | 70.00 | + .120 - .000 | 70.00 | 55.00 | 20.00 | 30.00 | 55.00 | 66.00 | 68.50 | 20.00 | 5.00 |
| P070058205P5B | 70.00 | | 70.00 | 58.00 | 20.50 | 28.90 | 58.00 | 66.00 | 69.40 | 20.50 | 4.20 |
| P075055224P5B | 75.00 | | 75.00 | 55.00 | 22.40 | 35.10 | 55.00 | 69.20 | 73.30 | 22.40 | 6.35 |
| P075055350P5B-1 | 75.00 | | 75.00 | 55.00 | 35.00 | 54.00 | 55.00 | 67.70 | 72.54 | 35.00 | 9.50 |
| P075059205P5B | 75.00 | | 75.00 | 59.00 | 20.50 | 26.70 | 59.00 | 71.00 | 74.00 | 20.50 | 3.10 |
| P080060224P5B | 80.00 | | 80.00 | 60.00 | 22.40 | 35.10 | 60.00 | 74.20 | 78.30 | 22.40 | 6.35 |
| P080060250P5B | 80.00 | | 80.00 | 60.00 | 25.00 | 37.70 | 60.00 | 75.00 | 78.00 | 25.00 | 6.35 |
| P080060350P5B-1 | 80.00 | | 80.00 | 60.00 | 35.00 | 54.00 | 60.00 | 72.62 | 77.54 | 35.00 | 9.50 |
| P080062225P5B | 80.00 | | 80.00 | 62.00 | 22.50 | 29.70 | 62.00 | 76.00 | 79.00 | 22.50 | 3.60 |
| P080064320P5B-1 | 80.00 | | 80.00 | 64.00 | 32.00 | 51.00 | 64.00 | 72.62 | 77.52 | 32.00 | 9.50 |
| P080065200P5B | 80.00 | | 80.00 | 65.00 | 20.00 | 30.00 | 65.00 | 76.00 | 78.50 | 20.00 | 5.00 |
| P080066225P5B | 80.00 | | 80.00 | 66.00 | 22.50 | 32.90 | 66.00 | 76.00 | 79.40 | 22.50 | 5.20 |
| P080070113P5B | 80.00 | ▼ | 80.00 | 70.00 | 11.30 | 19.30 | 70.00 | 75.50 | 78.50 | 11.30 | 4.00 |
| P085065224P5B | 85.00 | + .140 - .000 | 85.00 | 65.00 | 22.40 | 35.10 | 65.00 | 79.20 | 88.30 | 22.40 | 6.35 |
| P085065350P5B | 85.00 | | 85.00 | 65.00 | 35.00 | 54.00 | 65.00 | 77.62 | 82.54 | 35.00 | 9.50 |
| P085065350P5B-1 | 85.00 | | 85.00 | 65.00 | 35.00 | 54.00 | 65.00 | 77.62 | 82.54 | 35.00 | 9.50 |
| P085075200P5B | 85.00 | | 85.00 | 75.00 | 20.00 | 28.00 | 75.00 | 81.00 | 83.34 | 20.00 | 4.00 |
| P090070220P5B | 90.00 | | 90.00 | 70.00 | 22.00 | 34.70 | 70.00 | 84.15 | 88.31 | 22.00 | 6.35 |
| P090070224P5B | 90.00 | | 90.00 | 70.00 | 22.40 | 35.10 | 70.00 | 84.20 | 88.30 | 22.40 | 6.35 |
| P090070350P5B | 90.00 | | 90.00 | 70.00 | 35.00 | 54.00 | 70.00 | 82.58 | 87.55 | 35.00 | 9.50 |
| P090070350P5B-1 | 90.00 | | 90.00 | 70.00 | 35.00 | 54.00 | 70.00 | 82.58 | 87.55 | 35.00 | 9.50 |
| P090072225P5B | 90.00 | | 90.00 | 72.00 | 22.50 | 29.70 | 72.00 | 86.00 | 89.00 | 22.50 | 3.60 |
| P090074320P5B | 90.00 | | 90.00 | 74.00 | 32.00 | 51.00 | 74.00 | 82.87 | 87.79 | 32.00 | 9.50 |
| P090074320P5B-1 | 90.00 | | 90.00 | 74.00 | 32.00 | 51.00 | 74.00 | 82.87 | 87.79 | 32.00 | 9.50 |
| P090075200P5B | 90.00 | | 90.00 | 75.00 | 20.00 | 30.00 | 75.00 | 86.00 | 88.50 | 20.00 | 5.00 |
| P090076225P5B | 90.00 | | 90.00 | 76.00 | 22.50 | 32.90 | 76.00 | 86.00 | 89.40 | 22.50 | 5.20 |
| P092082125P5B | 92.00 | | 92.00 | 82.00 | 12.50 | 25.20 | 82.00 | 88.04 | 90.80 | 12.50 | 6.35 |
| P095075224P5B | 95.00 | | 95.00 | 75.00 | 22.40 | 35.10 | 75.00 | 89.00 | 93.30 | 22.40 | 6.35 |
| P095075350P5B-1 | 95.00 | | 95.00 | 75.00 | 35.00 | 54.00 | 75.00 | 87.60 | 92.50 | 35.00 | 9.50 |
| P100075220P5B | 100.00 | | 100.00 | 75.00 | 22.00 | 34.70 | 75.00 | 93.13 | 98.05 | 22.00 | 6.35 |
| P100075224P5B | 100.00 | | 100.00 | 75.00 | 22.40 | 35.10 | 75.00 | 93.20 | 98.00 | 22.40 | 6.35 |
| P100080250P5B | 100.00 | | 100.00 | 80.00 | 25.00 | 37.60 | 80.00 | 95.00 | 98.00 | 25.00 | 6.30 |
| P100080350P5B-1 | 100.00 | | 100.00 | 80.00 | 35.00 | 54.00 | 80.00 | 92.61 | 97.51 | 35.00 | 9.50 |
| P100082225P5B | 100.00 | | 100.00 | 82.00 | 22.50 | 29.70 | 82.00 | 96.00 | 99.00 | 22.50 | 3.60 |
| P100085200P5B | 100.00 | | 100.00 | 85.00 | 20.00 | 30.00 | 85.00 | 96.00 | 98.50 | 20.00 | 5.00 |
| P100086200P5B | 100.00 | | 100.00 | 86.00 | 20.00 | 30.00 | 86.00 | 96.00 | 99.40 | 20.00 | 5.00 |
| P100086225P5B | 100.00 | | 100.00 | 86.00 | 22.50 | 32.90 | 86.00 | 96.00 | 99.40 | 22.50 | 5.20 |
| P100087142P5B | 100.00 | | 100.00 | 87.00 | 14.20 | 26.20 | 87.00 | 93.80 | 98.50 | 14.20 | 6.00 |
| P105080224P5B | 105.00 | | 105.00 | 80.00 | 22.40 | 35.10 | 80.00 | 98.10 | 103.00 | 22.40 | 6.35 |
| P105092143P5B | 105.00 | | 105.00 | 92.50 | 14.30 | 25.00 | 92.50 | 98.80 | 103.40 | 14.30 | 5.35 |
| P110085254P5B | 110.00 | | 110.00 | 85.00 | 25.40 | 38.10 | 85.00 | 103.10 | 108.00 | 25.40 | 6.35 |
| P110085450P5B-1 | 110.00 | | 110.00 | 85.00 | 45.00 | 70.40 | 85.00 | 101.78 | 107.31 | 45.00 | 12.70 |
| P110090254P5B | 110.00 | | 110.00 | 90.00 | 25.40 | 38.10 | 90.00 | 104.10 | 108.30 | 25.30 | 6.35 |
| P110090350P5B-1 | 110.00 | | 110.00 | 90.00 | 35.00 | 54.00 | 90.00 | 102.70 | 107.51 | 35.00 | 9.50 |
| P110092225P5B | 110.00 | | 110.00 | 92.00 | 22.50 | 29.70 | 92.00 | 106.00 | 109.00 | 22.50 | 3.60 |
| P110095200P5B | 110.00 | ▼ | 110.00 | 95.00 | 20.00 | 30.00 | 95.00 | 105.00 | 108.50 | 20.00 | 5.00 |

P5B, P5B-1 series - NBR/NYLON/PA

PISTON SEALS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | |
|-----------------|---------------|------------------|-------------------------|--------|-------|-------|--------------------|-------------------|------------------|-------------------|------------------|
| | D1 | Tol. | D | d | h | H | d1 +.100/-.000 | d2 +.000/-.050 | P +.200/-.200 | h1 +.200/-.000 | W +.100/-.100 |
| P110096225P5B | 110.00 | + .140 - .000 | 110.00 | 96.00 | 22.50 | 32.90 | 96.00 | 106.00 | 109.40 | 22.50 | 5.20 |
| P115090224P5B | 115.00 | | 115.00 | 90.00 | 22.40 | 35.10 | 90.00 | 108.10 | 113.00 | 22.40 | 6.35 |
| P115090450P5B-1 | 115.00 | | 115.00 | 90.00 | 45.00 | 70.40 | 90.00 | 106.82 | 112.33 | 45.00 | 12.70 |
| P115097225P5B | 115.00 | | 115.00 | 97.00 | 22.50 | 29.70 | 97.00 | 111.00 | 114.00 | 22.50 | 3.60 |
| P120095224P5B | 120.00 | | 120.00 | 95.00 | 22.40 | 35.10 | 95.00 | 113.00 | 118.00 | 22.40 | 6.35 |
| P120095450P5B-1 | 120.00 | | 120.00 | 95.00 | 45.00 | 70.40 | 95.00 | 111.82 | 117.33 | 45.00 | 12.70 |
| P120100350P5B-1 | 120.00 | | 120.00 | 100.00 | 35.00 | 54.00 | 100.00 | 112.80 | 117.51 | 35.00 | 9.50 |
| P120106225P5B | 120.00 | ▼ | 120.00 | 106.00 | 22.50 | 32.90 | 106.00 | 116.00 | 119.40 | 22.50 | 5.20 |
| P125100254P5B | 125.00 | + .160 - .000 | 125.00 | 100.00 | 25.40 | 38.10 | 100.00 | 118.00 | 123.00 | 25.40 | 6.35 |
| P125100320P5B | 125.00 | | 125.00 | 100.00 | 32.00 | 52.00 | 100.00 | 119.00 | 123.00 | 32.00 | 10.00 |
| P125100450P5B-1 | 125.00 | | 125.00 | 100.00 | 45.00 | 70.40 | 100.00 | 116.82 | 122.33 | 45.00 | 12.70 |
| P125103265P5B | 125.00 | | 125.00 | 103.00 | 26.50 | 36.70 | 103.00 | 121.00 | 124.00 | 26.50 | 5.10 |
| P125105254P5B | 125.00 | | 125.00 | 105.00 | 25.40 | 38.10 | 105.00 | 119.00 | 123.30 | 25.40 | 6.35 |
| P125108265P5B | 125.00 | | 125.00 | 108.00 | 26.50 | 40.90 | 108.00 | 121.00 | 124.40 | 26.50 | 7.20 |
| P125112143P5B | 125.00 | | 125.00 | 112.00 | 14.30 | 26.30 | 112.00 | 118.80 | 123.50 | 14.30 | 6.00 |
| P130105254P5B | 130.00 | | 130.00 | 105.00 | 25.40 | 38.10 | 105.00 | 122.60 | 128.00 | 25.40 | 6.35 |
| P130105254P5B-A | 130.00 | | 130.00 | 105.00 | 25.40 | 44.40 | 105.00 | 122.60 | 127.50 | 25.40 | 9.50 |
| P130105450P5B-1 | 130.00 | | 130.00 | 105.00 | 45.00 | 70.40 | 105.00 | 121.82 | 127.33 | 45.00 | 12.70 |
| P130110254P5B | 130.00 | | 130.00 | 110.00 | 25.40 | 38.10 | 110.00 | 125.00 | 128.00 | 25.40 | 6.35 |
| P130110350P5B-1 | 130.00 | | 130.00 | 110.00 | 35.00 | 54.00 | 110.00 | 122.70 | 127.33 | 35.00 | 9.50 |
| P135110254P5B | 135.00 | | 135.00 | 110.00 | 25.40 | 38.10 | 110.00 | 128.10 | 133.00 | 25.40 | 6.35 |
| P135110450P5B-1 | 135.00 | | 135.00 | 110.00 | 45.00 | 70.40 | 110.00 | 126.82 | 132.33 | 45.00 | 12.70 |
| P140115254P5B | 140.00 | | 140.00 | 115.00 | 25.40 | 38.10 | 115.00 | 133.00 | 138.00 | 25.40 | 6.35 |
| P140115254P5B-A | 140.00 | | 140.00 | 115.00 | 25.40 | 44.40 | 115.00 | 132.60 | 137.50 | 25.40 | 9.50 |
| P140115320P5B | 140.00 | | 140.00 | 115.00 | 32.00 | 52.00 | 115.00 | 134.00 | 138.00 | 32.00 | 10.00 |
| P140115450P5B-1 | 140.00 | | 140.00 | 115.00 | 45.00 | 70.40 | 115.00 | 131.70 | 137.36 | 45.00 | 12.70 |
| P140118265P5B | 140.00 | | 140.00 | 118.00 | 26.50 | 36.70 | 118.00 | 136.00 | 139.00 | 26.50 | 5.10 |
| P140120250P5B | 140.00 | | 140.00 | 120.00 | 25.00 | 37.70 | 120.00 | 135.00 | 138.00 | 25.00 | 6.35 |
| P140120265P5B | 140.00 | | 140.00 | 120.00 | 26.50 | 39.10 | 120.00 | 135.00 | 138.00 | 26.50 | 6.30 |
| P140120350P5B-1 | 140.00 | | 140.00 | 120.00 | 35.00 | 54.00 | 120.00 | 132.70 | 137.30 | 35.00 | 9.50 |
| P140123265P5B | 140.00 | | 140.00 | 123.00 | 26.50 | 40.90 | 123.00 | 136.00 | 139.40 | 26.50 | 7.20 |
| P145120254P5B | 145.00 | | 145.00 | 120.00 | 25.40 | 38.10 | 120.00 | 137.60 | 142.50 | 25.40 | 6.35 |
| P145120254P5B-A | 145.00 | | 145.00 | 120.00 | 25.40 | 44.40 | 120.00 | 137.60 | 142.50 | 25.40 | 9.50 |
| P145120265P5B | 145.00 | | 145.00 | 120.00 | 26.50 | 36.70 | 120.00 | 138.30 | 143.00 | 26.50 | 5.10 |
| P145120450P5B-1 | 145.00 | | 145.00 | 120.00 | 45.00 | 70.40 | 120.00 | 136.72 | 142.30 | 45.00 | 12.70 |
| P150125254P5B | 150.00 | | 150.00 | 125.00 | 25.40 | 38.10 | 125.00 | 143.00 | 148.00 | 25.00 | 6.35 |
| P150125254P5B-A | 150.00 | | 150.00 | 125.00 | 25.40 | 44.40 | 125.00 | 142.60 | 147.50 | 25.40 | 9.50 |
| P150125450P5B-1 | 150.00 | | 150.00 | 125.00 | 45.00 | 70.40 | 125.00 | 141.71 | 147.32 | 45.00 | 12.70 |
| P150128265P5B | 150.00 | | 150.00 | 128.00 | 26.50 | 36.70 | 128.00 | 146.00 | 149.00 | 26.50 | 5.10 |
| P150130254P5B | 150.00 | | 150.00 | 130.00 | 25.40 | 38.10 | 130.00 | 144.10 | 148.30 | 25.40 | 6.35 |
| P150133265P5B | 150.00 | | 150.00 | 133.00 | 26.50 | 40.90 | 133.00 | 146.00 | 149.40 | 26.50 | 7.20 |
| P155130254P5B | 155.00 | | 155.00 | 130.00 | 25.40 | 38.10 | 130.00 | 147.60 | 152.50 | 25.40 | 6.35 |
| P155130254P5B-A | 155.00 | | 155.00 | 130.00 | 25.40 | 44.40 | 130.00 | 147.60 | 152.50 | 25.40 | 9.50 |
| P160130254P5B | 160.00 | | 160.00 | 130.00 | 25.40 | 38.10 | 130.00 | 153.00 | 157.90 | 25.40 | 6.35 |
| P160130254P5B-A | 160.00 | | 160.00 | 130.00 | 25.40 | 44.40 | 130.00 | 153.00 | 157.90 | 25.40 | 9.50 |
| P160135254P5B | 160.00 | ▼ | 160.00 | 135.00 | 25.40 | 44.40 | 135.00 | 152.60 | 157.50 | 25.40 | 9.50 |

P5B, P5B-1 series - NBR/NYLON/PA



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | |
|-----------------|---------------|----------------|-------------------------|--------|-------|-------|--------------------|-------------------|------------------|-------------------|------------------|
| | D1 | Tol. | D | d | h | H | d1 +.100/-.000 | d2 +.000/-.050 | P +.200/-.200 | h1 +.200/-.000 | W +.100/-.100 |
| P160135320P5B | 160.00 | +.160 -.000 | 160.00 | 135.00 | 32.00 | 52.00 | 135.00 | 154.00 | 158.00 | 32.00 | 10.00 |
| P160135450P5B-1 | 160.00 | | 160.00 | 135.00 | 45.00 | 70.40 | 135.00 | 151.72 | 157.10 | 45.00 | 12.70 |
| P160138265P5B | 160.00 | | 160.00 | 138.00 | 26.50 | 36.70 | 138.00 | 156.00 | 159.00 | 26.50 | 5.10 |
| P160140250P5B | 160.00 | | 160.00 | 140.00 | 25.00 | 37.60 | 140.00 | 155.00 | 158.00 | 25.00 | 6.30 |
| P160140250P5B-A | 160.00 | | 160.00 | 140.00 | 25.00 | 50.00 | 140.00 | 151.40 | 158.50 | 25.00 | 12.50 |
| P160143265P5B | 160.00 | | 160.00 | 143.00 | 26.50 | 40.90 | 143.00 | 156.00 | 159.40 | 26.50 | 7.20 |
| P165140254P5B | 165.00 | | 165.00 | 140.00 | 25.40 | 38.10 | 140.00 | 159.66 | 163.00 | 25.00 | 6.35 |
| P165140254P5B-A | 165.00 | | 165.00 | 140.00 | 25.40 | 44.40 | 140.00 | 157.60 | 162.50 | 25.00 | 9.50 |
| P170140254P5B | 170.00 | | 170.00 | 140.00 | 25.40 | 38.10 | 140.00 | 163.00 | 168.00 | 25.40 | 6.35 |
| P170140450P5B-1 | 170.00 | | 170.00 | 140.00 | 45.00 | 70.40 | 140.00 | 163.00 | 167.87 | 45.00 | 12.70 |
| P170145250P5B | 170.00 | | 170.00 | 145.00 | 25.00 | 37.70 | 145.00 | 162.98 | 167.60 | 25.00 | 6.35 |
| P170145250P5B-A | 170.00 | | 170.00 | 145.00 | 25.00 | 50.40 | 145.00 | 161.70 | 167.10 | 25.00 | 12.70 |
| P170145254P5B | 170.00 | | 170.00 | 145.00 | 25.40 | 50.80 | 145.00 | 161.70 | 167.10 | 25.40 | 12.70 |
| P170148265P5B | 170.00 | | 170.00 | 148.00 | 26.50 | 36.70 | 148.00 | 166.00 | 169.00 | 26.50 | 5.10 |
| P175150254P5B | 175.00 | | 175.00 | 150.00 | 25.40 | 50.80 | 150.00 | 166.70 | 172.10 | 25.40 | 12.70 |
| P180150354P5B | 180.00 | | 180.00 | 150.00 | 35.40 | 48.10 | 150.00 | 173.00 | 177.32 | 35.40 | 6.35 |
| P180150360P5B | 180.00 | | 180.00 | 150.00 | 36.00 | 61.00 | 150.00 | 172.00 | 178.00 | 36.00 | 12.50 |
| P180155254P5B | 180.00 | | 180.00 | 155.00 | 25.40 | 50.80 | 155.00 | 171.70 | 177.70 | 25.40 | 12.70 |
| P180155450P5B-1 | 180.00 | | 180.00 | 155.00 | 45.00 | 70.40 | 155.00 | 171.63 | 177.32 | 45.00 | 12.70 |
| P180158265P5B | 180.00 | | 180.00 | 158.00 | 26.50 | 36.70 | 158.00 | 176.00 | 179.00 | 26.50 | 5.10 |
| P180163265P5B | 180.00 | ▼ | 180.00 | 163.00 | 26.50 | 40.90 | 163.00 | 176.00 | 179.40 | 26.50 | 7.20 |
| P185160254P5B | 185.00 | +.185 -.000 | 185.00 | 160.00 | 25.40 | 50.80 | 160.00 | 176.70 | 182.50 | 25.40 | 12.70 |
| P185160450P5B-1 | 185.00 | | 185.00 | 160.00 | 45.00 | 70.40 | 160.00 | 176.72 | 182.10 | 45.00 | 12.70 |
| P190165254P5B | 190.00 | | 190.00 | 165.00 | 25.40 | 50.80 | 165.00 | 181.70 | 187.00 | 25.40 | 12.70 |
| P190165450P5B-1 | 190.00 | | 190.00 | 165.00 | 45.00 | 70.40 | 165.00 | 181.72 | 187.10 | 45.00 | 12.70 |
| P190170300P5B | 190.00 | | 190.00 | 170.00 | 30.00 | 42.70 | 170.00 | 183.00 | 188.00 | 30.00 | 6.35 |
| P190170305P5B | 190.00 | | 190.00 | 170.00 | 30.50 | 43.20 | 170.00 | 183.00 | 188.00 | 30.50 | 6.35 |
| P195170254P5B | 195.00 | | 195.00 | 170.00 | 25.40 | 50.80 | 170.00 | 186.70 | 192.00 | 25.40 | 12.70 |
| P200170354P5B | 200.00 | | 200.00 | 170.00 | 35.40 | 48.10 | 170.00 | 193.00 | 198.00 | 35.40 | 6.35 |
| P200170354P5B-1 | 200.00 | | 200.00 | 170.00 | 35.40 | 60.80 | 170.00 | 192.90 | 197.33 | 35.00 | 6.35 |
| P200170360P5B | 200.00 | | 200.00 | 170.00 | 36.00 | 61.00 | 170.00 | 192.00 | 197.00 | 36.00 | 12.50 |
| P200175254P5B | 200.00 | | 200.00 | 175.00 | 25.40 | 50.80 | 175.00 | 191.60 | 197.00 | 25.40 | 12.70 |
| P200175315P5B | 200.00 | | 200.00 | 175.00 | 31.50 | 44.70 | 175.00 | 196.00 | 199.00 | 31.50 | 6.60 |
| P200175450P5B-1 | 200.00 | | 200.00 | 175.00 | 45.00 | 70.40 | 175.00 | 191.64 | 197.33 | 45.00 | 12.70 |
| P200180315P5B | 200.00 | | 200.00 | 180.00 | 31.50 | 49.90 | 180.00 | 196.00 | 199.40 | 31.50 | 9.20 |
| P210185254P5B | 210.00 | | 210.00 | 185.00 | 25.40 | 50.80 | 185.00 | 201.60 | 207.00 | 25.40 | 12.70 |
| P210185450P5B-1 | 210.00 | | 210.00 | 185.00 | 45.00 | 70.40 | 185.00 | 201.60 | 207.10 | 45.00 | 12.70 |
| P220190315P5B | 220.00 | | 220.00 | 190.00 | 31.50 | 49.90 | 190.00 | 213.00 | 218.00 | 31.50 | 9.20 |
| P220190354P5B | 220.00 | | 220.00 | 190.00 | 35.40 | 48.10 | 190.00 | 213.00 | 218.00 | 35.40 | 6.35 |
| P220190360P5B | 220.00 | | 220.00 | 190.00 | 36.00 | 61.00 | 190.00 | 212.00 | 217.00 | 36.00 | 12.50 |
| P220195254P5B | 220.00 | | 220.00 | 195.00 | 25.40 | 50.80 | 195.00 | 211.60 | 217.00 | 25.40 | 12.70 |
| P220195450P5B-1 | 220.00 | | 220.00 | 195.00 | 45.00 | 70.40 | 195.00 | 211.60 | 217.10 | 45.00 | 12.70 |
| P225200254P5B | 225.00 | | 225.00 | 200.00 | 25.40 | 50.80 | 200.00 | 216.60 | 222.32 | 25.40 | 12.70 |
| P225200315P5B | 225.00 | | 225.00 | 200.00 | 31.50 | 44.70 | 200.00 | 221.00 | 224.00 | 31.50 | 6.60 |
| P225200450P5B-1 | 225.00 | | 225.00 | 200.00 | 45.00 | 70.40 | 200.00 | 216.60 | 222.32 | 45.00 | 12.70 |
| P230205254P5B | 230.00 | ▼ | 230.00 | 205.00 | 25.40 | 50.80 | 205.00 | 221.60 | 227.00 | 25.40 | 12.70 |

P5B, P5B-1 series - NBR/NYLON/PA

PISTON SEALS



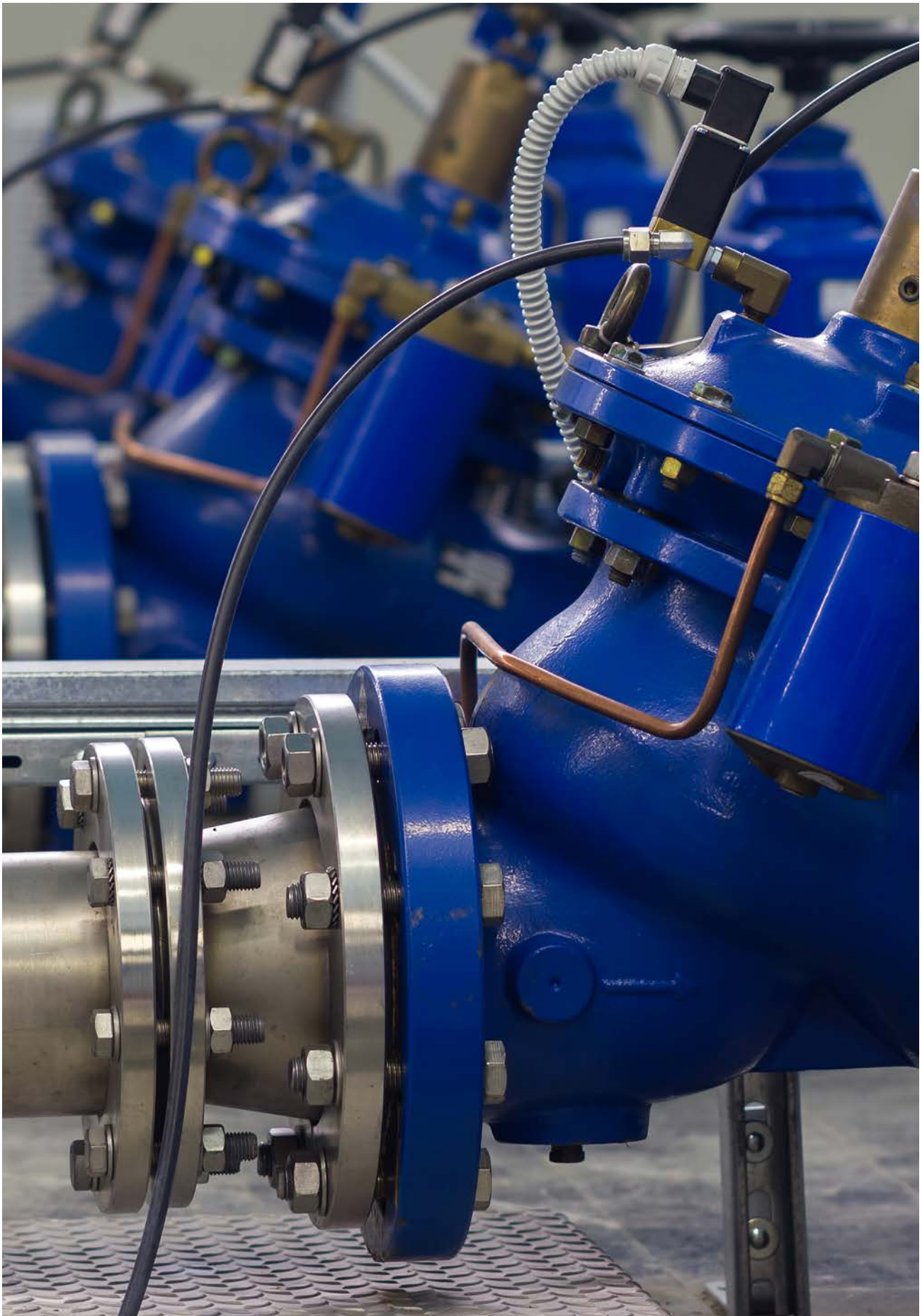
| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | | Housing Dimensions | | | | |
|-----------------|---------------|------------------|-------------------------|--------|-------|-------|--------------------|---------------|---------------|---------------|---------------|
| | D1 | Tol. | D | d | h | H | d1 | d2 | P | h1 | W |
| | | | | | | | + .100/- .000 | + .000/- .050 | + .200/- .200 | + .200/- .000 | + .100/- .100 |
| P230205450P5B-1 | 230.00 | + .185 - .000 | 230.00 | 205.00 | 45.00 | 70.40 | 205.00 | 221.72 | 227.10 | 45.00 | 12.70 |
| P240215254P5B | 240.00 | | 240.00 | 215.00 | 25.40 | 50.80 | 215.00 | 231.60 | 237.00 | 25.40 | 12.70 |
| P240215450P5B-1 | 240.00 | | 240.00 | 215.00 | 45.00 | 70.40 | 215.00 | 231.72 | 237.10 | 45.00 | 12.70 |
| P250220354P5B | 250.00 | | 250.00 | 220.00 | 35.40 | 48.10 | 220.00 | 243.00 | 248.00 | 35.40 | 6.35 |
| P250220360P5B | 250.00 | | 250.00 | 220.00 | 36.00 | 61.00 | 220.00 | 242.00 | 247.00 | 36.00 | 12.50 |
| P250225254P5B | 250.00 | | 250.00 | 225.00 | 25.40 | 50.80 | 225.00 | 241.60 | 247.00 | 25.40 | 12.70 |
| P250225315P5B | 250.00 | | 250.00 | 225.00 | 31.50 | 44.70 | 225.00 | 246.00 | 249.00 | 31.50 | 6.60 |
| P250225450P5B-1 | 250.00 | | 250.00 | 225.00 | 45.00 | 70.40 | 225.00 | 241.50 | 247.32 | 45.00 | 12.70 |
| P250230315P5B | 250.00 | ▼ | 250.00 | 230.00 | 31.50 | 49.90 | 230.00 | 246.00 | 249.40 | 31.50 | 9.20 |
| P260235354P5B | 260.00 | + .210 - .000 | 260.00 | 235.00 | 35.40 | 60.80 | 235.00 | 252.90 | 257.00 | 35.40 | 12.70 |
| P260235450P5B-1 | 260.00 | | 260.00 | 235.00 | 45.00 | 70.40 | 235.00 | 251.72 | 257.10 | 45.00 | 12.70 |
| P270245450P5B-1 | 270.00 | | 270.00 | 245.00 | 45.00 | 70.40 | 245.00 | 261.72 | 267.10 | 45.00 | 12.70 |
| P275250315P5B | 275.00 | | 275.00 | 250.00 | 31.50 | 44.70 | 250.00 | 271.00 | 274.00 | 31.50 | 6.60 |
| P280250354P5B | 280.00 | | 280.00 | 250.00 | 35.40 | 54.40 | 250.00 | 272.90 | 277.00 | 35.40 | 9.50 |
| P280250360P5B | 280.00 | | 280.00 | 250.00 | 36.00 | 61.00 | 250.00 | 272.00 | 277.00 | 36.00 | 12.50 |
| P280250364P5B | 280.00 | | 280.00 | 250.00 | 36.40 | 56.40 | 250.00 | 273.00 | 278.00 | 36.40 | 10.00 |
| P280255450P5B-1 | 280.00 | | 280.00 | 255.00 | 45.00 | 70.40 | 255.00 | 271.60 | 277.32 | 45.00 | 12.70 |
| P290265450P5B-1 | 290.00 | | 290.00 | 265.00 | 45.00 | 70.40 | 265.00 | 281.72 | 287.10 | 45.00 | 12.70 |
| P300275315P5B | 300.00 | | 300.00 | 275.00 | 31.50 | 44.70 | 275.00 | 296.00 | 299.00 | 31.50 | 6.60 |
| P300275450P5B-1 | 300.00 | | 300.00 | 275.00 | 45.00 | 70.40 | 275.00 | 291.72 | 297.10 | 45.00 | 12.70 |
| P320290364P5B | 320.00 | | 320.00 | 290.00 | 36.40 | 61.40 | 290.00 | 312.00 | 317.00 | 36.40 | 12.50 |
| P350325450P5B-1 | 350.00 | | 350.00 | 325.00 | 45.00 | 70.40 | 325.00 | 341.72 | 347.10 | 45.00 | 12.70 |
| P360335445P5B-1 | 360.00 | ▼ | 360.00 | 335.00 | 44.50 | 69.90 | 335.00 | 351.76 | 357.33 | 44.50 | 12.70 |

OTHER PROFILES ARE ALSO AVAILABLE ON REQUEST

Though this product offering contains a wide selection of commonly used parts in the marketplace, it is possible that you haven't found the exact part you were looking for.

We have many other seal profiles available on request, please do not hesitate to contact us and we will do our best to help you locate the required part.







PISTON SEALS



PISTON SEALS





| | | | |
|---|----|---|---|
|  | V1 | M | 2 |
|  | V3 | M | 4 |

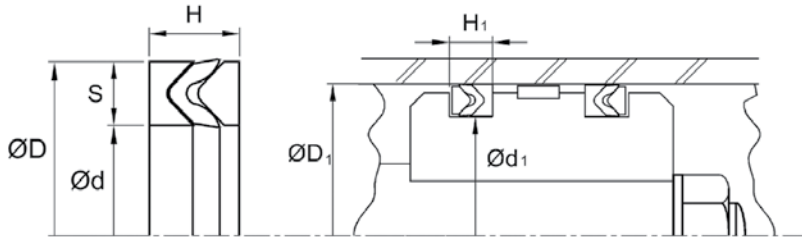
VEE PACKINGS



V1 - Vee Packings - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|--------------------------|--------------------------------------|-----------------------|----------------------|
| Neo-Fabric/ Polyamide | -22°F to +230°F (-30°C to +110°C) | 3626 psi (250 bar) | < 1.6 ft/s (0.5 m/s) |



Vee Packings are popular sealing devices for both pneumatic and hydraulic applications. Usually supplied as a multi-ring sealing unit, a set is made up of a given number of intermediate vee-rings as well as a male and female adapter to insure proper support. Available in both homogeneous and fabric reinforced materials for intermediate rings and in fabric-reinforced and nylon materials for the adapter rings, **Vee-packings** are used to seal piston in standard cylinders.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

VEE PACKINGS



| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housings Dimensions | | | |
|--------------|---------------|------------------|-------------------------|-------|-------|---------------------|----------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| V010020093V1 | 20.00 | +0.052 -0.000 | 20.00 | 10.00 | 9.00 | 10.00 | -.013/-0.035 | 9.30 | +0.200 -0.000 |
| V012022093V1 | 22.00 | | 22.00 | 12.00 | 9.00 | 12.00 | -.016 -.043 | 9.30 | |
| V015025093V1 | 25.00 | | 25.00 | 15.00 | 9.00 | 15.00 | | 9.30 | |
| V018028093V1 | 28.00 | | 28.00 | 18.00 | 9.00 | 18.00 | | 9.30 | |
| V020030093V1 | 30.00 | | 30.00 | 20.00 | 9.00 | 20.00 | -.020 -.053 | 9.30 | |
| V020032109V1 | 32.00 | +0.062 -0.000 | 32.00 | 20.00 | 10.50 | 20.00 | | 10.90 | |
| V023035109V1 | 35.00 | | 35.00 | 23.00 | 10.50 | 23.00 | | 10.90 | |
| V024036109V1 | 36.00 | | 36.00 | 24.00 | 10.50 | 24.00 | | 10.90 | |
| V025040115V1 | 40.00 | | 40.00 | 25.00 | 11.00 | 25.00 | | 11.50 | |
| V027042115V1 | 42.00 | | 42.00 | 27.00 | 11.00 | 27.00 | | 11.50 | |
| V030045115V1 | 45.00 | | 45.00 | 30.00 | 11.00 | 30.00 | | 11.50 | |
| V035050115V1 | 50.00 | | 50.00 | 35.00 | 11.00 | 35.00 | -.025 -.064 | 11.50 | |
| V040055115V1 | 55.00 | +0.074 -0.000 | 55.00 | 40.00 | 11.00 | 40.00 | | 11.50 | |
| V041056115V1 | 56.00 | | 56.00 | 41.00 | 11.00 | 41.00 | | 11.50 | |
| V045060115V1 | 60.00 | | 60.00 | 45.00 | 11.00 | 45.00 | | 11.50 | |
| V048063130V1 | 63.00 | | 63.00 | 48.00 | 12.50 | 48.00 | | 13.00 | |
| V050070152V1 | 70.00 | | 70.00 | 50.00 | 14.50 | 50.00 | -.030 -.076 | 15.20 | |
| V060080152V1 | 80.00 | | 80.00 | 60.00 | 14.50 | 60.00 | | 15.20 | |
| V070090212V1 | 90.00 | +0.087 -0.000 | 90.00 | 70.00 | 20.50 | 70.00 | | 21.20 | |
| V080100212V1 | 100.00 | | 100.00 | 80.00 | 20.30 | 80.00 | | 21.20 | |

V1 series - NEOFAB/PA

| Ref.Number | Bore Diameter | | Nominal Seal Dimensions | | | Housings Dimensions | | | |
|--------------|---------------|------------------|-------------------------|--------|-------|---------------------|------------------|-------|------------------|
| | D1 | Tol. | D | d | H | d1 | Tol. | H1 | Tol. |
| V090110212V1 | 110.00 | +0.087 - .000 | 110.00 | 90.00 | 20.50 | 90.00 | -0.036 -0.090 | 21.20 | +0.200 -0.000 |
| V100125258V1 | 125.00 | +0.100 -0.000 | 125.00 | 100.00 | 25.10 | 100.00 | -0.043 -0.106 | 25.80 | |
| V115140258V1 | 140.00 | | 140.00 | 115.00 | 25.10 | 115.00 | | 25.80 | |
| V120150290V1 | 150.00 | | 150.00 | 120.00 | 28.00 | 120.00 | | 29.00 | |
| V130160290V1 | 160.00 | | 160.00 | 130.00 | 28.00 | 130.00 | | 29.00 | |
| V150180315V1 | 180.00 | | 180.00 | 150.00 | 30.50 | 150.00 | | 31.50 | |
| V165195335V1 | 195.00 | +0.115 -0.000 | 195.00 | 165.00 | 32.50 | 165.00 | | 33.50 | |
| V170200335V1 | 200.00 | | 200.00 | 170.00 | 32.50 | 170.00 | | 33.50 | |
| V180210335V1 | 210.00 | | 210.00 | 180.00 | 32.50 | 180.00 | | 33.50 | |
| V190220335V1 | 220.00 | | 220.00 | 190.00 | 32.50 | 190.00 | -0.050 -0.122 | 33.50 | |
| V195225335V1 | 225.00 | | 225.00 | 195.00 | 32.50 | 195.00 | | 33.50 | |
| V210240335V1 | 240.00 | | 240.00 | 210.00 | 32.50 | 210.00 | | 33.50 | |
| V220250335V1 | 250.00 | | 250.00 | 220.00 | 32.50 | 220.00 | | 33.50 | |
| V230260360V1 | 260.00 | | 260.00 | 230.00 | 35.00 | 230.00 | | 36.00 | |
| V240270335V1 | 270.00 | +0.130 -0.000 | 270.00 | 240.00 | 32.50 | 240.00 | | 33.50 | |
| V245275335V1 | 275.00 | | 275.00 | 245.00 | 32.50 | 245.00 | | 33.50 | |
| V250280335V1 | 280.00 | | 280.00 | 250.00 | 32.50 | 280.00 | | 33.50 | |
| V270300335V1 | 300.00 | | 300.00 | 270.00 | 32.50 | 270.00 | -0.056 -0.137 | 33.50 | |
| V280320415V1 | 320.00 | +0.140 -0.000 | 320.00 | 280.00 | 40.30 | 280.00 | | 41.50 | |
| V290320335V1 | 320.00 | | 320.00 | 290.00 | 32.50 | 290.00 | | 33.50 | |
| V330360415V1 | 330.00 | | 330.00 | 360.00 | 40.30 | 360.00 | -0.062 -0.151 | 41.50 | |
| V320360415V1 | 360.00 | | 360.00 | 320.00 | 40.30 | 320.00 | | 41.50 | |
| V350380335V1 | 380.00 | | 380.00 | 350.00 | 32.50 | 350.00 | | 33.50 | |
| V350390415V1 | 390.00 | | 390.00 | 350.00 | 40.30 | 350.00 | | 41.50 | |
| V360400415V1 | 400.00 | | 400.00 | 360.00 | 40.30 | 360.00 | | 41.50 | |
| V410450415V1 | 450.00 | +0.155 -0.000 | 450.00 | 410.00 | 40.30 | 410.00 | -0.068 -0.165 | 41.50 | |
| V460500415V1 | 500.00 | | 500.00 | 460.00 | 40.30 | 460.00 | | 41.50 | |

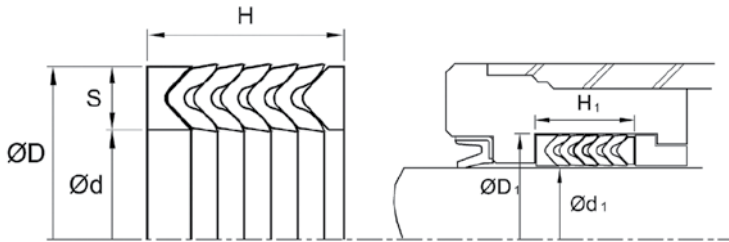
VEE PACKINGS



V3 - Vee Packings - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|----------------------------------|--------------------------------------|-----------------------|----------------------|
| Neo-Fabric/ Polyamide/Nitrile | -22°F to +230°F (-30°C to +110°C) | 5800 psi (400 bar) | < 1.6 ft/s (0.5 m/s) |



Vee Packings are popular sealing devices for both pneumatic and hydraulic applications. Usually supplied as a multi-ring sealing unit, a set is made up of a given number of intermediate vee-rings as well as a male and female adapter to insure proper support. Available in both homogeneous and fabric reinforced materials for intermediate rings and in fabric-reinforced and nylon materials for the adapter rings, **Vee Packings** are used to seal both piston and rod applications in standard as well as telescopic cylinder models.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housings Dimensions | | | |
|--------------|--------------|----------------|-------------------------|-------|-------|---------------------|----------------|-------|----------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| V008018185V3 | 8.00 | -.013 -.035 | 8.00 | 18.00 | 18.50 | 18.00 | +.043-.000 | 18.50 | +.200 -.000 |
| V010020185V3 | 10.00 | | 10.00 | 20.00 | 18.50 | 20.00 | +.052 -.000 | 18.50 | |
| V012022185V3 | 12.00 | -.016 -.043 | 12.00 | 22.00 | 18.50 | 22.00 | | 18.50 | |
| V012025143V3 | 12.00 | | 12.00 | 25.00 | 14.35 | 25.00 | | 14.35 | |
| V014024185V3 | 14.00 | | 14.00 | 24.00 | 18.50 | 24.00 | | 18.50 | |
| V014025185V3 | 14.00 | | 14.00 | 25.00 | 18.50 | 25.00 | | 18.50 | |
| V015025185V3 | 15.00 | | 15.00 | 25.00 | 18.50 | 25.00 | | 18.50 | |
| V016026185V3 | 16.00 | | 16.00 | 26.00 | 18.50 | 26.00 | | 18.50 | |
| V016029143V3 | 16.00 | | 16.00 | 29.00 | 14.35 | 29.00 | | 14.35 | |
| V018028185V3 | 18.00 | | 18.00 | 28.00 | 18.50 | 28.00 | ▼ | 18.50 | |
| V018031143V3 | 18.00 | ▼ | 18.00 | 31.00 | 14.35 | 31.00 | +.062-.000 | 14.35 | |
| V020028145V3 | 20.00 | -.020 -.053 | 20.00 | 28.00 | 14.50 | 28.00 | +.052 -.000 | 14.50 | |
| V020030160V3 | 20.00 | | 20.00 | 30.00 | 16.00 | 30.00 | | 16.00 | |
| V020030185V3 | 20.00 | | 20.00 | 30.00 | 18.50 | 30.00 | | 18.50 | |
| V020030215V3 | 20.00 | | 20.00 | 30.00 | 21.50 | 30.00 | ▼ | 21.50 | |
| V020032225V3 | 20.00 | | 20.00 | 32.00 | 22.50 | 32.00 | +.062 -.000 | 22.50 | |
| V020033143V3 | 20.00 | | 20.00 | 33.00 | 14.35 | 33.00 | | 14.35 | |
| V020033169V3 | 20.00 | | 20.00 | 33.00 | 16.90 | 33.00 | | 16.90 | |
| V020040175V3 | 20.00 | | 20.00 | 40.00 | 17.50 | 40.00 | ▼ | 17.50 | |
| V022030145V3 | 22.00 | | 22.00 | 30.00 | 14.50 | 30.00 | +.052-0.00 | 14.50 | |
| V022032160V3 | 22.00 | | 22.00 | 32.00 | 16.00 | 32.00 | +.062 -.000 | 16.00 | |
| V022032185V3 | 22.00 | ▼ | 22.00 | 32.00 | 18.50 | 32.00 | | 18.50 | ▼ |



V3 series - NEOFAB/PA/NBR

VEE PACKINGS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housings Dimensions | | | |
|--------------|--------------|---------------|-------------------------|-------|-------|---------------------|---------------|-------|---------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| V022032200V3 | 22.00 | .020 -.053 | 22.00 | 32.00 | 20.00 | 32.00 | .062 -.000 | 20.00 | .200 -.000 |
| V022034225V3 | 22.00 | | 22.00 | 34.00 | 22.50 | 34.00 | | 22.50 | |
| V025033145V3 | 25.00 | | 25.00 | 33.00 | 14.50 | 33.00 | | 14.50 | |
| V025035160V3 | 25.00 | | 25.00 | 35.00 | 16.00 | 35.00 | | 16.00 | |
| V025035173V3 | 25.00 | | 25.00 | 35.00 | 17.30 | 35.00 | | 17.30 | |
| V025035225V3 | 25.00 | | 25.00 | 35.00 | 22.50 | 35.00 | | 22.50 | |
| V025037225V3 | 25.00 | | 25.00 | 37.00 | 22.50 | 37.00 | | 22.50 | |
| V025040175V3 | 25.00 | | 25.00 | 40.00 | 17.50 | 40.00 | | 17.50 | |
| V025040225V3 | 25.00 | | 25.00 | 40.00 | 22.50 | 40.00 | | 22.50 | |
| V025042250V3 | 25.00 | | 25.00 | 42.00 | 25.00 | 42.00 | | 25.00 | |
| V026045295V3 | 26.00 | | 26.00 | 45.00 | 29.50 | 45.00 | | 29.50 | |
| V028038160V3 | 28.00 | | 28.00 | 38.00 | 16.00 | 38.00 | | 16.00 | |
| V028040170V3 | 28.00 | | 28.00 | 40.00 | 17.00 | 40.00 | | 17.00 | |
| V028040225V3 | 28.00 | | 28.00 | 40.00 | 22.50 | 40.00 | | 22.50 | |
| V028043225V3 | 28.00 | | 28.00 | 43.00 | 22.50 | 43.00 | | 22.50 | |
| V028043250V3 | 28.00 | | 28.00 | 43.00 | 25.00 | 43.00 | | 25.00 | |
| V028044175V3 | 28.00 | | 28.00 | 44.00 | 17.50 | 44.00 | | 17.50 | |
| V028044235V3 | 28.00 | | 28.00 | 44.00 | 23.50 | 44.00 | | 23.50 | |
| V030040215V3 | 30.00 | | 30.00 | 40.00 | 21.50 | 40.00 | | 21.50 | |
| V030042225V3 | 30.00 | | 30.00 | 42.00 | 22.50 | 42.00 | | 22.50 | |
| V030045225V3 | 30.00 | | 30.00 | 45.00 | 22.50 | 45.00 | | 22.50 | |
| V030050275V3 | 30.00 | | 30.00 | 50.00 | 27.50 | 50.00 | | 27.50 | |
| V030050295V3 | 30.00 | ▼ | 30.00 | 50.00 | 29.50 | 50.00 | | 29.50 | |
| V032042160V3 | 32.00 | .025 -.064 | 32.00 | 42.00 | 16.00 | 42.00 | | 16.00 | |
| V032042173V3 | 32.00 | | 32.00 | 42.00 | 17.30 | 42.00 | | 17.30 | |
| V032044225V3 | 32.00 | | 32.00 | 44.00 | 22.50 | 44.00 | | 22.50 | |
| V032047225V3 | 32.00 | | 32.00 | 47.00 | 22.50 | 47.00 | | 22.50 | |
| V032047250V3 | 32.00 | | 32.00 | 47.00 | 25.00 | 47.00 | | 25.00 | |
| V035045215V3 | 35.00 | | 35.00 | 45.00 | 21.50 | 45.00 | | 21.50 | |
| V035047175V3 | 35.00 | | 35.00 | 47.00 | 17.50 | 47.00 | | 17.50 | |
| V035047225V3 | 35.00 | | 35.00 | 47.00 | 22.50 | 47.00 | | 22.50 | |
| V035050225V3 | 35.00 | | 35.00 | 50.00 | 22.50 | 50.00 | | 22.50 | |
| V035050295V3 | 35.00 | | 35.00 | 50.00 | 29.50 | 50.00 | | 29.50 | |
| V036046160V3 | 36.00 | | 36.00 | 46.00 | 16.00 | 46.00 | | 16.00 | |
| V036048225V3 | 36.00 | | 36.00 | 48.00 | 22.50 | 48.00 | ▼ | 22.50 | |
| V036051225V3 | 36.00 | | 36.00 | 51.00 | 22.50 | 51.00 | .074 -.000 | 22.50 | |
| V036051250V3 | 36.00 | | 36.00 | 51.00 | 25.00 | 51.00 | | 25.00 | |
| V036052175V3 | 36.00 | | 36.00 | 52.00 | 17.50 | 52.00 | | 17.50 | |
| V036052225V3 | 36.00 | | 36.00 | 52.00 | 22.50 | 52.00 | | 22.50 | |
| V038055280V3 | 38.00 | | 38.00 | 55.00 | 28.00 | 55.00 | | 28.00 | |
| V038058400V3 | 38.00 | | 38.00 | 58.00 | 40.00 | 58.00 | | 40.00 | |
| V039055250V3 | 39.00 | | 39.00 | 55.00 | 25.00 | 55.00 | ▼ | 25.00 | |
| V040050160V3 | 40.00 | | 40.00 | 50.00 | 16.00 | 50.00 | .062 -.000 | 16.00 | |
| V040050173V3 | 40.00 | | 40.00 | 50.00 | 17.30 | 50.00 | | 17.30 | |
| V040052225V3 | 40.00 | | 40.00 | 52.00 | 22.50 | 52.00 | .074 -.000 | 22.50 | |
| V040055225V3 | 40.00 | ▼ | 40.00 | 55.00 | 22.50 | 55.00 | | 22.50 | ▼ |

V3 series - NEOFAB/PA/NBR

VEE PACKINGS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housings Dimensions | | | |
|--------------|--------------|------------------|-------------------------|-------|-------|---------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| V040055250V3 | 40.00 | - .025 - .064 | 40.00 | 55.00 | 25.00 | 55.00 | + .074 - .000 | 25.00 | + .200 - .000 |
| V040055265V3 | 40.00 | | 40.00 | 55.00 | 26.50 | 55.00 | | 26.50 | |
| V040056175V3 | 40.00 | | 40.00 | 56.00 | 17.50 | 56.00 | | 17.50 | |
| V040060300V3 | 40.00 | | 40.00 | 60.00 | 30.00 | 60.00 | | 30.00 | |
| V040065360V3 | 40.00 | | 40.00 | 65.00 | 36.00 | 65.00 | | 36.00 | |
| V042054225V3 | 42.00 | | 42.00 | 54.00 | 22.50 | 54.00 | | 22.50 | |
| V042057225V3 | 42.00 | | 42.00 | 57.00 | 22.50 | 57.00 | | 22.50 | |
| V045055160V3 | 45.00 | | 45.00 | 55.00 | 16.00 | 55.00 | | 16.00 | |
| V045055175V3 | 45.00 | | 45.00 | 55.00 | 17.50 | 55.00 | | 17.50 | |
| V045060225V3 | 45.00 | | 45.00 | 60.00 | 22.50 | 60.00 | | 22.50 | |
| V045060250V3 | 45.00 | | 45.00 | 60.00 | 25.00 | 60.00 | | 25.00 | |
| V045061290V3 | 45.00 | | 45.00 | 61.00 | 29.00 | 61.00 | | 29.00 | |
| V045065275V3 | 45.00 | | 45.00 | 65.00 | 27.50 | 65.00 | | 27.50 | |
| V045065280V3 | 45.00 | | 45.00 | 65.00 | 28.00 | 65.00 | | 28.00 | |
| V048060250V3 | 48.00 | | 48.00 | 60.00 | 25.00 | 60.00 | | 25.00 | |
| V048062225V3 | 48.00 | | 48.00 | 62.00 | 22.50 | 62.00 | | 22.50 | |
| V050060160V3 | 50.00 | | 50.00 | 60.00 | 16.00 | 60.00 | | 16.00 | |
| V050065225V3 | 50.00 | | 50.00 | 65.00 | 22.50 | 65.00 | | 22.50 | |
| V050065250V3 | 50.00 | | 50.00 | 65.00 | 25.00 | 65.00 | | 25.00 | |
| V050070220V3 | 50.00 | | 50.00 | 70.00 | 22.00 | 70.00 | | 22.00 | |
| V050070260V3 | 50.00 | | 50.00 | 70.00 | 26.00 | 70.00 | | 26.00 | |
| V050070300V3 | 50.00 | ▼ | 50.00 | 70.00 | 30.00 | 70.00 | | 30.00 | |
| V051069280V3 | 51.00 | - .030 - .076 | 51.00 | 69.00 | 28.00 | 69.00 | | 28.00 | |
| V052072260V3 | 52.00 | | 52.00 | 72.00 | 26.00 | 72.00 | | 26.00 | |
| V052072300V3 | 52.00 | | 52.00 | 72.00 | 30.00 | 72.00 | | 30.00 | |
| V055067250V3 | 55.00 | | 55.00 | 67.00 | 25.00 | 67.00 | | 25.00 | |
| V055070225V3 | 55.00 | | 55.00 | 70.00 | 22.50 | 70.00 | | 22.50 | |
| V055070265V3 | 55.00 | | 55.00 | 70.00 | 26.50 | 70.00 | | 26.50 | |
| V055075300V3 | 55.00 | | 55.00 | 75.00 | 30.00 | 75.00 | | 30.00 | |
| V055075350V3 | 55.00 | | 55.00 | 75.00 | 35.00 | 75.00 | | 35.00 | |
| V055075380V3 | 55.00 | | 55.00 | 75.00 | 38.00 | 75.00 | | 38.00 | |
| V056071185V3 | 56.00 | | 56.00 | 71.00 | 18.50 | 71.00 | | 18.50 | |
| V056071225V3 | 56.00 | | 56.00 | 71.00 | 22.50 | 71.00 | | 22.50 | |
| V056071250V3 | 56.00 | | 56.00 | 71.00 | 25.00 | 71.00 | | 25.00 | |
| V056076200V3 | 56.00 | | 56.00 | 76.00 | 20.00 | 76.00 | | 20.00 | |
| V056076220V3 | 56.00 | | 56.00 | 76.00 | 22.00 | 76.00 | | 22.00 | |
| V056076225V3 | 56.00 | | 56.00 | 76.00 | 22.50 | 76.00 | | 22.50 | |
| V056076320V3 | 56.00 | | 56.00 | 76.00 | 32.00 | 76.00 | | 32.00 | |
| V056076370V3 | 56.00 | | 56.00 | 76.00 | 37.00 | 76.00 | | 37.00 | |
| V056076390V3 | 56.00 | | 56.00 | 76.00 | 39.00 | 76.00 | | 39.00 | |
| V060075225V3 | 60.00 | | 60.00 | 75.00 | 22.50 | 75.00 | | 22.50 | |
| V060075250V3 | 60.00 | | 60.00 | 75.00 | 25.00 | 75.00 | | 25.00 | |
| V060076290V3 | 60.00 | | 60.00 | 76.00 | 29.00 | 76.00 | | 29.00 | |
| V060077270V3 | 60.00 | | 60.00 | 77.00 | 27.00 | 77.00 | | 27.00 | |
| V060080300V3 | 60.00 | | 60.00 | 80.00 | 30.00 | 80.00 | | 30.00 | |
| V060080320V3 | 60.00 | ▼ | 60.00 | 80.00 | 32.00 | 80.00 | ▼ | 32.00 | ▼ |

V3 series - NEOFAB/PA/NBR

VEE PACKINGS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housings Dimensions | | | |
|--------------|--------------|------------------|-------------------------|--------|-------|---------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| V060080370V3 | 60.00 | - .030 - .076 | 60.00 | 80.00 | 37.00 | 80.00 | + .074 - .000 | 37.00 | + .200 - .000 |
| V063078225V3 | 63.00 | | 63.00 | 78.00 | 22.50 | 78.00 | | 22.50 | |
| V063078250V3 | 63.00 | | 63.00 | 78.00 | 25.00 | 78.00 | ▼ | 25.00 | |
| V063083220V3 | 63.00 | | 63.00 | 83.00 | 22.00 | 83.00 | + .087 - .000 | 22.00 | |
| V063083290V3 | 63.00 | | 63.00 | 83.00 | 29.00 | 83.00 | | 29.00 | |
| V063083320V3 | 63.00 | | 63.00 | 83.00 | 32.00 | 83.00 | | 32.00 | |
| V063083370V3 | 63.00 | | 63.00 | 83.00 | 37.00 | 83.00 | | 37.00 | |
| V063085320V3 | 63.00 | | 63.00 | 85.00 | 32.00 | 85.00 | ▼ | 32.00 | |
| V063080280V3 | 63.50 | | 63.50 | 80.00 | 28.00 | 80.00 | + .074 - .000 | 28.00 | |
| V064080260V3 | 64.00 | | 64.00 | 80.00 | 26.00 | 80.00 | | 26.00 | |
| V065077210V3 | 65.00 | | 65.00 | 77.00 | 21.00 | 77.00 | | 21.00 | |
| V065080225V3 | 65.00 | | 65.00 | 80.00 | 22.50 | 80.00 | | 22.50 | |
| V065080290V3 | 65.00 | | 65.00 | 80.00 | 29.00 | 80.00 | ▼ | 29.00 | |
| V065085290V3 | 65.00 | | 65.00 | 85.00 | 29.00 | 85.00 | + .087 - .000 | 29.00 | |
| V065085320V3 | 65.00 | | 65.00 | 85.00 | 32.00 | 85.00 | | 32.00 | |
| V065085350V3 | 65.00 | | 65.00 | 85.00 | 35.00 | 85.00 | | 35.00 | |
| V065085400V3 | 65.00 | | 65.00 | 85.00 | 40.00 | 85.00 | | 40.00 | |
| V070085225V3 | 70.00 | | 70.00 | 85.00 | 22.50 | 85.00 | | 22.50 | |
| V070085250V3 | 70.00 | | 70.00 | 85.00 | 25.00 | 85.00 | | 25.00 | |
| V070085280V3 | 70.00 | | 70.00 | 85.00 | 28.00 | 85.00 | | 28.00 | |
| V070090220V3 | 70.00 | | 70.00 | 90.00 | 22.00 | 90.00 | | 22.00 | |
| V070090300V3 | 70.00 | | 70.00 | 90.00 | 30.00 | 90.00 | | 30.00 | |
| V070090320V3 | 70.00 | | 70.00 | 90.00 | 32.00 | 90.00 | | 32.00 | |
| V070090400V3 | 70.00 | | 70.00 | 90.00 | 40.00 | 90.00 | | 40.00 | |
| V075090225V3 | 75.00 | | 75.00 | 90.00 | 22.50 | 90.00 | | 22.50 | |
| V075095300V3 | 75.00 | | 75.00 | 95.00 | 30.00 | 95.00 | | 30.00 | |
| V075095400V3 | 75.00 | | 75.00 | 95.00 | 40.00 | 95.00 | | 40.00 | |
| V075100380V3 | 75.00 | | 75.00 | 100.00 | 38.00 | 100.00 | | 38.00 | |
| V078093300V3 | 78.00 | | 78.00 | 93.00 | 30.00 | 93.00 | | 30.00 | |
| V080095175V3 | 80.00 | | 80.00 | 95.00 | 17.50 | 95.00 | | 17.50 | |
| V080095225V3 | 80.00 | | 80.00 | 95.00 | 22.50 | 95.00 | | 22.50 | |
| V080095250V3 | 80.00 | | 80.00 | 95.00 | 25.00 | 95.00 | | 25.00 | |
| V080100300V3 | 80.00 | | 80.00 | 100.00 | 30.00 | 100.00 | | 30.00 | |
| V080100320V3 | 80.00 | | 80.00 | 100.00 | 32.00 | 100.00 | | 32.00 | |
| V080100400V3 | 80.00 | | 80.00 | 100.00 | 40.00 | 100.00 | | 40.00 | |
| V080105275V3 | 80.00 | ▼ | 80.00 | 105.00 | 27.50 | 105.00 | | 27.50 | |
| V085100225V3 | 85.00 | - .036 - .090 | 85.00 | 100.00 | 22.50 | 100.00 | | 22.50 | |
| V085105400V3 | 85.00 | | 85.00 | 105.00 | 40.00 | 105.00 | | 40.00 | |
| V090105225V3 | 90.00 | | 90.00 | 105.00 | 22.50 | 105.00 | | 22.50 | |
| V090105250V3 | 90.00 | | 90.00 | 105.00 | 25.00 | 105.00 | | 25.00 | |
| V090105270V3 | 90.00 | | 90.00 | 105.00 | 27.00 | 105.00 | | 27.00 | |
| V090105330V3 | 90.00 | | 90.00 | 105.00 | 33.00 | 105.00 | | 33.00 | |
| V090110250V3 | 90.00 | | 90.00 | 110.00 | 25.00 | 110.00 | | 25.00 | |
| V090110300V3 | 90.00 | | 90.00 | 110.00 | 30.00 | 110.00 | | 30.00 | |
| V090110320V3 | 90.00 | | 90.00 | 110.00 | 32.00 | 110.00 | | 32.00 | |
| V090110400V3 | 90.00 | ▼ | 90.00 | 110.00 | 40.00 | 110.00 | ▼ | 40.00 | ▼ |

V3 series - NEOFAB/PA/NBR

VEE PACKINGS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housings Dimensions | | | |
|--------------|--------------|------------------|-------------------------|--------|-------|---------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| V090110450V3 | 90.00 | - .036 - .090 | 90.00 | 110.00 | 45.00 | 110.00 | + .087 - .000 | 45.00 | + .200 - .000 |
| V090115275V3 | 90.00 | | 90.00 | 115.00 | 27.50 | 115.00 | | 27.50 | |
| V095110225V3 | 95.00 | | 95.00 | 110.00 | 22.50 | 110.00 | | 22.50 | |
| V095110240V3 | 95.00 | | 95.00 | 110.00 | 24.00 | 110.00 | | 24.00 | |
| V095115320V3 | 95.00 | | 95.00 | 115.00 | 32.00 | 115.00 | | 32.00 | |
| V100115250V3 | 100.00 | | 100.00 | 115.00 | 25.00 | 115.00 | | 25.00 | |
| V100115300V3 | 100.00 | | 100.00 | 115.00 | 30.00 | 115.00 | | 30.00 | |
| V100115320V3 | 100.00 | | 100.00 | 115.00 | 32.00 | 115.00 | | 32.00 | |
| V100120300V3 | 100.00 | | 100.00 | 120.00 | 30.00 | 120.00 | | 30.00 | |
| V100120320V3 | 100.00 | | 100.00 | 120.00 | 32.00 | 120.00 | | 32.00 | |
| V100120400V3 | 100.00 | | 100.00 | 120.00 | 40.00 | 120.00 | ▼ | 40.00 | |
| V100125275V3 | 100.00 | | 100.00 | 125.00 | 27.50 | 125.00 | + .100 - .000 | 27.50 | |
| V100125350V3 | 100.00 | | 100.00 | 125.00 | 35.00 | 125.00 | | 35.00 | |
| V100125370V3 | 100.00 | | 100.00 | 125.00 | 37.00 | 125.00 | | 37.00 | |
| V100125400V3 | 100.00 | | 100.00 | 125.00 | 40.00 | 125.00 | | 40.00 | |
| V100130320V3 | 100.00 | | 100.00 | 130.00 | 32.00 | 130.00 | | 32.00 | |
| V104130370V3 | 104.00 | | 104.00 | 130.00 | 37.00 | 130.00 | ▼ | 37.00 | |
| V105120250V3 | 105.00 | | 105.00 | 120.00 | 25.00 | 120.00 | + .087 - .000 | 25.00 | |
| V105120300V3 | 105.00 | | 105.00 | 120.00 | 30.00 | 120.00 | | 30.00 | |
| V105125300V3 | 105.00 | | 105.00 | 125.00 | 30.00 | 125.00 | + .100 - .000 | 30.00 | |
| V105130400V3 | 105.00 | | 105.00 | 130.00 | 40.00 | 130.00 | | 40.00 | |
| V110125210V3 | 110.00 | | 110.00 | 125.00 | 21.00 | 125.00 | | 21.00 | |
| V110125300V3 | 110.00 | | 110.00 | 125.00 | 30.00 | 125.00 | | 30.00 | |
| V110130300V3 | 110.00 | | 110.00 | 130.00 | 30.00 | 130.00 | | 30.00 | |
| V110130400V3 | 110.00 | | 110.00 | 130.00 | 40.00 | 130.00 | | 40.00 | |
| V110135400V3 | 110.00 | | 110.00 | 135.00 | 40.00 | 135.00 | | 40.00 | |
| V110135440V3 | 110.00 | | 110.00 | 135.00 | 44.00 | 135.00 | | 44.00 | |
| V114130260V3 | 114.00 | | 114.00 | 130.00 | 26.00 | 130.00 | | 26.00 | |
| V115130300V3 | 115.00 | | 115.00 | 130.00 | 30.00 | 130.00 | | 30.00 | |
| V115140380V3 | 115.00 | | 115.00 | 140.00 | 38.00 | 140.00 | | 38.00 | |
| V115140460V3 | 115.00 | | 115.00 | 140.00 | 46.00 | 140.00 | | 46.00 | |
| V120135320V3 | 120.00 | | 120.00 | 135.00 | 32.00 | 135.00 | | 32.00 | |
| V120140250V3 | 120.00 | | 120.00 | 140.00 | 25.00 | 140.00 | | 25.00 | |
| V120140300V3 | 120.00 | | 120.00 | 140.00 | 30.00 | 140.00 | | 30.00 | |
| V120140400V3 | 120.00 | | 120.00 | 140.00 | 40.00 | 140.00 | | 40.00 | |
| V120145400V3 | 120.00 | | 120.00 | 145.00 | 40.00 | 145.00 | | 40.00 | |
| V120145460V3 | 120.00 | | 120.00 | 145.00 | 46.00 | 145.00 | | 46.00 | |
| V120150440V3 | 120.00 | ▼ | 120.00 | 150.00 | 44.00 | 150.00 | | 44.00 | |
| V125140300V3 | 125.00 | - .043 - .106 | 125.00 | 140.00 | 30.00 | 140.00 | | 30.00 | |
| V125140340V3 | 125.00 | | 125.00 | 140.00 | 34.00 | 140.00 | | 34.00 | |
| V125145300V3 | 125.00 | | 125.00 | 145.00 | 30.00 | 145.00 | | 30.00 | |
| V125145320V3 | 125.00 | | 125.00 | 145.00 | 32.00 | 145.00 | | 32.00 | |
| V125150275V3 | 125.00 | | 125.00 | 150.00 | 27.50 | 150.00 | | 27.50 | |
| V125150340V3 | 125.00 | | 125.00 | 150.00 | 34.00 | 150.00 | | 34.00 | |
| V125150400V3 | 125.00 | | 125.00 | 150.00 | 40.00 | 150.00 | | 40.00 | |
| V125150460V3 | 125.00 | ▼ | 125.00 | 150.00 | 46.00 | 150.00 | ▼ | 46.00 | ▼ |

V3 series - NEOFAB/PA/NBR



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housings Dimensions | | | |
|--------------|--------------|----------------|-------------------------|--------|-------|---------------------|----------------|-------|----------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| V130150300V3 | 130.00 | -.043 -.106 | 130.00 | 150.00 | 30.00 | 150.00 | +.100 -.000 | 30.00 | +.200 -.000 |
| V130150400V3 | 130.00 | | 130.00 | 150.00 | 40.00 | 150.00 | | 40.00 | |
| V130155460V3 | 130.00 | | 130.00 | 155.00 | 46.00 | 155.00 | | 46.00 | |
| V130160415V3 | 130.00 | | 130.00 | 160.00 | 41.50 | 160.00 | | 41.50 | |
| V135155305V3 | 135.00 | | 135.00 | 155.00 | 30.50 | 155.00 | | 30.50 | |
| V140155340V3 | 140.00 | | 140.00 | 155.00 | 34.00 | 155.00 | | 34.00 | |
| V140160285V3 | 140.00 | | 140.00 | 160.00 | 28.50 | 160.00 | | 28.50 | |
| V140160320V3 | 140.00 | | 140.00 | 160.00 | 32.00 | 160.00 | | 32.00 | |
| V140165330V3 | 140.00 | | 140.00 | 165.00 | 33.00 | 165.00 | | 33.00 | |
| V140165400V3 | 140.00 | | 140.00 | 165.00 | 40.00 | 165.00 | | 40.00 | |
| V140165420V3 | 140.00 | | 140.00 | 165.00 | 42.00 | 165.00 | | 42.00 | |
| V140165460V3 | 140.00 | | 140.00 | 165.00 | 46.00 | 165.00 | | 46.00 | |
| V140170330V3 | 140.00 | | 140.00 | 170.00 | 33.00 | 170.00 | | 33.00 | |
| V140170390V3 | 140.00 | | 140.00 | 170.00 | 39.00 | 170.00 | | 39.00 | |
| V140170460V3 | 140.00 | | 140.00 | 170.00 | 46.00 | 170.00 | | 46.00 | |
| V145170380V3 | 145.00 | | 145.00 | 170.00 | 38.00 | 170.00 | | 38.00 | |
| V150165260V3 | 150.00 | | 150.00 | 165.00 | 26.00 | 165.00 | | 26.00 | |
| V150170305V3 | 150.00 | | 150.00 | 170.00 | 30.50 | 170.00 | | 30.50 | |
| V150170400V3 | 150.00 | | 150.00 | 170.00 | 40.00 | 170.00 | | 40.00 | |
| V150180400V3 | 150.00 | | 150.00 | 180.00 | 40.00 | 180.00 | | 40.00 | |
| V150180460V3 | 150.00 | | 150.00 | 180.00 | 46.00 | 180.00 | | 46.00 | |
| V150180600V3 | 150.00 | | 150.00 | 180.00 | 60.00 | 180.00 | ▼ | 60.00 | |
| V157182305V3 | 157.00 | | 157.00 | 182.00 | 30.50 | 182.00 | +.115-.000 | 30.50 | |
| V160180320V3 | 160.00 | | 160.00 | 180.00 | 32.00 | 180.00 | +.100 -.000 | 32.00 | |
| V160180400V3 | 160.00 | | 160.00 | 180.00 | 40.00 | 180.00 | | 40.00 | |
| V160185400V3 | 160.00 | | 160.00 | 185.00 | 40.00 | 185.00 | +.115 -.000 | 40.00 | |
| V160190330V3 | 160.00 | | 160.00 | 190.00 | 33.00 | 190.00 | | 33.00 | |
| V160190470V3 | 160.00 | | 160.00 | 190.00 | 47.00 | 190.00 | | 47.00 | |
| V160190500V3 | 160.00 | | 160.00 | 190.00 | 50.00 | 190.00 | | 50.00 | |
| V160190600V3 | 160.00 | | 160.00 | 190.00 | 60.00 | 190.00 | | 60.00 | |
| V160195520V3 | 160.00 | | 160.00 | 195.00 | 52.00 | 195.00 | | 52.00 | |
| V165195500V3 | 165.00 | | 165.00 | 195.00 | 50.00 | 195.00 | | 50.00 | |
| V170195380V3 | 170.00 | | 170.00 | 195.00 | 38.00 | 195.00 | | 38.00 | |
| V170200450V3 | 170.00 | | 170.00 | 200.00 | 45.00 | 200.00 | | 45.00 | |
| V170200600V3 | 170.00 | | 170.00 | 200.00 | 60.00 | 200.00 | | 60.00 | |
| V175200420V3 | 175.00 | | 175.00 | 200.00 | 42.00 | 200.00 | | 42.00 | |
| V180200400V3 | 180.00 | | 180.00 | 200.00 | 40.00 | 200.00 | | 40.00 | |
| V180205400V3 | 180.00 | | 180.00 | 205.00 | 40.00 | 205.00 | | 40.00 | |
| V180210330V3 | 180.00 | | 180.00 | 210.00 | 33.00 | 210.00 | | 33.00 | |
| V180210500V3 | 180.00 | | 180.00 | 210.00 | 50.00 | 210.00 | | 50.00 | |
| V180210600V3 | 180.00 | ▼ | 180.00 | 210.00 | 60.00 | 210.00 | | 60.00 | |
| V185210240V3 | 185.00 | -.050 -.122 | 185.00 | 210.00 | 24.00 | 210.00 | | 24.00 | |
| V190220450V3 | 190.00 | | 190.00 | 220.00 | 45.00 | 220.00 | | 45.00 | |
| V195225470V3 | 195.00 | | 195.00 | 225.00 | 47.00 | 225.00 | | 47.00 | |
| V200220400V3 | 200.00 | | 200.00 | 220.00 | 40.00 | 220.00 | | 40.00 | |
| V200225400V3 | 200.00 | ▼ | 200.00 | 225.00 | 40.00 | 225.00 | ▼ | 40.00 | ▼ |

V3 series - NEOFAB/PA/NBR

VEE PACKINGS



| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housings Dimensions | | | |
|---------------|--------------|------------------|-------------------------|--------|-------|---------------------|------------------|-------|------------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| V200230330V3 | 200.00 | - .050 - .122 | 200.00 | 230.00 | 33.00 | 230.00 | + .115 - .000 | 33.00 | + .200 - .000 |
| V200230450V3 | 200.00 | | 200.00 | 230.00 | 45.00 | 230.00 | | 45.00 | |
| V200230480V3 | 200.00 | | 200.00 | 230.00 | 48.00 | 230.00 | | 48.00 | |
| V200230500V3 | 200.00 | | 200.00 | 230.00 | 50.00 | 230.00 | | 50.00 | |
| V200230600V3 | 200.00 | | 200.00 | 230.00 | 60.00 | 230.00 | | 60.00 | |
| V205225195V3 | 205.00 | | 205.00 | 225.00 | 19.50 | 225.00 | | 19.50 | |
| V210240420V3 | 210.00 | | 210.00 | 240.00 | 42.00 | 240.00 | | 42.00 | |
| V210240600V3 | 210.00 | | 210.00 | 240.00 | 60.00 | 240.00 | | 60.00 | |
| V220250500V3 | 220.00 | | 220.00 | 250.00 | 50.00 | 250.00 | | 50.00 | |
| V220250600V3 | 220.00 | | 220.00 | 250.00 | 60.00 | 250.00 | | 60.00 | |
| V220250660V3 | 220.00 | | 220.00 | 250.00 | 66.00 | 250.00 | ▼ | 66.00 | |
| V224254330V3 | 224.00 | | 224.00 | 254.00 | 33.00 | 254.00 | + .130 - .000 | 33.00 | |
| V225255330V3 | 225.00 | | 225.00 | 255.00 | 33.00 | 255.00 | | 33.00 | |
| V225255450V3 | 225.00 | | 225.00 | 255.00 | 45.00 | 255.00 | | 45.00 | |
| V225255600V3 | 225.00 | | 225.00 | 255.00 | 60.00 | 255.00 | | 60.00 | |
| V230260520V3 | 230.00 | | 230.00 | 260.00 | 52.00 | 260.00 | | 52.00 | |
| V230260600V3 | 230.00 | | 230.00 | 260.00 | 60.00 | 260.00 | | 60.00 | |
| V230260650V3 | 230.00 | | 230.00 | 260.00 | 65.00 | 260.00 | | 65.00 | |
| V230260675V3 | 230.00 | | 230.00 | 260.00 | 67.50 | 260.00 | | 67.50 | |
| V240270450V3 | 240.00 | | 240.00 | 270.00 | 45.00 | 270.00 | | 45.00 | |
| V240270485V3 | 240.00 | | 240.00 | 270.00 | 48.50 | 270.00 | | 48.50 | |
| V240270640V3 | 240.00 | | 240.00 | 270.00 | 64.00 | 270.00 | | 64.00 | |
| V250280330V3 | 250.00 | | 250.00 | 280.00 | 33.00 | 280.00 | | 33.00 | |
| V250280450V3 | 250.00 | | 250.00 | 280.00 | 45.00 | 280.00 | | 45.00 | |
| V250280500V3 | 250.00 | | 250.00 | 280.00 | 50.00 | 280.00 | | 50.00 | |
| V250280600V3 | 250.00 | ▼ | 250.00 | 280.00 | 60.00 | 280.00 | | 60.00 | |
| V260290600V3 | 260.00 | - .056 - .137 | 260.00 | 290.00 | 60.00 | 290.00 | | 60.00 | |
| V270300600V3 | 270.00 | | 270.00 | 300.00 | 60.00 | 300.00 | | 60.00 | |
| V270300700V3 | 270.00 | | 270.00 | 300.00 | 70.00 | 300.00 | | 70.00 | |
| V280310500V3 | 280.00 | | 280.00 | 310.00 | 50.00 | 310.00 | | 50.00 | |
| V280310600V3 | 280.00 | | 280.00 | 310.00 | 60.00 | 310.00 | | 60.00 | |
| V280315385V3 | 280.00 | | 280.00 | 315.00 | 38.50 | 315.00 | | 38.50 | |
| V280315450V3 | 280.00 | | 280.00 | 315.00 | 45.00 | 315.00 | ▼ | 45.00 | |
| ?V280320800V3 | 280.00 | | 280.00 | 320.00 | 80.00 | 320.00 | + .140 - .000 | 80.00 | |
| V290320500V3 | 290.00 | | 290.00 | 320.00 | 50.00 | 320.00 | | 50.00 | |
| V290320600V3 | 290.00 | | 290.00 | 320.00 | 60.00 | 320.00 | | 60.00 | |
| V290330800V3 | 290.00 | | 290.00 | 330.00 | 80.00 | 330.00 | | 80.00 | |
| V300330600V3 | 300.00 | | 300.00 | 330.00 | 60.00 | 330.00 | | 60.00 | |
| V300340800V3 | 300.00 | | 300.00 | 340.00 | 80.00 | 340.00 | | 80.00 | |
| V310330300V3 | 310.00 | | 310.00 | 330.00 | 30.00 | 330.00 | | 30.00 | |
| V310330400V3 | 310.00 | | 310.00 | 330.00 | 40.00 | 330.00 | | 40.00 | |
| V310340600V3 | 310.00 | | 310.00 | 340.00 | 60.00 | 340.00 | | 60.00 | |
| V310350800V3 | 310.00 | | 310.00 | 350.00 | 80.00 | 350.00 | | 80.00 | |
| V315350385V3 | 315.00 | ▼ | 315.00 | 350.00 | 38.50 | 350.00 | | 38.50 | |
| V320350600V3 | 320.00 | - .062 - .151 | 320.00 | 350.00 | 60.00 | 350.00 | ▼ | 60.00 | ▼ |
| V320360600V3 | 320.00 | | 320.00 | 360.00 | 60.00 | 360.00 | ▼ | 60.00 | ▼ |

V3 series - NEOFAB/PA/NBR

| Ref.Number | Rod Diameter | | Nominal Seal Dimensions | | | Housings Dimensions | | | |
|--------------|---------------|------------------|-------------------------|--------|-------|---------------------|----------------|-------|----------------|
| | d1 | Tol. | d | D | H | D1 | Tol. | H1 | Tol. |
| V320360630V3 | 320.00 | - .062 - .151 | 320.00 | 360.00 | 63.00 | 360.00 | +.140 -.000 | 63.00 | +.200 -.000 |
| V320360800V3 | 320.00 | | 320.00 | 360.00 | 80.00 | 360.00 | | 80.00 | |
| V320365550V3 | 320.00 | | 320.00 | 365.00 | 55.00 | 365.00 | | 55.00 | |
| V330360600V3 | 330.00 | | 330.00 | 360.00 | 60.00 | 360.00 | | 60.00 | |
| V330370800V3 | 330.00 | | 330.00 | 370.00 | 80.00 | 370.00 | | 80.00 | |
| V340370600V3 | 340.00 | | 340.00 | 370.00 | 60.00 | 370.00 | | 60.00 | |
| V340380540V3 | 340.00 | | 340.00 | 380.00 | 54.00 | 380.00 | | 54.00 | |
| V340380600V3 | 340.00 | | 340.00 | 380.00 | 60.00 | 380.00 | | 60.00 | |
| V340380800V3 | 340.00 | | 340.00 | 380.00 | 80.00 | 380.00 | | 80.00 | |
| V350380600V3 | 350.00 | | 350.00 | 380.00 | 60.00 | 380.00 | | 60.00 | |
| V350390600V3 | 350.00 | | 350.00 | 390.00 | 60.00 | 390.00 | | 60.00 | |
| V350390800V3 | 350.00 | | 350.00 | 390.00 | 80.00 | 390.00 | | 80.00 | |
| V360390470V3 | 360.00 | | 360.00 | 390.00 | 47.00 | 390.00 | | 47.00 | |
| V360390600V3 | 360.00 | | 360.00 | 390.00 | 60.00 | 390.00 | | 60.00 | |
| V360400600V3 | 360.00 | | 360.00 | 400.00 | 60.00 | 400.00 | | 60.00 | |
| V360400630V3 | 360.00 | | 360.00 | 400.00 | 63.00 | 400.00 | | 63.00 | |
| V360400800V3 | 360.00 | | 360.00 | 400.00 | 80.00 | 400.00 | | 80.00 | |
| V369400450V3 | 369.00 | | 369.00 | 400.00 | 45.00 | 400.00 | ↓ | 45.00 | ↓ |
| V400450650V3 | 400.00 | ↓ | 400.00 | 450.00 | 65.00 | 450.00 | +.155-.000 | 65.00 | ↓ |

VEE PACKINGS



OTHER PROFILES ARE ALSO AVAILABLE ON REQUEST











Though this product offering contains a wide selection of commonly used parts in the marketplace, it is possible that you haven't found the exact part you were looking for.

We have many other seal profiles available on request, please do not hesitate to contact us and we will do our best to help you locate the required part.

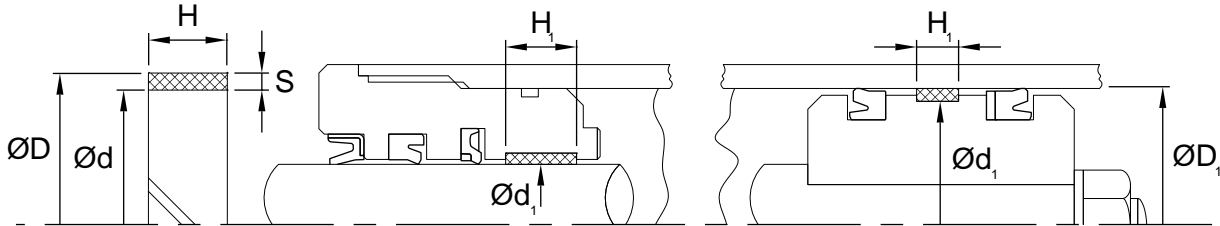


VEE PACKINGS



| | | | |
|---|------------------------------|---|----|
| INFO | GUIDING ELEMENTS INFO | N | 2 |
|  | GB | N | 3 |
|  | GB/N | N | 5 |
|  | CAT - PISTON GUIDING ELEMENT | N | 11 |
|  | CAT - ROD GUIDING ELEMENT | N | 12 |
|  | GC | N | 13 |
|  | WS | N | 31 |
| INFO | DU REF. TABLE | N | 33 |
|  | DU BEARING | N | 35 |
|  | GE | N | 43 |
|  | GE-ES2RS | N | 45 |
|  | GE-GS2RS | N | 46 |

Guiding Elements Groove Info



Formula for calculating rod wear ring grooves

$$D1 \text{ Min. Groove Dia.} = d \text{ Max. Rod Dia.} \\ + 2 \text{ (Max. Wear Ring C/S)} \\ D1 \text{ tolerance} = +.080/-0.000$$

$$d1 \text{ Min. Throat Dia.} = [D1 - 2(\text{Min. Wear Ring C/S})] + 2(\text{Min. Radial Clearance of .13}). \\ d1 \text{ tolerance} = +.080/-0.000$$

$$H1 \text{ Groove Length} = \text{Actual Part Height} + .25 \\ H1 \text{ tolerance} = +.100/-0.000$$

NOTES:

1. Rod throat diameter d_1 is a new diameter over and above the diameter which is normally called out for the rod seal. Additional diameter clearance is required as noted for the wear ring to function properly. Since a larger clearance gap results, consideration as to the rod seal compounds must be made to avoid rod seal extrusion.

2. Also consider wear ring groove design for small diameter sizes. Installation problems on small size will occur if the groove design is not compensated.

Formula for calculating piston wear ring grooves

$$d1 \text{ Max. Groove Dia.} = D1 \text{ Min. Bore Dia.} \\ - 2 \text{ (Max. Wear Ring C/S)} \\ d1 \text{ tolerance} = +.000/-0.130$$

$$P \text{ Max. Piston Dia.} = [d1 \text{ Min. Groove Dia.} \\ + 2(\text{Min. Wear Ring C/S})] - 2(\text{Min. Radial Clearance of .13}). \\ P \text{ tolerance} = +.000/-0.130$$

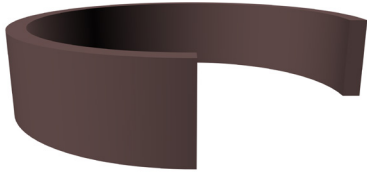
$$H1 \text{ Groove Length} = \text{Actual Part Height} + .25 \\ H1 \text{ tolerance} = +.100/-0.000$$

NOTES:

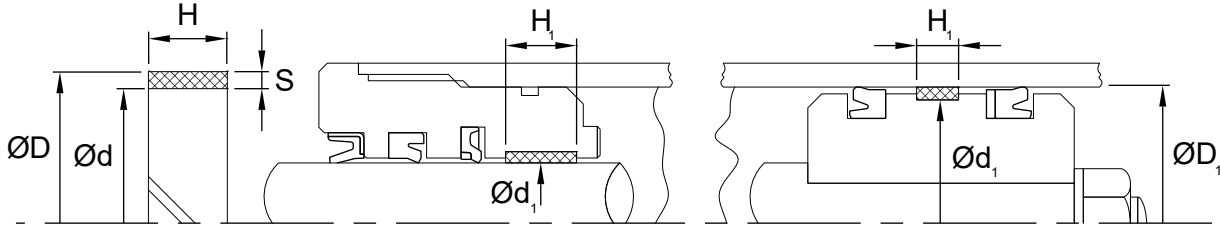
1. The piston diameter P will not correspond to diameters called out for the piston seals. Additional clearances are required for wear ring use. Be sure the entire outside diameter of the piston is no larger than P . Be sure the piston seal compound is considered to prevent extrusion of the piston seal with the new increased diameter clearance.



GB - Guiding elements - Metric



| Standard Material | Temperature Range | Surface Speed |
|-------------------|--|-------------------|
| BR.PTFE | -50 °F to +400 °F (-45 °C to +204 °C) | < 13 ft/s (4 m/s) |



These guiding elements are manufactured from filled PTFE compounds. They are designed to eliminate scoring in hydraulic and pneumatic applications by preventing metal-to-metal contact. Easy to install and economical, they can be used in reciprocating, rotary or oscillating applications.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G050042060GB | 50.00 | 42.00 | 50.00 | 6.00 | 4.00 |
| G050042080GB | 50.00 | 42.00 | 50.00 | 8.00 | 4.00 |
| G050042148GB | 50.00 | 42.00 | 50.00 | 14.80 | 4.00 |
| G050042950GB | 50.00 | 42.00 | 50.00 | 9.50 | 4.00 |
| G055047050GB | 55.00 | 47.00 | 55.00 | 5.00 | 4.00 |
| G055047950GB | 55.00 | 47.00 | 55.00 | 9.50 | 4.00 |
| G058050950GB | 58.00 | 50.00 | 58.00 | 9.50 | 4.00 |
| G060052060GB | 60.00 | 52.00 | 60.00 | 6.00 | 4.00 |
| G060052080GB | 60.00 | 52.00 | 60.00 | 8.00 | 4.00 |
| G060052148GB | 60.00 | 52.00 | 60.00 | 14.80 | 4.00 |
| G060052950GB | 60.00 | 52.00 | 60.00 | 9.50 | 4.00 |
| G060055095GB | 60.00 | 55.00 | 60.00 | 9.50 | 2.50 |
| G063055080GB | 63.00 | 55.00 | 63.00 | 8.00 | 4.00 |
| G063055950GB | 63.00 | 55.00 | 63.00 | 9.50 | 4.00 |
| G065057080GB | 65.00 | 57.00 | 65.00 | 8.00 | 4.00 |
| G065057950GB | 65.00 | 57.00 | 65.00 | 9.50 | 4.00 |
| G065060950GB | 65.00 | 60.00 | 65.00 | 9.50 | 2.50 |
| G070062060GB | 70.00 | 62.00 | 70.00 | 6.00 | 4.00 |
| G070062080GB | 70.00 | 62.00 | 70.00 | 8.00 | 4.00 |
| G070062148GB | 70.00 | 62.00 | 70.00 | 14.80 | 4.00 |
| G070062950GB | 70.00 | 62.00 | 70.00 | 9.50 | 4.00 |
| G075067060GB | 75.00 | 67.00 | 75.00 | 6.00 | 4.00 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G075067080GB | 75.00 | 67.00 | 75.00 | 8.00 | 4.00 |
| G075067148GB | 75.00 | 67.00 | 75.00 | 14.80 | 4.00 |
| G075067950GB | 75.00 | 67.00 | 75.00 | 9.50 | 4.00 |
| G075070950GB | 75.00 | 70.00 | 75.00 | 9.50 | 2.50 |
| G080072060GB | 80.00 | 72.00 | 80.00 | 6.00 | 4.00 |
| G080072080GB | 80.00 | 72.00 | 80.00 | 8.00 | 4.00 |
| G080072120GB | 80.00 | 72.00 | 80.00 | 12.00 | 4.00 |
| G080072148GB | 80.00 | 72.00 | 80.00 | 14.80 | 4.00 |
| G080072950GB | 80.00 | 72.00 | 80.00 | 9.50 | 4.00 |
| G080075060GB | 80.00 | 75.00 | 80.00 | 6.00 | 2.50 |
| G080075095GB | 80.00 | 75.00 | 80.00 | 9.50 | 2.50 |
| G085077060GB | 85.00 | 77.00 | 85.00 | 6.00 | 4.00 |
| G085077080GB | 85.00 | 77.00 | 85.00 | 8.00 | 4.00 |
| G085077148GB | 85.00 | 77.00 | 85.00 | 14.80 | 4.00 |
| G085077950GB | 85.00 | 77.00 | 85.00 | 9.50 | 4.00 |
| G085080060GB | 85.00 | 80.00 | 85.00 | 6.00 | 2.50 |
| G085080095GB | 85.00 | 80.00 | 85.00 | 9.50 | 2.50 |
| G085080200GB | 85.00 | 80.00 | 85.00 | 20.00 | 2.50 |
| G090082060GB | 90.00 | 82.00 | 90.00 | 6.00 | 4.00 |
| G090082080GB | 90.00 | 82.00 | 90.00 | 8.00 | 4.00 |
| G090082148GB | 90.00 | 82.00 | 90.00 | 14.80 | 4.00 |
| G090082950GB | 90.00 | 82.00 | 90.00 | 9.50 | 4.00 |



GB series - BR.PTFE



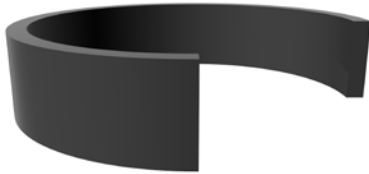
| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G090085060GB | 90.00 | 85.00 | 90.00 | 6.00 | 4.00 |
| G090085200GB | 90.00 | 85.00 | 90.00 | 20.00 | 2.50 |
| G090085950GB | 90.00 | 85.00 | 90.00 | 9.50 | 4.00 |
| G095087060GB | 95.00 | 87.00 | 95.00 | 6.00 | 4.00 |
| G095087080GB | 95.00 | 87.00 | 95.00 | 8.00 | 4.00 |
| G095087148GB | 95.00 | 87.00 | 95.00 | 14.80 | 4.00 |
| G095087950GB | 95.00 | 87.00 | 95.00 | 9.50 | 4.00 |
| G095090950GB | 95.00 | 90.00 | 95.00 | 9.50 | 2.50 |
| G100092060GB | 100.00 | 92.00 | 100.00 | 6.00 | 4.00 |
| G100092080GB | 100.00 | 92.00 | 100.00 | 8.00 | 4.00 |
| G100092148GB | 100.00 | 92.00 | 100.00 | 14.80 | 4.00 |
| G100092950GB | 100.00 | 92.00 | 100.00 | 9.50 | 4.00 |
| G100095060GB | 100.00 | 95.00 | 100.00 | 6.00 | 2.50 |
| G100095200GB | 100.00 | 95.00 | 100.00 | 20.00 | 2.50 |
| G100095950GB | 100.00 | 95.00 | 100.00 | 9.50 | 2.50 |
| G105097060GB | 105.00 | 97.00 | 105.00 | 6.00 | 4.00 |
| G105097080GB | 105.00 | 97.00 | 105.00 | 8.00 | 4.00 |
| G105097148GB | 105.00 | 97.00 | 105.00 | 14.80 | 4.00 |
| G105097950GB | 105.00 | 97.00 | 105.00 | 9.50 | 4.00 |
| G105100060GB | 105.00 | 100.00 | 105.00 | 6.00 | 2.50 |
| G108100950GB | 108.00 | 100.00 | 108.00 | 9.50 | 4.00 |
| G110102060GB | 110.00 | 102.00 | 110.00 | 6.00 | 4.00 |
| G110102080GB | 110.00 | 102.00 | 110.00 | 8.00 | 4.00 |
| G110102148GB | 110.00 | 102.00 | 110.00 | 14.80 | 4.00 |
| G110102950GB | 110.00 | 102.00 | 110.00 | 9.50 | 4.00 |
| G115107060GB | 115.00 | 107.00 | 115.00 | 6.00 | 4.00 |
| G115107080GB | 115.00 | 107.00 | 115.00 | 8.00 | 4.00 |
| G115107148GB | 115.00 | 107.00 | 115.00 | 14.80 | 4.00 |
| G115107950GB | 115.00 | 107.00 | 115.00 | 9.50 | 4.00 |
| G120112060GB | 120.00 | 112.00 | 120.00 | 6.00 | 4.00 |
| G120112080GB | 120.00 | 112.00 | 120.00 | 8.00 | 4.00 |
| G120112148GB | 120.00 | 112.00 | 120.00 | 14.80 | 4.00 |
| G120112950GB | 120.00 | 112.00 | 120.00 | 9.50 | 4.00 |
| G120115080GB | 120.00 | 115.00 | 120.00 | 8.00 | 2.50 |
| G120115950GB | 120.00 | 115.00 | 120.00 | 9.50 | 2.50 |
| G125117060GB | 125.00 | 117.00 | 125.00 | 6.00 | 4.00 |
| G125117080GB | 125.00 | 117.00 | 125.00 | 8.00 | 4.00 |
| G125117148GB | 125.00 | 117.00 | 125.00 | 14.80 | 4.00 |
| G125117950GB | 125.00 | 117.00 | 125.00 | 9.50 | 4.00 |
| G130122060GB | 130.00 | 122.00 | 130.00 | 6.00 | 4.00 |
| G130122080GB | 130.00 | 122.00 | 130.00 | 8.00 | 4.00 |
| G130122148GB | 130.00 | 122.00 | 130.00 | 14.80 | 4.00 |
| G130122950GB | 130.00 | 122.00 | 130.00 | 9.50 | 4.00 |
| G130125950GB | 130.00 | 125.00 | 130.00 | 9.50 | 2.50 |
| G135127060GB | 135.00 | 127.00 | 135.00 | 6.00 | 4.00 |
| G135127080GB | 135.00 | 127.00 | 135.00 | 8.00 | 4.00 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G135127148GB | 135.00 | 127.00 | 135.00 | 14.80 | 4.00 |
| G135127950GB | 135.00 | 127.00 | 135.00 | 9.50 | 4.00 |
| G135128060GB | 135.00 | 128.00 | 138.00 | 6.00 | 3.50 |
| G140132060GB | 140.00 | 132.00 | 140.00 | 6.00 | 4.00 |
| G140132080GB | 140.00 | 132.00 | 140.00 | 8.00 | 4.00 |
| G140132095GB | 140.00 | 132.00 | 140.00 | 9.50 | 4.00 |
| G140132148GB | 140.00 | 132.00 | 140.00 | 14.80 | 4.00 |
| G140135080GB | 140.00 | 135.00 | 140.00 | 8.00 | 2.50 |
| G140135095GB | 140.00 | 135.00 | 140.00 | 9.50 | 2.50 |
| G145137060GB | 145.00 | 137.00 | 145.00 | 6.00 | 4.00 |
| G145137080GB | 145.00 | 137.00 | 145.00 | 8.00 | 4.00 |
| G145137095GB | 145.00 | 137.00 | 145.00 | 9.50 | 4.00 |
| G145137148GB | 145.00 | 137.00 | 145.00 | 14.80 | 4.00 |
| G145140095GB | 145.00 | 140.00 | 145.00 | 9.50 | 2.50 |
| G150142060GB | 150.00 | 142.00 | 150.00 | 6.00 | 4.00 |
| G150142080GB | 150.00 | 142.00 | 150.00 | 8.00 | 4.00 |
| G150142095GB | 150.00 | 142.00 | 150.00 | 9.50 | 4.00 |
| G150142148GB | 150.00 | 142.00 | 150.00 | 14.80 | 4.00 |
| G155147060GB | 155.00 | 147.00 | 155.00 | 6.00 | 4.00 |
| G155147080GB | 155.00 | 147.00 | 155.00 | 8.00 | 4.00 |
| G155147095GB | 155.00 | 147.00 | 155.00 | 9.50 | 4.00 |
| G155147148GB | 155.00 | 147.00 | 155.00 | 14.80 | 4.00 |
| G160152060GB | 160.00 | 152.00 | 160.00 | 6.00 | 4.00 |
| G160152080GB | 160.00 | 152.00 | 160.00 | 8.00 | 4.00 |
| G160152095GB | 160.00 | 152.00 | 160.00 | 9.50 | 4.00 |
| G160152148GB | 160.00 | 152.00 | 160.00 | 14.80 | 4.00 |
| G165157060GB | 165.00 | 157.00 | 165.00 | 6.00 | 4.00 |
| G165157080GB | 165.00 | 157.00 | 165.00 | 8.00 | 4.00 |
| G165157095GB | 165.00 | 157.00 | 165.00 | 9.50 | 4.00 |
| G165157148GB | 165.00 | 157.00 | 165.00 | 14.80 | 4.00 |
| G170162060GB | 170.00 | 162.00 | 170.00 | 6.00 | 4.00 |
| G170162080GB | 170.00 | 162.00 | 170.00 | 8.00 | 4.00 |
| G170162095GB | 170.00 | 162.00 | 170.00 | 9.50 | 4.00 |
| G170162148GB | 170.00 | 162.00 | 170.00 | 14.80 | 4.00 |
| G175167060GB | 175.00 | 167.00 | 175.00 | 6.00 | 4.00 |
| G175167080GB | 175.00 | 167.00 | 175.00 | 8.00 | 4.00 |
| G175167095GB | 175.00 | 167.00 | 175.00 | 9.50 | 4.00 |
| G175167148GB | 175.00 | 167.00 | 175.00 | 14.80 | 4.00 |
| G180172060GB | 180.00 | 172.00 | 180.00 | 6.00 | 4.00 |
| G180172080GB | 180.00 | 172.00 | 180.00 | 8.00 | 4.00 |
| G180172095GB | 180.00 | 172.00 | 180.00 | 9.50 | 4.00 |
| G180172148GB | 180.00 | 172.00 | 180.00 | 14.80 | 4.00 |
| G185177060GB | 185.00 | 177.00 | 185.00 | 6.00 | 4.00 |
| G185177080GB | 185.00 | 177.00 | 185.00 | 8.00 | 4.00 |
| G185177095GB | 185.00 | 177.00 | 185.00 | 9.50 | 4.00 |
| G185177148GB | 185.00 | 177.00 | 185.00 | 14.80 | 4.00 |

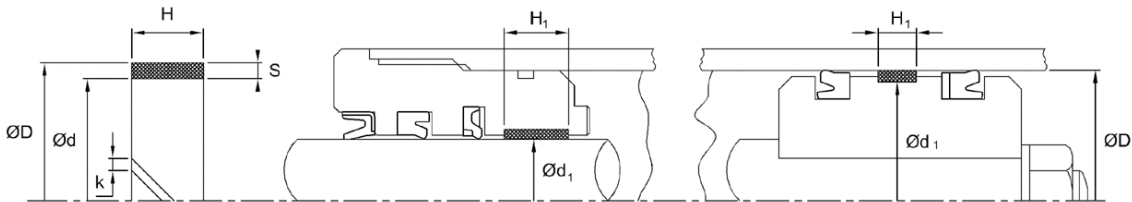
| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G190182060GB | 190.00 | 182.00 | 190.00 | 6.00 | 4.00 |
| G190182080GB | 190.00 | 182.00 | 190.00 | 8.00 | 4.00 |
| G190182095GB | 190.00 | 182.00 | 190.00 | 9.50 | 4.00 |
| G190182148GB | 190.00 | 182.00 | 190.00 | 14.80 | 4.00 |
| G195187060GB | 195.00 | 187.00 | 195.00 | 6.00 | 4.00 |
| G195187080GB | 195.00 | 187.00 | 195.00 | 8.00 | 4.00 |
| G195187095GB | 195.00 | 187.00 | 195.00 | 9.50 | 4.00 |
| G195187148GB | 195.00 | 187.00 | 195.00 | 14.80 | 4.00 |
| G200192060GB | 200.00 | 192.00 | 200.00 | 6.00 | 4.00 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G200192080GB | 200.00 | 192.00 | 200.00 | 8.00 | 4.00 |
| G200192095GB | 200.00 | 192.00 | 200.00 | 9.50 | 4.00 |
| G200192148GB | 200.00 | 192.00 | 200.00 | 14.80 | 4.00 |
| G205197080GB | 205.00 | 197.00 | 205.00 | 8.00 | 4.00 |
| G205197095GB | 205.00 | 197.00 | 205.00 | 9.50 | 4.00 |
| G210202080GB | 210.00 | 202.00 | 210.00 | 8.00 | 4.00 |
| G210202095GB | 210.00 | 202.00 | 210.00 | 9.50 | 4.00 |
| G215207080GB | 215.00 | 207.00 | 215.00 | 8.00 | 4.00 |
| G215207095GB | 215.00 | 207.00 | 215.00 | 9.50 | 4.00 |

GB/N - Guiding Elements - Metric



| Standard Material | Temperature Range | Surface Speed |
|-------------------|--------------------------------------|-------------------|
| GFNylon | -40°F to +250°F (-40°C to +121°C) | <3 ft/s (0.9 m/s) |



Similar in function to the **GB-style**, these glass-filled wear bands are manufactured out of glass-filled Nylon material and are typically suited for heavy-duty applications such as hydraulic cylinders.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|----------------|----------|---------|------------------------------|------|------|
| | | | D | H | S |
| G016012096GB/N | 16.00 | 12.00 | 16.00 | 9.60 | 2.00 |
| G018014096GB/N | 18.00 | 14.00 | 18.00 | 9.60 | 2.00 |
| G020016096GB/N | 20.00 | 16.00 | 20.00 | 9.60 | 2.00 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|----------------|----------|---------|------------------------------|------|------|
| | | | D | H | S |
| G022018096GB/N | 22.00 | 18.00 | 22.00 | 9.60 | 2.00 |
| G023020040GB/N | 23.10 | 20.00 | 23.10 | 4.00 | 1.55 |
| G023020050GB/N | 23.00 | 20.00 | 23.00 | 5.00 | 1.50 |



GB/N series - GF.NYLON



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|----------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G024020096GB/N | 24.00 | 20.00 | 24.00 | 9.60 | 2.00 |
| G025020056GB/N | 25.00 | 20.00 | 25.00 | 5.60 | 2.50 |
| G025020097GB/N | 25.00 | 20.00 | 25.00 | 9.70 | 2.50 |
| G025021080GB/N | 25.00 | 21.00 | 25.00 | 8.00 | 2.00 |
| G025021096GB/N | 25.00 | 21.00 | 25.00 | 9.60 | 2.00 |
| G026020096GB/N | 26.00 | 20.00 | 26.00 | 9.60 | 3.00 |
| G026022096GB/N | 26.00 | 22.00 | 26.00 | 9.60 | 2.00 |
| G027022063GB/N | 27.00 | 22.00 | 27.00 | 6.30 | 2.50 |
| G028022096GB/N | 28.00 | 22.00 | 28.00 | 9.60 | 3.00 |
| G028024096GB/N | 28.00 | 24.00 | 28.00 | 9.60 | 2.00 |
| G028025040GB/N | 28.10 | 25.00 | 28.10 | 4.00 | 1.55 |
| G029025050GB/N | 29.00 | 25.00 | 29.00 | 5.00 | 2.00 |
| G029025096GB/N | 29.00 | 25.00 | 29.00 | 9.60 | 2.00 |
| G030025056GB/N | 30.00 | 25.00 | 30.00 | 5.60 | 2.50 |
| G030025097GB/N | 30.00 | 25.00 | 30.00 | 9.70 | 2.50 |
| G030026096GB/N | 30.00 | 26.00 | 30.00 | 9.60 | 2.00 |
| G031025096GB/N | 31.00 | 25.00 | 31.00 | 9.60 | 3.00 |
| G032026096GB/N | 32.00 | 26.00 | 32.00 | 9.60 | 3.00 |
| G032026102GB/N | 32.00 | 26.00 | 32.00 | 10.20 | 3.00 |
| G032027056GB/N | 32.00 | 27.00 | 32.00 | 5.60 | 2.50 |
| G032027063GB/N | 32.00 | 27.00 | 32.00 | 6.30 | 2.50 |
| G032028096GB/N | 32.00 | 28.00 | 32.00 | 9.60 | 2.00 |
| G033028056GB/N | 33.00 | 28.00 | 33.00 | 5.60 | 2.50 |
| G033028060GB/N | 33.90 | 28.90 | 33.90 | 6.00 | 2.50 |
| G033028063GB/N | 33.00 | 28.00 | 33.00 | 6.30 | 2.50 |
| G034028096GB/N | 34.00 | 28.00 | 34.00 | 9.60 | 3.00 |
| G034030096GB/N | 34.00 | 30.00 | 34.00 | 9.60 | 2.00 |
| G035029096GB/N | 35.00 | 29.00 | 35.00 | 9.60 | 3.00 |
| G035030056GB/N | 35.00 | 30.00 | 35.00 | 5.60 | 2.50 |
| G035030097GB/N | 35.00 | 30.00 | 35.00 | 9.70 | 2.50 |
| G035031080GB/N | 35.00 | 31.00 | 35.00 | 8.00 | 2.00 |
| G035031096GB/N | 35.00 | 31.00 | 35.00 | 9.60 | 2.00 |
| G035032040GB/N | 35.10 | 32.00 | 35.10 | 4.00 | 1.55 |
| G035032097GB/N | 35.00 | 32.00 | 35.00 | 9.70 | 1.50 |
| G036030096GB/N | 36.00 | 30.00 | 36.00 | 9.60 | 3.00 |
| G036032060GB/N | 36.00 | 32.00 | 36.00 | 6.00 | 2.00 |
| G036032096GB/N | 36.00 | 32.00 | 36.00 | 9.60 | 2.00 |
| G037032056GB/N | 37.00 | 32.00 | 37.00 | 5.60 | 2.50 |
| G037032063GB/N | 37.00 | 32.00 | 37.00 | 6.30 | 2.50 |
| G037032097GB/N | 37.00 | 32.00 | 37.00 | 9.70 | 2.50 |
| G037033080GB/N | 37.00 | 33.00 | 37.00 | 8.00 | 2.00 |
| G038032096GB/N | 38.00 | 32.00 | 38.00 | 9.60 | 3.00 |
| G039033095GB/N | 39.00 | 33.00 | 39.00 | 9.50 | 3.00 |
| G039035060GB/N | 39.40 | 35.00 | 39.40 | 6.00 | 2.20 |
| G039035080GB/N | 39.00 | 35.00 | 39.00 | 8.00 | 2.00 |
| G039035096GB/N | 39.00 | 35.00 | 39.00 | 9.60 | 2.00 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|----------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G040034096GB/N | 40.00 | 34.00 | 40.00 | 9.60 | 3.00 |
| G040035056GB/N | 40.00 | 35.00 | 40.00 | 5.60 | 2.50 |
| G040035063GB/N | 40.00 | 35.00 | 40.00 | 6.30 | 2.50 |
| G040035097GB/N | 40.00 | 35.00 | 40.00 | 9.70 | 2.50 |
| G040036080GB/N | 40.00 | 36.00 | 40.00 | 8.00 | 2.00 |
| G040036096GB/N | 40.00 | 36.00 | 40.00 | 9.60 | 2.00 |
| G041035096GB/N | 41.00 | 35.00 | 41.00 | 9.60 | 3.00 |
| G041035127GB/N | 41.00 | 35.00 | 41.00 | 12.70 | 3.00 |
| G041035197GB/N | 41.00 | 35.00 | 41.00 | 19.70 | 3.00 |
| G041036056GB/N | 41.00 | 36.00 | 41.00 | 5.60 | 2.50 |
| G041036063GB/N | 41.00 | 36.00 | 41.00 | 6.30 | 2.50 |
| G041036075GB/N | 41.00 | 36.00 | 41.00 | 7.50 | 2.50 |
| G041036097GB/N | 41.00 | 36.00 | 41.00 | 9.70 | 2.50 |
| G042036096GB/N | 42.00 | 36.00 | 42.00 | 9.60 | 3.00 |
| G042037060GB/N | 42.00 | 37.00 | 42.00 | 6.00 | 2.50 |
| G042038096GB/N | 42.00 | 38.00 | 42.00 | 9.60 | 2.00 |
| G044040096GB/N | 44.00 | 40.00 | 44.00 | 9.60 | 2.00 |
| G044040100GB/N | 44.00 | 40.00 | 44.00 | 10.00 | 2.00 |
| G045039096GB/N | 45.00 | 39.00 | 45.00 | 9.60 | 3.00 |
| G045040050GB/N | 45.00 | 40.00 | 45.00 | 5.00 | 2.50 |
| G045040056GB/N | 45.00 | 40.00 | 45.00 | 5.60 | 2.50 |
| G045040080GB/N | 45.00 | 40.00 | 45.00 | 8.00 | 2.50 |
| G045040097GB/N | 45.00 | 40.00 | 45.00 | 9.70 | 2.50 |
| G045040100GB/N | 45.00 | 40.00 | 45.00 | 10.00 | 2.50 |
| G045041080GB/N | 45.00 | 41.00 | 45.00 | 8.00 | 2.00 |
| G045041096GB/N | 45.00 | 41.00 | 45.00 | 9.60 | 2.00 |
| G046040096GB/N | 46.00 | 40.00 | 46.00 | 9.60 | 3.00 |
| G046040127GB/N | 46.00 | 40.00 | 46.00 | 12.70 | 3.00 |
| G046042096GB/N | 46.00 | 42.00 | 46.00 | 9.60 | 2.00 |
| G049045200GB/N | 49.00 | 45.00 | 49.00 | 20.00 | 2.00 |
| G050044096GB/N | 50.00 | 44.00 | 50.00 | 9.60 | 3.00 |
| G050044127GB/N | 50.00 | 44.00 | 50.00 | 12.70 | 3.00 |
| G050045056GB/N | 50.00 | 45.00 | 50.00 | 5.60 | 2.50 |
| G050045097GB/N | 50.00 | 45.00 | 50.00 | 9.70 | 2.50 |
| G050045100GB/N | 50.00 | 45.00 | 50.00 | 10.00 | 2.50 |
| G050046100GB/N | 50.00 | 46.00 | 50.00 | 10.00 | 2.00 |
| G050046150GB/N | 50.00 | 46.00 | 50.00 | 15.00 | 2.00 |
| G051045096GB/N | 51.00 | 45.00 | 51.00 | 9.60 | 3.00 |
| G051045127GB/N | 51.00 | 45.00 | 51.00 | 12.70 | 3.00 |
| G051047060GB/N | 51.70 | 47.00 | 51.70 | 6.00 | 2.35 |
| G052047300GB/N | 52.00 | 47.00 | 52.00 | 30.00 | 2.50 |
| G054050096GB/N | 54.00 | 50.00 | 54.00 | 9.60 | 2.00 |
| G055049096GB/N | 55.00 | 49.00 | 55.00 | 9.60 | 3.00 |
| G055049127GB/N | 55.00 | 49.00 | 55.00 | 12.70 | 3.00 |
| G055050056GB/N | 55.00 | 50.00 | 55.00 | 5.60 | 2.50 |
| G055050097GB/N | 55.00 | 50.00 | 55.00 | 9.70 | 2.50 |

GB/N series - GF.NYLON



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|----------------|--------------|--------------|------------------------------|-------|------|
| | | | D | H | S |
| G055050100GB/N | 55.00 | 50.00 | 55.00 | 10.00 | 2.50 |
| G055051096GB/N | 55.00 | 51.00 | 55.00 | 9.60 | 2.00 |
| G055052150GB/N | 55.00 | 52.00 | 55.00 | 15.00 | 1.50 |
| G056050096GB/N | 56.00 | 50.00 | 56.00 | 9.60 | 3.00 |
| G056050127GB/N | 56.00 | 50.00 | 56.00 | 12.70 | 3.00 |
| G058052096GB/N | 58.00 | 52.00 | 58.00 | 9.60 | 3.00 |
| G059055080GB/N | 59.00 | 55.00 | 59.00 | 8.00 | 2.00 |
| G060054096GB/N | 60.00 | 54.00 | 60.00 | 9.60 | 3.00 |
| G060054127GB/N | 60.00 | 54.00 | 60.00 | 12.70 | 3.00 |
| G060055056GB/N | 60.00 | 55.00 | 60.00 | 5.60 | 2.50 |
| G060055097GB/N | 60.00 | 55.00 | 60.00 | 9.70 | 2.50 |
| G060056096GB/N | 60.00 | 56.00 | 60.00 | 9.60 | 2.00 |
| G060056100GB/N | 60.00 | 56.00 | 60.00 | 10.00 | 2.00 |
| G061055096GB/N | 61.00 | 55.00 | 61.00 | 9.60 | 3.00 |
| G061055127GB/N | 61.00 | 55.00 | 61.00 | 12.70 | 3.00 |
| G061055258GB/N | 61.00 | 55.00 | 61.00 | 25.80 | 3.00 |
| G061056056GB/N | 61.00 | 56.00 | 61.00 | 5.60 | 2.50 |
| G061056097GB/N | 61.00 | 56.00 | 61.00 | 9.70 | 2.50 |
| G061056100GB/N | 61.00 | 56.00 | 61.00 | 10.00 | 2.50 |
| G062050200GB/N | 62.70 | 50.00 | 62.70 | 20.00 | 6.35 |
| G062056096GB/N | 62.00 | 56.00 | 62.00 | 9.60 | 3.00 |
| G062056127GB/N | 62.00 | 56.00 | 62.00 | 12.70 | 3.00 |
| G063057093GB/N | 63.50 | 57.10 | 63.50 | 9.30 | 3.20 |
| G063057096GB/N | 63.00 | 57.00 | 63.00 | 9.60 | 3.00 |
| G063057127GB/N | 63.00 | 57.00 | 63.00 | 12.70 | 3.00 |
| G063058056GB/N | 63.00 | 58.00 | 63.00 | 5.60 | 2.50 |
| G063058097GB/N | 63.00 | 58.00 | 63.00 | 9.70 | 2.50 |
| G063058100GB/N | 63.00 | 58.00 | 63.00 | 10.00 | 2.50 |
| G063059080GB/N | 63.00 | 59.00 | 63.00 | 8.00 | 2.00 |
| G063059100GB/N | 63.00 | 59.00 | 63.00 | 10.00 | 2.00 |
| G064058127GB/N | 64.00 | 58.00 | 64.00 | 12.70 | 3.00 |
| G064060100GB/N | 64.00 | 60.00 | 64.00 | 10.00 | 2.00 |
| G064060192GB/N | 64.00 | 60.00 | 64.00 | 19.20 | 2.00 |
| G065059096GB/N | 65.00 | 59.00 | 65.00 | 9.60 | 3.00 |
| G065059127GB/N | 65.00 | 59.00 | 65.00 | 12.70 | 3.00 |
| G065060056GB/N | 65.00 | 60.00 | 65.00 | 5.60 | 2.50 |
| G065060097GB/N | 65.00 | 60.00 | 65.00 | 9.70 | 2.50 |
| G065060300GB/N | 65.00 | 60.00 | 65.00 | 30.00 | 2.50 |
| G065062197GB/N | 65.00 | 62.00 | 65.00 | 19.70 | 1.50 |
| G066060096GB/N | 66.00 | 60.00 | 66.00 | 9.60 | 3.00 |
| G066060127GB/N | 66.00 | 60.00 | 66.00 | 12.70 | 3.00 |
| G066060150GB/N | 66.00 | 60.00 | 66.00 | 15.00 | 3.00 |
| G066060390GB/N | 66.00 | 60.00 | 66.00 | 39.00 | 3.00 |
| G066061097GB/N | 66.00 | 61.00 | 66.00 | 9.70 | 2.50 |
| G068062127GB/N | 68.00 | 62.00 | 68.00 | 12.70 | 3.00 |
| G068063056GB/N | 68.00 | 63.00 | 68.00 | 5.60 | 2.50 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|----------------|--------------|--------------|------------------------------|-------|------|
| | | | D | H | S |
| G068063097GB/N | 68.00 | 63.00 | 68.00 | 9.70 | 2.50 |
| G069063127GB/N | 69.00 | 63.00 | 69.00 | 12.70 | 3.00 |
| G069065100GB/N | 69.00 | 65.00 | 69.00 | 10.00 | 2.00 |
| G070064096GB/N | 70.00 | 64.00 | 70.00 | 9.60 | 3.00 |
| G070064127GB/N | 70.00 | 64.00 | 70.00 | 12.70 | 3.00 |
| G070065056GB/N | 70.00 | 65.00 | 70.00 | 5.60 | 2.50 |
| G070065097GB/N | 70.00 | 65.00 | 70.00 | 9.70 | 2.50 |
| G070065150GB/N | 70.00 | 65.00 | 70.00 | 15.00 | 2.50 |
| G070066100GB/N | 70.00 | 66.00 | 70.00 | 10.00 | 2.00 |
| G071065127GB/N | 71.00 | 65.00 | 71.00 | 12.70 | 3.00 |
| G074070150GB/N | 74.00 | 70.00 | 74.00 | 15.00 | 2.00 |
| G075069096GB/N | 75.00 | 69.00 | 75.00 | 9.60 | 3.00 |
| G075069127GB/N | 75.00 | 69.00 | 75.00 | 12.70 | 3.00 |
| G075070056GB/N | 75.00 | 70.00 | 75.00 | 5.60 | 2.50 |
| G075070097GB/N | 75.00 | 70.00 | 75.00 | 9.70 | 2.50 |
| G075070100GB/N | 75.00 | 70.00 | 75.00 | 10.00 | 2.50 |
| G075070150GB/N | 75.00 | 70.00 | 75.00 | 15.00 | 2.50 |
| G075071150GB/N | 75.00 | 71.00 | 75.00 | 15.00 | 2.00 |
| G076069095GB/N | 76.20 | 69.85 | 76.20 | 9.52 | 3.18 |
| G076070096GB/N | 76.00 | 70.00 | 76.00 | 9.60 | 3.00 |
| G076070127GB/N | 76.00 | 70.00 | 76.00 | 12.70 | 3.00 |
| G076070192GB/N | 76.00 | 70.00 | 76.00 | 19.20 | 3.00 |
| G076070270GB/N | 76.00 | 70.00 | 76.00 | 27.00 | 3.00 |
| G078072127GB/N | 78.00 | 72.00 | 78.00 | 12.70 | 3.00 |
| G079075080GB/N | 79.00 | 75.00 | 79.00 | 8.00 | 2.00 |
| G080074127GB/N | 80.00 | 74.00 | 80.00 | 12.70 | 3.00 |
| G080074192GB/N | 80.00 | 74.00 | 80.00 | 19.20 | 3.00 |
| G080075097GB/N | 80.00 | 75.00 | 80.00 | 9.70 | 2.50 |
| G080075100GB/N | 80.00 | 75.00 | 80.00 | 10.00 | 2.50 |
| G080075150GB/N | 80.00 | 75.00 | 80.00 | 15.00 | 2.50 |
| G080076150GB/N | 80.00 | 76.00 | 80.00 | 15.00 | 2.00 |
| G081075127GB/N | 81.00 | 75.00 | 81.00 | 12.70 | 3.00 |
| G081075192GB/N | 81.00 | 75.00 | 81.00 | 19.20 | 3.00 |
| G081076097GB/N | 81.00 | 76.00 | 81.00 | 9.70 | 2.50 |
| G082076127GB/N | 82.50 | 76.50 | 82.50 | 12.70 | 3.00 |
| G085079127GB/N | 85.00 | 79.00 | 85.00 | 12.70 | 3.00 |
| G085080097GB/N | 85.00 | 80.00 | 85.00 | 9.70 | 2.50 |
| G085080100GB/N | 85.00 | 80.00 | 85.00 | 10.00 | 2.50 |
| G085080150GB/N | 85.00 | 80.00 | 85.00 | 15.00 | 2.50 |
| G085080197GB/N | 85.00 | 80.00 | 85.00 | 19.70 | 2.50 |
| G085081080GB/N | 85.00 | 81.00 | 85.00 | 8.00 | 2.00 |
| G086080127GB/N | 86.00 | 80.00 | 86.00 | 12.70 | 3.00 |
| G086080150GB/N | 86.00 | 80.00 | 86.00 | 15.00 | 3.00 |
| G086080192GB/N | 86.00 | 80.00 | 86.00 | 19.20 | 3.00 |
| G086080254GB/N | 86.00 | 80.00 | 86.00 | 25.40 | 3.00 |
| G088082127GB/N | 88.00 | 82.00 | 88.00 | 12.70 | 3.00 |

GB/N series - GF.NYLON

G. ELEMENTS

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|----------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G088082130GB/N | 88.00 | 82.00 | 88.00 | 13.00 | 3.00 |
| G090084127GB/N | 90.00 | 84.00 | 90.00 | 12.70 | 3.00 |
| G090085097GB/N | 90.00 | 85.00 | 90.00 | 9.70 | 2.50 |
| G090085100GB/N | 90.00 | 85.00 | 90.00 | 10.00 | 2.50 |
| G090085150GB/N | 90.00 | 85.00 | 90.00 | 15.00 | 2.50 |
| G090086150GB/N | 90.00 | 86.00 | 90.00 | 15.00 | 2.00 |
| G091085127GB/N | 91.00 | 85.00 | 91.00 | 12.70 | 3.00 |
| G091085192GB/N | 91.00 | 85.00 | 91.00 | 19.20 | 3.00 |
| G091085243GB/N | 91.00 | 85.00 | 91.00 | 24.30 | 3.00 |
| G094090150GB/N | 94.00 | 90.00 | 94.00 | 15.00 | 2.00 |
| G095089127GB/N | 95.00 | 89.00 | 95.00 | 12.70 | 3.00 |
| G095090097GB/N | 95.00 | 90.00 | 95.00 | 9.70 | 2.50 |
| G095090100GB/N | 95.00 | 90.00 | 95.00 | 10.00 | 2.50 |
| G095090150GB/N | 95.00 | 90.00 | 95.00 | 15.00 | 2.50 |
| G096090096GB/N | 96.00 | 90.00 | 96.00 | 9.60 | 3.00 |
| G096090127GB/N | 96.00 | 90.00 | 96.00 | 12.70 | 3.00 |
| G096090192GB/N | 96.00 | 90.00 | 96.00 | 19.20 | 3.00 |
| G096091096GB/N | 96.00 | 91.00 | 96.00 | 9.60 | 2.50 |
| G098090180GB/N | 98.00 | 90.00 | 98.00 | 18.00 | 4.00 |
| G098092060GB/N | 98.80 | 92.80 | 98.80 | 6.00 | 3.00 |
| G098092127GB/N | 98.00 | 92.00 | 98.00 | 12.70 | 3.00 |
| G099095080GB/N | 99.00 | 95.00 | 99.00 | 8.00 | 2.00 |
| G100094127GB/N | 100.00 | 94.00 | 100.00 | 12.70 | 3.00 |
| G100095097GB/N | 100.00 | 95.00 | 100.00 | 9.70 | 2.50 |
| G100095100GB/N | 100.00 | 95.00 | 100.00 | 10.00 | 2.50 |
| G100095150GB/N | 100.00 | 95.00 | 100.00 | 15.00 | 2.50 |
| G100095200GB/N | 100.00 | 95.00 | 100.00 | 20.00 | 2.50 |
| G100096150GB/N | 100.00 | 96.00 | 100.00 | 15.00 | 2.00 |
| G101095127GB/N | 101.00 | 95.00 | 101.00 | 12.70 | 3.00 |
| G101095192GB/N | 101.00 | 95.00 | 101.00 | 19.20 | 3.00 |
| G105099127GB/N | 105.00 | 99.00 | 105.00 | 12.70 | 3.00 |
| G105099192GB/N | 105.00 | 99.00 | 105.00 | 19.20 | 3.00 |
| G105100097GB/N | 105.00 | 100.00 | 105.00 | 9.70 | 2.50 |
| G105100100GB/N | 105.00 | 100.00 | 105.00 | 10.00 | 2.50 |
| G105100150GB/N | 105.00 | 100.00 | 105.00 | 15.00 | 2.50 |
| G105101200GB/N | 105.00 | 101.00 | 105.00 | 20.00 | 2.00 |
| G106100127GB/N | 106.00 | 100.00 | 106.00 | 12.70 | 3.00 |
| G106100192GB/N | 106.00 | 100.00 | 106.00 | 19.20 | 3.00 |
| G107101093GB/N | 107.95 | 101.57 | 107.95 | 9.30 | 3.19 |
| G108102127GB/N | 108.00 | 102.00 | 108.00 | 12.70 | 3.00 |
| G108102130GB/N | 108.00 | 102.00 | 108.00 | 13.00 | 3.00 |
| G110102100GB/N | 110.00 | 102.00 | 110.00 | 10.00 | 4.00 |
| G110104127GB/N | 110.00 | 104.00 | 110.00 | 12.70 | 3.00 |
| G110104192GB/N | 110.00 | 104.00 | 110.00 | 19.20 | 3.00 |
| G110104254GB/N | 110.00 | 104.00 | 110.00 | 25.40 | 3.00 |
| G110105097GB/N | 110.00 | 105.00 | 110.00 | 9.70 | 2.50 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|----------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G110105100GB/N | 110.00 | 105.00 | 110.00 | 10.00 | 2.50 |
| G110105150GB/N | 110.00 | 105.00 | 110.00 | 15.00 | 2.50 |
| G110106150GB/N | 110.00 | 106.00 | 110.00 | 15.00 | 2.00 |
| G110106200GB/N | 110.00 | 106.00 | 110.00 | 20.00 | 2.00 |
| G111105127GB/N | 111.00 | 105.00 | 111.00 | 12.70 | 3.00 |
| G111105192GB/N | 111.00 | 105.00 | 111.00 | 19.20 | 3.00 |
| G115109127GB/N | 115.00 | 109.00 | 115.00 | 12.70 | 3.00 |
| G115109192GB/N | 115.00 | 109.00 | 115.00 | 19.20 | 3.00 |
| G115109254GB/N | 115.00 | 109.00 | 115.00 | 25.40 | 3.00 |
| G115110097GB/N | 115.00 | 110.00 | 115.00 | 9.70 | 2.50 |
| G115110100GB/N | 115.00 | 110.00 | 115.00 | 10.00 | 2.50 |
| G115110150GB/N | 115.00 | 110.00 | 115.00 | 15.00 | 2.50 |
| G116110127GB/N | 116.00 | 110.00 | 116.00 | 12.70 | 3.00 |
| G116110192GB/N | 116.00 | 110.00 | 116.00 | 19.20 | 3.00 |
| G116110254GB/N | 116.00 | 110.00 | 116.00 | 25.40 | 3.00 |
| G117113077GB/N | 117.00 | 113.00 | 117.00 | 7.70 | 2.00 |
| G118110200GB/N | 118.00 | 110.00 | 118.00 | 20.00 | 4.00 |
| G120112100GB/N | 120.00 | 112.00 | 120.00 | 10.00 | 4.00 |
| G120114127GB/N | 120.00 | 114.00 | 120.00 | 12.70 | 3.00 |
| G120114192GB/N | 120.00 | 114.00 | 120.00 | 19.20 | 3.00 |
| G120114254GB/N | 120.00 | 114.00 | 120.00 | 25.40 | 3.00 |
| G120114300GB/N | 120.00 | 114.00 | 120.00 | 30.00 | 3.00 |
| G120115150GB/N | 120.00 | 115.00 | 120.00 | 15.00 | 2.50 |
| G121115127GB/N | 121.00 | 115.00 | 121.00 | 12.70 | 3.00 |
| G121115192GB/N | 121.00 | 115.00 | 121.00 | 19.20 | 3.00 |
| G121115254GB/N | 121.00 | 115.00 | 121.00 | 25.40 | 3.00 |
| G123117060GB/N | 123.60 | 117.00 | 123.60 | 6.00 | 3.30 |
| G125119127GB/N | 125.00 | 119.00 | 125.00 | 12.70 | 3.00 |
| G125119192GB/N | 125.00 | 119.00 | 125.00 | 19.20 | 3.00 |
| G125119254GB/N | 125.00 | 119.00 | 125.00 | 25.40 | 3.00 |
| G125120150GB/N | 125.00 | 120.00 | 125.00 | 15.00 | 2.50 |
| G125120160GB/N | 125.00 | 120.00 | 125.00 | 16.00 | 2.50 |
| G126120127GB/N | 126.00 | 120.00 | 126.00 | 12.70 | 3.00 |
| G126120192GB/N | 126.00 | 120.00 | 126.00 | 19.20 | 3.00 |
| G126120254GB/N | 126.00 | 120.00 | 126.00 | 25.40 | 3.00 |
| G130120300GB/N | 130.00 | 120.00 | 130.00 | 30.00 | 5.00 |
| G130124127GB/N | 130.00 | 124.00 | 130.00 | 12.70 | 3.00 |
| G130124192GB/N | 130.00 | 124.00 | 130.00 | 19.20 | 3.00 |
| G130124254GB/N | 130.00 | 124.00 | 130.00 | 25.40 | 3.00 |
| G130125150GB/N | 130.00 | 125.00 | 130.00 | 15.00 | 2.50 |
| G130125160GB/N | 130.00 | 125.00 | 130.00 | 16.00 | 2.50 |
| G131125127GB/N | 131.00 | 125.00 | 131.00 | 12.70 | 3.00 |
| G131125192GB/N | 131.00 | 125.00 | 131.00 | 19.20 | 3.00 |
| G131125250GB/N | 131.00 | 125.00 | 131.00 | 25.00 | 3.00 |
| G131125254GB/N | 131.00 | 125.00 | 131.00 | 25.40 | 3.00 |
| G133127192GB/N | 133.00 | 127.00 | 133.00 | 19.20 | 3.00 |

GB/N series - GF.NYLON

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|----------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G135129127GB/N | 135.00 | 129.00 | 135.00 | 12.70 | 3.00 |
| G135129130GB/N | 135.00 | 129.00 | 135.00 | 13.00 | 3.00 |
| G135129192GB/N | 135.00 | 129.00 | 135.00 | 19.20 | 3.00 |
| G135130150GB/N | 135.00 | 130.00 | 135.00 | 15.00 | 2.50 |
| G136130127GB/N | 136.00 | 130.00 | 136.00 | 12.70 | 3.00 |
| G136130140GB/N | 136.00 | 130.00 | 136.00 | 14.00 | 3.00 |
| G136130192GB/N | 136.00 | 130.00 | 136.00 | 19.20 | 3.00 |
| G136130200GB/N | 136.00 | 130.00 | 136.00 | 20.00 | 3.00 |
| G136130254GB/N | 136.00 | 130.00 | 136.00 | 25.40 | 3.00 |
| G136132077GB/N | 136.00 | 132.00 | 136.00 | 7.70 | 2.00 |
| G140134127GB/N | 140.00 | 134.00 | 140.00 | 12.70 | 3.00 |
| G140134192GB/N | 140.00 | 134.00 | 140.00 | 19.20 | 3.00 |
| G140134200GB/N | 140.00 | 134.00 | 140.00 | 20.00 | 3.00 |
| G140134254GB/N | 140.00 | 134.00 | 140.00 | 25.40 | 3.00 |
| G140135150GB/N | 140.00 | 135.00 | 140.00 | 15.00 | 2.50 |
| G140135160GB/N | 140.00 | 135.00 | 140.00 | 16.00 | 2.50 |
| G140136080GB/N | 140.00 | 136.00 | 140.00 | 8.00 | 2.00 |
| G140136200GB/N | 140.00 | 136.00 | 140.00 | 20.00 | 2.00 |
| G141135127GB/N | 141.00 | 135.00 | 141.00 | 12.70 | 3.00 |
| G141135192GB/N | 141.00 | 135.00 | 141.00 | 19.20 | 3.00 |
| G145139127GB/N | 145.00 | 139.00 | 145.00 | 12.70 | 3.00 |
| G145139192GB/N | 145.00 | 139.00 | 145.00 | 19.20 | 3.00 |
| G145140150GB/N | 145.00 | 140.00 | 145.00 | 15.00 | 2.50 |
| G145140160GB/N | 145.00 | 140.00 | 145.00 | 16.00 | 2.50 |
| G145140170GB/N | 145.00 | 140.00 | 145.00 | 17.00 | 2.50 |
| G145140250GB/N | 145.00 | 140.00 | 145.00 | 25.00 | 2.50 |
| G146140127GB/N | 146.00 | 140.00 | 146.00 | 12.70 | 3.00 |
| G146140192GB/N | 146.00 | 140.00 | 146.00 | 19.20 | 3.00 |
| G146140254GB/N | 146.00 | 140.00 | 146.00 | 25.40 | 3.00 |
| G146140317GB/N | 146.00 | 140.00 | 146.00 | 31.70 | 3.00 |
| G150144127GB/N | 150.00 | 144.00 | 150.00 | 12.70 | 3.00 |
| G150144192GB/N | 150.00 | 144.00 | 150.00 | 19.20 | 3.00 |
| G150145150GB/N | 150.00 | 145.00 | 150.00 | 15.00 | 2.50 |
| G150145160GB/N | 150.00 | 145.00 | 150.00 | 16.00 | 2.50 |
| G150145250GB/N | 150.00 | 145.00 | 150.00 | 25.00 | 2.50 |
| G151145127GB/N | 151.00 | 145.00 | 151.00 | 12.70 | 3.00 |
| G151145192GB/N | 151.00 | 145.00 | 151.00 | 19.20 | 3.00 |
| G151145254GB/N | 151.00 | 145.00 | 151.00 | 25.40 | 3.00 |
| G151145317GB/N | 151.00 | 145.00 | 151.00 | 31.70 | 3.00 |
| G154148254GB/N | 154.00 | 148.00 | 154.00 | 25.40 | 3.00 |
| G154148317GB/N | 154.00 | 148.00 | 154.00 | 31.70 | 3.00 |
| G155149192GB/N | 155.00 | 149.00 | 155.00 | 19.20 | 3.00 |
| G155150150GB/N | 155.00 | 150.00 | 155.00 | 15.00 | 2.50 |
| G155150250GB/N | 155.00 | 150.00 | 155.00 | 25.00 | 2.50 |
| G156150127GB/N | 156.00 | 150.00 | 156.00 | 12.70 | 3.00 |
| G156150192GB/N | 156.00 | 150.00 | 156.00 | 19.20 | 3.00 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|----------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G156150254GB/N | 156.00 | 150.00 | 156.00 | 25.40 | 3.00 |
| G156150317GB/N | 156.00 | 150.00 | 156.00 | 31.70 | 3.00 |
| G160154127GB/N | 160.00 | 154.00 | 160.00 | 12.70 | 3.00 |
| G160154192GB/N | 160.00 | 154.00 | 160.00 | 19.20 | 3.00 |
| G160155150GB/N | 160.00 | 155.00 | 160.00 | 15.00 | 2.50 |
| G160155160GB/N | 160.00 | 155.00 | 160.00 | 16.00 | 2.50 |
| G160155250GB/N | 160.00 | 155.00 | 160.00 | 25.00 | 2.50 |
| G161155127GB/N | 161.00 | 155.00 | 161.00 | 12.70 | 3.00 |
| G161155192GB/N | 161.00 | 155.00 | 161.00 | 19.20 | 3.00 |
| G161155254GB/N | 161.00 | 155.00 | 161.00 | 25.40 | 3.00 |
| G164157060GB/N | 164.00 | 157.00 | 164.00 | 6.00 | 3.50 |
| G164158130GB/N | 164.00 | 158.00 | 164.00 | 13.00 | 3.00 |
| G165159192GB/N | 165.00 | 159.00 | 165.00 | 19.20 | 3.00 |
| G165159254GB/N | 165.00 | 159.00 | 165.00 | 25.40 | 3.00 |
| G165159317GB/N | 165.00 | 159.00 | 165.00 | 31.70 | 3.00 |
| G165160150GB/N | 165.00 | 160.00 | 165.00 | 15.00 | 2.50 |
| G165160160GB/N | 165.00 | 160.00 | 165.00 | 16.00 | 2.50 |
| G165160250GB/N | 165.00 | 160.00 | 165.00 | 25.00 | 2.50 |
| G166160127GB/N | 166.00 | 160.00 | 166.00 | 12.70 | 3.00 |
| G166160192GB/N | 166.00 | 160.00 | 166.00 | 19.20 | 3.00 |
| G166160254GB/N | 166.00 | 160.00 | 166.00 | 25.40 | 3.00 |
| G166160300GB/N | 166.00 | 160.00 | 166.00 | 30.00 | 3.00 |
| G170164127GB/N | 170.00 | 164.00 | 170.00 | 12.70 | 3.00 |
| G170164192GB/N | 170.00 | 164.00 | 170.00 | 19.20 | 3.00 |
| G170164254GB/N | 170.00 | 164.00 | 170.00 | 25.40 | 3.00 |
| G170165150GB/N | 170.00 | 165.00 | 170.00 | 15.00 | 2.50 |
| G170165250GB/N | 170.00 | 165.00 | 170.00 | 25.00 | 2.50 |
| G171165127GB/N | 171.00 | 165.00 | 171.00 | 12.70 | 3.00 |
| G171165192GB/N | 171.00 | 165.00 | 171.00 | 19.20 | 3.00 |
| G171165254GB/N | 171.00 | 165.00 | 171.00 | 25.40 | 3.00 |
| G171165317GB/N | 171.00 | 165.00 | 171.00 | 31.70 | 3.00 |
| G173166060GB/N | 173.00 | 166.00 | 173.00 | 6.00 | 3.50 |
| G175169127GB/N | 175.00 | 169.00 | 175.00 | 12.70 | 3.00 |
| G175169192GB/N | 175.00 | 169.00 | 175.00 | 19.20 | 3.00 |
| G175169254GB/N | 175.00 | 169.00 | 175.00 | 25.40 | 3.00 |
| G175169317GB/N | 175.00 | 169.00 | 175.00 | 31.70 | 3.00 |
| G175170150GB/N | 175.00 | 170.00 | 175.00 | 15.00 | 2.50 |
| G175170160GB/N | 175.00 | 170.00 | 175.00 | 16.00 | 2.50 |
| G175170250GB/N | 175.00 | 170.00 | 175.00 | 25.00 | 2.50 |
| G176170192GB/N | 176.00 | 170.00 | 176.00 | 19.20 | 3.00 |
| G176170254GB/N | 176.00 | 170.00 | 176.00 | 25.40 | 3.00 |
| G180174130GB/N | 180.00 | 174.00 | 180.00 | 13.00 | 3.00 |
| G180174140GB/N | 180.00 | 174.00 | 180.00 | 14.00 | 3.00 |
| G180174192GB/N | 180.00 | 174.00 | 180.00 | 19.20 | 3.00 |
| G180174300GB/N | 180.00 | 174.00 | 180.00 | 30.00 | 3.00 |
| G180174317GB/N | 180.00 | 174.00 | 180.00 | 31.70 | 3.00 |



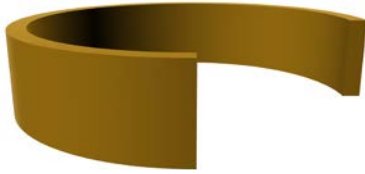
GB/N series - GF.NYLON



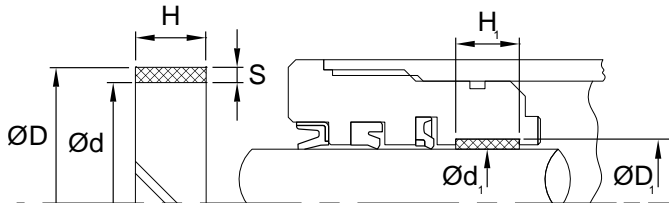
| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|----------------|---------------|---------------|------------------------------|-------|------|
| | | | D | H | S |
| G180175150GB/N | 180.00 | 175.00 | 180.00 | 15.00 | 2.50 |
| G180175160GB/N | 180.00 | 175.00 | 180.00 | 16.00 | 2.50 |
| G180175250GB/N | 180.00 | 175.00 | 180.00 | 25.00 | 2.50 |
| G180176250GB/N | 180.00 | 176.00 | 180.00 | 25.00 | 2.00 |
| G181175130GB/N | 181.00 | 175.00 | 181.00 | 13.00 | 3.00 |
| G185179192GB/N | 185.00 | 179.00 | 185.00 | 19.20 | 3.00 |
| G185179254GB/N | 185.00 | 179.00 | 185.00 | 25.40 | 3.00 |
| G185180150GB/N | 185.00 | 180.00 | 185.00 | 15.00 | 2.50 |
| G185180160GB/N | 185.00 | 180.00 | 185.00 | 16.00 | 2.50 |
| G185180250GB/N | 185.00 | 180.00 | 185.00 | 25.00 | 2.50 |
| G186180192GB/N | 186.00 | 180.00 | 186.00 | 19.20 | 3.00 |
| G186180254GB/N | 186.00 | 180.00 | 186.00 | 25.40 | 3.00 |
| G190184192GB/N | 190.00 | 184.00 | 190.00 | 19.20 | 3.00 |
| G190184254GB/N | 190.00 | 184.00 | 190.00 | 25.40 | 3.00 |
| G190184317GB/N | 190.00 | 184.00 | 190.00 | 31.70 | 3.00 |
| G190185150GB/N | 190.00 | 185.00 | 190.00 | 15.00 | 2.50 |
| G190185250GB/N | 190.00 | 185.00 | 190.00 | 25.00 | 2.50 |
| G193187250GB/N | 193.00 | 187.00 | 193.00 | 25.00 | 3.00 |
| G195190150GB/N | 195.00 | 190.00 | 195.00 | 15.00 | 2.50 |
| G195190160GB/N | 195.00 | 190.00 | 195.00 | 16.00 | 2.50 |
| G195190250GB/N | 195.00 | 190.00 | 195.00 | 25.00 | 2.50 |
| G196190130GB/N | 196.00 | 190.00 | 196.00 | 13.00 | 3.00 |
| G196190140GB/N | 196.00 | 190.00 | 196.00 | 14.00 | 3.00 |
| G196190192GB/N | 196.00 | 190.00 | 196.00 | 19.20 | 3.00 |
| G196190250GB/N | 196.00 | 190.00 | 196.00 | 25.00 | 3.00 |
| G196190254GB/N | 196.00 | 190.00 | 196.00 | 25.40 | 3.00 |
| G199193130GB/N | 199.00 | 193.00 | 199.00 | 13.00 | 3.00 |
| G200194192GB/N | 200.00 | 194.00 | 200.00 | 19.20 | 3.00 |
| G200194254GB/N | 200.00 | 194.00 | 200.00 | 25.40 | 3.00 |
| G200194317GB/N | 200.00 | 194.00 | 200.00 | 31.70 | 3.00 |
| G200194445GB/N | 200.00 | 194.00 | 200.00 | 44.45 | 3.00 |
| G200195160GB/N | 200.00 | 195.00 | 200.00 | 16.00 | 2.50 |
| G200195250GB/N | 200.00 | 195.00 | 200.00 | 25.00 | 2.50 |
| G200196250GB/N | 200.00 | 196.00 | 200.00 | 25.00 | 2.00 |
| G205200250GB/N | 205.00 | 200.00 | 205.00 | 25.00 | 2.50 |
| G206200192GB/N | 206.00 | 200.00 | 206.00 | 19.20 | 3.00 |
| G206200254GB/N | 206.00 | 200.00 | 206.00 | 25.40 | 3.00 |
| G210202300GB/N | 210.00 | 202.00 | 210.00 | 30.00 | 4.00 |
| G210204192GB/N | 210.00 | 204.00 | 210.00 | 19.20 | 3.00 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|----------------|---------------|---------------|------------------------------|-------|------|
| | | | D | H | S |
| G210204254GB/N | 210.00 | 204.00 | 210.00 | 25.40 | 3.00 |
| G210204317GB/N | 210.00 | 204.00 | 210.00 | 31.70 | 3.00 |
| G210205250GB/N | 210.00 | 205.00 | 210.00 | 25.00 | 2.50 |
| G215210250GB/N | 215.00 | 210.00 | 215.00 | 25.00 | 2.50 |
| G216210192GB/N | 216.00 | 210.00 | 216.00 | 19.20 | 3.00 |
| G216210254GB/N | 216.00 | 210.00 | 216.00 | 25.40 | 3.00 |
| G216210317GB/N | 216.00 | 210.00 | 216.00 | 31.70 | 3.00 |
| G220214192GB/N | 220.00 | 214.00 | 220.00 | 19.20 | 3.00 |
| G220214254GB/N | 220.00 | 214.00 | 220.00 | 25.40 | 3.00 |
| G220215250GB/N | 220.00 | 215.00 | 220.00 | 25.00 | 2.50 |
| G225219192GB/N | 225.00 | 219.00 | 225.00 | 19.20 | 3.00 |
| G225220250GB/N | 225.00 | 220.00 | 225.00 | 25.00 | 2.50 |
| G226220254GB/N | 226.00 | 220.00 | 226.00 | 25.40 | 3.00 |
| G226220317GB/N | 226.00 | 220.00 | 226.00 | 31.70 | 3.00 |
| G230224192GB/N | 230.00 | 224.00 | 230.00 | 19.20 | 3.00 |
| G230224254GB/N | 230.00 | 224.00 | 230.00 | 25.40 | 3.00 |
| G230224317GB/N | 230.00 | 224.00 | 230.00 | 31.70 | 3.00 |
| G230225250GB/N | 230.00 | 225.00 | 230.00 | 25.00 | 2.50 |
| G233227192GB/N | 233.00 | 227.00 | 233.00 | 19.20 | 3.00 |
| G233227254GB/N | 233.00 | 227.00 | 233.00 | 25.40 | 3.00 |
| G235230250GB/N | 235.00 | 230.00 | 235.00 | 25.00 | 2.50 |
| G236230192GB/N | 236.00 | 230.00 | 236.00 | 19.20 | 3.00 |
| G240234192GB/N | 240.00 | 234.00 | 240.00 | 19.20 | 3.00 |
| G240235250GB/N | 240.00 | 235.00 | 240.00 | 25.00 | 2.50 |
| G245240250GB/N | 245.00 | 240.00 | 245.00 | 25.00 | 2.50 |
| G246240192GB/N | 246.00 | 240.00 | 246.00 | 19.20 | 3.00 |
| G250244192GB/N | 250.00 | 244.00 | 250.00 | 19.20 | 3.00 |
| G250245250GB/N | 250.00 | 245.00 | 250.00 | 25.00 | 2.50 |
| G255250250GB/N | 255.00 | 250.00 | 255.00 | 25.00 | 2.50 |
| G256250192GB/N | 256.00 | 250.00 | 256.00 | 19.20 | 3.00 |
| G266260192GB/N | 266.00 | 260.00 | 266.00 | 19.20 | 3.00 |
| G270264192GB/N | 270.00 | 264.00 | 270.00 | 19.20 | 3.00 |
| G276270192GB/N | 276.00 | 270.00 | 276.00 | 19.20 | 3.00 |
| G280274192GB/N | 280.00 | 274.00 | 280.00 | 19.20 | 3.00 |
| G286280192GB/N | 286.00 | 280.00 | 286.00 | 19.20 | 3.00 |
| G290284120GB/N | 290.00 | 284.00 | 290.00 | 12.00 | 3.00 |
| G296290192GB/N | 296.00 | 290.00 | 296.00 | 19.20 | 3.00 |
| G300294192GB/N | 300.00 | 294.00 | 300.00 | 19.20 | 3.00 |
| G306300192GB/N | 306.00 | 300.00 | 306.00 | 19.20 | 3.00 |

WR-CAT - Guiding - Piston application - Inch



| Standard Material | Temperature Range |
|-------------------|--------------------------------------|
| GF.Nylon | -65°F to +275°F (-54°C to +135°C) |



The **WR-CAT-style** wear-rings are primarily used on hydraulic/pneumatic rod glands. Their main function is to prevent metal-to-metal scoring as well as insuring that reciprocating parts are properly centered. Usually manufactured our of glass-filled nylon, other popular materials are also available.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department.

| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|--------------|---------------|------------------|--------------------|------------------|--------|------------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| RCAT-1182717 | 75.00 | + .100 - .000 | 75.00 | + .020 - .020 | 70.00 | + .050 - .050 |
| RCAT-1057252 | 80.00 | | 80.00 | | 71.98 | |
| RCAT-0997002 | 80.00 | | 80.00 | | 73.98 | |
| RCAT-1052630 | 90.00 | | 90.00 | | 81.98 | |
| RCAT-0996976 | 90.00 | | 90.00 | | 83.98 | |
| RCAT-0931628 | 100.00 | | 100.00 | | 91.93 | |
| RCAT-0931605 | 100.00 | | 100.00 | | 93.87 | |
| RCAT-1333096 | 100.76 | | 100.76 | | 91.93 | |
| RCAT-1333097 | 100.76 | | 100.76 | | 93.87 | |
| RCAT-0931629 | 110.00 | | 110.00 | | 101.98 | |
| RCAT-0931603 | 110.00 | | 110.00 | | 103.87 | |
| RCAT-1333100 | 110.76 | | 110.76 | | 101.98 | |
| RCAT-1333101 | 110.76 | | 110.76 | | 103.87 | |
| RCAT-0931630 | 120.00 | | 120.00 | | 111.93 | |
| RCAT-0931604 | 120.00 | | 120.00 | | 113.87 | |
| RCAT-0875505 | 120.00 | | 120.00 | | 113.87 | |
| RCAT-1082888 | 120.76 | | 120.76 | | 111.93 | |
| RCAT-1233153 | 120.76 | | 120.76 | | 113.87 | |
| RCAT-1082885 | 120.76 | | 120.76 | | 113.87 | |
| RCAT-7Y4632 | 130.00 | | 130.00 | | 121.93 | |
| RCAT-1184019 | 130.00 | | 130.00 | | 122.87 | |
| RCAT-1082890 | 130.76 | ▼ | 130.76 | ▼ | 121.93 | ▼ |

| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|--------------|---------------|------------------|--------------------|------------------|--------|------------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| RCAT-1082884 | 130.76 | + .100 - .000 | 130.76 | + .020 - .020 | 122.87 | + .050 - .050 |
| RCAT-0961800 | 140.00 | | 140.00 | | 131.93 | |
| RCAT-1076264 | 140.00 | | 140.00 | | 131.93 | |
| RCAT-0875429 | 140.00 | | 140.00 | | 132.87 | |
| RCAT-1076263 | 140.00 | | 140.00 | | 134.87 | |
| RCAT-1333104 | 140.76 | | 140.76 | | 131.93 | |
| RCAT-1356988 | 140.76 | | 140.76 | | 132.87 | |
| RCAT-1333105 | 140.76 | | 140.76 | | 134.87 | |
| RCAT-0961581 | 150.00 | | 150.00 | | 141.93 | |
| RCAT-7Y4697 | 150.00 | | 150.00 | | 142.87 | |
| RCAT-1082889 | 150.76 | | 150.76 | | 141.93 | |
| RCAT-1082886 | 150.76 | | 150.76 | | 142.87 | |
| RCAT-0963201 | 160.00 | | 160.00 | | 151.93 | |
| RCAT-0875539 | 160.00 | | 160.00 | | 152.87 | |
| RCAT-1333108 | 160.76 | | 160.76 | | 151.93 | |
| RCAT-1333109 | 160.76 | | 160.76 | | 152.87 | |
| RCAT-1057262 | 170.00 | | 170.00 | | 161.87 | |
| RCAT-0965609 | 170.00 | | 170.00 | | 161.93 | |
| RCAT-1333113 | 170.76 | | 170.76 | | 161.87 | |
| RCAT-1333112 | 170.76 | ▼ | 170.76 | | 161.93 | |
| RCAT-1052653 | 180.00 | + .130 - .000 | 180.00 | | 171.86 | |
| RCAT-0965167 | 180.00 | | 180.00 | ▼ | 171.93 | ▼ |

All manufacturer's names, part numbers and descriptions are use for reference purpose only. We do not imply that any part shown is the product of these manufacturers.



WR-CAT series - NYLON

| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|--------------|---------------|------------------|--------------------|------------------|--------|------------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| RCAT-1333117 | 180.76 | +0.130 -0.000 | 180.76 | +0.020 -0.020 | 171.86 | +0.050 -0.050 |
| RCAT-1333116 | 180.76 | | 180.76 | | 171.93 | |
| RCAT-0857248 | 200.00 | | 200.00 | | 191.93 | |
| RCAT-9X3570 | 200.00 | | 200.00 | | 193.42 | |
| RCAT-1334884 | 200.76 | | 200.76 | | 191.93 | |

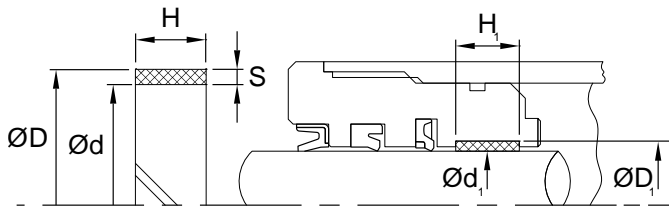
| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|--------------|---------------|------------------|--------------------|------------------|--------|------------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| RCAT-1334885 | 200.76 | +0.130 -0.000 | 200.76 | +0.020 -0.020 | 193.42 | +0.050 -0.050 |
| RCAT-1251204 | 220.00 | | 220.00 | | 213.42 | |
| RCAT-416443 | 220.00 | | 220.00 | | 211.93 | |
| RCAT-6E0496 | 220.00 | | 220.00 | | 213.42 | |

All manufacturer's names, part numbers and descriptions are use for reference purpose only.
We do not imply that any part shown is the product of these manufacturers.

WR-CAT - Guiding - Rod application - Inch



| Standard Material | Temperature Range |
|-------------------|---------------------------------------|
| GF.Nylon | -40°F to +250°F (-40°C to +121 °C) |



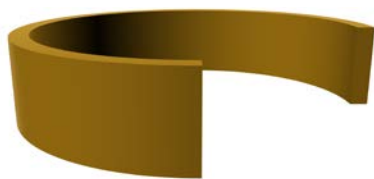
The **WR-CAT-style** wear-rings are primarily used on hydraulic/pneumatic rod glands. Their main function is to prevent metal-to-metal scoring as well as insuring that reciprocating parts are properly centered. Usually manufactured our of glass-filled nylon, other popular materials are also available.

| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|-------------|---------------|---------------|--------------------|---------------|-------|---------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| RCAT-9X3571 | 140.00 | +0.043/-0.106 | 145.08 | +0.025/-0.025 | 50.00 | +0.076/-0.076 |

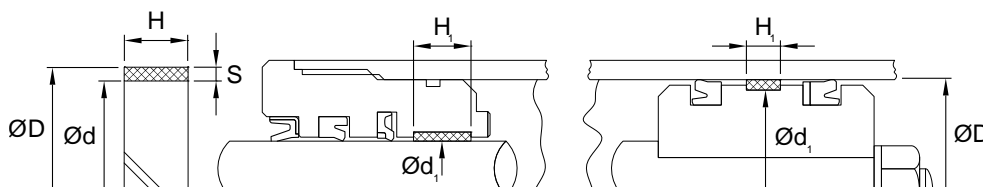
| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|-------------|---------------|---------------|--------------------|---------------|-------|---------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| RCAT-6E0499 | 140.00 | +0.043/-0.106 | 155.06 | +0.025/-0.025 | 60.00 | +0.076/-0.076 |

All manufacturer's names, part numbers and descriptions are use for reference purpose only.
We do not imply that any part shown is the product of these manufacturers.

GC - Guiding Elements - Phenolic



| Standard Material | Temperature Range | Compressive Strength | Surface Speed |
|-------------------|--------------------------------------|----------------------------|-------------------|
| Phenolic | -40°F to +266°F (-40°C to +130°C) | ≤38 810 psi (≤2675 bar) | <3 ft/s (0.9 m/s) |



GC-style has been developed to substitute traditional bronze guides in hydraulic cylinders. They guide the rod or the piston and prevent metallic contact with the cylinder when radial forces act perpendicular to the direction of movement.

Since GRF guide rings are machined from tube, the thickness can be very precise for high guiding performance.

The compound that use these guides is a cotton fabric bound with thermosetting phenolic resin characterized by excellent heavy loads resistance, rigidity, hardness and high service temperature.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department.

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G015012063GC | 15.00 | 12.00 | 15.00 | 6.30 | 1.50 |
| G016011056GC | 16.00 | 11.00 | 16.00 | 5.60 | 2.50 |
| G019016060GC | 19.00 | 16.00 | 19.00 | 6.00 | 1.50 |
| G020015056GC | 20.00 | 15.00 | 20.00 | 5.60 | 2.50 |
| G020016080GC | 20.00 | 16.00 | 20.00 | 8.00 | 2.00 |
| G020016100GC | 20.00 | 16.00 | 20.00 | 10.00 | 2.00 |
| G021016056GC | 21.00 | 16.00 | 21.00 | 5.60 | 2.50 |
| G021018060GC | 21.00 | 18.00 | 21.00 | 6.00 | 1.50 |
| G022018080GC | 22.00 | 18.00 | 22.00 | 8.00 | 2.00 |
| G023018056GC | 23.00 | 18.00 | 23.00 | 5.60 | 2.50 |
| G023020200GC | 23.00 | 20.00 | 23.00 | 20.00 | 1.50 |
| G024018100GC | 24.00 | 18.00 | 24.00 | 10.00 | 3.00 |
| G024020080GC | 24.00 | 20.00 | 24.00 | 8.00 | 2.00 |
| G024020200GC | 24.00 | 20.00 | 24.00 | 20.00 | 2.00 |
| G025020056GC | 25.00 | 20.00 | 25.00 | 5.60 | 2.50 |
| G025020097GC | 25.00 | 20.00 | 25.00 | 9.70 | 2.50 |
| G025021080GC | 25.00 | 21.00 | 25.00 | 8.00 | 2.00 |
| G025022100GC | 25.00 | 22.00 | 25.00 | 10.00 | 1.50 |
| G026020100GC | 26.00 | 20.00 | 26.00 | 10.00 | 3.00 |
| G026022080GC | 26.00 | 22.00 | 26.00 | 8.00 | 2.00 |
| G026022097GC | 26.00 | 22.00 | 26.00 | 9.70 | 2.00 |
| G026022150GC | 26.00 | 22.00 | 26.00 | 15.00 | 2.00 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G027022056GC | 27.00 | 22.00 | 27.00 | 5.60 | 2.50 |
| G028024080GC | 28.00 | 24.00 | 28.00 | 8.00 | 2.00 |
| G028025080GC | 28.00 | 25.00 | 28.00 | 8.00 | 1.50 |
| G028025100GC | 28.00 | 25.00 | 28.00 | 10.00 | 1.50 |
| G028025200GC | 28.00 | 25.00 | 28.00 | 20.00 | 1.50 |
| G029022080GC | 29.00 | 22.00 | 29.00 | 8.00 | 3.50 |
| G029022200GC | 29.00 | 22.00 | 29.00 | 20.00 | 3.50 |
| G029022250GC | 29.00 | 22.00 | 29.00 | 25.00 | 3.50 |
| G029025080GC | 29.00 | 25.00 | 29.00 | 8.00 | 2.00 |
| G029025100GC | 29.00 | 25.00 | 29.00 | 10.00 | 2.00 |
| G029025200GC | 29.00 | 25.00 | 29.00 | 20.00 | 2.00 |
| G029025250GC | 29.00 | 25.00 | 29.00 | 25.00 | 2.00 |
| G030022080GC | 30.00 | 22.00 | 30.00 | 8.00 | 4.00 |
| G030022150GC | 30.00 | 22.00 | 30.00 | 15.00 | 4.00 |
| G030022200GC | 30.00 | 22.00 | 30.00 | 20.00 | 4.00 |
| G030025056GC | 30.00 | 25.00 | 30.00 | 5.60 | 2.50 |
| G030025080GC | 30.00 | 25.00 | 30.00 | 8.00 | 2.50 |
| G030025097GC | 30.00 | 25.00 | 30.00 | 9.70 | 2.50 |
| G030025100GC | 30.00 | 25.00 | 30.00 | 10.00 | 2.50 |
| G030025150GC | 30.00 | 25.00 | 30.00 | 15.00 | 2.50 |
| G030025200GC | 30.00 | 25.00 | 30.00 | 20.00 | 2.50 |
| G030026080GC | 30.00 | 26.00 | 30.00 | 8.00 | 2.00 |



GC series - Phenolic



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|--------------|--------------|------------------------------|-------|------|
| | | | D | H | S |
| G031022080GC | 31.00 | 22.00 | 31.00 | 8.00 | 4.50 |
| G031022160GC | 31.00 | 22.00 | 31.00 | 16.00 | 4.50 |
| G031025100GC | 31.00 | 25.00 | 31.00 | 10.00 | 3.00 |
| G031025160GC | 31.00 | 25.00 | 31.00 | 16.00 | 3.00 |
| G031027155GC | 31.80 | 27.70 | 31.80 | 15.50 | 2.05 |
| G031028100GC | 31.00 | 28.00 | 31.00 | 10.00 | 1.50 |
| G031028160GC | 31.00 | 28.00 | 31.00 | 16.00 | 1.50 |
| G032022080GC | 32.00 | 22.00 | 32.00 | 8.00 | 5.00 |
| G032022200GC | 32.00 | 22.00 | 32.00 | 20.00 | 5.00 |
| G032025080GC | 32.00 | 25.00 | 32.00 | 8.00 | 3.50 |
| G032025200GC | 32.00 | 25.00 | 32.00 | 20.00 | 3.50 |
| G032027056GC | 32.00 | 27.00 | 32.00 | 5.60 | 2.50 |
| G032028080GC | 32.00 | 28.00 | 32.00 | 8.00 | 2.00 |
| G032028100GC | 32.00 | 28.00 | 32.00 | 10.00 | 2.00 |
| G032028200GC | 32.00 | 28.00 | 32.00 | 20.00 | 2.00 |
| G033022200GC | 33.00 | 22.00 | 33.00 | 20.00 | 5.50 |
| G033025200GC | 33.00 | 25.00 | 33.00 | 20.00 | 4.00 |
| G033028056GC | 33.00 | 28.00 | 33.00 | 5.60 | 2.50 |
| G033028063GC | 33.00 | 28.00 | 33.00 | 6.30 | 2.50 |
| G033028065GC | 33.00 | 28.00 | 33.00 | 6.50 | 2.50 |
| G033028200GC | 33.00 | 28.00 | 33.00 | 20.00 | 2.50 |
| G034028100GC | 34.00 | 28.00 | 34.00 | 10.00 | 3.00 |
| G034030080GC | 34.00 | 30.00 | 34.00 | 8.00 | 2.00 |
| G034030097GC | 34.00 | 30.00 | 34.00 | 9.70 | 2.00 |
| G034030100GC | 34.00 | 30.00 | 34.00 | 10.00 | 2.00 |
| G034030200GC | 34.00 | 30.00 | 34.00 | 20.00 | 2.00 |
| G034030250GC | 34.00 | 30.00 | 34.00 | 25.00 | 2.00 |
| G035029100GC | 35.00 | 29.00 | 35.00 | 10.00 | 3.00 |
| G035030056GC | 35.00 | 30.00 | 35.00 | 5.60 | 2.50 |
| G035030097GC | 35.00 | 30.00 | 35.00 | 9.70 | 2.50 |
| G035030100GC | 35.00 | 30.00 | 35.00 | 10.00 | 2.50 |
| G035030200GC | 35.00 | 30.00 | 35.00 | 20.00 | 2.50 |
| G035030250GC | 35.00 | 30.00 | 35.00 | 25.00 | 2.50 |
| G035030300GC | 35.00 | 30.00 | 35.00 | 30.00 | 2.50 |
| G035031100GC | 35.00 | 31.00 | 35.00 | 10.00 | 2.00 |
| G035032042GC | 35.10 | 32.00 | 35.10 | 4.20 | 1.55 |
| G036031056GC | 36.00 | 31.00 | 36.00 | 5.60 | 2.50 |
| G036031060GC | 36.00 | 31.00 | 36.00 | 6.00 | 2.50 |
| G036032100GC | 36.00 | 32.00 | 36.00 | 10.00 | 2.00 |
| G036032150GC | 36.00 | 32.00 | 36.00 | 15.00 | 2.00 |
| G036032200GC | 36.00 | 32.00 | 36.00 | 20.00 | 2.00 |
| G036033063GC | 36.00 | 33.00 | 36.00 | 6.30 | 1.50 |
| G037032056GC | 37.00 | 32.00 | 37.00 | 5.60 | 2.50 |
| G037032063GC | 37.00 | 32.00 | 37.00 | 6.30 | 2.50 |
| G037032065GC | 37.00 | 32.00 | 37.00 | 6.50 | 2.50 |
| G037032097GC | 37.00 | 32.00 | 37.00 | 9.70 | 2.50 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|--------------|--------------|------------------------------|-------|------|
| | | | D | H | S |
| G038032060GC | 38.00 | 32.00 | 38.00 | 6.00 | 3.00 |
| G038032100GC | 38.00 | 32.00 | 38.00 | 10.00 | 3.00 |
| G038032381GC | 38.00 | 32.00 | 38.00 | 38.10 | 3.00 |
| G038034040GC | 38.00 | 34.00 | 38.00 | 4.00 | 2.00 |
| G038035100GC | 38.00 | 35.00 | 38.00 | 10.00 | 1.50 |
| G039035100GC | 39.00 | 35.00 | 39.00 | 10.00 | 2.00 |
| G039035200GC | 39.00 | 35.00 | 39.00 | 20.00 | 2.00 |
| G039035250GC | 39.00 | 35.00 | 39.00 | 25.00 | 2.00 |
| G040030050GC | 40.00 | 30.00 | 40.00 | 5.00 | 5.00 |
| G040033100GC | 40.00 | 33.00 | 40.00 | 10.00 | 3.50 |
| G040034100GC | 40.00 | 34.00 | 40.00 | 10.00 | 3.00 |
| G040035056GC | 40.00 | 35.00 | 40.00 | 5.60 | 2.50 |
| G040035080GC | 40.00 | 35.00 | 40.00 | 8.00 | 2.50 |
| G040035095GC | 40.00 | 35.00 | 40.00 | 9.50 | 2.50 |
| G040035097GC | 40.00 | 35.00 | 40.00 | 9.70 | 2.50 |
| G040035100GC | 40.00 | 35.00 | 40.00 | 10.00 | 2.50 |
| G040035150GC | 40.00 | 35.00 | 40.00 | 15.00 | 2.50 |
| G040035200GC | 40.00 | 35.00 | 40.00 | 20.00 | 2.50 |
| G040036040GC | 40.00 | 36.00 | 40.00 | 4.00 | 2.00 |
| G040036050GC | 40.00 | 36.00 | 40.00 | 5.00 | 2.00 |
| G040036080GC | 40.00 | 36.00 | 40.00 | 8.00 | 2.00 |
| G040036081GC | 40.00 | 36.00 | 40.00 | 8.10 | 2.00 |
| G040036097GC | 40.00 | 36.00 | 40.00 | 9.70 | 2.00 |
| G040036100GC | 40.00 | 36.00 | 40.00 | 10.00 | 2.00 |
| G040036200GC | 40.00 | 36.00 | 40.00 | 20.00 | 2.00 |
| G040036300GC | 40.00 | 36.00 | 40.00 | 30.00 | 2.00 |
| G041035100GC | 41.00 | 35.00 | 41.00 | 10.00 | 3.00 |
| G041036056GC | 41.00 | 36.00 | 41.00 | 5.60 | 2.50 |
| G041036063GC | 41.00 | 36.00 | 41.00 | 6.30 | 2.50 |
| G041036097GC | 41.00 | 36.00 | 41.00 | 9.70 | 2.50 |
| G042036100GC | 42.00 | 36.00 | 42.00 | 10.00 | 3.00 |
| G044040063GC | 44.00 | 40.00 | 44.00 | 6.30 | 2.00 |
| G044040097GC | 44.00 | 40.00 | 44.00 | 9.70 | 2.00 |
| G044040100GC | 44.00 | 40.00 | 44.00 | 10.00 | 2.00 |
| G044040120GC | 44.00 | 40.00 | 44.00 | 12.00 | 2.00 |
| G044040200GC | 44.00 | 40.00 | 44.00 | 20.00 | 2.00 |
| G044040250GC | 44.00 | 40.00 | 44.00 | 25.00 | 2.00 |
| G044040350GC | 44.00 | 40.00 | 44.00 | 35.00 | 2.00 |
| G045039100GC | 45.00 | 39.00 | 45.00 | 10.00 | 3.00 |
| G045039140GC | 45.00 | 39.00 | 45.00 | 14.00 | 3.00 |
| G045039150GC | 45.00 | 39.00 | 45.00 | 15.00 | 3.00 |
| G045039200GC | 45.00 | 39.00 | 45.00 | 20.00 | 3.00 |
| G045040056GC | 45.00 | 40.00 | 45.00 | 5.60 | 2.50 |
| G045040080GC | 45.00 | 40.00 | 45.00 | 8.00 | 2.50 |
| G045040095GC | 45.00 | 40.00 | 45.00 | 9.50 | 2.50 |
| G045040097GC | 45.00 | 40.00 | 45.00 | 9.70 | 2.50 |

GC series - Phenolic



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G045040100GC | 45.00 | 40.00 | 45.00 | 10.00 | 2.50 |
| G045040120GC | 45.00 | 40.00 | 45.00 | 12.00 | 2.50 |
| G045040150GC | 45.00 | 40.00 | 45.00 | 15.00 | 2.50 |
| G045040200GC | 45.00 | 40.00 | 45.00 | 20.00 | 2.50 |
| G045040250GC | 45.00 | 40.00 | 45.00 | 25.00 | 2.50 |
| G045040300GC | 45.00 | 40.00 | 45.00 | 30.00 | 2.50 |
| G045040500GC | 45.00 | 40.00 | 45.00 | 50.00 | 2.50 |
| G045041050GC | 45.00 | 41.00 | 45.00 | 5.00 | 2.00 |
| G045041120GC | 45.00 | 41.00 | 45.00 | 12.00 | 2.00 |
| G045041200GC | 45.00 | 41.00 | 45.00 | 20.00 | 2.00 |
| G045042060GC | 45.00 | 42.00 | 45.00 | 6.00 | 1.50 |
| G046040095GC | 46.00 | 40.00 | 46.00 | 9.50 | 3.00 |
| G046040100GC | 46.00 | 40.00 | 46.00 | 10.00 | 3.00 |
| G046040150GC | 46.00 | 40.00 | 46.00 | 15.00 | 3.00 |
| G046040200GC | 46.00 | 40.00 | 46.00 | 20.00 | 3.00 |
| G046040250GC | 46.00 | 40.00 | 46.00 | 25.00 | 3.00 |
| G046040381GC | 46.00 | 40.00 | 46.00 | 38.10 | 3.00 |
| G047042097GC | 47.00 | 42.00 | 47.00 | 9.70 | 2.50 |
| G049045120GC | 49.00 | 45.00 | 49.00 | 12.00 | 2.00 |
| G049045150GC | 49.00 | 45.00 | 49.00 | 15.00 | 2.00 |
| G049045250GC | 49.00 | 45.00 | 49.00 | 25.00 | 2.00 |
| G050044050GC | 50.00 | 44.00 | 50.00 | 5.00 | 3.00 |
| G050044080GC | 50.00 | 44.00 | 50.00 | 8.00 | 3.00 |
| G050044100GC | 50.00 | 44.00 | 50.00 | 10.00 | 3.00 |
| G050044127GC | 50.00 | 44.00 | 50.00 | 12.70 | 3.00 |
| G050044160GC | 50.00 | 44.00 | 50.00 | 16.00 | 3.00 |
| G050044200GC | 50.00 | 44.00 | 50.00 | 20.00 | 3.00 |
| G050044250GC | 50.00 | 44.00 | 50.00 | 25.00 | 3.00 |
| G050044300GC | 50.00 | 44.00 | 50.00 | 30.00 | 3.00 |
| G050045056GC | 50.00 | 45.00 | 50.00 | 5.60 | 2.50 |
| G050045063GC | 50.00 | 45.00 | 50.00 | 6.30 | 2.50 |
| G050045070GC | 50.00 | 45.00 | 50.00 | 7.00 | 2.50 |
| G050045080GC | 50.00 | 45.00 | 50.00 | 8.00 | 2.50 |
| G050045095GC | 50.00 | 45.00 | 50.00 | 9.50 | 2.50 |
| G050045097GC | 50.00 | 45.00 | 50.00 | 9.70 | 2.50 |
| G050045100GC | 50.00 | 45.00 | 50.00 | 10.00 | 2.50 |
| G050045102GC | 50.00 | 45.00 | 50.00 | 10.20 | 2.50 |
| G050045120GC | 50.00 | 45.00 | 50.00 | 12.00 | 2.50 |
| G050045150GC | 50.00 | 45.00 | 50.00 | 15.00 | 2.50 |
| G050045200GC | 50.00 | 45.00 | 50.00 | 20.00 | 2.50 |
| G050045250GC | 50.00 | 45.00 | 50.00 | 25.00 | 2.50 |
| G050045300GC | 50.00 | 45.00 | 50.00 | 30.00 | 2.50 |
| G050045350GC | 50.00 | 45.00 | 50.00 | 35.00 | 2.50 |
| G050046050GC | 50.00 | 46.00 | 50.00 | 5.00 | 2.00 |
| G050046100GC | 50.00 | 46.00 | 50.00 | 10.00 | 2.00 |
| G050046120GC | 50.00 | 46.00 | 50.00 | 12.00 | 2.00 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G050046150GC | 50.00 | 46.00 | 50.00 | 15.00 | 2.00 |
| G050046200GC | 50.00 | 46.00 | 50.00 | 20.00 | 2.00 |
| G050046350GC | 50.00 | 46.00 | 50.00 | 35.00 | 2.00 |
| G051045060GC | 51.00 | 45.00 | 51.00 | 6.00 | 3.00 |
| G051045125GC | 51.00 | 45.00 | 51.00 | 12.50 | 3.00 |
| G051045130GC | 51.00 | 45.00 | 51.00 | 13.00 | 3.00 |
| G051045200GC | 51.00 | 45.00 | 51.00 | 20.00 | 3.00 |
| G051045220GC | 51.00 | 45.00 | 51.00 | 22.00 | 3.00 |
| G051045400GC | 51.00 | 45.00 | 51.00 | 40.00 | 3.00 |
| G051045500GC | 51.00 | 45.00 | 51.00 | 50.00 | 3.00 |
| G052046050GC | 52.00 | 46.00 | 52.00 | 5.00 | 3.00 |
| G052049080GC | 52.00 | 49.00 | 52.00 | 8.00 | 1.50 |
| G053048058GC | 53.00 | 48.00 | 53.00 | 5.80 | 2.50 |
| G053049250GC | 53.50 | 49.50 | 53.50 | 25.00 | 2.00 |
| G053050080GC | 53.00 | 50.00 | 53.00 | 8.00 | 1.50 |
| G053050120GC | 53.00 | 50.00 | 53.00 | 12.00 | 1.50 |
| G053050247GC | 53.80 | 50.80 | 53.80 | 24.70 | 1.50 |
| G054048050GC | 54.00 | 48.00 | 54.00 | 5.00 | 3.00 |
| G054048250GC | 54.00 | 48.00 | 54.00 | 25.00 | 3.00 |
| G054050120GC | 54.00 | 50.00 | 54.00 | 12.00 | 2.00 |
| G055049056GC | 55.00 | 49.00 | 55.00 | 5.60 | 3.00 |
| G055049060GC | 55.00 | 49.00 | 55.00 | 6.00 | 3.00 |
| G055049127GC | 55.00 | 49.00 | 55.00 | 12.70 | 3.00 |
| G055049150GC | 55.00 | 49.00 | 55.00 | 15.00 | 3.00 |
| G055049160GC | 55.00 | 49.00 | 55.00 | 16.00 | 3.00 |
| G055049200GC | 55.00 | 49.00 | 55.00 | 20.00 | 3.00 |
| G055050056GC | 55.00 | 50.00 | 55.00 | 5.60 | 2.50 |
| G055050063GC | 55.00 | 50.00 | 55.00 | 6.30 | 2.50 |
| G055050080GC | 55.00 | 50.00 | 55.00 | 8.00 | 2.50 |
| G055050095GC | 55.00 | 50.00 | 55.00 | 9.50 | 2.50 |
| G055050097GC | 55.00 | 50.00 | 55.00 | 9.70 | 2.50 |
| G055050100GC | 55.00 | 50.00 | 55.00 | 10.00 | 2.50 |
| G055050150GC | 55.00 | 50.00 | 55.00 | 15.00 | 2.50 |
| G055050200GC | 55.00 | 50.00 | 55.00 | 20.00 | 2.50 |
| G055050250GC | 55.00 | 50.00 | 55.00 | 25.00 | 2.50 |
| G055050300GC | 55.00 | 50.00 | 55.00 | 30.00 | 2.50 |
| G055051097GC | 55.00 | 51.00 | 55.00 | 9.70 | 2.00 |
| G055051100GC | 55.00 | 51.00 | 55.00 | 10.00 | 2.00 |
| G056049150GC | 56.00 | 49.50 | 56.00 | 15.00 | 3.25 |
| G056050095GC | 56.00 | 50.00 | 56.00 | 9.50 | 3.00 |
| G056050100GC | 56.00 | 50.00 | 56.00 | 10.00 | 3.00 |
| G056050130GC | 56.00 | 50.00 | 56.00 | 13.00 | 3.00 |
| G056050160GC | 56.00 | 50.00 | 56.00 | 16.00 | 3.00 |
| G056050200GC | 56.00 | 50.00 | 56.00 | 20.00 | 3.00 |
| G056050250GC | 56.00 | 50.00 | 56.00 | 25.00 | 3.00 |
| G056050300GC | 56.00 | 50.00 | 56.00 | 30.00 | 3.00 |

GC series - Phenolic



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G056051100GC | 56.00 | 51.00 | 56.00 | 10.00 | 2.50 |
| G056051150GC | 56.00 | 51.00 | 56.00 | 15.00 | 2.50 |
| G057050220GC | 57.15 | 50.80 | 57.15 | 22.00 | 3.18 |
| G057052097GC | 57.00 | 52.00 | 57.00 | 9.70 | 2.50 |
| G058053056GC | 58.00 | 53.00 | 58.00 | 5.60 | 2.50 |
| G059055150GC | 59.80 | 55.80 | 59.80 | 15.00 | 2.00 |
| G059055320GC | 59.00 | 55.00 | 59.00 | 32.00 | 2.00 |
| G060054080GC | 60.00 | 54.00 | 60.00 | 8.00 | 3.00 |
| G060054130GC | 60.00 | 54.00 | 60.00 | 13.00 | 3.00 |
| G060054150GC | 60.00 | 54.00 | 60.00 | 15.00 | 3.00 |
| G060054200GC | 60.00 | 54.00 | 60.00 | 20.00 | 3.00 |
| G060054250GC | 60.00 | 54.00 | 60.00 | 25.00 | 3.00 |
| G060055056GC | 60.00 | 55.00 | 60.00 | 5.60 | 2.50 |
| G060055063GC | 60.00 | 55.00 | 60.00 | 6.30 | 2.50 |
| G060055080GC | 60.00 | 55.00 | 60.00 | 8.00 | 2.50 |
| G060055095GC | 60.00 | 55.00 | 60.00 | 9.50 | 2.50 |
| G060055097GC | 60.00 | 55.00 | 60.00 | 9.70 | 2.50 |
| G060055100GC | 60.00 | 55.00 | 60.00 | 10.00 | 2.50 |
| G060055120GC | 60.00 | 55.00 | 60.00 | 12.00 | 2.50 |
| G060055150GC | 60.00 | 55.00 | 60.00 | 15.00 | 2.50 |
| G060055200GC | 60.00 | 55.00 | 60.00 | 20.00 | 2.50 |
| G060055250GC | 60.00 | 55.00 | 60.00 | 25.00 | 2.50 |
| G060055300GC | 60.00 | 55.00 | 60.00 | 30.00 | 2.50 |
| G060056100GC | 60.00 | 56.00 | 60.00 | 10.00 | 2.00 |
| G061055127GC | 61.00 | 55.00 | 61.00 | 12.70 | 3.00 |
| G061055130GC | 61.50 | 55.50 | 61.50 | 13.00 | 3.00 |
| G061055160GC | 61.00 | 55.00 | 61.00 | 16.00 | 3.00 |
| G061055250GC | 61.00 | 55.00 | 61.00 | 25.00 | 3.00 |
| G061056056GC | 61.00 | 56.00 | 61.00 | 5.60 | 2.50 |
| G061056097GC | 61.00 | 56.00 | 61.00 | 9.70 | 2.50 |
| G061056100GC | 61.00 | 56.00 | 61.00 | 10.00 | 2.50 |
| G061056150GC | 61.00 | 56.00 | 61.00 | 15.00 | 2.50 |
| G062055050GC | 62.00 | 55.00 | 62.00 | 5.00 | 3.50 |
| G062055130GC | 62.00 | 55.00 | 62.00 | 13.00 | 3.50 |
| G062056160GC | 62.00 | 56.00 | 62.00 | 16.00 | 3.00 |
| G062056200GC | 62.00 | 56.00 | 62.00 | 20.00 | 3.00 |
| G062056250GC | 62.00 | 56.00 | 62.00 | 25.00 | 3.00 |
| G062056300GC | 62.00 | 56.00 | 62.00 | 30.00 | 3.00 |
| G062056400GC | 62.00 | 56.00 | 62.00 | 40.00 | 3.00 |
| G062057127GC | 62.00 | 57.00 | 62.00 | 12.70 | 2.50 |
| G063057130GC | 63.00 | 57.00 | 63.00 | 13.00 | 3.00 |
| G063057160GC | 63.00 | 57.00 | 63.00 | 16.00 | 3.00 |
| G063057200GC | 63.00 | 57.00 | 63.00 | 20.00 | 3.00 |
| G063058056GC | 63.00 | 58.00 | 63.00 | 5.60 | 2.50 |
| G063058060GC | 63.00 | 58.00 | 63.00 | 6.00 | 2.50 |
| G063058063GC | 63.00 | 58.00 | 63.00 | 6.30 | 2.50 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G063058080GC | 63.00 | 58.00 | 63.00 | 8.00 | 2.50 |
| G063058095GC | 63.00 | 58.00 | 63.00 | 9.50 | 2.50 |
| G063058097GC | 63.00 | 58.00 | 63.00 | 9.70 | 2.50 |
| G063058100GC | 63.00 | 58.00 | 63.00 | 10.00 | 2.50 |
| G063058120GC | 63.00 | 58.00 | 63.00 | 12.00 | 2.50 |
| G063058127GC | 63.00 | 58.00 | 63.00 | 12.70 | 2.50 |
| G063058150GC | 63.00 | 58.00 | 63.00 | 15.00 | 2.50 |
| G063058200GC | 63.00 | 58.00 | 63.00 | 20.00 | 2.50 |
| G063058250GC | 63.00 | 58.00 | 63.00 | 25.00 | 2.50 |
| G063059040GC | 63.00 | 59.00 | 63.00 | 4.00 | 2.00 |
| G063059080GC | 63.00 | 59.00 | 63.00 | 8.00 | 2.00 |
| G063059100GC | 63.00 | 59.00 | 63.00 | 10.00 | 2.00 |
| G064060152GC | 64.00 | 60.00 | 64.00 | 15.20 | 2.00 |
| G065055100GC | 65.00 | 55.00 | 65.00 | 10.00 | 5.00 |
| G065056125GC | 65.00 | 56.00 | 65.00 | 12.50 | 4.50 |
| G065057120GC | 65.00 | 57.00 | 65.00 | 12.00 | 4.00 |
| G065059100GC | 65.00 | 59.00 | 65.00 | 10.00 | 3.00 |
| G065059150GC | 65.00 | 59.00 | 65.00 | 15.00 | 3.00 |
| G065059160GC | 65.00 | 59.00 | 65.00 | 16.00 | 3.00 |
| G065059200GC | 65.00 | 59.00 | 65.00 | 20.00 | 3.00 |
| G065060056GC | 65.00 | 60.00 | 65.00 | 5.60 | 2.50 |
| G065060095GC | 65.00 | 60.00 | 65.00 | 9.50 | 2.50 |
| G065060097GC | 65.00 | 60.00 | 65.00 | 9.70 | 2.50 |
| G065060100GC | 65.00 | 60.00 | 65.00 | 10.00 | 2.50 |
| G065060150GC | 65.00 | 60.00 | 65.00 | 15.00 | 2.50 |
| G065060200GC | 65.00 | 60.00 | 65.00 | 20.00 | 2.50 |
| G065060250GC | 65.00 | 60.00 | 65.00 | 25.00 | 2.50 |
| G065060300GC | 65.00 | 60.00 | 65.00 | 30.00 | 2.50 |
| G065060320GC | 65.00 | 60.00 | 65.00 | 32.00 | 2.50 |
| G065061100GC | 65.00 | 61.00 | 65.00 | 10.00 | 2.00 |
| G066060100GC | 66.00 | 60.00 | 66.00 | 10.00 | 3.00 |
| G066060127GC | 66.00 | 60.00 | 66.00 | 12.70 | 3.00 |
| G066060130GC | 66.00 | 60.00 | 66.00 | 13.00 | 3.00 |
| G066060200GC | 66.00 | 60.00 | 66.00 | 20.00 | 3.00 |
| G066060254GC | 66.00 | 60.00 | 66.00 | 25.40 | 3.00 |
| G066060300GC | 66.00 | 60.00 | 66.00 | 30.00 | 3.00 |
| G066060400GC | 66.00 | 60.00 | 66.00 | 40.00 | 3.00 |
| G066060500GC | 66.00 | 60.00 | 66.00 | 50.00 | 3.00 |
| G066061200GC | 66.00 | 61.00 | 66.00 | 20.00 | 2.50 |
| G067063200GC | 67.00 | 63.00 | 67.00 | 20.00 | 2.00 |
| G068060550GC | 68.00 | 60.00 | 68.00 | 55.00 | 4.00 |
| G068061060GC | 68.00 | 61.00 | 68.00 | 6.00 | 3.50 |
| G068063056GC | 68.00 | 63.00 | 68.00 | 5.60 | 2.50 |
| G068063097GC | 68.00 | 63.00 | 68.00 | 9.70 | 2.50 |
| G068063102GC | 68.00 | 63.00 | 68.00 | 10.20 | 2.50 |
| G068063150GC | 68.00 | 63.00 | 68.00 | 15.00 | 2.50 |

GC series - Phenolic

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G069063090GC | 69.00 | 63.00 | 69.00 | 9.00 | 3.00 |
| G069063127GC | 69.00 | 63.00 | 69.00 | 12.70 | 3.00 |
| G069063130GC | 69.00 | 63.00 | 69.00 | 13.00 | 3.00 |
| G069063150GC | 69.00 | 63.00 | 69.00 | 15.00 | 3.00 |
| G069063180GC | 69.00 | 63.00 | 69.00 | 18.00 | 3.00 |
| G069063200GC | 69.00 | 63.00 | 69.00 | 20.00 | 3.00 |
| G069063300GC | 69.00 | 63.00 | 69.00 | 30.00 | 3.00 |
| G069063310GC | 69.00 | 63.00 | 69.00 | 31.00 | 3.00 |
| G069063350GC | 69.00 | 63.00 | 69.00 | 35.00 | 3.00 |
| G069063400GC | 69.00 | 63.00 | 69.00 | 40.00 | 3.00 |
| G069063508GC | 69.00 | 63.00 | 69.00 | 50.80 | 3.00 |
| G069064100GC | 69.00 | 64.00 | 69.00 | 10.00 | 2.50 |
| G069064200GC | 69.00 | 64.00 | 69.00 | 20.00 | 2.50 |
| G069065150GC | 69.00 | 65.00 | 69.00 | 15.00 | 2.00 |
| G070060150GC | 70.00 | 60.00 | 70.00 | 15.00 | 5.00 |
| G070062120GC | 70.00 | 62.00 | 70.00 | 12.00 | 4.00 |
| G070063152GC | 70.00 | 63.70 | 70.00 | 15.20 | 3.15 |
| G070064060GC | 70.00 | 64.00 | 70.00 | 6.00 | 3.00 |
| G070064092GC | 70.00 | 64.00 | 70.00 | 9.20 | 3.00 |
| G070064130GC | 70.00 | 64.00 | 70.00 | 13.00 | 3.00 |
| G070064145GC | 70.00 | 64.30 | 70.00 | 14.50 | 2.85 |
| G070064150GC | 70.00 | 64.00 | 70.00 | 15.00 | 3.00 |
| G070064160GC | 70.00 | 64.00 | 70.00 | 16.00 | 3.00 |
| G070064180GC | 70.00 | 64.00 | 70.00 | 18.00 | 3.00 |
| G070064200GC | 70.00 | 64.00 | 70.00 | 20.00 | 3.00 |
| G070064250GC | 70.00 | 64.00 | 70.00 | 25.00 | 3.00 |
| G070065056GC | 70.00 | 65.00 | 70.00 | 5.60 | 2.50 |
| G070065095GC | 70.00 | 65.00 | 70.00 | 9.50 | 2.50 |
| G070065097GC | 70.00 | 65.00 | 70.00 | 9.70 | 2.50 |
| G070065100GC | 70.00 | 65.00 | 70.00 | 10.00 | 2.50 |
| G070065120GC | 70.00 | 65.00 | 70.00 | 12.00 | 2.50 |
| G070065150GC | 70.00 | 65.00 | 70.00 | 15.00 | 2.50 |
| G070065160GC | 70.00 | 65.00 | 70.00 | 16.00 | 2.50 |
| G070065200GC | 70.00 | 65.00 | 70.00 | 20.00 | 2.50 |
| G070065250GC | 70.00 | 65.00 | 70.00 | 25.00 | 2.50 |
| G070065300GC | 70.00 | 65.00 | 70.00 | 30.00 | 2.50 |
| G070066100GC | 70.00 | 66.00 | 70.00 | 10.00 | 2.00 |
| G071064127GC | 71.00 | 64.00 | 71.00 | 12.70 | 3.50 |
| G071065127GC | 71.00 | 65.00 | 71.00 | 12.70 | 3.00 |
| G071065130GC | 71.00 | 65.00 | 71.00 | 13.00 | 3.00 |
| G071065200GC | 71.00 | 65.00 | 71.00 | 20.00 | 3.00 |
| G071065300GC | 71.00 | 65.00 | 71.00 | 30.00 | 3.00 |
| G071065400GC | 71.00 | 65.00 | 71.00 | 40.00 | 3.00 |
| G071066060GC | 71.00 | 66.00 | 71.00 | 6.00 | 2.50 |
| G071066100GC | 71.00 | 66.00 | 71.00 | 10.00 | 2.50 |
| G071066200GC | 71.00 | 66.00 | 71.00 | 20.00 | 2.50 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G072064060GC | 72.00 | 64.00 | 72.00 | 6.00 | 4.00 |
| G073060455GC | 73.03 | 60.20 | 73.03 | 45.50 | 6.42 |
| G073066220GC | 73.03 | 66.68 | 73.03 | 22.00 | 3.18 |
| G074068060GC | 74.00 | 68.00 | 74.00 | 6.00 | 3.00 |
| G074070102GC | 74.00 | 70.00 | 74.00 | 10.20 | 2.00 |
| G074070150GC | 74.00 | 70.00 | 74.00 | 15.00 | 2.00 |
| G075064150GC | 75.00 | 64.00 | 75.00 | 15.00 | 5.50 |
| G075067120GC | 75.00 | 67.00 | 75.00 | 12.00 | 4.00 |
| G075069120GC | 75.00 | 69.00 | 75.00 | 12.00 | 3.00 |
| G075069125GC | 75.00 | 69.00 | 75.00 | 12.50 | 3.00 |
| G075069150GC | 75.00 | 69.00 | 75.00 | 15.00 | 3.00 |
| G075069200GC | 75.00 | 69.00 | 75.00 | 20.00 | 3.00 |
| G075069250GC | 75.00 | 69.00 | 75.00 | 25.00 | 3.00 |
| G075070056GC | 75.00 | 70.00 | 75.00 | 5.60 | 2.50 |
| G075070095GC | 75.00 | 70.00 | 75.00 | 9.50 | 2.50 |
| G075070097GC | 75.00 | 70.00 | 75.00 | 9.70 | 2.50 |
| G075070100GC | 75.00 | 70.00 | 75.00 | 10.00 | 2.50 |
| G075070120GC | 75.00 | 70.00 | 75.00 | 12.00 | 2.50 |
| G075070127GC | 75.00 | 70.00 | 75.00 | 12.70 | 2.50 |
| G075070150GC | 75.00 | 70.00 | 75.00 | 15.00 | 2.50 |
| G075070160GC | 75.00 | 70.00 | 75.00 | 16.00 | 2.50 |
| G075070200GC | 75.00 | 70.00 | 75.00 | 20.00 | 2.50 |
| G075070250GC | 75.00 | 70.00 | 75.00 | 25.00 | 2.50 |
| G075070300GC | 75.00 | 70.00 | 75.00 | 30.00 | 2.50 |
| G075070400GC | 75.00 | 70.00 | 75.00 | 40.00 | 2.50 |
| G075070450GC | 75.00 | 70.00 | 75.00 | 45.00 | 2.50 |
| G075070500GC | 75.00 | 70.00 | 75.00 | 50.00 | 2.50 |
| G075071150GC | 75.00 | 71.00 | 75.00 | 15.00 | 2.00 |
| G076070100GC | 76.00 | 70.00 | 76.00 | 10.00 | 3.00 |
| G076070127GC | 76.00 | 70.00 | 76.00 | 12.70 | 3.00 |
| G076070130GC | 76.00 | 70.00 | 76.00 | 13.00 | 3.00 |
| G076070200GC | 76.00 | 70.00 | 76.00 | 20.00 | 3.00 |
| G076070254GC | 76.00 | 70.00 | 76.00 | 25.40 | 3.00 |
| G076070300GC | 76.00 | 70.00 | 76.00 | 30.00 | 3.00 |
| G076070381GC | 76.00 | 70.00 | 76.00 | 38.10 | 3.00 |
| G076070400GC | 76.00 | 70.00 | 76.00 | 40.00 | 3.00 |
| G076070492GC | 76.00 | 70.00 | 76.00 | 49.20 | 3.00 |
| G076070500GC | 76.00 | 70.00 | 76.00 | 50.00 | 3.00 |
| G076071200GC | 76.00 | 71.00 | 76.00 | 20.00 | 2.50 |
| G079075097GC | 79.00 | 75.00 | 79.00 | 9.70 | 2.00 |
| G080064150GC | 80.00 | 64.00 | 80.00 | 15.00 | 8.00 |
| G080072120GC | 80.00 | 72.00 | 80.00 | 12.00 | 4.00 |
| G080073100GC | 80.00 | 73.00 | 80.00 | 10.00 | 3.50 |
| G080074060GC | 80.00 | 74.00 | 80.00 | 6.00 | 3.00 |
| G080074080GC | 80.00 | 74.00 | 80.00 | 8.00 | 3.00 |
| G080074100GC | 80.00 | 74.00 | 80.00 | 10.00 | 3.00 |



GC series - Phenolic



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|----------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G080074120GC | 80.00 | 74.00 | 80.00 | 12.00 | 3.00 |
| G080074125GC | 80.00 | 74.00 | 80.00 | 12.50 | 3.00 |
| G080074130GC | 80.00 | 74.00 | 80.00 | 13.00 | 3.00 |
| G080074150GC | 80.00 | 74.00 | 80.00 | 15.00 | 3.00 |
| G080074165GC | 80.00 | 74.00 | 80.00 | 16.50 | 3.00 |
| G080074170GC | 80.00 | 74.00 | 80.00 | 17.00 | 3.00 |
| G080074200GC | 80.00 | 74.00 | 80.00 | 20.00 | 3.00 |
| G080074200GC-1 | 80.50 | 74.50 | 80.50 | 20.00 | 3.00 |
| G080074250GC | 80.00 | 74.00 | 80.00 | 25.00 | 3.00 |
| G080074300GC | 80.00 | 74.00 | 80.00 | 30.00 | 3.00 |
| G080075056GC | 80.00 | 75.00 | 80.00 | 5.60 | 2.50 |
| G080075060GC | 80.00 | 75.00 | 80.00 | 6.00 | 2.50 |
| G080075095GC | 80.00 | 75.00 | 80.00 | 9.50 | 2.50 |
| G080075097GC | 80.00 | 75.00 | 80.00 | 9.70 | 2.50 |
| G080075100GC | 80.00 | 75.00 | 80.00 | 10.00 | 2.50 |
| G080075120GC | 80.00 | 75.00 | 80.00 | 12.00 | 2.50 |
| G080075150GC | 80.00 | 75.00 | 80.00 | 15.00 | 2.50 |
| G080075200GC | 80.00 | 75.00 | 80.00 | 20.00 | 2.50 |
| G080075250GC | 80.00 | 75.00 | 80.00 | 25.00 | 2.50 |
| G080075300GC | 80.00 | 75.00 | 80.00 | 30.00 | 2.50 |
| G080076050GC | 80.00 | 76.00 | 80.00 | 5.00 | 2.00 |
| G080076075GC | 80.00 | 76.00 | 80.00 | 7.50 | 2.00 |
| G080076080GC | 80.00 | 76.00 | 80.00 | 8.00 | 2.00 |
| G080076100GC | 80.00 | 76.00 | 80.00 | 10.00 | 2.00 |
| G080076150GC | 80.00 | 76.00 | 80.00 | 15.00 | 2.00 |
| G080076300GC | 80.00 | 76.00 | 80.00 | 30.00 | 2.00 |
| G081075130GC | 81.00 | 75.00 | 81.00 | 13.00 | 3.00 |
| G081075192GC | 81.00 | 75.00 | 81.00 | 19.20 | 3.00 |
| G081075250GC | 81.00 | 75.00 | 81.00 | 25.00 | 3.00 |
| G081075300GC | 81.00 | 75.00 | 81.00 | 30.00 | 3.00 |
| G082072120GC | 82.00 | 72.00 | 82.00 | 12.00 | 5.00 |
| G083075060GC | 83.00 | 75.00 | 83.00 | 6.00 | 4.00 |
| G084078130GC | 84.00 | 78.00 | 84.00 | 13.00 | 3.00 |
| G084078150GC | 84.00 | 78.00 | 84.00 | 15.00 | 3.00 |
| G084080150GC | 84.00 | 80.00 | 84.00 | 15.00 | 2.00 |
| G084080250GC | 84.00 | 80.00 | 84.00 | 25.00 | 2.00 |
| G085075100GC | 85.00 | 75.00 | 85.00 | 10.00 | 5.00 |
| G085079100GC | 85.00 | 79.00 | 85.00 | 10.00 | 3.00 |
| G085079125GC | 85.00 | 79.00 | 85.00 | 12.50 | 3.00 |
| G085079130GC | 85.00 | 79.00 | 85.00 | 13.00 | 3.00 |
| G085079145GC | 85.00 | 79.00 | 85.00 | 14.50 | 3.00 |
| G085079150GC | 85.00 | 79.00 | 85.00 | 15.00 | 3.00 |
| G085079200GC | 85.00 | 79.00 | 85.00 | 20.00 | 3.00 |
| G085079250GC | 85.00 | 79.00 | 85.00 | 25.00 | 3.00 |
| G085079300GC | 85.00 | 79.00 | 85.00 | 30.00 | 3.00 |
| G085080056GC | 85.00 | 80.00 | 85.00 | 5.60 | 2.50 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G085080095GC | 85.00 | 80.00 | 85.00 | 9.50 | 2.50 |
| G085080097GC | 85.00 | 80.00 | 85.00 | 9.70 | 2.50 |
| G085080100GC | 85.00 | 80.00 | 85.00 | 10.00 | 2.50 |
| G085080120GC | 85.00 | 80.00 | 85.00 | 12.00 | 2.50 |
| G085080127GC | 85.00 | 80.00 | 85.00 | 12.70 | 2.50 |
| G085080150GC | 85.00 | 80.00 | 85.00 | 15.00 | 2.50 |
| G085080160GC | 85.00 | 80.00 | 85.00 | 16.00 | 2.50 |
| G085080200GC | 85.00 | 80.00 | 85.00 | 20.00 | 2.50 |
| G085080250GC | 85.00 | 80.00 | 85.00 | 25.00 | 2.50 |
| G085080350GC | 85.00 | 80.00 | 85.00 | 35.00 | 2.50 |
| G085081150GC | 85.00 | 81.00 | 85.00 | 15.00 | 2.00 |
| G086080130GC | 86.00 | 80.00 | 86.00 | 13.00 | 3.00 |
| G086080200GC | 86.00 | 80.00 | 86.00 | 20.00 | 3.00 |
| G086080250GC | 86.00 | 80.00 | 86.00 | 25.00 | 3.00 |
| G086080300GC | 86.00 | 80.00 | 86.00 | 30.00 | 3.00 |
| G086080350GC | 86.00 | 80.00 | 86.00 | 35.00 | 3.00 |
| G086080400GC | 86.00 | 80.00 | 86.00 | 40.00 | 3.00 |
| G086080500GC | 86.00 | 80.00 | 86.00 | 50.00 | 3.00 |
| G086080635GC | 86.00 | 80.00 | 86.00 | 63.50 | 3.00 |
| G086080790GC | 86.00 | 80.00 | 86.00 | 79.00 | 3.00 |
| G088080700GC | 88.00 | 80.00 | 88.00 | 70.00 | 4.00 |
| G088081375GC | 88.00 | 81.70 | 88.00 | 37.50 | 3.15 |
| G088082095GC | 88.90 | 82.50 | 88.90 | 9.50 | 3.20 |
| G088082127GC | 88.90 | 82.55 | 88.90 | 12.70 | 3.18 |
| G089082100GC | 89.00 | 82.00 | 89.00 | 10.00 | 3.50 |
| G090080195GC | 90.00 | 80.00 | 90.00 | 19.50 | 5.00 |
| G090081125GC | 90.00 | 81.00 | 90.00 | 12.50 | 4.50 |
| G090082150GC | 90.00 | 82.00 | 90.00 | 15.00 | 4.00 |
| G090083150GC | 90.00 | 83.00 | 90.00 | 15.00 | 3.50 |
| G090083300GC | 90.00 | 83.00 | 90.00 | 30.00 | 3.50 |
| G090084100GC | 90.00 | 84.00 | 90.00 | 10.00 | 3.00 |
| G090084125GC | 90.00 | 84.00 | 90.00 | 12.50 | 3.00 |
| G090084130GC | 90.00 | 84.00 | 90.00 | 13.00 | 3.00 |
| G090084150GC | 90.00 | 84.00 | 90.00 | 15.00 | 3.00 |
| G090084200GC | 90.00 | 84.00 | 90.00 | 20.00 | 3.00 |
| G090084250GC | 90.00 | 84.00 | 90.00 | 25.00 | 3.00 |
| G090084300GC | 90.00 | 84.00 | 90.00 | 30.00 | 3.00 |
| G090084350GC | 90.00 | 84.00 | 90.00 | 35.00 | 3.00 |
| G090084400GC | 90.00 | 84.00 | 90.00 | 40.00 | 3.00 |
| G090085060GC | 90.00 | 85.00 | 90.00 | 6.00 | 2.50 |
| G090085095GC | 90.00 | 85.00 | 90.00 | 9.50 | 2.50 |
| G090085097GC | 90.00 | 85.00 | 90.00 | 9.70 | 2.50 |
| G090085100GC | 90.00 | 85.00 | 90.00 | 10.00 | 2.50 |
| G090085125GC | 90.00 | 85.00 | 90.00 | 12.50 | 2.50 |
| G090085127GC | 90.00 | 85.00 | 90.00 | 12.70 | 2.50 |
| G090085150GC | 90.00 | 85.00 | 90.00 | 15.00 | 2.50 |

GC series - Phenolic



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|---------------|--------------|------------------------------|-------|------|
| | | | D | H | S |
| G090085200GC | 90.00 | 85.00 | 90.00 | 20.00 | 2.50 |
| G090085250GC | 90.00 | 85.00 | 90.00 | 25.00 | 2.50 |
| G090085350GC | 90.00 | 85.00 | 90.00 | 35.00 | 2.50 |
| G090085400GC | 90.00 | 85.00 | 90.00 | 40.00 | 2.50 |
| G090086150GC | 90.00 | 86.00 | 90.00 | 15.00 | 2.00 |
| G090086200GC | 90.00 | 86.00 | 90.00 | 20.00 | 2.00 |
| G091081130GC | 91.00 | 81.00 | 91.00 | 13.00 | 5.00 |
| G091085200GC | 91.00 | 85.00 | 91.00 | 20.00 | 3.00 |
| G091085250GC | 91.00 | 85.00 | 91.00 | 25.00 | 3.00 |
| G091085400GC | 91.00 | 85.00 | 91.00 | 40.00 | 3.00 |
| G093084120GC | 93.00 | 84.00 | 93.00 | 12.00 | 4.50 |
| G095085150GC | 95.00 | 85.00 | 95.00 | 15.00 | 5.00 |
| G095086120GC | 95.00 | 86.00 | 95.00 | 12.00 | 4.50 |
| G095086125GC | 95.00 | 86.00 | 95.00 | 12.50 | 4.50 |
| G095087060GC | 95.00 | 87.00 | 95.00 | 6.00 | 4.00 |
| G095089100GC | 95.00 | 89.00 | 95.00 | 10.00 | 3.00 |
| G095089125GC | 95.00 | 89.00 | 95.00 | 12.50 | 3.00 |
| G095089130GC | 95.00 | 89.00 | 95.00 | 13.00 | 3.00 |
| G095089150GC | 95.00 | 89.00 | 95.00 | 15.00 | 3.00 |
| G095089200GC | 95.00 | 89.00 | 95.00 | 20.00 | 3.00 |
| G095089250GC | 95.00 | 89.00 | 95.00 | 25.00 | 3.00 |
| G095090060GC | 95.00 | 90.00 | 95.00 | 6.00 | 2.50 |
| G095090095GC | 95.00 | 90.00 | 95.00 | 9.50 | 2.50 |
| G095090097GC | 95.00 | 90.00 | 95.00 | 9.70 | 2.50 |
| G095090100GC | 95.00 | 90.00 | 95.00 | 10.00 | 2.50 |
| G095090125GC | 95.00 | 90.00 | 95.00 | 12.50 | 2.50 |
| G095090127GC | 95.00 | 90.00 | 95.00 | 12.70 | 2.50 |
| G095090150GC | 95.00 | 90.00 | 95.00 | 15.00 | 2.50 |
| G095090200GC | 95.00 | 90.00 | 95.00 | 20.00 | 2.50 |
| G095090250GC | 95.00 | 90.00 | 95.00 | 25.00 | 2.50 |
| G095090500GC | 95.00 | 90.00 | 95.00 | 50.00 | 2.50 |
| G096090127GC | 96.00 | 90.00 | 96.00 | 12.70 | 3.00 |
| G096090130GC | 96.00 | 90.00 | 96.00 | 13.00 | 3.00 |
| G096090200GC | 96.00 | 90.00 | 96.00 | 20.00 | 3.00 |
| G096090250GC | 96.00 | 90.00 | 96.00 | 25.00 | 3.00 |
| G096090300GC | 96.00 | 90.00 | 96.00 | 30.00 | 3.00 |
| G096090400GC | 96.00 | 90.00 | 96.00 | 40.00 | 3.00 |
| G096090500GC | 96.00 | 90.00 | 96.00 | 50.00 | 3.00 |
| G096090600GC | 96.00 | 90.00 | 96.00 | 60.00 | 3.00 |
| G096090635GC | 96.00 | 90.00 | 96.00 | 63.50 | 3.00 |
| G098090650GC | 98.00 | 90.00 | 98.00 | 65.00 | 4.00 |
| G099095250GC | 99.00 | 95.00 | 99.00 | 25.00 | 2.00 |
| G100091100GC | 100.00 | 91.00 | 100.00 | 10.00 | 4.50 |
| G100091121GC | 100.00 | 91.00 | 100.00 | 12.10 | 4.50 |
| G100092095GC | 100.00 | 92.00 | 100.00 | 9.50 | 4.00 |
| G100092100GC | 100.00 | 92.00 | 100.00 | 10.00 | 4.00 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|---------------|---------------|------------------------------|-------|------|
| | | | D | H | S |
| G100092150GC | 100.00 | 92.00 | 100.00 | 15.00 | 4.00 |
| G100092250GC | 100.00 | 92.00 | 100.00 | 25.00 | 4.00 |
| G100092300GC | 100.00 | 92.00 | 100.00 | 30.00 | 4.00 |
| G100093140GC | 100.00 | 93.20 | 100.00 | 14.00 | 3.40 |
| G100094100GC | 100.00 | 94.00 | 100.00 | 10.00 | 3.00 |
| G100094125GC | 100.00 | 94.00 | 100.00 | 12.50 | 3.00 |
| G100094130GC | 100.00 | 94.00 | 100.00 | 13.00 | 3.00 |
| G100094140GC | 100.00 | 94.00 | 100.00 | 14.00 | 3.00 |
| G100094150GC | 100.00 | 94.00 | 100.00 | 15.00 | 3.00 |
| G100094200GC | 100.00 | 94.00 | 100.00 | 20.00 | 3.00 |
| G100094250GC | 100.00 | 94.00 | 100.00 | 25.00 | 3.00 |
| G100094300GC | 100.00 | 94.00 | 100.00 | 30.00 | 3.00 |
| G100094400GC | 100.00 | 94.00 | 100.00 | 40.00 | 3.00 |
| G100095050GC | 100.00 | 95.00 | 100.00 | 5.00 | 2.50 |
| G100095056GC | 100.00 | 95.00 | 100.00 | 5.60 | 2.50 |
| G100095060GC | 100.00 | 95.00 | 100.00 | 6.00 | 2.50 |
| G100095080GC | 100.00 | 95.00 | 100.00 | 8.00 | 2.50 |
| G100095095GC | 100.00 | 95.00 | 100.00 | 9.50 | 2.50 |
| G100095097GC | 100.00 | 95.00 | 100.00 | 9.70 | 2.50 |
| G100095100GC | 100.00 | 95.00 | 100.00 | 10.00 | 2.50 |
| G100095102GC | 100.00 | 95.00 | 100.00 | 10.20 | 2.50 |
| G100095125GC | 100.00 | 95.00 | 100.00 | 12.50 | 2.50 |
| G100095150GC | 100.00 | 95.00 | 100.00 | 15.00 | 2.50 |
| G100095200GC | 100.00 | 95.00 | 100.00 | 20.00 | 2.50 |
| G100095250GC | 100.00 | 95.00 | 100.00 | 25.00 | 2.50 |
| G100095300GC | 100.00 | 95.00 | 100.00 | 30.00 | 2.50 |
| G100096050GC | 100.00 | 96.00 | 100.00 | 5.00 | 2.00 |
| G100096060GC | 100.00 | 96.00 | 100.00 | 6.00 | 2.00 |
| G100096080GC | 100.00 | 96.00 | 100.00 | 8.00 | 2.00 |
| G100096100GC | 100.00 | 96.00 | 100.00 | 10.00 | 2.00 |
| G100096150GC | 100.00 | 96.00 | 100.00 | 15.00 | 2.00 |
| G101095100GC | 101.00 | 95.60 | 101.00 | 10.00 | 2.70 |
| G101095125GC | 101.00 | 95.60 | 101.00 | 12.50 | 2.70 |
| G101095127GC | 101.00 | 95.25 | 101.00 | 12.70 | 2.88 |
| G102096080GC | 102.00 | 96.00 | 102.00 | 8.00 | 3.00 |
| G103094120GC | 103.00 | 94.00 | 103.00 | 12.00 | 4.50 |
| G105096125GC | 105.00 | 96.00 | 105.00 | 12.50 | 4.50 |
| G105099100GC | 105.00 | 99.00 | 105.00 | 10.00 | 3.00 |
| G105099125GC | 105.00 | 99.00 | 105.00 | 12.50 | 3.00 |
| G105099150GC | 105.00 | 99.00 | 105.00 | 15.00 | 3.00 |
| G105099200GC | 105.00 | 99.00 | 105.00 | 20.00 | 3.00 |
| G105099250GC | 105.00 | 99.00 | 105.00 | 25.00 | 3.00 |
| G105099300GC | 105.00 | 99.00 | 105.00 | 30.00 | 3.00 |
| G105100060GC | 105.00 | 100.00 | 105.00 | 6.00 | 2.50 |
| G105100080GC | 105.00 | 100.00 | 105.00 | 8.00 | 2.50 |
| G105100095GC | 105.00 | 100.00 | 105.00 | 9.50 | 2.50 |

GC series - Phenolic

G. ELEMENTS



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G105100097GC | 105.00 | 100.00 | 105.00 | 9.70 | 2.50 |
| G105100100GC | 105.00 | 100.00 | 105.00 | 10.00 | 2.50 |
| G105100125GC | 105.00 | 100.00 | 105.00 | 12.50 | 2.50 |
| G105100150GC | 105.00 | 100.00 | 105.00 | 15.00 | 2.50 |
| G105100200GC | 105.00 | 100.00 | 105.00 | 20.00 | 2.50 |
| G105101200GC | 105.00 | 101.00 | 105.00 | 20.00 | 2.00 |
| G106099250GC | 106.00 | 99.00 | 106.00 | 25.00 | 3.50 |
| G106100130GC | 106.00 | 100.00 | 106.00 | 13.00 | 3.00 |
| G106100150GC | 106.00 | 100.00 | 106.00 | 15.00 | 3.00 |
| G106100192GC | 106.00 | 100.00 | 106.00 | 19.20 | 3.00 |
| G106100200GC | 106.00 | 100.00 | 106.00 | 20.00 | 3.00 |
| G106100250GC | 106.00 | 100.00 | 106.00 | 25.00 | 3.00 |
| G106100300GC | 106.00 | 100.00 | 106.00 | 30.00 | 3.00 |
| G106100400GC | 106.00 | 100.00 | 106.00 | 40.00 | 3.00 |
| G106100500GC | 106.00 | 100.00 | 106.00 | 50.00 | 3.00 |
| G108102150GC | 108.00 | 102.00 | 108.00 | 15.00 | 3.00 |
| G110101098GC | 110.00 | 101.00 | 110.00 | 9.80 | 4.50 |
| G110101100GC | 110.00 | 101.00 | 110.00 | 10.00 | 4.50 |
| G110101125GC | 110.00 | 101.00 | 110.00 | 12.50 | 4.50 |
| G110101150GC | 110.00 | 101.00 | 110.00 | 15.00 | 4.50 |
| G110102150GC | 110.00 | 102.00 | 110.00 | 15.00 | 4.00 |
| G110102250GC | 110.00 | 102.00 | 110.00 | 25.00 | 4.00 |
| G110102800GC | 110.00 | 102.00 | 110.00 | 80.00 | 4.00 |
| G110103140GC | 110.00 | 103.10 | 110.00 | 14.00 | 3.45 |
| G110103350GC | 110.00 | 103.00 | 110.00 | 35.00 | 3.50 |
| G110104100GC | 110.00 | 104.00 | 110.00 | 10.00 | 3.00 |
| G110104120GC | 110.00 | 104.00 | 110.00 | 12.00 | 3.00 |
| G110104125GC | 110.00 | 104.00 | 110.00 | 12.50 | 3.00 |
| G110104130GC | 110.00 | 104.00 | 110.00 | 13.00 | 3.00 |
| G110104140GC | 110.00 | 104.00 | 110.00 | 14.00 | 3.00 |
| G110104150GC | 110.00 | 104.00 | 110.00 | 15.00 | 3.00 |
| G110104160GC | 110.00 | 104.00 | 110.00 | 16.00 | 3.00 |
| G110104200GC | 110.00 | 104.00 | 110.00 | 20.00 | 3.00 |
| G110104250GC | 110.00 | 104.00 | 110.00 | 25.00 | 3.00 |
| G110104300GC | 110.00 | 104.00 | 110.00 | 30.00 | 3.00 |
| G110104350GC | 110.00 | 104.00 | 110.00 | 35.00 | 3.00 |
| G110104400GC | 110.00 | 104.00 | 110.00 | 40.00 | 3.00 |
| G110105055GC | 110.00 | 105.00 | 110.00 | 5.50 | 2.50 |
| G110105060GC | 110.00 | 105.00 | 110.00 | 6.00 | 2.50 |
| G110105080GC | 110.00 | 105.00 | 110.00 | 8.00 | 2.50 |
| G110105095GC | 110.00 | 105.00 | 110.00 | 9.50 | 2.50 |
| G110105097GC | 110.00 | 105.00 | 110.00 | 9.70 | 2.50 |
| G110105100GC | 110.00 | 105.00 | 110.00 | 10.00 | 2.50 |
| G110105125GC | 110.00 | 105.00 | 110.00 | 12.50 | 2.50 |
| G110105150GC | 110.00 | 105.00 | 110.00 | 15.00 | 2.50 |
| G110105200GC | 110.00 | 105.00 | 110.00 | 20.00 | 2.50 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G110105250GC | 110.00 | 105.00 | 110.00 | 25.00 | 2.50 |
| G110105300GC | 110.00 | 105.00 | 110.00 | 30.00 | 2.50 |
| G110105400GC | 110.00 | 105.00 | 110.00 | 40.00 | 2.50 |
| G110106150GC | 110.00 | 106.00 | 110.00 | 15.00 | 2.00 |
| G110106152GC | 110.00 | 106.00 | 110.00 | 15.20 | 2.00 |
| G110110121GC | 110.00 | 110.00 | 110.00 | 12.10 | 0.00 |
| G111105180GC | 111.00 | 105.00 | 111.00 | 18.00 | 3.00 |
| G111105200GC | 111.00 | 105.00 | 111.00 | 20.00 | 3.00 |
| G111106100GC | 111.00 | 106.00 | 111.00 | 10.00 | 2.50 |
| G112106100GC | 112.00 | 106.00 | 112.00 | 10.00 | 3.00 |
| G112106150GC | 112.00 | 106.00 | 112.00 | 15.00 | 3.00 |
| G112106200GC | 112.00 | 106.00 | 112.00 | 20.00 | 3.00 |
| G112106300GC | 112.00 | 106.00 | 112.00 | 30.00 | 3.00 |
| G114108130GC | 114.00 | 108.00 | 114.00 | 13.00 | 3.00 |
| G115105150GC | 115.00 | 105.00 | 115.00 | 15.00 | 5.00 |
| G115105200GC | 115.00 | 105.00 | 115.00 | 20.00 | 5.00 |
| G115106150GC | 115.00 | 106.00 | 115.00 | 15.00 | 4.50 |
| G115107080GC | 115.00 | 107.00 | 115.00 | 8.00 | 4.00 |
| G115107150GC | 115.00 | 107.00 | 115.00 | 15.00 | 4.00 |
| G115109060GC | 115.00 | 109.00 | 115.00 | 6.00 | 3.00 |
| G115109100GC | 115.00 | 109.00 | 115.00 | 10.00 | 3.00 |
| G115109150GC | 115.00 | 109.00 | 115.00 | 15.00 | 3.00 |
| G115109250GC | 115.00 | 109.00 | 115.00 | 25.00 | 3.00 |
| G115109300GC | 115.00 | 109.00 | 115.00 | 30.00 | 3.00 |
| G115110060GC | 115.00 | 110.00 | 115.00 | 6.00 | 2.50 |
| G115110080GC | 115.00 | 110.00 | 115.00 | 8.00 | 2.50 |
| G115110095GC | 115.00 | 110.00 | 115.00 | 9.50 | 2.50 |
| G115110097GC | 115.00 | 110.00 | 115.00 | 9.70 | 2.50 |
| G115110100GC | 115.00 | 110.00 | 115.00 | 10.00 | 2.50 |
| G115110125GC | 115.00 | 110.00 | 115.00 | 12.50 | 2.50 |
| G115110145GC | 115.00 | 110.00 | 115.00 | 14.50 | 2.50 |
| G115110150GC | 115.00 | 110.00 | 115.00 | 15.00 | 2.50 |
| G115110200GC | 115.00 | 110.00 | 115.00 | 20.00 | 2.50 |
| G115110250GC | 115.00 | 110.00 | 115.00 | 25.00 | 2.50 |
| G115110300GC | 115.00 | 110.00 | 115.00 | 30.00 | 2.50 |
| G115110350GC | 115.00 | 110.00 | 115.00 | 35.00 | 2.50 |
| G115110650GC | 115.00 | 110.00 | 115.00 | 65.00 | 2.50 |
| G115111150GC | 115.00 | 111.00 | 115.00 | 15.00 | 2.00 |
| G116110130GC | 116.00 | 110.00 | 116.00 | 13.00 | 3.00 |
| G116110200GC | 116.00 | 110.00 | 116.00 | 20.00 | 3.00 |
| G116110300GC | 116.00 | 110.00 | 116.00 | 30.00 | 3.00 |
| G116110400GC | 116.00 | 110.00 | 116.00 | 40.00 | 3.00 |
| G116110500GC | 116.00 | 110.00 | 116.00 | 50.00 | 3.00 |
| G116110762GC | 116.00 | 110.00 | 116.00 | 76.20 | 3.00 |
| G118108150GC | 118.00 | 108.00 | 118.00 | 15.00 | 5.00 |
| G120110095GC | 120.00 | 110.00 | 120.00 | 9.50 | 5.00 |

GC series - Phenolic

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G120110147GC | 120.00 | 110.00 | 120.00 | 14.70 | 5.00 |
| G120110160GC | 120.00 | 110.00 | 120.00 | 16.00 | 5.00 |
| G120111150GC | 120.00 | 111.00 | 120.00 | 15.00 | 4.50 |
| G120112060GC | 120.00 | 112.00 | 120.00 | 6.00 | 4.00 |
| G120112080GC | 120.00 | 112.00 | 120.00 | 8.00 | 4.00 |
| G120112095GC | 120.00 | 112.00 | 120.00 | 9.50 | 4.00 |
| G120112150GC | 120.00 | 112.00 | 120.00 | 15.00 | 4.00 |
| G120113200GC | 120.00 | 113.00 | 120.00 | 20.00 | 3.50 |
| G120113300GC | 120.00 | 113.00 | 120.00 | 30.00 | 3.50 |
| G120114100GC | 120.00 | 114.00 | 120.00 | 10.00 | 3.00 |
| G120114120GC | 120.00 | 114.00 | 120.00 | 12.00 | 3.00 |
| G120114130GC | 120.00 | 114.00 | 120.00 | 13.00 | 3.00 |
| G120114150GC | 120.00 | 114.00 | 120.00 | 15.00 | 3.00 |
| G120114195GC | 120.00 | 114.00 | 120.00 | 19.50 | 3.00 |
| G120114200GC | 120.00 | 114.00 | 120.00 | 20.00 | 3.00 |
| G120114250GC | 120.00 | 114.00 | 120.00 | 25.00 | 3.00 |
| G120114300GC | 120.00 | 114.00 | 120.00 | 30.00 | 3.00 |
| G120114350GC | 120.00 | 114.00 | 120.00 | 35.00 | 3.00 |
| G120114400GC | 120.00 | 114.00 | 120.00 | 40.00 | 3.00 |
| G120115080GC | 120.00 | 115.00 | 120.00 | 8.00 | 2.50 |
| G120115095GC | 120.00 | 115.00 | 120.00 | 9.50 | 2.50 |
| G120115097GC | 120.00 | 115.00 | 120.00 | 9.70 | 2.50 |
| G120115100GC | 120.00 | 115.00 | 120.00 | 10.00 | 2.50 |
| G120115125GC | 120.00 | 115.00 | 120.00 | 12.50 | 2.50 |
| G120115150GC | 120.00 | 115.00 | 120.00 | 15.00 | 2.50 |
| G120115200GC | 120.00 | 115.00 | 120.00 | 20.00 | 2.50 |
| G120115250GC | 120.00 | 115.00 | 120.00 | 25.00 | 2.50 |
| G120115300GC | 120.00 | 115.00 | 120.00 | 30.00 | 2.50 |
| G120115350GC | 120.00 | 115.00 | 120.00 | 35.00 | 2.50 |
| G120116063GC | 120.00 | 116.00 | 120.00 | 6.30 | 2.00 |
| G121115200GC | 121.00 | 115.00 | 121.00 | 20.00 | 3.00 |
| G122117150GC | 122.00 | 117.00 | 122.00 | 15.00 | 2.50 |
| G124114150GC | 124.00 | 114.00 | 124.00 | 15.00 | 5.00 |
| G125114150GC | 125.00 | 114.00 | 125.00 | 15.00 | 5.50 |
| G125115147GC | 125.00 | 115.00 | 125.00 | 14.70 | 5.00 |
| G125115150GC | 125.00 | 115.00 | 125.00 | 15.00 | 5.00 |
| G125115200GC | 125.00 | 115.00 | 125.00 | 20.00 | 5.00 |
| G125117080GC | 125.00 | 117.00 | 125.00 | 8.00 | 4.00 |
| G125118100GC | 125.00 | 118.00 | 125.00 | 10.00 | 3.50 |
| G125118150GC | 125.00 | 118.00 | 125.00 | 15.00 | 3.50 |
| G125118200GC | 125.00 | 118.00 | 125.00 | 20.00 | 3.50 |
| G125118300GC | 125.00 | 118.00 | 125.00 | 30.00 | 3.50 |
| G125118500GC | 125.00 | 118.00 | 125.00 | 50.00 | 3.50 |
| G125119080GC | 125.00 | 119.00 | 125.00 | 8.00 | 3.00 |
| G125119095GC | 125.00 | 119.00 | 125.00 | 9.50 | 3.00 |
| G125119097GC | 125.00 | 119.00 | 125.00 | 9.70 | 3.00 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G125119100GC | 125.00 | 119.00 | 125.00 | 10.00 | 3.00 |
| G125119130GC | 125.00 | 119.00 | 125.00 | 13.00 | 3.00 |
| G125119150GC | 125.00 | 119.00 | 125.00 | 15.00 | 3.00 |
| G125119192GC | 125.00 | 119.00 | 125.00 | 19.20 | 3.00 |
| G125119200GC | 125.00 | 119.00 | 125.00 | 20.00 | 3.00 |
| G125119250GC | 125.00 | 119.00 | 125.00 | 25.00 | 3.00 |
| G125119300GC | 125.00 | 119.00 | 125.00 | 30.00 | 3.00 |
| G125119350GC | 125.00 | 119.00 | 125.00 | 35.00 | 3.00 |
| G125119400GC | 125.00 | 119.00 | 125.00 | 40.00 | 3.00 |
| G125120056GC | 125.00 | 120.00 | 125.00 | 5.60 | 2.50 |
| G125120060GC | 125.00 | 120.00 | 125.00 | 6.00 | 2.50 |
| G125120080GC | 125.00 | 120.00 | 125.00 | 8.00 | 2.50 |
| G125120095GC | 125.00 | 120.00 | 125.00 | 9.50 | 2.50 |
| G125120097GC | 125.00 | 120.00 | 125.00 | 9.70 | 2.50 |
| G125120100GC | 125.00 | 120.00 | 125.00 | 10.00 | 2.50 |
| G125120125GC | 125.00 | 120.00 | 125.00 | 12.50 | 2.50 |
| G125120150GC | 125.00 | 120.00 | 125.00 | 15.00 | 2.50 |
| G125120160GC | 125.00 | 120.00 | 125.00 | 16.00 | 2.50 |
| G125120200GC | 125.00 | 120.00 | 125.00 | 20.00 | 2.50 |
| G125120250GC | 125.00 | 120.00 | 125.00 | 25.00 | 2.50 |
| G125120300GC | 125.00 | 120.00 | 125.00 | 30.00 | 2.50 |
| G125120400GC | 125.00 | 120.00 | 125.00 | 40.00 | 2.50 |
| G125120500GC | 125.00 | 120.00 | 125.00 | 50.00 | 2.50 |
| G125121100GC | 125.00 | 121.00 | 125.00 | 10.00 | 2.00 |
| G126120100GC | 126.00 | 120.00 | 126.00 | 10.00 | 3.00 |
| G126120130GC | 126.00 | 120.00 | 126.00 | 13.00 | 3.00 |
| G126120300GC | 126.00 | 120.00 | 126.00 | 30.00 | 3.00 |
| G126120400GC | 126.00 | 120.00 | 126.00 | 40.00 | 3.00 |
| G126120500GC | 126.00 | 120.00 | 126.00 | 50.00 | 3.00 |
| G127120124GC | 127.00 | 120.60 | 127.00 | 12.40 | 3.20 |
| G127121150GC | 127.00 | 121.00 | 127.00 | 15.00 | 3.00 |
| G129119300GC | 129.00 | 119.00 | 129.00 | 30.00 | 5.00 |
| G130118075GC | 130.00 | 118.00 | 130.00 | 7.50 | 6.00 |
| G130120150GC | 130.00 | 120.00 | 130.00 | 15.00 | 5.00 |
| G130120160GC | 130.00 | 120.00 | 130.00 | 16.00 | 5.00 |
| G130120200GC | 130.00 | 120.00 | 130.00 | 20.00 | 5.00 |
| G130120300GC | 130.00 | 120.00 | 130.00 | 30.00 | 5.00 |
| G130121150GC | 130.00 | 121.00 | 130.00 | 15.00 | 4.50 |
| G130122080GC | 130.00 | 122.00 | 130.00 | 8.00 | 4.00 |
| G130122095GC | 130.00 | 122.00 | 130.00 | 9.50 | 4.00 |
| G130123100GC | 130.00 | 123.00 | 130.00 | 10.00 | 3.50 |
| G130123150GC | 130.00 | 123.00 | 130.00 | 15.00 | 3.50 |
| G130123200GC | 130.00 | 123.00 | 130.00 | 20.00 | 3.50 |
| G130123250GC | 130.00 | 123.00 | 130.00 | 25.00 | 3.50 |
| G130123300GC | 130.00 | 123.00 | 130.00 | 30.00 | 3.50 |
| G130123350GC | 130.00 | 123.00 | 130.00 | 35.00 | 3.50 |

G. ELEMENTS



GC series - Phenolic



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|---------------|---------------|------------------------------|-------|------|
| | | | D | H | S |
| G130123400GC | 130.00 | 123.00 | 130.00 | 40.00 | 3.50 |
| G130124098GC | 130.00 | 124.00 | 130.00 | 9.80 | 3.00 |
| G130124150GC | 130.00 | 124.00 | 130.00 | 15.00 | 3.00 |
| G130124300GC | 130.00 | 124.00 | 130.00 | 30.00 | 3.00 |
| G130125080GC | 130.00 | 125.00 | 130.00 | 8.00 | 2.50 |
| G130125095GC | 130.00 | 125.00 | 130.00 | 9.50 | 2.50 |
| G130125097GC | 130.00 | 125.00 | 130.00 | 9.70 | 2.50 |
| G130125100GC | 130.00 | 125.00 | 130.00 | 10.00 | 2.50 |
| G130125125GC | 130.00 | 125.00 | 130.00 | 12.50 | 2.50 |
| G130125150GC | 130.00 | 125.00 | 130.00 | 15.00 | 2.50 |
| G130125160GC | 130.00 | 125.00 | 130.00 | 16.00 | 2.50 |
| G130125200GC | 130.00 | 125.00 | 130.00 | 20.00 | 2.50 |
| G130125250GC | 130.00 | 125.00 | 130.00 | 25.00 | 2.50 |
| G130125300GC | 130.00 | 125.00 | 130.00 | 30.00 | 2.50 |
| G130125400GC | 130.00 | 125.00 | 130.00 | 40.00 | 2.50 |
| G131125130GC | 131.00 | 125.00 | 131.00 | 13.00 | 3.00 |
| G131125200GC | 131.00 | 125.00 | 131.00 | 20.00 | 3.00 |
| G131125250GC | 131.00 | 125.00 | 131.00 | 25.00 | 3.00 |
| G131125300GC | 131.00 | 125.00 | 131.00 | 30.00 | 3.00 |
| G131125400GC | 131.00 | 125.00 | 131.00 | 40.00 | 3.00 |
| G131125500GC | 131.00 | 125.00 | 131.00 | 50.00 | 3.00 |
| G131125508GC | 131.00 | 125.00 | 131.00 | 50.80 | 3.00 |
| G131125889GC | 131.00 | 125.00 | 131.00 | 88.90 | 3.00 |
| G131127220GC | 131.00 | 127.00 | 131.00 | 22.00 | 2.00 |
| G132125350GC | 132.00 | 125.00 | 132.00 | 35.00 | 3.50 |
| G133125200GC | 133.00 | 125.00 | 133.00 | 20.00 | 4.00 |
| G133125300GC | 133.00 | 125.00 | 133.00 | 30.00 | 4.00 |
| G133125450GC | 133.00 | 125.00 | 133.00 | 45.00 | 4.00 |
| G133125600GC | 133.00 | 125.00 | 133.00 | 60.00 | 4.00 |
| G133127130GC | 133.00 | 127.00 | 133.00 | 13.00 | 3.00 |
| G134130150GC | 134.00 | 130.00 | 134.00 | 15.00 | 2.00 |
| G135125076GC | 135.00 | 125.00 | 135.00 | 7.60 | 5.00 |
| G135125150GC | 135.00 | 125.00 | 135.00 | 15.00 | 5.00 |
| G135126150GC | 135.00 | 126.00 | 135.00 | 15.00 | 4.50 |
| G135127080GC | 135.00 | 127.00 | 135.00 | 8.00 | 4.00 |
| G135127100GC | 135.00 | 127.00 | 135.00 | 10.00 | 4.00 |
| G135127150GC | 135.00 | 127.00 | 135.00 | 15.00 | 4.00 |
| G135127250GC | 135.00 | 127.00 | 135.00 | 25.00 | 4.00 |
| G135128075GC | 135.00 | 128.00 | 135.00 | 7.50 | 3.50 |
| G135128095GC | 135.00 | 128.00 | 135.00 | 9.50 | 3.50 |
| G135128097GC | 135.00 | 128.00 | 135.00 | 9.70 | 3.50 |
| G135128100GC | 135.00 | 128.00 | 135.00 | 10.00 | 3.50 |
| G135128150GC | 135.00 | 128.00 | 135.00 | 15.00 | 3.50 |
| G135128200GC | 135.00 | 128.00 | 135.00 | 20.00 | 3.50 |
| G135128250GC | 135.00 | 128.00 | 135.00 | 25.00 | 3.50 |
| G135128350GC | 135.00 | 128.00 | 135.00 | 35.00 | 3.50 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|---------------|---------------|------------------------------|-------|-------|
| | | | D | H | S |
| G135128500GC | 135.00 | 128.00 | 135.00 | 50.00 | 3.50 |
| G135129080GC | 135.00 | 129.00 | 135.00 | 8.00 | 3.00 |
| G135129130GC | 135.00 | 129.00 | 135.00 | 13.00 | 3.00 |
| G135129140GC | 135.00 | 129.00 | 135.00 | 14.00 | 3.00 |
| G135129150GC | 135.00 | 129.00 | 135.00 | 15.00 | 3.00 |
| G135129200GC | 135.00 | 129.00 | 135.00 | 20.00 | 3.00 |
| G135129250GC | 135.00 | 129.00 | 135.00 | 25.00 | 3.00 |
| G135129300GC | 135.00 | 129.00 | 135.00 | 30.00 | 3.00 |
| G135129350GC | 135.00 | 129.00 | 135.00 | 35.00 | 3.00 |
| G135130080GC | 135.00 | 130.00 | 135.00 | 8.00 | 2.50 |
| G135130095GC | 135.00 | 130.00 | 135.00 | 9.50 | 2.50 |
| G135130097GC | 135.00 | 130.00 | 135.00 | 9.70 | 2.50 |
| G135130100GC | 135.00 | 130.00 | 135.00 | 10.00 | 2.50 |
| G135130125GC | 135.00 | 130.00 | 135.00 | 12.50 | 2.50 |
| G135130150GC | 135.00 | 130.00 | 135.00 | 15.00 | 2.50 |
| G136130100GC | 136.00 | 130.00 | 136.00 | 10.00 | 3.00 |
| G136130300GC | 136.00 | 130.00 | 136.00 | 30.00 | 3.00 |
| G136130500GC | 136.00 | 130.00 | 136.00 | 50.00 | 3.00 |
| G137127170GC | 137.00 | 127.00 | 137.00 | 17.00 | 5.00 |
| G137130300GC | 137.00 | 130.00 | 137.00 | 30.00 | 3.50 |
| G137133317GC | 137.40 | 133.60 | 137.40 | 31.70 | 1.90 |
| G138130150GC | 138.00 | 130.00 | 138.00 | 15.00 | 4.00 |
| G138132200GC | 138.00 | 132.00 | 138.00 | 20.00 | 3.00 |
| G139127172GC | 139.00 | 127.00 | 139.00 | 17.20 | 6.00 |
| G139132310GC | 139.00 | 132.70 | 139.00 | 31.00 | 3.15 |
| G139133317GC | 139.40 | 133.60 | 139.40 | 31.70 | 2.90 |
| G140117150GC | 140.00 | 117.00 | 140.00 | 15.00 | 11.50 |
| G140128120GC | 140.00 | 128.00 | 140.00 | 12.00 | 6.00 |
| G140128170GC | 140.00 | 128.00 | 140.00 | 17.00 | 6.00 |
| G140128175GC | 140.00 | 128.00 | 140.00 | 17.50 | 6.00 |
| G140128200GC | 140.00 | 128.00 | 140.00 | 20.00 | 6.00 |
| G140130300GC | 140.00 | 130.00 | 140.00 | 30.00 | 5.00 |
| G140130400GC | 140.00 | 130.00 | 140.00 | 40.00 | 5.00 |
| G140132080GC | 140.00 | 132.00 | 140.00 | 8.00 | 4.00 |
| G140132095GC | 140.00 | 132.00 | 140.00 | 9.50 | 4.00 |
| G140132320GC | 140.00 | 132.00 | 140.00 | 32.00 | 4.00 |
| G140133100GC | 140.00 | 133.00 | 140.00 | 10.00 | 3.50 |
| G140133150GC | 140.00 | 133.00 | 140.00 | 15.00 | 3.50 |
| G140133170GC | 140.00 | 133.00 | 140.00 | 17.00 | 3.50 |
| G140133175GC | 140.00 | 133.00 | 140.00 | 17.50 | 3.50 |
| G140133200GC | 140.00 | 133.00 | 140.00 | 20.00 | 3.50 |
| G140133250GC | 140.00 | 133.00 | 140.00 | 25.00 | 3.50 |
| G140133300GC | 140.00 | 133.00 | 140.00 | 30.00 | 3.50 |
| G140133350GC | 140.00 | 133.00 | 140.00 | 35.00 | 3.50 |
| G140133400GC | 140.00 | 133.00 | 140.00 | 40.00 | 3.50 |
| G140133450GC | 140.00 | 133.00 | 140.00 | 45.00 | 3.50 |

GC series - Phenolic

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|---------------|---------------|------------------------------|-------|------|
| | | | D | H | S |
| G140133500GC | 140.00 | 133.00 | 140.00 | 50.00 | 3.50 |
| G140134097GC | 140.00 | 134.00 | 140.00 | 9.70 | 3.00 |
| G140134130GC | 140.00 | 134.00 | 140.00 | 13.00 | 3.00 |
| G140134200GC | 140.00 | 134.00 | 140.00 | 20.00 | 3.00 |
| G140134250GC | 140.00 | 134.00 | 140.00 | 25.00 | 3.00 |
| G140134300GC | 140.00 | 134.00 | 140.00 | 30.00 | 3.00 |
| G140134400GC | 140.00 | 134.00 | 140.00 | 40.00 | 3.00 |
| G140134500GC | 140.00 | 134.00 | 140.00 | 50.00 | 3.00 |
| G140135080GC | 140.00 | 135.00 | 140.00 | 8.00 | 2.50 |
| G140135095GC | 140.00 | 135.00 | 140.00 | 9.50 | 2.50 |
| G140135097GC | 140.00 | 135.00 | 140.00 | 9.70 | 2.50 |
| G140135100GC | 140.00 | 135.00 | 140.00 | 10.00 | 2.50 |
| G140135120GC | 140.00 | 135.00 | 140.00 | 12.00 | 2.50 |
| G140135125GC | 140.00 | 135.00 | 140.00 | 12.50 | 2.50 |
| G140135150GC | 140.00 | 135.00 | 140.00 | 15.00 | 2.50 |
| G140135200GC | 140.00 | 135.00 | 140.00 | 20.00 | 2.50 |
| G140135250GC | 140.00 | 135.00 | 140.00 | 25.00 | 2.50 |
| G140135300GC | 140.00 | 135.00 | 140.00 | 30.00 | 2.50 |
| G140135350GC | 140.00 | 135.00 | 140.00 | 35.00 | 2.50 |
| G140135500GC | 140.00 | 135.00 | 140.00 | 50.00 | 2.50 |
| G141135900GC | 141.00 | 135.00 | 141.00 | 90.00 | 3.00 |
| G142135150GC | 142.00 | 135.00 | 142.00 | 15.00 | 3.50 |
| G143136150GC | 143.00 | 136.00 | 143.00 | 15.00 | 3.50 |
| G145130400GC | 145.00 | 130.00 | 145.00 | 40.00 | 7.50 |
| G145133175GC | 145.00 | 133.00 | 145.00 | 17.50 | 6.00 |
| G145135150GC | 145.00 | 135.00 | 145.00 | 15.00 | 5.00 |
| G145137100GC | 145.00 | 137.00 | 145.00 | 10.00 | 4.00 |
| G145137150GC | 145.00 | 137.00 | 145.00 | 15.00 | 4.00 |
| G145138095GC | 145.00 | 138.00 | 145.00 | 9.50 | 3.50 |
| G145138097GC | 145.00 | 138.00 | 145.00 | 9.70 | 3.50 |
| G145138100GC | 145.00 | 138.00 | 145.00 | 10.00 | 3.50 |
| G145138150GC | 145.00 | 138.00 | 145.00 | 15.00 | 3.50 |
| G145138170GC | 145.00 | 138.00 | 145.00 | 17.00 | 3.50 |
| G145138200GC | 145.00 | 138.00 | 145.00 | 20.00 | 3.50 |
| G145138250GC | 145.00 | 138.00 | 145.00 | 25.00 | 3.50 |
| G145138300GC | 145.00 | 138.00 | 145.00 | 30.00 | 3.50 |
| G145138350GC | 145.00 | 138.00 | 145.00 | 35.00 | 3.50 |
| G145138500GC | 145.00 | 138.00 | 145.00 | 50.00 | 3.50 |
| G145139300GC | 145.00 | 139.00 | 145.00 | 30.00 | 3.00 |
| G145140080GC | 145.00 | 140.00 | 145.00 | 8.00 | 2.50 |
| G145140095GC | 145.00 | 140.00 | 145.00 | 9.50 | 2.50 |
| G145140097GC | 145.00 | 140.00 | 145.00 | 9.70 | 2.50 |
| G145140100GC | 145.00 | 140.00 | 145.00 | 10.00 | 2.50 |
| G145140125GC | 145.00 | 140.00 | 145.00 | 12.50 | 2.50 |
| G145140150GC | 145.00 | 140.00 | 145.00 | 15.00 | 2.50 |
| G145140200GC | 145.00 | 140.00 | 145.00 | 20.00 | 2.50 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|---------------|---------------|------------------------------|-------|-------|
| | | | D | H | S |
| G145140250GC | 145.00 | 140.00 | 145.00 | 25.00 | 2.50 |
| G145140300GC | 145.00 | 140.00 | 145.00 | 30.00 | 2.50 |
| G145140500GC | 145.00 | 140.00 | 145.00 | 50.00 | 2.50 |
| G146140130GC | 146.00 | 140.00 | 146.00 | 13.00 | 3.00 |
| G146140150GC | 146.00 | 140.00 | 146.00 | 15.00 | 3.00 |
| G146140250GC | 146.00 | 140.00 | 146.00 | 25.00 | 3.00 |
| G146140300GC | 146.00 | 140.00 | 146.00 | 30.00 | 3.00 |
| G146140317GC | 146.00 | 140.00 | 146.00 | 31.70 | 3.00 |
| G146140350GC | 146.00 | 140.00 | 146.00 | 35.00 | 3.00 |
| G146140400GC | 146.00 | 140.00 | 146.00 | 40.00 | 3.00 |
| G146140500GC | 146.00 | 140.00 | 146.00 | 50.00 | 3.00 |
| G146140600GC | 146.00 | 140.00 | 146.00 | 60.00 | 3.00 |
| G147140300GC | 147.00 | 140.00 | 147.00 | 30.00 | 3.50 |
| G147140400GC | 147.00 | 140.00 | 147.00 | 40.00 | 3.50 |
| G148140500GC | 148.00 | 140.00 | 148.00 | 50.00 | 4.00 |
| G150127150GC | 150.00 | 127.00 | 150.00 | 15.00 | 11.50 |
| G150138175GC | 150.00 | 138.00 | 150.00 | 17.50 | 6.00 |
| G150140095GC | 150.00 | 140.00 | 150.00 | 9.50 | 5.00 |
| G150140350GC | 150.00 | 140.00 | 150.00 | 35.00 | 5.00 |
| G150142080GC | 150.00 | 142.00 | 150.00 | 8.00 | 4.00 |
| G150142150GC | 150.00 | 142.00 | 150.00 | 15.00 | 4.00 |
| G150142170GC | 150.00 | 142.00 | 150.00 | 17.00 | 4.00 |
| G150142200GC | 150.00 | 142.00 | 150.00 | 20.00 | 4.00 |
| G150143100GC | 150.00 | 143.00 | 150.00 | 10.00 | 3.50 |
| G150143150GC | 150.00 | 143.00 | 150.00 | 15.00 | 3.50 |
| G150143175GC | 150.00 | 143.00 | 150.00 | 17.50 | 3.50 |
| G150143200GC | 150.00 | 143.00 | 150.00 | 20.00 | 3.50 |
| G150143250GC | 150.00 | 143.00 | 150.00 | 25.00 | 3.50 |
| G150143300GC | 150.00 | 143.00 | 150.00 | 30.00 | 3.50 |
| G150143350GC | 150.00 | 143.00 | 150.00 | 35.00 | 3.50 |
| G150143400GC | 150.00 | 143.00 | 150.00 | 40.00 | 3.50 |
| G150143450GC | 150.00 | 143.00 | 150.00 | 45.00 | 3.50 |
| G150143500GC | 150.00 | 143.00 | 150.00 | 50.00 | 3.50 |
| G150144130GC | 150.00 | 144.00 | 150.00 | 13.00 | 3.00 |
| G150144200GC | 150.00 | 144.00 | 150.00 | 20.00 | 3.00 |
| G150144250GC | 150.00 | 144.00 | 150.00 | 25.00 | 3.00 |
| G150144300GC | 150.00 | 144.00 | 150.00 | 30.00 | 3.00 |
| G150144350GC | 150.00 | 144.00 | 150.00 | 35.00 | 3.00 |
| G150144400GC | 150.00 | 144.00 | 150.00 | 40.00 | 3.00 |
| G150144500GC | 150.00 | 144.00 | 150.00 | 50.00 | 3.00 |
| G150145080GC | 150.00 | 145.00 | 150.00 | 8.00 | 2.50 |
| G150145095GC | 150.00 | 145.00 | 150.00 | 9.50 | 2.50 |
| G150145097GC | 150.00 | 145.00 | 150.00 | 9.70 | 2.50 |
| G150145100GC | 150.00 | 145.00 | 150.00 | 10.00 | 2.50 |
| G150145125GC | 150.00 | 145.00 | 150.00 | 12.50 | 2.50 |
| G150145150GC | 150.00 | 145.00 | 150.00 | 15.00 | 2.50 |

GC series - Phenolic



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|----------|---------|------------------------------|-------|------|
| | | | D | H | S |
| G150145160GC | 150.00 | 145.00 | 150.00 | 16.00 | 2.50 |
| G150145200GC | 150.00 | 145.00 | 150.00 | 20.00 | 2.50 |
| G150145250GC | 150.00 | 145.00 | 150.00 | 25.00 | 2.50 |
| G150145350GC | 150.00 | 145.00 | 150.00 | 35.00 | 2.50 |
| G150145400GC | 150.00 | 145.00 | 150.00 | 40.00 | 2.50 |
| G150145500GC | 150.00 | 145.00 | 150.00 | 50.00 | 2.50 |
| G150148150GC | 150.00 | 148.00 | 150.00 | 15.00 | 1.00 |
| G151145500GC | 151.00 | 145.00 | 151.00 | 50.00 | 3.00 |
| G152147130GC | 152.00 | 147.00 | 152.00 | 13.00 | 2.50 |
| G152147150GC | 152.00 | 147.00 | 152.00 | 15.00 | 2.50 |
| G155148150GC | 155.00 | 148.00 | 155.00 | 15.00 | 3.50 |
| G155148350GC | 155.00 | 148.00 | 155.00 | 35.00 | 3.50 |
| G155150080GC | 155.00 | 150.00 | 155.00 | 8.00 | 2.50 |
| G155150097GC | 155.00 | 150.00 | 155.00 | 9.70 | 2.50 |
| G155150100GC | 155.00 | 150.00 | 155.00 | 10.00 | 2.50 |
| G155150150GC | 155.00 | 150.00 | 155.00 | 15.00 | 2.50 |
| G155150200GC | 155.00 | 150.00 | 155.00 | 20.00 | 2.50 |
| G155150250GC | 155.00 | 150.00 | 155.00 | 25.00 | 2.50 |
| G155150300GC | 155.00 | 150.00 | 155.00 | 30.00 | 2.50 |
| G156150200GC | 156.00 | 150.00 | 156.00 | 20.00 | 3.00 |
| G156150300GC | 156.00 | 150.00 | 156.00 | 30.00 | 3.00 |
| G156150350GC | 156.00 | 150.00 | 156.00 | 35.00 | 3.00 |
| G156150400GC | 156.00 | 150.00 | 156.00 | 40.00 | 3.00 |
| G157150400GC | 157.00 | 150.00 | 157.00 | 40.00 | 3.50 |
| G157152250GC | 157.00 | 152.00 | 157.00 | 25.00 | 2.50 |
| G158150350GC | 158.00 | 150.00 | 158.00 | 35.00 | 4.00 |
| G158150400GC | 158.00 | 150.00 | 158.00 | 40.00 | 4.00 |
| G158150600GC | 158.00 | 150.00 | 158.00 | 60.00 | 4.00 |
| G159147200GC | 159.00 | 147.00 | 159.00 | 20.00 | 6.00 |
| G160148100GC | 160.00 | 148.00 | 160.00 | 10.00 | 6.00 |
| G160148200GC | 160.00 | 148.00 | 160.00 | 20.00 | 6.00 |
| G160148220GC | 160.00 | 148.00 | 160.00 | 22.00 | 6.00 |
| G160150200GC | 160.00 | 150.00 | 160.00 | 20.00 | 5.00 |
| G160150230GC | 160.00 | 150.00 | 160.00 | 23.00 | 5.00 |
| G160152350GC | 160.00 | 152.00 | 160.00 | 35.00 | 4.00 |
| G160152400GC | 160.00 | 152.00 | 160.00 | 40.00 | 4.00 |
| G160153100GC | 160.00 | 153.00 | 160.00 | 10.00 | 3.50 |
| G160153150GC | 160.00 | 153.00 | 160.00 | 15.00 | 3.50 |
| G160153200GC | 160.00 | 153.00 | 160.00 | 20.00 | 3.50 |
| G160153250GC | 160.00 | 153.00 | 160.00 | 25.00 | 3.50 |
| G160153270GC | 160.00 | 153.00 | 160.00 | 27.00 | 3.50 |
| G160153300GC | 160.00 | 153.00 | 160.00 | 30.00 | 3.50 |
| G160153350GC | 160.00 | 153.00 | 160.00 | 35.00 | 3.50 |
| G160153400GC | 160.00 | 153.00 | 160.00 | 40.00 | 3.50 |
| G160153450GC | 160.00 | 153.00 | 160.00 | 45.00 | 3.50 |
| G160154130GC | 160.00 | 154.00 | 160.00 | 13.00 | 3.00 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|---------------|----------|---------|------------------------------|--------|------|
| | | | D | H | S |
| G160154150GC | 160.00 | 154.00 | 160.00 | 15.00 | 3.00 |
| G160154195GC | 160.00 | 154.00 | 160.00 | 19.50 | 3.00 |
| G160154200GC | 160.00 | 154.00 | 160.00 | 20.00 | 3.00 |
| G160154250GC | 160.00 | 154.00 | 160.00 | 25.00 | 3.00 |
| G160154300GC | 160.00 | 154.00 | 160.00 | 30.00 | 3.00 |
| G160154350GC | 160.00 | 154.00 | 160.00 | 35.00 | 3.00 |
| G160154400GC | 160.00 | 154.00 | 160.00 | 40.00 | 3.00 |
| G160154500GC | 160.00 | 154.00 | 160.00 | 50.00 | 3.00 |
| G160155080GC | 160.00 | 155.00 | 160.00 | 8.00 | 2.50 |
| G160155095GC | 160.00 | 155.00 | 160.00 | 9.50 | 2.50 |
| G160155097GC | 160.00 | 155.00 | 160.00 | 9.70 | 2.50 |
| G160155100GC | 160.00 | 155.00 | 160.00 | 10.00 | 2.50 |
| G160155125GC | 160.00 | 155.00 | 160.00 | 12.50 | 2.50 |
| G160155150GC | 160.00 | 155.00 | 160.00 | 15.00 | 2.50 |
| G160155160GC | 160.00 | 155.00 | 160.00 | 16.00 | 2.50 |
| G160155200GC | 160.00 | 155.00 | 160.00 | 20.00 | 2.50 |
| G160155230GC | 160.00 | 155.00 | 160.00 | 23.00 | 2.50 |
| G160155250GC | 160.00 | 155.00 | 160.00 | 25.00 | 2.50 |
| G160155400GC | 160.00 | 155.00 | 160.00 | 40.00 | 2.50 |
| G160155500GC | 160.00 | 155.00 | 160.00 | 50.00 | 2.50 |
| G161155195GC | 161.00 | 155.00 | 161.00 | 19.50 | 3.00 |
| G165157095GC | 165.00 | 157.00 | 165.00 | 9.50 | 4.00 |
| G165157100GC | 165.00 | 157.00 | 165.00 | 10.00 | 4.00 |
| G165157150GC | 165.00 | 157.00 | 165.00 | 15.00 | 4.00 |
| G165157200GC | 165.00 | 157.00 | 165.00 | 20.00 | 4.00 |
| G165157250GC | 165.00 | 157.00 | 165.00 | 25.00 | 4.00 |
| G165157300GC | 165.00 | 157.00 | 165.00 | 30.00 | 4.00 |
| G165157350GC | 165.00 | 157.00 | 165.00 | 35.00 | 4.00 |
| G165157450GC | 165.00 | 157.00 | 165.00 | 45.00 | 4.00 |
| G165157500GC | 165.00 | 157.00 | 165.00 | 50.00 | 4.00 |
| G165157600GC | 165.00 | 157.00 | 165.00 | 60.00 | 4.00 |
| G165158097GC | 165.00 | 158.00 | 165.00 | 9.70 | 3.50 |
| G165158150GC | 165.00 | 158.00 | 165.00 | 15.00 | 3.50 |
| G165158500GC | 165.00 | 158.00 | 165.00 | 50.00 | 3.50 |
| G165159300GC | 165.00 | 159.00 | 165.00 | 30.00 | 3.00 |
| G165160097GC | 165.00 | 160.00 | 165.00 | 9.70 | 2.50 |
| G1651601000GC | 165.00 | 160.00 | 165.00 | 100.00 | 2.50 |
| G165160100GC | 165.00 | 160.00 | 165.00 | 10.00 | 2.50 |
| G165160150GC | 165.00 | 160.00 | 165.00 | 15.00 | 2.50 |
| G165160200GC | 165.00 | 160.00 | 165.00 | 20.00 | 2.50 |
| G165160250GC | 165.00 | 160.00 | 165.00 | 25.00 | 2.50 |
| G165160300GC | 165.00 | 160.00 | 165.00 | 30.00 | 2.50 |
| G165160350GC | 165.00 | 160.00 | 165.00 | 35.00 | 2.50 |
| G165160400GC | 165.00 | 160.00 | 165.00 | 40.00 | 2.50 |
| G165160500GC | 165.00 | 160.00 | 165.00 | 50.00 | 2.50 |
| G166160130GC | 166.00 | 160.00 | 166.00 | 13.00 | 3.00 |

GC series - Phenolic



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|---------------|---------------|------------------------------|-------|------|
| | | | D | H | S |
| G166160200GC | 166.00 | 160.00 | 166.00 | 20.00 | 3.00 |
| G166160250GC | 166.00 | 160.00 | 166.00 | 25.00 | 3.00 |
| G166160300GC | 166.00 | 160.00 | 166.00 | 30.00 | 3.00 |
| G168160200GC | 168.00 | 160.00 | 168.00 | 20.00 | 4.00 |
| G168160300GC | 168.00 | 160.00 | 168.00 | 30.00 | 4.00 |
| G168160400GC | 168.00 | 160.00 | 168.00 | 40.00 | 4.00 |
| G168160800GC | 168.00 | 160.00 | 168.00 | 80.00 | 4.00 |
| G170158200GC | 170.00 | 158.00 | 170.00 | 20.00 | 6.00 |
| G170160200GC | 170.00 | 160.00 | 170.00 | 20.00 | 5.00 |
| G170162045GC | 170.00 | 162.00 | 170.00 | 4.50 | 4.00 |
| G170162097GC | 170.00 | 162.00 | 170.00 | 9.70 | 4.00 |
| G170162100GC | 170.00 | 162.00 | 170.00 | 10.00 | 4.00 |
| G170162150GC | 170.00 | 162.00 | 170.00 | 15.00 | 4.00 |
| G170162200GC | 170.00 | 162.00 | 170.00 | 20.00 | 4.00 |
| G170162250GC | 170.00 | 162.00 | 170.00 | 25.00 | 4.00 |
| G170162300GC | 170.00 | 162.00 | 170.00 | 30.00 | 4.00 |
| G170162350GC | 170.00 | 162.00 | 170.00 | 35.00 | 4.00 |
| G170162400GC | 170.00 | 162.00 | 170.00 | 40.00 | 4.00 |
| G170162450GC | 170.00 | 162.00 | 170.00 | 45.00 | 4.00 |
| G170162500GC | 170.00 | 162.00 | 170.00 | 50.00 | 4.00 |
| G170163400GC | 170.00 | 163.00 | 170.00 | 40.00 | 3.50 |
| G170164095GC | 170.00 | 164.00 | 170.00 | 9.50 | 3.00 |
| G170164100GC | 170.00 | 164.00 | 170.00 | 10.00 | 3.00 |
| G170164150GC | 170.00 | 164.00 | 170.00 | 15.00 | 3.00 |
| G170164195GC | 170.00 | 164.00 | 170.00 | 19.50 | 3.00 |
| G170164200GC | 170.00 | 164.00 | 170.00 | 20.00 | 3.00 |
| G170164300GC | 170.00 | 164.00 | 170.00 | 30.00 | 3.00 |
| G170164350GC | 170.00 | 164.00 | 170.00 | 35.00 | 3.00 |
| G170164500GC | 170.00 | 164.00 | 170.00 | 50.00 | 3.00 |
| G170165080GC | 170.00 | 165.00 | 170.00 | 8.00 | 2.50 |
| G170165095GC | 170.00 | 165.00 | 170.00 | 9.50 | 2.50 |
| G170165097GC | 170.00 | 165.00 | 170.00 | 9.70 | 2.50 |
| G170165100GC | 170.00 | 165.00 | 170.00 | 10.00 | 2.50 |
| G170165150GC | 170.00 | 165.00 | 170.00 | 15.00 | 2.50 |
| G170165200GC | 170.00 | 165.00 | 170.00 | 20.00 | 2.50 |
| G170165250GC | 170.00 | 165.00 | 170.00 | 25.00 | 2.50 |
| G170165300GC | 170.00 | 165.00 | 170.00 | 30.00 | 2.50 |
| G170165350GC | 170.00 | 165.00 | 170.00 | 35.00 | 2.50 |
| G170165500GC | 170.00 | 165.00 | 170.00 | 50.00 | 2.50 |
| G173165200GC | 173.00 | 165.00 | 173.00 | 20.00 | 4.00 |
| G175165150GC | 175.00 | 165.00 | 175.00 | 15.00 | 5.00 |
| G175168150GC | 175.00 | 168.00 | 175.00 | 15.00 | 3.50 |
| G175169500GC | 175.00 | 169.00 | 175.00 | 50.00 | 3.00 |
| G175170097GC | 175.00 | 170.00 | 175.00 | 9.70 | 2.50 |
| G175170100GC | 175.00 | 170.00 | 175.00 | 10.00 | 2.50 |
| G175170150GC | 175.00 | 170.00 | 175.00 | 15.00 | 2.50 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|---------------|---------------|------------------------------|-------|------|
| | | | D | H | S |
| G175170200GC | 175.00 | 170.00 | 175.00 | 20.00 | 2.50 |
| G175170250GC | 175.00 | 170.00 | 175.00 | 25.00 | 2.50 |
| G176170400GC | 176.00 | 170.00 | 176.00 | 40.00 | 3.00 |
| G176170500GC | 176.00 | 170.00 | 176.00 | 50.00 | 3.00 |
| G180168220GC | 180.00 | 168.00 | 180.00 | 22.00 | 6.00 |
| G180168225GC | 180.00 | 168.00 | 180.00 | 22.50 | 6.00 |
| G180170080GC | 180.00 | 170.00 | 180.00 | 8.00 | 5.00 |
| G180170250GC | 180.00 | 170.00 | 180.00 | 25.00 | 5.00 |
| G180170460GC | 180.00 | 170.00 | 180.00 | 46.00 | 5.00 |
| G180170500GC | 180.00 | 170.00 | 180.00 | 50.00 | 5.00 |
| G180172100GC | 180.00 | 172.00 | 180.00 | 10.00 | 4.00 |
| G180172120GC | 180.00 | 172.00 | 180.00 | 12.00 | 4.00 |
| G180172125GC | 180.00 | 172.00 | 180.00 | 12.50 | 4.00 |
| G180172150GC | 180.00 | 172.00 | 180.00 | 15.00 | 4.00 |
| G180172200GC | 180.00 | 172.00 | 180.00 | 20.00 | 4.00 |
| G180172220GC | 180.00 | 172.00 | 180.00 | 22.00 | 4.00 |
| G180172225GC | 180.00 | 172.00 | 180.00 | 22.50 | 4.00 |
| G180172250GC | 180.00 | 172.00 | 180.00 | 25.00 | 4.00 |
| G180172300GC | 180.00 | 172.00 | 180.00 | 30.00 | 4.00 |
| G180172350GC | 180.00 | 172.00 | 180.00 | 35.00 | 4.00 |
| G180172400GC | 180.00 | 172.00 | 180.00 | 40.00 | 4.00 |
| G180172450GC | 180.00 | 172.00 | 180.00 | 45.00 | 4.00 |
| G180172500GC | 180.00 | 172.00 | 180.00 | 50.00 | 4.00 |
| G180172550GC | 180.00 | 172.00 | 180.00 | 55.00 | 4.00 |
| G180173250GC | 180.00 | 173.00 | 180.00 | 25.00 | 3.50 |
| G180173270GC | 180.00 | 173.00 | 180.00 | 27.00 | 3.50 |
| G180173450GC | 180.00 | 173.00 | 180.00 | 45.00 | 3.50 |
| G180173500GC | 180.00 | 173.00 | 180.00 | 50.00 | 3.50 |
| G180174100GC | 180.00 | 174.00 | 180.00 | 10.00 | 3.00 |
| G180174130GC | 180.00 | 174.00 | 180.00 | 13.00 | 3.00 |
| G180174195GC | 180.00 | 174.00 | 180.00 | 19.50 | 3.00 |
| G180174200GC | 180.00 | 174.00 | 180.00 | 20.00 | 3.00 |
| G180174300GC | 180.00 | 174.00 | 180.00 | 30.00 | 3.00 |
| G180174350GC | 180.00 | 174.00 | 180.00 | 35.00 | 3.00 |
| G180174400GC | 180.00 | 174.00 | 180.00 | 40.00 | 3.00 |
| G180174500GC | 180.00 | 174.00 | 180.00 | 50.00 | 3.00 |
| G180175080GC | 180.00 | 175.00 | 180.00 | 8.00 | 2.50 |
| G180175095GC | 180.00 | 175.00 | 180.00 | 9.50 | 2.50 |
| G180175097GC | 180.00 | 175.00 | 180.00 | 9.70 | 2.50 |
| G180175100GC | 180.00 | 175.00 | 180.00 | 10.00 | 2.50 |
| G180175120GC | 180.00 | 175.00 | 180.00 | 12.00 | 2.50 |
| G180175125GC | 180.00 | 175.00 | 180.00 | 12.50 | 2.50 |
| G180175150GC | 180.00 | 175.00 | 180.00 | 15.00 | 2.50 |
| G180175160GC | 180.00 | 175.00 | 180.00 | 16.00 | 2.50 |
| G180175200GC | 180.00 | 175.00 | 180.00 | 20.00 | 2.50 |
| G180175250GC | 180.00 | 175.00 | 180.00 | 25.00 | 2.50 |

GC series - Phenolic



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|---------------|---------------|------------------------------|-------|------|
| | | | D | H | S |
| G180175300GC | 180.00 | 175.00 | 180.00 | 30.00 | 2.50 |
| G180175350GC | 180.00 | 175.00 | 180.00 | 35.00 | 2.50 |
| G180175400GC | 180.00 | 175.00 | 180.00 | 40.00 | 2.50 |
| G180175450GC | 180.00 | 175.00 | 180.00 | 45.00 | 2.50 |
| G180175500GC | 180.00 | 175.00 | 180.00 | 50.00 | 2.50 |
| G181175400GC | 181.00 | 175.00 | 181.00 | 40.00 | 3.00 |
| G181175900GC | 181.00 | 175.00 | 181.00 | 90.00 | 3.00 |
| G184178254GC | 184.50 | 178.20 | 184.50 | 25.40 | 3.15 |
| G185173200GC | 185.00 | 173.00 | 185.00 | 20.00 | 6.00 |
| G185173225GC | 185.00 | 173.00 | 185.00 | 22.50 | 6.00 |
| G185173250GC | 185.00 | 173.00 | 185.00 | 25.00 | 6.00 |
| G185177150GC | 185.00 | 177.00 | 185.00 | 15.00 | 4.00 |
| G185177450GC | 185.00 | 177.00 | 185.00 | 45.00 | 4.00 |
| G185180097GC | 185.00 | 180.00 | 185.00 | 9.70 | 2.50 |
| G185180100GC | 185.00 | 180.00 | 185.00 | 10.00 | 2.50 |
| G185180148GC | 185.00 | 180.00 | 185.00 | 14.80 | 2.50 |
| G185180150GC | 185.00 | 180.00 | 185.00 | 15.00 | 2.50 |
| G185180250GC | 185.00 | 180.00 | 185.00 | 25.00 | 2.50 |
| G185180500GC | 185.00 | 180.00 | 185.00 | 50.00 | 2.50 |
| G186180195GC | 186.00 | 180.00 | 186.00 | 19.50 | 3.00 |
| G186180200GC | 186.00 | 180.00 | 186.00 | 20.00 | 3.00 |
| G186180250GC | 186.00 | 180.00 | 186.00 | 25.00 | 3.00 |
| G186180400GC | 186.00 | 180.00 | 186.00 | 40.00 | 3.00 |
| G186180500GC | 186.00 | 180.00 | 186.00 | 50.00 | 3.00 |
| G188180300GC | 188.00 | 180.00 | 188.00 | 30.00 | 4.00 |
| G188180500GC | 188.00 | 180.00 | 188.00 | 50.00 | 4.00 |
| G188180800GC | 188.00 | 180.00 | 188.00 | 80.00 | 4.00 |
| G190178220GC | 190.00 | 178.00 | 190.00 | 22.00 | 6.00 |
| G190182100GC | 190.00 | 182.00 | 190.00 | 10.00 | 4.00 |
| G190182150GC | 190.00 | 182.00 | 190.00 | 15.00 | 4.00 |
| G190182200GC | 190.00 | 182.00 | 190.00 | 20.00 | 4.00 |
| G190182225GC | 190.00 | 182.00 | 190.00 | 22.50 | 4.00 |
| G190182230GC | 190.00 | 182.00 | 190.00 | 23.00 | 4.00 |
| G190182250GC | 190.00 | 182.00 | 190.00 | 25.00 | 4.00 |
| G190182300GC | 190.00 | 182.00 | 190.00 | 30.00 | 4.00 |
| G190182350GC | 190.00 | 182.00 | 190.00 | 35.00 | 4.00 |
| G190182450GC | 190.00 | 182.00 | 190.00 | 45.00 | 4.00 |
| G190182500GC | 190.00 | 182.00 | 190.00 | 50.00 | 4.00 |
| G190184300GC | 190.00 | 184.00 | 190.00 | 30.00 | 3.00 |
| G190184400GC | 190.00 | 184.00 | 190.00 | 40.00 | 3.00 |
| G190184500GC | 190.00 | 184.00 | 190.00 | 50.00 | 3.00 |
| G190184900GC | 190.00 | 184.00 | 190.00 | 90.00 | 3.00 |
| G190185080GC | 190.00 | 185.00 | 190.00 | 8.00 | 2.50 |
| G190185095GC | 190.00 | 185.00 | 190.00 | 9.50 | 2.50 |
| G190185097GC | 190.00 | 185.00 | 190.00 | 9.70 | 0/R |
| G190185100GC | 190.00 | 185.00 | 190.00 | 10.00 | 2.50 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|-----------------|---------------|---------------|------------------------------|--------|------|
| | | | D | H | S |
| G190185150GC | 190.00 | 185.00 | 190.00 | 15.00 | 2.50 |
| G190185250GC | 190.00 | 185.00 | 190.00 | 25.00 | 2.50 |
| G190185300GC | 190.00 | 185.00 | 190.00 | 30.00 | 2.50 |
| G195190097GC | 195.00 | 190.00 | 195.00 | 9.70 | 2.50 |
| G195190100GC | 195.00 | 190.00 | 195.00 | 10.00 | 2.50 |
| G195190150GC | 195.00 | 190.00 | 195.00 | 15.00 | 2.50 |
| G195190200GC | 195.00 | 190.00 | 195.00 | 20.00 | 2.50 |
| G195190250GC | 195.00 | 190.00 | 195.00 | 25.00 | 2.50 |
| G195190300GC | 195.00 | 190.00 | 195.00 | 30.00 | 2.50 |
| G198190400GC | 198.00 | 190.00 | 198.00 | 40.00 | 4.00 |
| G198190600GC | 198.00 | 190.00 | 198.00 | 60.00 | 4.00 |
| G199193130GC | 199.00 | 193.00 | 199.00 | 13.00 | 3.00 |
| G200182250GC | 200.00 | 182.00 | 200.00 | 25.00 | 9.00 |
| G200188195GC | 200.00 | 188.00 | 200.00 | 19.50 | 6.00 |
| G200188220GC | 200.00 | 188.00 | 200.00 | 22.00 | 6.00 |
| G200188225GC | 200.00 | 188.00 | 200.00 | 22.50 | 6.00 |
| G200190400GC-SC | 200.00 | 190.00 | 200.00 | 40.00 | 5.00 |
| G200191250GC | 200.00 | 191.00 | 200.00 | 25.00 | 4.50 |
| G200192100GC | 200.00 | 192.00 | 200.00 | 10.00 | 4.00 |
| G200192150GC | 200.00 | 192.00 | 200.00 | 15.00 | 4.00 |
| G200192200GC | 200.00 | 192.00 | 200.00 | 20.00 | 4.00 |
| G200192220GC | 200.00 | 192.00 | 200.00 | 22.00 | 4.00 |
| G200192225GC | 200.00 | 192.00 | 200.00 | 22.50 | 4.00 |
| G200192250GC | 200.00 | 192.00 | 200.00 | 25.00 | 4.00 |
| G200192300GC | 200.00 | 192.00 | 200.00 | 30.00 | 4.00 |
| G200192400GC | 200.00 | 192.00 | 200.00 | 40.00 | 4.00 |
| G200192450GC | 200.00 | 192.00 | 200.00 | 45.00 | 4.00 |
| G200192500GC | 200.00 | 192.00 | 200.00 | 50.00 | 4.00 |
| G200194100GC | 200.00 | 194.00 | 200.00 | 10.00 | 3.00 |
| G200194150GC | 200.00 | 194.00 | 200.00 | 15.00 | 3.00 |
| G200194189GC | 200.00 | 194.00 | 200.00 | 18.87 | 3.00 |
| G200194195GC | 200.00 | 194.00 | 200.00 | 19.50 | 3.00 |
| G200194200GC | 200.00 | 194.00 | 200.00 | 20.00 | 3.00 |
| G200194250GC | 200.00 | 194.00 | 200.00 | 25.00 | 3.00 |
| G200194300GC | 200.00 | 194.00 | 200.00 | 30.00 | 3.00 |
| G200194350GC | 200.00 | 194.00 | 200.00 | 35.00 | 3.00 |
| G200194400GC | 200.00 | 194.00 | 200.00 | 40.00 | 3.00 |
| G200194500GC | 200.00 | 194.00 | 200.00 | 50.00 | 3.00 |
| G200195080GC | 200.00 | 195.00 | 200.00 | 8.00 | 2.50 |
| G200195095GC | 200.00 | 195.00 | 200.00 | 9.50 | 2.50 |
| G200195097GC | 200.00 | 195.00 | 200.00 | 9.70 | 2.50 |
| G200195100GC | 200.00 | 195.00 | 200.00 | 10.00 | 2.50 |
| G2001951195GC | 200.00 | 195.00 | 200.00 | 119.50 | 2.50 |
| G200195150GC | 200.00 | 195.00 | 200.00 | 15.00 | 2.50 |
| G200195200GC | 200.00 | 195.00 | 200.00 | 20.00 | 2.50 |
| G200195250GC | 200.00 | 195.00 | 200.00 | 25.00 | 2.50 |

GC series - Phenolic

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|-----------------|----------|---------|------------------------------|-------|-------|
| | | | D | H | S |
| G200195400GC | 200.00 | 195.00 | 200.00 | 40.00 | 2.50 |
| G200196250GC | 200.00 | 196.00 | 200.00 | 25.00 | 2.00 |
| G203195250GC | 203.00 | 195.00 | 203.00 | 25.00 | 4.00 |
| G204196250GC | 204.00 | 196.00 | 204.00 | 25.00 | 4.00 |
| G205197500GC | 205.00 | 197.00 | 205.00 | 50.00 | 4.00 |
| G205200150GC | 205.00 | 200.00 | 205.00 | 15.00 | 2.50 |
| G205200200GC | 205.00 | 200.00 | 205.00 | 20.00 | 2.50 |
| G205200250GC | 205.00 | 200.00 | 205.00 | 25.00 | 2.50 |
| G205200700GC | 205.00 | 200.00 | 205.00 | 70.00 | 2.50 |
| G206198360GC | 206.00 | 198.00 | 206.00 | 36.00 | 4.00 |
| G206200195GC | 206.00 | 200.00 | 206.00 | 19.50 | 3.00 |
| G208200200GC | 208.00 | 200.00 | 208.00 | 20.00 | 4.00 |
| G208200300GC | 208.00 | 200.00 | 208.00 | 30.00 | 4.00 |
| G208200400GC | 208.00 | 200.00 | 208.00 | 40.00 | 4.00 |
| G208200500GC | 208.00 | 200.00 | 208.00 | 50.00 | 4.00 |
| G210200248GC | 210.00 | 200.00 | 210.00 | 24.80 | 5.00 |
| G210200350GC | 210.00 | 200.00 | 210.00 | 35.00 | 5.00 |
| G210202140GC | 210.00 | 202.00 | 210.00 | 14.00 | 4.00 |
| G210202250GC | 210.00 | 202.00 | 210.00 | 25.00 | 4.00 |
| G210202450GC | 210.00 | 202.00 | 210.00 | 45.00 | 4.00 |
| G210202500GC | 210.00 | 202.00 | 210.00 | 50.00 | 4.00 |
| G210204500GC | 210.00 | 204.00 | 210.00 | 50.00 | 3.00 |
| G210205097GC | 210.00 | 205.00 | 210.00 | 9.70 | 2.50 |
| G210205150GC | 210.00 | 205.00 | 210.00 | 15.00 | 2.50 |
| G210205250GC | 210.00 | 205.00 | 210.00 | 25.00 | 2.50 |
| G213205650GC | 213.00 | 205.00 | 213.00 | 65.00 | 4.00 |
| G215207500GC | 215.00 | 207.00 | 215.00 | 50.00 | 4.00 |
| G215210150GC | 215.00 | 210.00 | 215.00 | 15.00 | 2.50 |
| G215210200GC | 215.00 | 210.00 | 215.00 | 20.00 | 2.50 |
| G215210250GC | 215.00 | 210.00 | 215.00 | 25.00 | 2.50 |
| G215210350GC | 215.00 | 210.00 | 215.00 | 35.00 | 2.50 |
| G218210250GC | 218.00 | 210.00 | 218.00 | 25.00 | 4.00 |
| G218210350GC | 218.00 | 210.00 | 218.00 | 35.00 | 4.00 |
| G218211120GC | 218.00 | 211.00 | 218.00 | 12.00 | 3.50 |
| G220200400GC-SC | 220.00 | 200.00 | 220.00 | 40.00 | 10.00 |
| G220210150GC | 220.00 | 210.00 | 220.00 | 15.00 | 5.00 |
| G220210400GC-C | 220.00 | 210.00 | 220.00 | 40.00 | 5.00 |
| G220210500GC | 220.00 | 210.00 | 220.00 | 50.00 | 5.00 |
| G220210600GC | 220.00 | 210.00 | 220.00 | 60.00 | 5.00 |
| G220212200GC | 220.00 | 212.00 | 220.00 | 20.00 | 4.00 |
| G220212300GC | 220.00 | 212.00 | 220.00 | 30.00 | 4.00 |
| G220212400GC | 220.00 | 212.00 | 220.00 | 40.00 | 4.00 |
| G220212450GC | 220.00 | 212.00 | 220.00 | 45.00 | 4.00 |
| G220212500GC | 220.00 | 212.00 | 220.00 | 50.00 | 4.00 |
| G220214195GC | 220.00 | 214.00 | 220.00 | 19.50 | 3.00 |
| G220214200GC | 220.00 | 214.00 | 220.00 | 20.00 | 3.00 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|----------------|----------|---------|------------------------------|--------|------|
| | | | D | H | S |
| G220214250GC | 220.00 | 214.00 | 220.00 | 25.00 | 3.00 |
| G220214300GC | 220.00 | 214.00 | 220.00 | 30.00 | 3.00 |
| G220214400GC | 220.00 | 214.00 | 220.00 | 40.00 | 3.00 |
| G220214500GC | 220.00 | 214.00 | 220.00 | 50.00 | 3.00 |
| G220214600GC | 220.00 | 214.00 | 220.00 | 60.00 | 3.00 |
| G220215097GC | 220.00 | 215.00 | 220.00 | 9.70 | 2.50 |
| G220215100GC | 220.00 | 215.00 | 220.00 | 10.00 | 2.50 |
| G220215150GC | 220.00 | 215.00 | 220.00 | 15.00 | 2.50 |
| G220215160GC | 220.00 | 215.00 | 220.00 | 16.00 | 2.50 |
| G220215200GC | 220.00 | 215.00 | 220.00 | 20.00 | 2.50 |
| G220215250GC | 220.00 | 215.00 | 220.00 | 25.00 | 2.50 |
| G220215600GC | 220.00 | 215.00 | 220.00 | 60.00 | 2.50 |
| G220216160GC | 220.00 | 216.00 | 220.00 | 16.00 | 2.00 |
| G224215500GC | 224.00 | 215.00 | 224.00 | 50.00 | 4.50 |
| G224216250GC | 224.00 | 216.00 | 224.00 | 25.00 | 4.00 |
| G224216260GC | 224.00 | 216.00 | 224.00 | 26.00 | 4.00 |
| G224218600GC | 224.00 | 218.00 | 224.00 | 60.00 | 3.00 |
| G225213225GC | 225.00 | 213.00 | 225.00 | 22.50 | 6.00 |
| G225217250GC | 225.00 | 217.00 | 225.00 | 25.00 | 4.00 |
| G225217450GC | 225.00 | 217.00 | 225.00 | 45.00 | 4.00 |
| G225217500GC | 225.00 | 217.00 | 225.00 | 50.00 | 4.00 |
| G225220097GC | 225.00 | 220.00 | 225.00 | 9.70 | 2.50 |
| G225220100GC | 225.00 | 220.00 | 225.00 | 10.00 | 2.50 |
| G2252201300GC | 225.00 | 220.00 | 225.00 | 130.00 | 2.50 |
| G225220150GC | 225.00 | 220.00 | 225.00 | 15.00 | 2.50 |
| G225220160GC | 225.00 | 220.00 | 225.00 | 16.00 | 2.50 |
| G225220200GC | 225.00 | 220.00 | 225.00 | 20.00 | 2.50 |
| G225220250GC | 225.00 | 220.00 | 225.00 | 25.00 | 2.50 |
| G226220600GC | 226.00 | 220.00 | 226.00 | 60.00 | 3.00 |
| G226220635GC | 226.00 | 220.00 | 226.00 | 63.50 | 3.00 |
| G228220200GC | 228.00 | 220.00 | 228.00 | 20.00 | 4.00 |
| G228220500GC | 228.00 | 220.00 | 228.00 | 50.00 | 4.00 |
| G228220500GC-1 | 228.15 | 220.00 | 228.15 | 50.00 | 4.08 |
| G228220800GC | 228.00 | 220.00 | 228.00 | 80.00 | 4.00 |
| G230222300GC | 230.00 | 222.00 | 230.00 | 30.00 | 4.00 |
| G230222450GC | 230.00 | 222.00 | 230.00 | 45.00 | 4.00 |
| G230222500GC | 230.00 | 222.00 | 230.00 | 50.00 | 4.00 |
| G230222550GC | 230.00 | 222.00 | 230.00 | 55.00 | 4.00 |
| G230223500GC | 230.00 | 223.00 | 230.00 | 50.00 | 3.50 |
| G230224250GC | 230.00 | 224.00 | 230.00 | 25.00 | 3.00 |
| G230224300GC | 230.00 | 224.00 | 230.00 | 30.00 | 3.00 |
| G230224600GC | 230.00 | 224.00 | 230.00 | 60.00 | 3.00 |
| G230225097GC | 230.00 | 225.00 | 230.00 | 9.70 | 2.50 |
| G230225100GC | 230.00 | 225.00 | 230.00 | 10.00 | 2.50 |
| G230225150GC | 230.00 | 225.00 | 230.00 | 15.00 | 2.50 |
| G230225249GC | 230.00 | 225.00 | 230.00 | 24.90 | 2.50 |

GC series - Phenolic



| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|---------------|---------------|---------------|------------------------------|--------|------|
| | | | D | H | S |
| G230225250GC | 230.00 | 225.00 | 230.00 | 25.00 | 2.50 |
| G235227150GC | 235.00 | 227.00 | 235.00 | 15.00 | 4.00 |
| G235227300GC | 235.00 | 227.00 | 235.00 | 30.00 | 4.00 |
| G235229250GC | 235.00 | 229.00 | 235.00 | 25.00 | 3.00 |
| G235229300GC | 235.00 | 229.00 | 235.00 | 30.00 | 3.00 |
| G235230150GC | 235.00 | 230.00 | 235.00 | 15.00 | 2.50 |
| G235230250GC | 235.00 | 230.00 | 235.00 | 25.00 | 2.50 |
| G236230300GC | 236.00 | 230.00 | 236.00 | 30.00 | 3.00 |
| G2382301100GC | 238.00 | 230.00 | 238.00 | 110.00 | 4.00 |
| G238230600GC | 238.00 | 230.00 | 238.00 | 60.00 | 4.00 |
| G240232300GC | 240.00 | 232.00 | 240.00 | 30.00 | 4.00 |
| G240232550GC | 240.00 | 232.00 | 240.00 | 55.00 | 4.00 |
| G240234600GC | 240.00 | 234.00 | 240.00 | 60.00 | 3.00 |
| G240235150GC | 240.00 | 235.00 | 240.00 | 15.00 | 2.50 |
| G240235250GC | 240.00 | 235.00 | 240.00 | 25.00 | 2.50 |
| G243235300GC | 243.00 | 235.00 | 243.00 | 30.00 | 4.00 |
| G245240150GC | 245.00 | 240.00 | 245.00 | 15.00 | 2.50 |
| G245240200GC | 245.00 | 240.00 | 245.00 | 20.00 | 2.50 |
| G245240250GC | 245.00 | 240.00 | 245.00 | 25.00 | 2.50 |
| G248240300GC | 248.00 | 240.00 | 248.00 | 30.00 | 4.00 |
| G248240600GC | 248.00 | 240.00 | 248.00 | 60.00 | 4.00 |
| G250240460GC | 250.00 | 240.00 | 250.00 | 46.00 | 5.00 |
| G250240600GC | 250.00 | 240.00 | 250.00 | 60.00 | 5.00 |
| G250242250GC | 250.00 | 242.00 | 250.00 | 25.00 | 4.00 |
| G250242300GC | 250.00 | 242.00 | 250.00 | 30.00 | 4.00 |
| G250242400GC | 250.00 | 242.00 | 250.00 | 40.00 | 4.00 |
| G250242450GC | 250.00 | 242.00 | 250.00 | 45.00 | 4.00 |
| G250242500GC | 250.00 | 242.00 | 250.00 | 50.00 | 4.00 |
| G250242550GC | 250.00 | 242.00 | 250.00 | 55.00 | 4.00 |
| G250242600GC | 250.00 | 242.00 | 250.00 | 60.00 | 4.00 |
| G250244195GC | 250.00 | 244.00 | 250.00 | 19.50 | 3.00 |
| G250244250GC | 250.00 | 244.00 | 250.00 | 25.00 | 3.00 |
| G250244350GC | 250.00 | 244.00 | 250.00 | 35.00 | 3.00 |
| G250244400GC | 250.00 | 244.00 | 250.00 | 40.00 | 3.00 |
| G250244500GC | 250.00 | 244.00 | 250.00 | 50.00 | 3.00 |
| G250244600GC | 250.00 | 244.00 | 250.00 | 60.00 | 3.00 |
| G250245097GC | 250.00 | 245.00 | 250.00 | 9.70 | 2.50 |
| G250245150GC | 250.00 | 245.00 | 250.00 | 15.00 | 2.50 |
| G250245160GC | 250.00 | 245.00 | 250.00 | 16.00 | 2.50 |
| G250245250GC | 250.00 | 245.00 | 250.00 | 25.00 | 2.50 |
| G250246305GC | 250.00 | 246.00 | 250.00 | 30.50 | 2.00 |
| G255247550GC | 255.00 | 247.00 | 255.00 | 55.00 | 4.00 |
| G255247600GC | 255.00 | 247.00 | 255.00 | 60.00 | 4.00 |
| G255250150GC | 255.00 | 250.00 | 255.00 | 15.00 | 2.50 |
| G255250250GC | 255.00 | 250.00 | 255.00 | 25.00 | 2.50 |
| G258250300GC | 258.00 | 250.00 | 258.00 | 30.00 | 4.00 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|---------------|---------------|------------------------------|-------|------|
| | | | D | H | S |
| G258250400GC | 258.00 | 250.00 | 258.00 | 40.00 | 4.00 |
| G258250450GC | 258.00 | 250.00 | 258.00 | 45.00 | 4.00 |
| G258250600GC | 258.00 | 250.00 | 258.00 | 60.00 | 4.00 |
| G258250650GC | 258.00 | 250.00 | 258.00 | 65.00 | 4.00 |
| G258250800GC | 258.00 | 250.00 | 258.00 | 80.00 | 4.00 |
| G260252250GC | 260.00 | 252.00 | 260.00 | 25.00 | 4.00 |
| G260252600GC | 260.00 | 252.00 | 260.00 | 60.00 | 4.00 |
| G260254300GC | 260.00 | 254.00 | 260.00 | 30.00 | 3.00 |
| G260255150GC | 260.00 | 255.00 | 260.00 | 15.00 | 2.50 |
| G260255250GC | 260.00 | 255.00 | 260.00 | 25.00 | 2.50 |
| G260255300GC | 260.00 | 255.00 | 260.00 | 30.00 | 2.50 |
| G265260150GC | 265.00 | 260.00 | 265.00 | 15.00 | 2.50 |
| G265260250GC | 265.00 | 260.00 | 265.00 | 25.00 | 2.50 |
| G266260400GC | 266.00 | 260.00 | 266.00 | 40.00 | 3.00 |
| G268260400GC | 268.00 | 260.00 | 268.00 | 40.00 | 4.00 |
| G270260700GC | 270.00 | 260.00 | 270.00 | 70.00 | 5.00 |
| G270262300GC | 270.00 | 262.00 | 270.00 | 30.00 | 4.00 |
| G270262400GC | 270.00 | 262.00 | 270.00 | 40.00 | 4.00 |
| G270262600GC | 270.00 | 262.00 | 270.00 | 60.00 | 4.00 |
| G270265150GC | 270.00 | 265.00 | 270.00 | 15.00 | 2.50 |
| G270265250GC | 270.00 | 265.00 | 270.00 | 25.00 | 2.50 |
| G272264240GC | 272.00 | 264.00 | 272.00 | 24.00 | 4.00 |
| G275267600GC | 275.00 | 267.00 | 275.00 | 60.00 | 4.00 |
| G275270150GC | 275.00 | 270.00 | 275.00 | 15.00 | 2.50 |
| G275270250GC | 275.00 | 270.00 | 275.00 | 25.00 | 2.50 |
| G280270600GC | 280.00 | 270.00 | 280.00 | 60.00 | 5.00 |
| G280272200GC | 280.00 | 272.00 | 280.00 | 20.00 | 4.00 |
| G280272250GC | 280.00 | 272.00 | 280.00 | 25.00 | 4.00 |
| G280272300GC | 280.00 | 272.00 | 280.00 | 30.00 | 4.00 |
| G280272500GC | 280.00 | 272.00 | 280.00 | 50.00 | 4.00 |
| G280272600GC | 280.00 | 272.00 | 280.00 | 60.00 | 4.00 |
| G280274195GC | 280.00 | 274.00 | 280.00 | 19.50 | 3.00 |
| G280274400GC | 280.00 | 274.00 | 280.00 | 40.00 | 3.00 |
| G280275150GC | 280.00 | 275.00 | 280.00 | 15.00 | 2.50 |
| G280275250GC | 280.00 | 275.00 | 280.00 | 25.00 | 2.50 |
| G280275300GC | 280.00 | 275.00 | 280.00 | 30.00 | 2.50 |
| G283275560GC | 283.00 | 275.00 | 283.00 | 56.00 | 4.00 |
| G283275700GC | 283.00 | 275.00 | 283.00 | 70.00 | 4.00 |
| G285277600GC | 285.00 | 277.00 | 285.00 | 60.00 | 4.00 |
| G285280150GC | 285.00 | 280.00 | 285.00 | 15.00 | 2.50 |
| G285280250GC | 285.00 | 280.00 | 285.00 | 25.00 | 2.50 |
| G286280195GC | 286.00 | 280.00 | 286.00 | 19.50 | 3.00 |
| G288280250GC | 288.00 | 280.00 | 288.00 | 25.00 | 4.00 |
| G288280300GC | 288.00 | 280.00 | 288.00 | 30.00 | 4.00 |
| G288280500GC | 288.00 | 280.00 | 288.00 | 50.00 | 4.00 |
| G288280800GC | 288.00 | 280.00 | 288.00 | 80.00 | 4.00 |

GC series - Phenolic

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|---------------|---------------|------------------------------|-------|------|
| | | | D | H | S |
| G290282250GC | 290.00 | 282.00 | 290.00 | 25.00 | 4.00 |
| G290282600GC | 290.00 | 282.00 | 290.00 | 60.00 | 4.00 |
| G290282700GC | 290.00 | 282.00 | 290.00 | 70.00 | 4.00 |
| G290284150GC | 290.00 | 284.00 | 290.00 | 15.00 | 3.00 |
| G290285150GC | 290.00 | 285.00 | 290.00 | 15.00 | 2.50 |
| G290285250GC | 290.00 | 285.00 | 290.00 | 25.00 | 2.50 |
| G295290097GC | 295.00 | 290.00 | 295.00 | 9.70 | 2.50 |
| G295290150GC | 295.00 | 290.00 | 295.00 | 15.00 | 2.50 |
| G295290250GC | 295.00 | 290.00 | 295.00 | 25.00 | 2.50 |
| G297289700GC | 297.00 | 289.00 | 297.00 | 70.00 | 4.00 |
| G298290600GC | 298.00 | 290.00 | 298.00 | 60.00 | 4.00 |
| G300292200GC | 300.00 | 292.00 | 300.00 | 20.00 | 4.00 |
| G300292300GC | 300.00 | 292.00 | 300.00 | 30.00 | 4.00 |
| G300292350GC | 300.00 | 292.00 | 300.00 | 35.00 | 4.00 |
| G300292400GC | 300.00 | 292.00 | 300.00 | 40.00 | 4.00 |
| G300292600GC | 300.00 | 292.00 | 300.00 | 60.00 | 4.00 |
| G300292700GC | 300.00 | 292.00 | 300.00 | 70.00 | 4.00 |
| G300294190GC | 300.00 | 294.00 | 300.00 | 19.00 | 3.00 |
| G300295150GC | 300.00 | 295.00 | 300.00 | 15.00 | 2.50 |
| G300295160GC | 300.00 | 295.00 | 300.00 | 16.00 | 2.50 |
| G300295250GC | 300.00 | 295.00 | 300.00 | 25.00 | 2.50 |
| G300295345GC | 300.00 | 295.00 | 300.00 | 34.50 | 2.50 |
| G300295700GC | 300.00 | 295.00 | 300.00 | 70.00 | 2.50 |
| G305300250GC | 305.00 | 300.00 | 305.00 | 25.00 | 2.50 |
| G308300300GC | 308.00 | 300.00 | 308.00 | 30.00 | 4.00 |
| G308300400GC | 308.00 | 300.00 | 308.00 | 40.00 | 4.00 |
| G308300500GC | 308.00 | 300.00 | 308.00 | 50.00 | 4.00 |
| G308300800GC | 308.00 | 300.00 | 308.00 | 80.00 | 4.00 |
| G310302700GC | 310.00 | 302.00 | 310.00 | 70.00 | 4.00 |
| G310305250GC | 310.00 | 305.00 | 310.00 | 25.00 | 2.50 |
| G312304700GC | 312.00 | 304.00 | 312.00 | 70.00 | 4.00 |
| G315310250GC | 315.00 | 310.00 | 315.00 | 25.00 | 2.50 |
| G320312250GC | 320.00 | 312.00 | 320.00 | 25.00 | 4.00 |
| G320312400GC | 320.00 | 312.00 | 320.00 | 40.00 | 4.00 |
| G320312600GC | 320.00 | 312.00 | 320.00 | 60.00 | 4.00 |
| G320312700GC | 320.00 | 312.00 | 320.00 | 70.00 | 4.00 |
| G320312800GC | 320.00 | 312.00 | 320.00 | 80.00 | 4.00 |
| G320314700GC | 320.00 | 314.00 | 320.00 | 70.00 | 3.00 |
| G320315150GC | 320.00 | 315.00 | 320.00 | 15.00 | 2.50 |
| G320315160GC | 320.00 | 315.00 | 320.00 | 16.00 | 2.50 |
| G320315244GC | 320.00 | 315.20 | 320.00 | 24.40 | 2.40 |
| G320315250GC | 320.00 | 315.00 | 320.00 | 25.00 | 2.50 |
| G323315700GC | 323.00 | 315.00 | 323.00 | 70.00 | 4.00 |
| G325320150GC | 325.00 | 320.00 | 325.00 | 15.00 | 2.50 |
| G325320250GC | 325.00 | 320.00 | 325.00 | 25.00 | 2.50 |
| G328320250GC | 328.00 | 320.00 | 328.00 | 25.00 | 4.00 |

| Ref.Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|-----------------|---------------|---------------|------------------------------|--------|------|
| | | | D | H | S |
| G328320500GC | 328.00 | 320.00 | 328.00 | 50.00 | 4.00 |
| G328320700GC | 328.00 | 320.00 | 328.00 | 70.00 | 4.00 |
| G330320250GC-SC | 330.00 | 320.00 | 330.00 | 25.00 | 5.00 |
| G330320700GC | 330.00 | 320.00 | 330.00 | 70.00 | 5.00 |
| G330325250GC | 330.00 | 325.00 | 330.00 | 25.00 | 2.50 |
| G332324700GC | 332.00 | 324.00 | 332.00 | 70.00 | 4.00 |
| G335330250GC | 335.00 | 330.00 | 335.00 | 25.00 | 2.50 |
| G340332200GC | 340.00 | 332.00 | 340.00 | 20.00 | 4.00 |
| G340332700GC | 340.00 | 332.00 | 340.00 | 70.00 | 4.00 |
| G340335250GC | 340.00 | 335.00 | 340.00 | 25.00 | 2.50 |
| G345340250GC | 345.00 | 340.00 | 345.00 | 25.00 | 2.50 |
| G348340500GC | 348.00 | 340.00 | 348.00 | 50.00 | 4.00 |
| G348342150GC | 348.00 | 342.00 | 348.00 | 15.00 | 3.00 |
| G348342200GC | 348.00 | 342.00 | 348.00 | 20.00 | 3.00 |
| G3503401000GC | 350.00 | 340.00 | 350.00 | 100.00 | 5.00 |
| G350342700GC | 350.00 | 342.00 | 350.00 | 70.00 | 4.00 |
| G350345250GC | 350.00 | 345.00 | 350.00 | 25.00 | 2.50 |
| G355350250GC | 355.00 | 350.00 | 355.00 | 25.00 | 2.50 |
| G355350395GC | 355.00 | 350.00 | 355.00 | 39.50 | 2.50 |
| G358350450GC | 358.00 | 350.00 | 358.00 | 45.00 | 4.00 |
| G358350550GC | 358.00 | 350.00 | 358.00 | 55.00 | 4.00 |
| G360350350GC | 360.00 | 350.00 | 360.00 | 35.00 | 5.00 |
| G360350900GC | 360.00 | 350.00 | 360.00 | 90.00 | 5.00 |
| G360352250GC | 360.00 | 352.00 | 360.00 | 25.00 | 4.00 |
| G360352400GC | 360.00 | 352.00 | 360.00 | 40.00 | 4.00 |
| G360352500GC | 360.00 | 352.00 | 360.00 | 50.00 | 4.00 |
| G360352700GC | 360.00 | 352.00 | 360.00 | 70.00 | 4.00 |
| G360354500GC | 360.00 | 354.00 | 360.00 | 50.00 | 3.00 |
| G360355150GC | 360.00 | 355.00 | 360.00 | 15.00 | 2.50 |
| G360355250GC | 360.00 | 355.00 | 360.00 | 25.00 | 2.50 |
| G360355400GC | 360.00 | 355.00 | 360.00 | 40.00 | 2.50 |
| G365360150GC | 365.00 | 360.00 | 365.00 | 15.00 | 2.50 |
| G365360250GC | 365.00 | 360.00 | 365.00 | 25.00 | 2.50 |
| G368360250GC | 368.00 | 360.00 | 368.00 | 25.00 | 4.00 |
| G368360397GC | 368.00 | 360.00 | 368.00 | 39.70 | 4.00 |
| G368360400GC | 368.00 | 360.00 | 368.00 | 40.00 | 4.00 |
| G368360550GC | 368.00 | 360.00 | 368.00 | 55.00 | 4.00 |
| G370362400GC | 370.00 | 362.00 | 370.00 | 40.00 | 4.00 |
| G370365250GC | 370.00 | 365.00 | 370.00 | 25.00 | 2.50 |
| G375367700GC | 375.00 | 367.00 | 375.00 | 70.00 | 4.00 |
| G375370250GC | 375.00 | 370.00 | 375.00 | 25.00 | 2.50 |
| G376370300GC | 376.00 | 370.00 | 376.00 | 30.00 | 3.00 |
| G380372250GC | 380.00 | 372.00 | 380.00 | 25.00 | 4.00 |
| G380372500GC | 380.00 | 372.00 | 380.00 | 50.00 | 4.00 |
| G380372700GC | 380.00 | 372.00 | 380.00 | 70.00 | 4.00 |
| G380375250GC | 380.00 | 375.00 | 380.00 | 25.00 | 2.50 |



GC series - Phenolic

| Ref. Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|---------------|---------------|------------------------------|-------|------|
| | | | D | H | S |
| G385380250GC | 385.00 | 380.00 | 385.00 | 25.00 | 2.50 |
| G388380800GC | 388.00 | 380.00 | 388.00 | 80.00 | 4.00 |
| G390385250GC | 390.00 | 385.00 | 390.00 | 25.00 | 2.50 |
| G395390250GC | 395.00 | 390.00 | 395.00 | 25.00 | 2.50 |
| G400392250GC | 400.00 | 392.00 | 400.00 | 25.00 | 4.00 |
| G400392300GC | 400.00 | 392.00 | 400.00 | 30.00 | 4.00 |
| G400392400GC | 400.00 | 392.00 | 400.00 | 40.00 | 4.00 |
| G400392700GC | 400.00 | 392.00 | 400.00 | 70.00 | 4.00 |
| G400395150GC | 400.00 | 395.00 | 400.00 | 15.00 | 2.50 |
| G400395250GC | 400.00 | 395.00 | 400.00 | 25.00 | 2.50 |
| G405400250GC | 405.00 | 400.00 | 405.00 | 25.00 | 2.50 |
| G408400500GC | 408.00 | 400.00 | 408.00 | 50.00 | 4.00 |
| G410400300GC | 410.00 | 400.00 | 410.00 | 30.00 | 5.00 |
| G410404120GC | 410.00 | 404.00 | 410.00 | 12.00 | 3.00 |
| G410405250GC | 410.00 | 405.00 | 410.00 | 25.00 | 2.50 |
| G415410250GC | 415.00 | 410.00 | 415.00 | 25.00 | 2.50 |
| G420412450GC | 420.00 | 412.00 | 420.00 | 45.00 | 4.00 |
| G420415250GC | 420.00 | 415.00 | 420.00 | 25.00 | 2.50 |
| G425420250GC | 425.00 | 420.00 | 425.00 | 25.00 | 2.50 |
| G428420700GC | 428.00 | 420.00 | 428.00 | 70.00 | 4.00 |
| G430425250GC | 430.00 | 425.00 | 430.00 | 25.00 | 2.50 |
| G435430250GC | 435.00 | 430.00 | 435.00 | 25.00 | 2.50 |
| G440432400GC | 440.00 | 432.00 | 440.00 | 40.00 | 4.00 |
| G440435250GC | 440.00 | 435.00 | 440.00 | 25.00 | 2.50 |
| G445440250GC | 445.00 | 440.00 | 445.00 | 25.00 | 2.50 |
| G450442250GC | 450.00 | 442.00 | 450.00 | 25.00 | 4.00 |
| G450442300GC | 450.00 | 442.00 | 450.00 | 30.00 | 4.00 |
| G450445150GC | 450.00 | 445.00 | 450.00 | 15.00 | 2.50 |
| G450445250GC | 450.00 | 445.00 | 450.00 | 25.00 | 2.50 |
| G455450250GC | 455.00 | 450.00 | 455.00 | 25.00 | 2.50 |
| G460455250GC | 460.00 | 455.00 | 460.00 | 25.00 | 2.50 |
| G461456250GC | 461.00 | 456.00 | 461.00 | 25.00 | 2.50 |
| G465460250GC | 465.00 | 460.00 | 465.00 | 25.00 | 2.50 |
| G468460500GC | 468.00 | 460.00 | 468.00 | 50.00 | 4.00 |
| G470460650GC | 470.00 | 460.00 | 470.00 | 65.00 | 5.00 |
| G470460900GC | 470.00 | 460.00 | 470.00 | 90.00 | 5.00 |
| G470465250GC | 470.00 | 465.00 | 470.00 | 25.00 | 2.50 |

| Ref. Number | Bore Dia | Rod Dia | Nominal Wear Ring Dimensions | | |
|--------------|---------------|---------------|------------------------------|-------|------|
| | | | D | H | S |
| G475470250GC | 475.00 | 470.00 | 475.00 | 25.00 | 2.50 |
| G480470300GC | 480.00 | 470.00 | 480.00 | 30.00 | 5.00 |
| G480475250GC | 480.00 | 475.00 | 480.00 | 25.00 | 2.50 |
| G485480250GC | 485.00 | 480.00 | 485.00 | 25.00 | 2.50 |
| G490482450GC | 490.00 | 482.00 | 490.00 | 45.00 | 4.00 |
| G490485150GC | 490.00 | 485.00 | 490.00 | 15.00 | 2.50 |
| G490485250GC | 490.00 | 485.00 | 490.00 | 25.00 | 2.50 |
| G495490250GC | 495.00 | 490.00 | 495.00 | 25.00 | 2.50 |
| G496490300GC | 496.00 | 490.00 | 496.00 | 30.00 | 3.00 |
| G500492250GC | 500.00 | 492.00 | 500.00 | 25.00 | 4.00 |
| G500492500GC | 500.00 | 492.00 | 500.00 | 50.00 | 4.00 |
| G500495150GC | 500.00 | 495.00 | 500.00 | 15.00 | 2.50 |
| G500495250GC | 500.00 | 495.00 | 500.00 | 25.00 | 2.50 |
| G520510700GC | 520.00 | 510.00 | 520.00 | 70.00 | 5.00 |
| G520512400GC | 520.00 | 512.00 | 520.00 | 40.00 | 4.00 |
| G528520400GC | 528.00 | 520.00 | 528.00 | 40.00 | 4.00 |
| G530522700GC | 530.00 | 522.00 | 530.00 | 70.00 | 4.00 |
| G580570800GC | 580.00 | 570.00 | 580.00 | 80.00 | 5.00 |
| G600590350GC | 600.00 | 590.00 | 600.00 | 35.00 | 5.00 |
| G602592200GC | 602.00 | 592.00 | 602.00 | 20.00 | 5.00 |
| G602592800GC | 602.00 | 592.00 | 602.00 | 80.00 | 5.00 |
| G610600800GC | 610.00 | 600.00 | 610.00 | 80.00 | 5.00 |
| G650640300GC | 650.00 | 640.00 | 650.00 | 30.00 | 5.00 |
| G650640800GC | 650.00 | 640.00 | 650.00 | 80.00 | 5.00 |
| G650645150GC | 650.00 | 645.00 | 650.00 | 15.00 | 2.50 |
| G650645200GC | 650.00 | 645.00 | 650.00 | 20.00 | 2.50 |
| G660650750GC | 660.00 | 650.00 | 660.00 | 75.00 | 5.00 |
| G680670600GC | 680.00 | 670.00 | 680.00 | 60.00 | 5.00 |
| G680670800GC | 680.00 | 670.00 | 680.00 | 80.00 | 5.00 |
| G680675150GC | 680.00 | 675.00 | 680.00 | 15.00 | 2.50 |
| G680675200GC | 680.00 | 675.00 | 680.00 | 20.00 | 2.50 |
| G710700800GC | 710.00 | 700.00 | 710.00 | 80.00 | 5.00 |
| G740730800GC | 740.00 | 730.00 | 740.00 | 80.00 | 5.00 |
| G810800300GC | 810.00 | 800.00 | 810.00 | 30.00 | 5.00 |
| G830820800GC | 830.00 | 820.00 | 830.00 | 80.00 | 5.00 |
| G830820900GC | 830.00 | 820.00 | 830.00 | 90.00 | 5.00 |
| G860850850GC | 860.00 | 850.00 | 860.00 | 85.00 | 5.00 |
| G860855250GC | 860.00 | 855.00 | 860.00 | 25.00 | 2.50 |

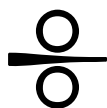
Markets segments we are servicing



Machine Tools



Material Handling



Metal Processing



Mining

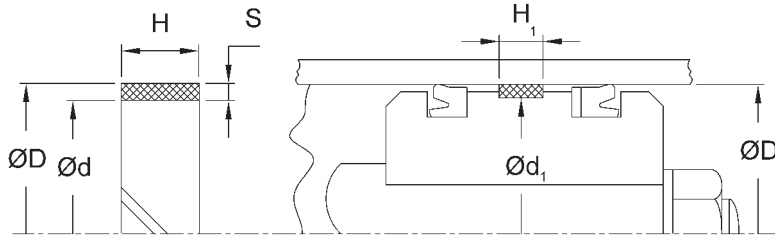
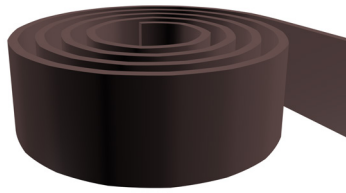


Pharmaceutical



Power Generation

WS - Wear Strip - Metric



| Standard Material | Temperature Range | Surface Speed |
|---------------------|--------------------------------------|--------------------|
| Bronze PTFE /BR60 | -50°F to +400°F (-45°C to +204°C) | < 50 ft/s (15 m/s) |
| Optional Material | Temperature Range | Surface Speed |
| Polyester resin /PR | -40°F to +250°F (-40°C to +121°C) | < 3.3 ft/s (1 m/s) |

The **WS-BR60-style** is made of fluorinated polymer and fortified bronze (other fillers available upon request). Designed to eliminate scoring in hydraulic and pneumatic applications by preventing metal to metal contact; **WS-Wear** strip is effectively used for reciprocating, rotary and oscillating motion. The tape form allows the product to be installed economically, whether for new installation or repair.

The PTFE wear tape compound and width determines allowable radial load and velocity ranges.

Velocity: Up to 50 ft/s.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Nominal Seal Dimensions | | | |
|------------|-------------------------|------------------|------|------------------|
| | H | Tol. | S | Tol. |
| WS0056015 | 5.60 | +0.000 -0.250 | 1.50 | +0.000/-0.080 |
| WS0056020 | 5.60 | | 2.00 | +0.000/-0.100 |
| WS0056025 | 5.60 | | 2.50 | +0.000 -0.130 |
| WS0056030 | 5.60 | | 3.00 | +0.000 -0.150 |
| WS0056035 | 5.60 | | 3.50 | +0.000 -0.150 |
| WS0056040 | 5.60 | | 4.00 | +0.000/-0.080 |
| WS0060015 | 6.00 | | 1.50 | +0.000/-0.100 |
| WS0060020 | 6.00 | | 2.00 | +0.000 -0.130 |
| WS0060025 | 6.00 | | 2.50 | +0.000 -0.150 |
| WS0060030 | 6.00 | | 3.00 | +0.000 -0.150 |
| WS0060035 | 6.00 | | 3.50 | +0.000 -0.150 |
| WS0060040 | 6.00 | | 4.00 | +0.000/-0.080 |
| WS0079015 | 7.90 | | 1.50 | +0.000/-0.100 |
| WS0079020 | 7.90 | | 2.00 | +0.000 -0.130 |
| WS0079025 | 7.90 | | 2.50 | +0.000 -0.150 |
| WS0079030 | 7.90 | | 3.00 | +0.000 -0.150 |
| WS0079035 | 7.90 | | 3.50 | +0.000 -0.150 |
| WS0079040 | 7.90 | | 4.00 | +0.000/-0.080 |
| WS0095015 | 9.50 | | 1.50 | +0.000/-0.100 |
| WS0095020 | 9.50 | | 2.00 | +0.000 -0.130 |

Increments of 1 ft

| Ref.Number | Nominal Seal Dimensions | | | |
|------------|-------------------------|------------------|------|------------------|
| | H | Tol. | S | Tol. |
| WS0095025 | 9.50 | +0.000 -0.250 | 2.50 | +0.000 -0.130 |
| WS0095030 | 9.50 | | 3.00 | +0.000 -0.150 |
| WS0095035 | 9.50 | | 3.50 | +0.000 -0.150 |
| WS0095040 | 9.50 | | 4.00 | +0.000/-0.080 |
| WS0097015 | 9.70 | | 1.50 | +0.000/-0.100 |
| WS0097020 | 9.70 | | 2.00 | +0.000 -0.130 |
| WS0097025 | 9.70 | | 2.50 | +0.000 -0.150 |
| WS0097030 | 9.70 | | 3.00 | +0.000 -0.150 |
| WS0097035 | 9.70 | | 3.50 | +0.000 -0.150 |
| WS0097040 | 9.70 | | 4.00 | +0.000/-0.080 |
| WS0118015 | 11.80 | | 1.50 | +0.000/-0.100 |
| WS0118020 | 11.80 | | 2.00 | +0.000 -0.130 |
| WS0118025 | 11.80 | | 2.50 | +0.000 -0.150 |
| WS0118030 | 11.80 | | 3.00 | +0.000 -0.150 |
| WS0118035 | 11.80 | | 3.50 | +0.000 -0.150 |
| WS0118040 | 11.80 | | 4.00 | +0.000/-0.080 |
| WS0130015 | 13.00 | | 1.50 | +0.000/-0.100 |
| WS0130020 | 13.00 | | 2.00 | +0.000 -0.130 |
| WS0130025 | 13.00 | | 2.50 | +0.000 -0.150 |
| WS0130030 | 13.00 | | 3.00 | +0.000 -0.150 |

Increments of 1 ft



WS series - BR.PTFE

| Ref.Number | Nominal Seal Dimensions | | | |
|----------------|-------------------------|------------------|------|------------------|
| | H | Tol. | S | Tol. |
| WS0130035/BR60 | 13.00 | +0.000 -0.250 | 3.50 | +0.000 -0.150 |
| WS0130040/BR60 | 13.00 | | 4.00 | |
| WS0140015/BR60 | 14.00 | | 1.50 | +0.000/-0.080 |
| WS0140020/BR60 | 14.00 | | 2.00 | +0.000/-0.100 |
| WS0140025/BR60 | 14.00 | | 2.50 | +0.000 -0.130 |
| WS0140030/BR60 | 14.00 | | 3.00 | |
| WS0140035/BR60 | 14.00 | | 3.50 | +0.000 -0.150 |
| WS0140040/BR60 | 14.00 | | 4.00 | |
| WS0150015/BR60 | 15.00 | | 1.50 | +0.000/-0.080 |
| WS0150020/BR60 | 15.00 | | 2.00 | +0.000/-0.100 |
| WS0150025/BR60 | 15.00 | | 2.50 | +0.000 -0.130 |
| WS0150030/BR60 | 15.00 | | 3.00 | |
| WS0150035/BR60 | 15.00 | | 3.50 | +0.000 -0.150 |
| WS0150040/BR60 | 15.00 | ▼ | 4.00 | |

Increments of 1 ft

| Ref.Number | Nominal Seal Dimensions | | | |
|----------------|-------------------------|------------------|------|------------------|
| | H | Tol. | S | Tol. |
| WS0200015/BR60 | 20.00 | +0.000 -0.250 | 1.50 | +0.000/-0.080 |
| WS0200020/BR60 | 20.00 | | 2.00 | +0.000/-0.100 |
| WS0200025/BR60 | 20.00 | | 2.50 | +0.000 -0.130 |
| WS0200030/BR60 | 20.00 | | 3.00 | |
| WS0200035/BR60 | 20.00 | | 3.50 | +0.000 -0.150 |
| WS0200040/BR60 | 20.00 | | 4.00 | |
| WS0250015/BR60 | 25.00 | | 1.50 | +0.000/-0.080 |
| WS0250020/BR60 | 25.00 | | 2.00 | +0.000/-0.100 |
| WS0250025/BR60 | 25.00 | | 2.50 | +0.000 -0.130 |
| WS0250030/BR60 | 25.00 | | 3.00 | |
| WS0250035/BR60 | 25.00 | | 3.50 | +0.000 -0.150 |
| WS0250040/BR60 | 25.00 | ▼ | 4.00 | |
| WS0300015/BR60 | 30.00 | +0.000 -0.500 | 1.50 | +0.000/-0.080 |
| WS0500020/BR60 | 50.00 | | 2.00 | +0.000/-0.100 |

Increments of 1 ft



"DU" BEARING - UP TO 45 MM

| Nominal Bearing Bore | Recommended | | Installed Bearing ID* | Bearing length and Part Number | | | | | | | | | | | | | |
|----------------------|------------------|------------------|-----------------------|--------------------------------|---------------|---------------|---------------|---------------|---------------|----|----|----|----|----|--|--|--|
| | Shaft Dia. | Housing Bore | | 3 | 5 | 6 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | | | |
| 2 | 2.000 1.994 | 3.500 3.508 | 2.000 2.048 | GMB 0203DU | GMB 0205DU | | | | | | | | | | | | |
| 3 | 3.000 2.994 | 4.500 4.508 | 3.000 3.048 | GMB 0303DU | GMB 0305DU | GMB 0306DU | | | | | | | | | | | |
| 4 | 4.000 3.992 | 5.500 5.508 | 4.000 4.048 | GMB 0403DU | GMB 0404DU | GMB 0406DU | GMB 0410DU | | | | | | | | | | |
| 5 | 4.990 4.978 | 7.000 7.015 | 4.990 5.055 | GMB 0505DU | GMB 0508DU | GMB 0510DU | | | | | | | | | | | |
| 6 | 5.990 5.978 | 8.000 8.015 | 5.990 6.055 | GMB 0606DU | GMB 0608DU | GMB 0610DU | | | | | | | | | | | |
| 7 | 6.987 6.972 | 9.000 9.015 | 6.990 7.055 | GMB 0710DU | | | | | | | | | | | | | |
| 8 | 7.987 7.972 | 10.000 10.015 | 7.990 8.055 | GMB 0808DU | GMB 0810DU | GMB 0812DU | | | | | | | | | | | |
| 10 | 9.987 9.972 | 12.000 12.018 | 9.990 10.058 | GMB 1008DU | GMB 1010DU | GMB 1012DU | GMB 1015DU | GMB 1020DU | | | | | | | | | |
| 12 | 11.984 11.966 | 14.000 14.018 | 11.990 12.058 | GMB 1208DU | GMB 1212DU | GMB 1212DU | GMB 1215DU | GMB 1220DU | GMB 1225DU | | | | | | | | |
| 13 | 12.984 12.966 | 15.000 15.018 | 12.990 13.058 | GMB 1310DU | GMB 1320DU | | | | | | | | | | | | |
| 14 | 13.984 13.966 | 16.000 16.018 | 13.990 14.058 | GMB 1405DU | GMB 1410DU | GMB 1412DU | GMB 1415DU | GMB 1420DU | GMB 1425DU | | | | | | | | |
| 15 | 14.984 14.966 | 17.000 17.018 | 14.990 15.058 | GMB 1510DU | GMB 1512DU | GMB 1515DU | GMB 1520DU | GMB 1525DU | | | | | | | | | |
| 16 | 15.984 15.966 | 18.000 18.018 | 15.990 16.058 | GMB 1610DU | GMB 1612DU | GMB 1615DU | GMB 1620DU | GMB 1625DU | | | | | | | | | |
| 17 | 16.984 16.966 | 19.000 19.021 | 16.990 17.061 | GMB 1720DU | | | | | | | | | | | | | |
| 18 | 17.984 17.966 | 20.000 20.021 | 17.990 18.061 | GMB 1815DU | GMB 1820DU | GMB 1825DU | | | | | | | | | | | |
| 20 | 19.980 19.959 | 23.000 23.021 | 19.990 20.062 | GMB 2010DU | GMB 2015DU | GMB 2020DU | GMB 2025DU | GMB 2030DU | | | | | | | | | |
| 22 | 21.980 21.959 | 25.000 25.021 | 21.990 22.071 | GMB 2215DU | GMB 2220DU | GMB 2225DU | GMB 2230DU | | | | | | | | | | |
| 24 | 23.980 23.959 | 27.000 27.021 | 23.990 24.071 | GMB 2415DU | GMB 2420DU | GMB 2425DU | GMB 2430DU | | | | | | | | | | |
| 25 | 24.980 24.959 | 28.000 28.021 | 24.990 25.071 | GMB 2515DU | GMB 2520DU | GMB 2525DU | GMB 2530DU | GMB 2550DU | | | | | | | | | |
| 28 | 27.980 27.959 | 32.000 32.025 | 27.990 28.085 | GMB 2815DU | GMB 2820DU | GMB 2825DU | GMB 2830DU | | | | | | | | | | |
| 30 | 29.980 29.959 | 34.000 34.025 | 29.990 30.085 | GMB 3015DU | GMB 3020DU | GMB 3025DU | GMB 3030DU | GMB 3040DU | | | | | | | | | |
| 32 | 31.975 31.950 | 36.000 36.025 | 31.990 32.085 | GMB 3220DU | GMB 3230DU | GMB 3240DU | | | | | | | | | | | |
| 35 | 34.975 34.950 | 39.000 39.025 | 34.990 35.085 | GMB 3520DU | GMB 3530DU | GMB 3535DU | GMB 3540DU | GMB 3550DU | | | | | | | | | |
| 37 | 36.975 36.950 | 41.000 41.025 | 36.990 37.085 | GMB 3720DU | | | GMB 4050DU | | | | | | | | | | |
| 40 | 39.975 39.950 | 44.000 44.025 | 39.990 40.085 | GMB 4020DU | GMB 4030DU | GMB 4040DU | GMB 4050DU | | | | | | | | | | |
| 45 | 44.975 44.950 | 50.000 50.025 | 44.990 45.105 | GMB 4520DU | GMB 4530DU | GMB 4540DU | GMB 4550DU | | | | | | | | | | |



"DU" BEARING - OVER 45 MM

G. ELEMENTS

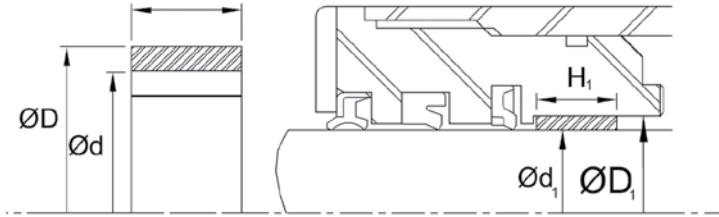


| Nominal Bearing Bore | Recommended | | Installed Bearing ID* | Bearing length and Part Number | | | | | | | | | |
|----------------------|--------------------|--------------------|-----------------------|--------------------------------|-----------------|-----------------|---------------|---------------|----|----|-----|--|--|
| | Shaft Dia. | Housing Bore | | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 100 | | |
| 50 | 49.975 49.950 | 55.000 55.030 | 49.990 50.110 | GMB 5020DU | GMB 5030DU | GMB 5040DU | GMB 5050DU | GMB 5060DU | | | | | |
| 55 | 54.970 54.940 | 60.000 60.030 | 54.990 55.110 | GMB 5520DU | GMB 5530DU | GMB 5540DU | GMB 5555DU | GMB 5560DU | | | | | |
| 60 | 59.970 59.940 | 65.000 65.030 | 59.990 60.110 | GMB 6020DU | GMB 6030DU | GMB 6040DU | GMB 6060DU | GMB 6070DU | | | | | |
| 65 | 64.970 64.940 | 70.000 70.030 | 64.990 65.110 | GMB 6530DU | GMB 6550DU | GMB 6570DU | | | | | | | |
| 70 | 69.970 69.940 | 75.000 75.030 | 69.990 70.110 | GMB 7040DU | GMB 7050DU | GMB 7070DU | | | | | | | |
| 75 | 74.970 74.940 | 80.000 80.030 | 74.990 75.110 | GMB 7560DU | GMB 7580DU | | | | | | | | |
| 80 | 80.000 79.954 | 85.000 85.035 | 80.010 80.145 | GMB 8060DU | GMB 80100DU | | | | | | | | |
| 85 | 85.000 84.946 | 90.000 90.035 | 85.010 85.145 | GMB 8530DU | GMB 8560DU | GMB 85100DU | | | | | | | |
| 90 | 90.000 89.946 | 95.000 95.035 | 90.010 90.145 | GMB 9060DU | GMB 90100DU | | | | | | | | |
| 95 | 95.000 94.946 | 100.000 100.035 | 95.010 95.145 | GMB 9560DU | GMB 95100 | | | | | | | | |
| 100 | 100.000 99.946 | 105.000 105.035 | 100.010 100.145 | GMB 10060DU | GMB 100115DU | | | | | | | | |
| 105 | 105.000 104.946 | 110.000 110.035 | 105.010 105.145 | GMB 10560DU | GMB 105115DU | | | | | | | | |
| 110 | 110.000 109.946 | 115.000 115.03 | 110.010 110.045 | GMB 11060DU | GMB 110115DU | | | | | | | | |
| 115 | 115.000 114.946 | 120.000 120.035 | 115.010 115.145 | GMB 11550DU | GMB 11570DU | | | | | | | | |
| 120 | 120.000 119.946 | 125.000 125.040 | 120.048 120.220 | GMB 12050DU | GMB 12060DU | GMB 120100DU | | | | | | | |
| 125 | 125.000 124.937 | 130.000 130.040 | 125.048 125.220 | GMB 125100DU | | | | | | | | | |
| 130 | 130.000 129.937 | 135.000 135.040 | 130.048 130.220 | GMB 13060DU | GMB 130100DU | | | | | | | | |
| 135 | 135.000 134.937 | 140.000 140.040 | 135.048 135.220 | GMB 13560DU | GMB 13580DU | | | | | | | | |
| 140 | 140.000 134.937 | 145.000 145.040 | 140.048 140.220 | GMB 14060DU | GMB 140100DU | | | | | | | | |
| 150 | 150.000 149.937 | 155.000 155.040 | 150.048 150.220 | GMB 15060DU | GMB 15080DU | GMB 150100DU | | | | | | | |
| 160 | 160.000 159.937 | 165.000 165.040 | 160.048 160.220 | GMB 16080DU | GMB 160100DU | | | | | | | | |
| 180 | 180.000 179.937 | 185.000 185.046 | 180.048 180.220 | GMB 180100DU | | | | | | | | | |
| 200 | 200.000 199.928 | 205.000 205.046 | 200.048 200.226 | GMB 200100DU | | | | | | | | | |
| 210 | 210.000 209.928 | 215.000 215.046 | 210.048 210.226 | GMB 210100DU | | | | | | | | | |
| 220 | 220.000 219.928 | 225.000 225.046 | 220.048 220.226 | GMB 220100DU | | | | | | | | | |
| 250 | 250.000 249.928 | 255.000 255.052 | 250.048 250.032 | GMB 250100DU | | | | | | | | | |
| 300 | 300.000 299.919 | 305.000 305.052 | 300.048 300.232 | GMB 300100DU | | | | | | | | | |

"DU" BEARING - Metric



| Standard Material | Temperature Range | Compressive Strength | Surface Speed |
|-------------------|--------------------------------------|--------------------------|---|
| Steel/PTFE/Lead | -328°F to +536°F -200°C to +280°C | 44 000 psi (3035 bar) | <8.2 ft/s (2.5 m/s) dry <33 ft/s (10 m/s) lubricated |



"DU" bearings are self-lubricating, metal-backed plain bearings with very good wear and friction performance over a wide range of loads, speeds and temperature conditions. They are suitable for linear, oscillating and rotating movements.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department.

| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|-------|-------|
| | d | D | H |
| GMB003003DU | 3.00 | 4.50 | 3.00 |
| GMB003004DU | 3.00 | 4.50 | 4.00 |
| GMB003005DU | 3.00 | 4.50 | 5.00 |
| GMB004004DU | 4.00 | 5.50 | 4.00 |
| GMB004005DU | 4.00 | 5.50 | 5.00 |
| GMB004006DU | 4.00 | 5.50 | 6.00 |
| GMB005005DU | 5.00 | 7.00 | 5.00 |
| GMB005006DU | 5.00 | 7.00 | 6.00 |
| GMB005007DU | 5.00 | 7.00 | 7.00 |
| GMB005010DU | 5.00 | 7.00 | 10.00 |
| GMB006004DU | 6.00 | 8.00 | 4.00 |
| GMB006005DU | 6.00 | 8.00 | 5.00 |
| GMB006006DU | 6.00 | 8.00 | 6.00 |
| GMB006008DU | 6.00 | 8.00 | 8.00 |
| GMB006010DU | 6.00 | 8.00 | 10.00 |
| GMB007005DU | 7.00 | 9.00 | 5.00 |
| GMB007006DU | 7.00 | 9.00 | 6.00 |
| GMB007008DU | 7.00 | 9.00 | 8.00 |
| GMB007010DU | 7.00 | 9.00 | 10.00 |
| GMB007015DU | 7.00 | 9.00 | 15.00 |
| GMB008005DU | 8.00 | 10.00 | 5.00 |
| GMB008006DU | 8.00 | 10.00 | 6.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|-------|-------|
| | d | D | H |
| GMB008008DU | 8.00 | 10.00 | 8.00 |
| GMB008010DU | 8.00 | 10.00 | 10.00 |
| GMB008012DU | 8.00 | 10.00 | 12.00 |
| GMB008015DU | 8.00 | 10.00 | 15.00 |
| GMB008020DU | 8.00 | 10.00 | 20.00 |
| GMB009008DU | 9.00 | 11.00 | 8.00 |
| GMB009009DU | 9.00 | 11.00 | 9.00 |
| GMB009010DU | 9.00 | 11.00 | 10.00 |
| GMB010005DU | 10.00 | 12.00 | 5.00 |
| GMB010006DU | 10.00 | 12.00 | 6.00 |
| GMB010008DU | 10.00 | 12.00 | 8.00 |
| GMB010009DU | 10.00 | 12.00 | 9.00 |
| GMB010010DU | 10.00 | 12.00 | 10.00 |
| GMB010012DU | 10.00 | 12.00 | 12.00 |
| GMB010015DU | 10.00 | 12.00 | 15.00 |
| GMB010020DU | 10.00 | 12.00 | 20.00 |
| GMB011008DU | 11.00 | 13.00 | 8.00 |
| GMB011009DU | 11.00 | 13.00 | 9.00 |
| GMB011010DU | 11.00 | 13.00 | 10.00 |
| GMB011012DU | 11.00 | 13.00 | 12.00 |
| GMB012006DU | 12.00 | 14.00 | 6.00 |
| GMB012008DU | 12.00 | 14.00 | 8.00 |



"DU" BEARING - BR.PTFE/STEEL



| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|-------|-------|
| | d | D | H |
| GMB012010DU | 12.00 | 14.00 | 10.00 |
| GMB012012DU | 12.00 | 14.00 | 12.00 |
| GMB012014DU | 12.00 | 14.00 | 14.00 |
| GMB012015DU | 12.00 | 14.00 | 15.00 |
| GMB012016DU | 12.00 | 14.00 | 16.00 |
| GMB012020DU | 12.00 | 14.00 | 20.00 |
| GMB012025DU | 12.00 | 14.00 | 25.00 |
| GMB013008DU | 13.00 | 15.00 | 8.00 |
| GMB013009DU | 13.00 | 15.00 | 9.00 |
| GMB013010DU | 13.00 | 15.00 | 10.00 |
| GMB014015DU | 14.00 | 16.00 | 15.00 |
| GMB014020DU | 14.00 | 16.00 | 20.00 |
| GMB014022DU | 14.00 | 16.00 | 22.00 |
| GMB014025DU | 14.00 | 16.00 | 25.00 |
| GMB015008DU | 15.00 | 17.00 | 8.00 |
| GMB015010DU | 15.00 | 17.00 | 10.00 |
| GMB015012DU | 15.00 | 17.00 | 12.00 |
| GMB015015DU | 15.00 | 17.00 | 15.00 |
| GMB015018DU | 15.00 | 17.00 | 18.00 |
| GMB015020DU | 15.00 | 17.00 | 20.00 |
| GMB015025DU | 15.00 | 17.00 | 25.00 |
| GMB016008DU | 16.00 | 18.00 | 8.00 |
| GMB016010DU | 16.00 | 18.00 | 10.00 |
| GMB016012DU | 16.00 | 18.00 | 12.00 |
| GMB016015DU | 16.00 | 18.00 | 15.00 |
| GMB016018DU | 16.00 | 18.00 | 18.00 |
| GMB016020DU | 16.00 | 18.00 | 20.00 |
| GMB016025DU | 16.00 | 18.00 | 25.00 |
| GMB017008DU | 17.00 | 19.00 | 8.00 |
| GMB017010DU | 17.00 | 19.00 | 10.00 |
| GMB017012DU | 17.00 | 19.00 | 12.00 |
| GMB017015DU | 17.00 | 19.00 | 15.00 |
| GMB017018DU | 17.00 | 19.00 | 18.00 |
| GMB017020DU | 17.00 | 19.00 | 20.00 |
| GMB017025DU | 17.00 | 19.00 | 25.00 |
| GMB018008DU | 18.00 | 20.00 | 8.00 |
| GMB018010DU | 18.00 | 20.00 | 10.00 |
| GMB018012DU | 18.00 | 20.00 | 12.00 |
| GMB018015DU | 18.00 | 20.00 | 15.00 |
| GMB018020DU | 18.00 | 20.00 | 20.00 |
| GMB018025DU | 18.00 | 20.00 | 25.00 |
| GMB018030DU | 18.00 | 20.00 | 30.00 |
| GMB020008DU | 20.00 | 23.00 | 8.00 |
| GMB020010DU | 20.00 | 23.00 | 10.00 |
| GMB020012DU | 20.00 | 23.00 | 12.00 |
| GMB020015DU | 20.00 | 23.00 | 15.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|-------|-------|
| | d | D | H |
| GMB020020DU | 20.00 | 23.00 | 20.00 |
| GMB020025DU | 20.00 | 23.00 | 25.00 |
| GMB020030DU | 20.00 | 23.00 | 30.00 |
| GMB020035DU | 20.00 | 23.00 | 35.00 |
| GMB020040DU | 20.00 | 23.00 | 40.00 |
| GMB022010DU | 22.00 | 25.00 | 10.00 |
| GMB022012DU | 22.00 | 25.00 | 12.00 |
| GMB022015DU | 22.00 | 25.00 | 15.00 |
| GMB022020DU | 22.00 | 25.00 | 20.00 |
| GMB022025DU | 22.00 | 25.00 | 25.00 |
| GMB022030DU | 22.00 | 25.00 | 30.00 |
| GMB022035DU | 22.00 | 25.00 | 35.00 |
| GMB022038DU | 22.00 | 25.00 | 38.00 |
| GMB022040DU | 22.00 | 25.00 | 40.00 |
| GMB022045DU | 22.00 | 25.00 | 45.00 |
| GMB022050DU | 22.00 | 25.00 | 50.00 |
| GMB024010DU | 24.00 | 27.00 | 10.00 |
| GMB024012DU | 24.00 | 27.00 | 12.00 |
| GMB024015DU | 24.00 | 27.00 | 15.00 |
| GMB024020DU | 24.00 | 27.00 | 20.00 |
| GMB024025DU | 24.00 | 27.00 | 25.00 |
| GMB024028DU | 24.00 | 27.00 | 28.00 |
| GMB024030DU | 24.00 | 27.00 | 30.00 |
| GMB024032DU | 24.00 | 27.00 | 32.00 |
| GMB024035DU | 24.00 | 27.00 | 35.00 |
| GMB024038DU | 24.00 | 27.00 | 38.00 |
| GMB024040DU | 24.00 | 27.00 | 40.00 |
| GMB024050DU | 24.00 | 27.00 | 50.00 |
| GMB025010DU | 25.00 | 28.00 | 10.00 |
| GMB025012DU | 25.00 | 28.00 | 12.00 |
| GMB025015DU | 25.00 | 28.00 | 15.00 |
| GMB025020DU | 25.00 | 28.00 | 20.00 |
| GMB025025DU | 25.00 | 28.00 | 25.00 |
| GMB025028DU | 25.00 | 28.00 | 28.00 |
| GMB025030DU | 25.00 | 28.00 | 30.00 |
| GMB025032DU | 25.00 | 28.00 | 32.00 |
| GMB025035DU | 25.00 | 28.00 | 35.00 |
| GMB025040DU | 25.00 | 28.00 | 40.00 |
| GMB025050DU | 25.00 | 28.00 | 50.00 |
| GMB025060DU | 25.00 | 28.00 | 60.00 |
| GMB028010DU | 28.00 | 32.00 | 10.00 |
| GMB028012DU | 28.00 | 32.00 | 12.00 |
| GMB028015DU | 28.00 | 32.00 | 15.00 |
| GMB028020DU | 28.00 | 32.00 | 20.00 |
| GMB028025DU | 28.00 | 32.00 | 25.00 |
| GMB028030DU | 28.00 | 32.00 | 30.00 |

"DU" BEARING - BR.PTFE/STEEL

| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|-------|-------|
| | d | D | H |
| GMB028032DU | 28.00 | 32.00 | 32.00 |
| GMB028035DU | 28.00 | 32.00 | 35.00 |
| GMB028040DU | 28.00 | 32.00 | 40.00 |
| GMB030010DU | 30.00 | 34.00 | 10.00 |
| GMB030012DU | 30.00 | 34.00 | 12.00 |
| GMB030015DU | 30.00 | 34.00 | 15.00 |
| GMB030020DU | 30.00 | 34.00 | 20.00 |
| GMB030025DU | 30.00 | 34.00 | 25.00 |
| GMB030028DU | 30.00 | 34.00 | 28.00 |
| GMB030030DU | 30.00 | 34.00 | 30.00 |
| GMB030032DU | 30.00 | 34.00 | 32.00 |
| GMB030035DU | 30.00 | 34.00 | 35.00 |
| GMB030038DU | 30.00 | 34.00 | 38.00 |
| GMB030040DU | 30.00 | 34.00 | 40.00 |
| GMB030045DU | 30.00 | 34.00 | 45.00 |
| GMB030050DU | 30.00 | 34.00 | 50.00 |
| GMB032010DU | 32.00 | 36.00 | 10.00 |
| GMB032012DU | 32.00 | 36.00 | 12.00 |
| GMB032015DU | 32.00 | 36.00 | 15.00 |
| GMB032018DU | 32.00 | 36.00 | 18.00 |
| GMB032020DU | 32.00 | 36.00 | 20.00 |
| GMB032025DU | 32.00 | 36.00 | 25.00 |
| GMB032030DU | 32.00 | 36.00 | 30.00 |
| GMB032035DU | 32.00 | 36.00 | 35.00 |
| GMB032040DU | 32.00 | 36.00 | 40.00 |
| GMB032045DU | 32.00 | 36.00 | 45.00 |
| GMB032050DU | 32.00 | 36.00 | 50.00 |
| GMB034010DU | 34.00 | 38.00 | 10.00 |
| GMB034012DU | 34.00 | 38.00 | 12.00 |
| GMB034015DU | 34.00 | 38.00 | 15.00 |
| GMB034020DU | 34.00 | 38.00 | 20.00 |
| GMB034025DU | 34.00 | 38.00 | 25.00 |
| GMB034030DU | 34.00 | 38.00 | 30.00 |
| GMB034035DU | 34.00 | 38.00 | 35.00 |
| GMB034040DU | 34.00 | 38.00 | 40.00 |
| GMB034045DU | 34.00 | 38.00 | 45.00 |
| GMB035010DU | 35.00 | 39.00 | 10.00 |
| GMB035012DU | 35.00 | 39.00 | 12.00 |
| GMB035015DU | 35.00 | 39.00 | 15.00 |
| GMB035020DU | 35.00 | 39.00 | 20.00 |
| GMB035025DU | 35.00 | 39.00 | 25.00 |
| GMB035030DU | 35.00 | 39.00 | 30.00 |
| GMB035035DU | 35.00 | 39.00 | 35.00 |
| GMB035040DU | 35.00 | 39.00 | 40.00 |
| GMB035045DU | 35.00 | 39.00 | 45.00 |
| GMB035050DU | 35.00 | 39.00 | 50.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|-------|-------|
| | d | D | H |
| GMB036010DU | 36.00 | 40.00 | 10.00 |
| GMB036012DU | 36.00 | 40.00 | 12.00 |
| GMB036015DU | 36.00 | 40.00 | 15.00 |
| GMB036020DU | 36.00 | 40.00 | 20.00 |
| GMB036025DU | 36.00 | 40.00 | 25.00 |
| GMB036030DU | 36.00 | 40.00 | 30.00 |
| GMB036035DU | 36.00 | 40.00 | 35.00 |
| GMB036040DU | 36.00 | 40.00 | 40.00 |
| GMB036045DU | 36.00 | 40.00 | 45.00 |
| GMB036050DU | 36.00 | 40.00 | 50.00 |
| GMB038012DU | 38.00 | 42.00 | 12.00 |
| GMB038015DU | 38.00 | 42.00 | 15.00 |
| GMB038020DU | 38.00 | 42.00 | 20.00 |
| GMB038025DU | 38.00 | 42.00 | 25.00 |
| GMB038030DU | 38.00 | 42.00 | 30.00 |
| GMB038035DU | 38.00 | 42.00 | 35.00 |
| GMB038040DU | 38.00 | 42.00 | 40.00 |
| GMB038045DU | 38.00 | 42.00 | 45.00 |
| GMB038050DU | 38.00 | 42.00 | 50.00 |
| GMB038055DU | 38.00 | 42.00 | 55.00 |
| GMB038060DU | 38.00 | 42.00 | 60.00 |
| GMB040012DU | 40.00 | 44.00 | 12.00 |
| GMB040015DU | 40.00 | 44.00 | 15.00 |
| GMB040020DU | 40.00 | 44.00 | 20.00 |
| GMB040025DU | 40.00 | 44.00 | 25.00 |
| GMB040030DU | 40.00 | 44.00 | 30.00 |
| GMB040035DU | 40.00 | 44.00 | 35.00 |
| GMB040040DU | 40.00 | 44.00 | 40.00 |
| GMB040045DU | 40.00 | 44.00 | 45.00 |
| GMB040050DU | 40.00 | 44.00 | 50.00 |
| GMB040055DU | 40.00 | 44.00 | 55.00 |
| GMB040060DU | 40.00 | 44.00 | 60.00 |
| GMB045015DU | 45.00 | 50.00 | 15.00 |
| GMB045020DU | 45.00 | 50.00 | 20.00 |
| GMB045025DU | 45.00 | 50.00 | 25.00 |
| GMB045030DU | 45.00 | 50.00 | 30.00 |
| GMB045035DU | 45.00 | 50.00 | 35.00 |
| GMB045040DU | 45.00 | 50.00 | 40.00 |
| GMB045045DU | 45.00 | 50.00 | 45.00 |
| GMB045050DU | 45.00 | 50.00 | 50.00 |
| GMB045055DU | 45.00 | 50.00 | 55.00 |
| GMB045060DU | 45.00 | 50.00 | 60.00 |
| GMB050015DU | 50.00 | 55.00 | 15.00 |
| GMB050020DU | 50.00 | 55.00 | 20.00 |
| GMB050025DU | 50.00 | 55.00 | 25.00 |
| GMB050030DU | 50.00 | 55.00 | 30.00 |



"DU" BEARING - BR.PTFE/STEEL



| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|-------|-------|
| | d | D | H |
| GMB050035DU | 50.00 | 55.00 | 35.00 |
| GMB050040DU | 50.00 | 55.00 | 40.00 |
| GMB050045DU | 50.00 | 55.00 | 45.00 |
| GMB050050DU | 50.00 | 55.00 | 50.00 |
| GMB050055DU | 50.00 | 55.00 | 55.00 |
| GMB050060DU | 50.00 | 55.00 | 60.00 |
| GMB050065DU | 50.00 | 55.00 | 65.00 |
| GMB050070DU | 50.00 | 55.00 | 70.00 |
| GMB055015DU | 55.00 | 60.00 | 15.00 |
| GMB055020DU | 55.00 | 60.00 | 20.00 |
| GMB055025DU | 55.00 | 60.00 | 25.00 |
| GMB055030DU | 55.00 | 60.00 | 30.00 |
| GMB055035DU | 55.00 | 60.00 | 35.00 |
| GMB055040DU | 55.00 | 60.00 | 40.00 |
| GMB055045DU | 55.00 | 60.00 | 45.00 |
| GMB055050DU | 55.00 | 60.00 | 50.00 |
| GMB055055DU | 55.00 | 60.00 | 55.00 |
| GMB055060DU | 55.00 | 60.00 | 60.00 |
| GMB055065DU | 55.00 | 60.00 | 65.00 |
| GMB055070DU | 55.00 | 60.00 | 70.00 |
| GMB060015DU | 60.00 | 65.00 | 15.00 |
| GMB060020DU | 60.00 | 65.00 | 20.00 |
| GMB060025DU | 60.00 | 65.00 | 25.00 |
| GMB060030DU | 60.00 | 65.00 | 30.00 |
| GMB060035DU | 60.00 | 65.00 | 35.00 |
| GMB060040DU | 60.00 | 65.00 | 40.00 |
| GMB060045DU | 60.00 | 65.00 | 45.00 |
| GMB060050DU | 60.00 | 65.00 | 50.00 |
| GMB060055DU | 60.00 | 65.00 | 55.00 |
| GMB060060DU | 60.00 | 65.00 | 60.00 |
| GMB060065DU | 60.00 | 65.00 | 65.00 |
| GMB060070DU | 60.00 | 65.00 | 70.00 |
| GMB060075DU | 60.00 | 65.00 | 75.00 |
| GMB060080DU | 60.00 | 65.00 | 80.00 |
| GMB060085DU | 60.00 | 65.00 | 85.00 |
| GMB060090DU | 60.00 | 65.00 | 90.00 |
| GMB065015DU | 65.00 | 70.00 | 15.00 |
| GMB065020DU | 65.00 | 70.00 | 20.00 |
| GMB065030DU | 65.00 | 70.00 | 30.00 |
| GMB065035DU | 65.00 | 70.00 | 35.00 |
| GMB065040DU | 65.00 | 70.00 | 40.00 |
| GMB065050DU | 65.00 | 70.00 | 50.00 |
| GMB065060DU | 65.00 | 70.00 | 60.00 |
| GMB065070DU | 65.00 | 70.00 | 70.00 |
| GMB065080DU | 65.00 | 70.00 | 80.00 |
| GMB065090DU | 65.00 | 70.00 | 90.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|--------|--------|
| | d | D | H |
| GMB070020DU | 70.00 | 75.00 | 20.00 |
| GMB070030DU | 70.00 | 75.00 | 30.00 |
| GMB070040DU | 70.00 | 75.00 | 40.00 |
| GMB070050DU | 70.00 | 75.00 | 50.00 |
| GMB070060DU | 70.00 | 75.00 | 60.00 |
| GMB070070DU | 70.00 | 75.00 | 70.00 |
| GMB070080DU | 70.00 | 75.00 | 80.00 |
| GMB070090DU | 70.00 | 75.00 | 90.00 |
| GMB075015DU | 75.00 | 80.00 | 15.00 |
| GMB075030DU | 75.00 | 80.00 | 30.00 |
| GMB075035DU | 75.00 | 80.00 | 35.00 |
| GMB075040DU | 75.00 | 80.00 | 40.00 |
| GMB075050DU | 75.00 | 80.00 | 50.00 |
| GMB075060DU | 75.00 | 80.00 | 60.00 |
| GMB075070DU | 75.00 | 80.00 | 70.00 |
| GMB075080DU | 75.00 | 80.00 | 80.00 |
| GMB075090DU | 75.00 | 80.00 | 90.00 |
| GMB080025DU | 80.00 | 85.00 | 25.00 |
| GMB080030DU | 80.00 | 85.00 | 30.00 |
| GMB080040DU | 80.00 | 85.00 | 40.00 |
| GMB080050DU | 80.00 | 85.00 | 50.00 |
| GMB080060DU | 80.00 | 85.00 | 60.00 |
| GMB080070DU | 80.00 | 85.00 | 70.00 |
| GMB080080DU | 80.00 | 85.00 | 80.00 |
| GMB080090DU | 80.00 | 85.00 | 90.00 |
| GMB080100DU | 80.00 | 85.00 | 100.00 |
| GMB085030DU | 85.00 | 90.00 | 30.00 |
| GMB085040DU | 85.00 | 90.00 | 40.00 |
| GMB085050DU | 85.00 | 90.00 | 50.00 |
| GMB085060DU | 85.00 | 90.00 | 60.00 |
| GMB085070DU | 85.00 | 90.00 | 70.00 |
| GMB085080DU | 85.00 | 90.00 | 80.00 |
| GMB085090DU | 85.00 | 90.00 | 90.00 |
| GMB085100DU | 85.00 | 90.00 | 100.00 |
| GMB090030DU | 90.00 | 95.00 | 30.00 |
| GMB090035DU | 90.00 | 95.00 | 35.00 |
| GMB090040DU | 90.00 | 95.00 | 40.00 |
| GMB090050DU | 90.00 | 95.00 | 50.00 |
| GMB090060DU | 90.00 | 95.00 | 60.00 |
| GMB090070DU | 90.00 | 95.00 | 70.00 |
| GMB090080DU | 90.00 | 95.00 | 80.00 |
| GMB090090DU | 90.00 | 95.00 | 90.00 |
| GMB090100DU | 90.00 | 95.00 | 100.00 |
| GMB095030DU | 95.00 | 100.00 | 30.00 |
| GMB095035DU | 95.00 | 100.00 | 35.00 |
| GMB095040DU | 95.00 | 100.00 | 40.00 |

“DU” BEARING - BR.PTFE/STEEL

| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|--------|--------|
| | d | D | H |
| GMB095045DU | 95.00 | 100.00 | 45.00 |
| GMB095050DU | 95.00 | 100.00 | 50.00 |
| GMB095060DU | 95.00 | 100.00 | 60.00 |
| GMB095070DU | 95.00 | 100.00 | 70.00 |
| GMB095080DU | 95.00 | 100.00 | 80.00 |
| GMB095090DU | 95.00 | 100.00 | 90.00 |
| GMB095100DU | 95.00 | 100.00 | 100.00 |
| GMB100030DU | 100.00 | 105.00 | 30.00 |
| GMB100035DU | 100.00 | 105.00 | 35.00 |
| GMB100040DU | 100.00 | 105.00 | 40.00 |
| GMB100045DU | 100.00 | 105.00 | 45.00 |
| GMB100050DU | 100.00 | 105.00 | 50.00 |
| GMB100060DU | 100.00 | 105.00 | 60.00 |
| GMB100070DU | 100.00 | 105.00 | 70.00 |
| GMB100080DU | 100.00 | 105.00 | 80.00 |
| GMB100090DU | 100.00 | 105.00 | 90.00 |
| GMB100100DU | 100.00 | 105.00 | 100.00 |
| GMB100115DU | 100.00 | 105.00 | 115.00 |
| GMB105030DU | 105.00 | 110.00 | 30.00 |
| GMB105035DU | 105.00 | 110.00 | 35.00 |
| GMB105040DU | 105.00 | 110.00 | 40.00 |
| GMB105045DU | 105.00 | 110.00 | 45.00 |
| GMB105050DU | 105.00 | 110.00 | 50.00 |
| GMB105060DU | 105.00 | 110.00 | 60.00 |
| GMB105070DU | 105.00 | 110.00 | 70.00 |
| GMB105080DU | 105.00 | 110.00 | 80.00 |
| GMB105090DU | 105.00 | 110.00 | 90.00 |
| GMB105100DU | 105.00 | 110.00 | 100.00 |
| GMB105115DU | 105.00 | 110.00 | 115.00 |
| GMB110035DU | 110.00 | 115.00 | 35.00 |
| GMB110040DU | 110.00 | 115.00 | 40.00 |
| GMB110045DU | 110.00 | 115.00 | 45.00 |
| GMB110050DU | 110.00 | 115.00 | 50.00 |
| GMB110055DU | 110.00 | 115.00 | 55.00 |
| GMB110060DU | 110.00 | 115.00 | 60.00 |
| GMB110070DU | 110.00 | 115.00 | 70.00 |
| GMB110080DU | 110.00 | 115.00 | 80.00 |
| GMB110090DU | 110.00 | 115.00 | 90.00 |
| GMB110100DU | 110.00 | 115.00 | 100.00 |
| GMB110115DU | 110.00 | 115.00 | 115.00 |
| GMB115035DU | 115.00 | 120.00 | 35.00 |
| GMB115040DU | 115.00 | 120.00 | 40.00 |
| GMB115045DU | 115.00 | 120.00 | 45.00 |
| GMB115050DU | 115.00 | 120.00 | 50.00 |
| GMB115060DU | 115.00 | 120.00 | 60.00 |
| GMB115070DU | 115.00 | 120.00 | 70.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|--------|--------|
| | d | D | H |
| GMB115080DU | 115.00 | 120.00 | 80.00 |
| GMB115090DU | 115.00 | 120.00 | 90.00 |
| GMB115100DU | 115.00 | 120.00 | 100.00 |
| GMB115115DU | 115.00 | 120.00 | 115.00 |
| GMB120035DU | 120.00 | 125.00 | 35.00 |
| GMB120040DU | 120.00 | 125.00 | 40.00 |
| GMB120050DU | 120.00 | 125.00 | 50.00 |
| GMB120060DU | 120.00 | 125.00 | 60.00 |
| GMB120070DU | 120.00 | 125.00 | 70.00 |
| GMB120080DU | 120.00 | 125.00 | 80.00 |
| GMB120090DU | 120.00 | 125.00 | 90.00 |
| GMB120100DU | 120.00 | 125.00 | 100.00 |
| GMB120120DU | 120.00 | 125.00 | 120.00 |
| GMB125040DU | 125.00 | 130.00 | 40.00 |
| GMB125050DU | 125.00 | 130.00 | 50.00 |
| GMB125060DU | 125.00 | 130.00 | 60.00 |
| GMB125080DU | 125.00 | 130.00 | 80.00 |
| GMB125090DU | 125.00 | 130.00 | 90.00 |
| GMB125100DU | 125.00 | 130.00 | 100.00 |
| GMB125115DU | 125.00 | 130.00 | 115.00 |
| GMB128070DU | 128.00 | 133.00 | 70.00 |
| GMB130035DU | 130.00 | 135.00 | 35.00 |
| GMB130050DU | 130.00 | 135.00 | 50.00 |
| GMB130060DU | 130.00 | 135.00 | 60.00 |
| GMB130065DU | 130.00 | 135.00 | 65.00 |
| GMB130070DU | 130.00 | 135.00 | 70.00 |
| GMB130080DU | 130.00 | 135.00 | 80.00 |
| GMB130090DU | 130.00 | 135.00 | 90.00 |
| GMB130100DU | 130.00 | 135.00 | 100.00 |
| GMB130120DU | 130.00 | 135.00 | 120.00 |
| GMB135060DU | 135.00 | 140.00 | 60.00 |
| GMB135070DU | 135.00 | 140.00 | 70.00 |
| GMB135080DU | 135.00 | 140.00 | 80.00 |
| GMB135090DU | 135.00 | 140.00 | 90.00 |
| GMB135100DU | 135.00 | 140.00 | 100.00 |
| GMB135120DU | 135.00 | 140.00 | 120.00 |
| GMB140040DU | 140.00 | 145.00 | 40.00 |
| GMB140055DU | 140.00 | 145.00 | 45.00 |
| GMB140060DU | 140.00 | 145.00 | 60.00 |
| GMB140070DU | 140.00 | 145.00 | 70.00 |
| GMB140080DU | 140.00 | 145.00 | 80.00 |
| GMB140090DU | 140.00 | 145.00 | 90.00 |
| GMB140100DU | 140.00 | 145.00 | 100.00 |
| GMB145060DU | 145.00 | 150.00 | 60.00 |
| GMB145070DU | 145.00 | 150.00 | 70.00 |
| GMB145080DU | 145.00 | 150.00 | 80.00 |



"DU" BEARING - BR.PTFE/STEEL



| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|--------|--------|
| | d | D | H |
| GMB145090DU | 145.00 | 150.00 | 90.00 |
| GMB145100DU | 145.00 | 150.00 | 100.00 |
| GMB145120DU | 145.00 | 150.00 | 120.00 |
| GMB150040DU | 150.00 | 155.00 | 40.00 |
| GMB150060DU | 150.00 | 155.00 | 60.00 |
| GMB150070DU | 150.00 | 155.00 | 70.00 |
| GMB150080DU | 150.00 | 155.00 | 80.00 |
| GMB150090DU | 150.00 | 155.00 | 90.00 |
| GMB150100DU | 150.00 | 155.00 | 100.00 |
| GMB155050DU | 155.00 | 160.00 | 50.00 |
| GMB155060DU | 155.00 | 160.00 | 60.00 |
| GMB155070DU | 155.00 | 160.00 | 70.00 |
| GMB155080DU | 155.00 | 160.00 | 80.00 |
| GMB155090DU | 155.00 | 160.00 | 90.00 |
| GMB155100DU | 155.00 | 160.00 | 100.00 |
| GMB160040DU | 160.00 | 165.00 | 40.00 |
| GMB160060DU | 160.00 | 165.00 | 60.00 |
| GMB160070DU | 160.00 | 165.00 | 70.00 |
| GMB160080DU | 160.00 | 165.00 | 80.00 |
| GMB160090DU | 160.00 | 165.00 | 90.00 |
| GMB160100DU | 160.00 | 165.00 | 100.00 |
| GMB160110DU | 160.00 | 165.00 | 110.00 |
| GMB160120DU | 160.00 | 165.00 | 120.00 |
| GMB160130DU | 160.00 | 165.00 | 130.00 |
| GMB160140DU | 160.00 | 165.00 | 140.00 |
| GMB160150DU | 160.00 | 165.00 | 150.00 |
| GMB165060DU | 165.00 | 170.00 | 60.00 |
| GMB165070DU | 165.00 | 170.00 | 70.00 |
| GMB165080DU | 165.00 | 170.00 | 80.00 |
| GMB165090DU | 165.00 | 170.00 | 90.00 |
| GMB165100DU | 165.00 | 170.00 | 100.00 |
| GMB165110DU | 165.00 | 170.00 | 110.00 |
| GMB165120DU | 165.00 | 170.00 | 120.00 |
| GMB165130DU | 165.00 | 170.00 | 130.00 |
| GMB165140DU | 165.00 | 170.00 | 140.00 |
| GMB165150DU | 165.00 | 170.00 | 150.00 |
| GMB170035DU | 170.00 | 175.00 | 35.00 |
| GMB170060DU | 170.00 | 175.00 | 60.00 |
| GMB170070DU | 170.00 | 175.00 | 70.00 |
| GMB170080DU | 170.00 | 175.00 | 80.00 |
| GMB170090DU | 170.00 | 175.00 | 90.00 |
| GMB170100DU | 170.00 | 175.00 | 100.00 |
| GMB170110DU | 170.00 | 175.00 | 110.00 |
| GMB170120DU | 170.00 | 175.00 | 120.00 |
| GMB170130DU | 170.00 | 175.00 | 130.00 |
| GMB170140DU | 170.00 | 175.00 | 140.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|--------|--------|
| | d | D | H |
| GMB170150DU | 170.00 | 175.00 | 150.00 |
| GMB175060DU | 175.00 | 180.00 | 60.00 |
| GMB175070DU | 175.00 | 180.00 | 70.00 |
| GMB175080DU | 175.00 | 180.00 | 80.00 |
| GMB175090DU | 175.00 | 180.00 | 90.00 |
| GMB175100DU | 175.00 | 180.00 | 100.00 |
| GMB175110DU | 175.00 | 180.00 | 110.00 |
| GMB175120DU | 175.00 | 180.00 | 120.00 |
| GMB175130DU | 175.00 | 180.00 | 130.00 |
| GMB175140DU | 175.00 | 180.00 | 140.00 |
| GMB175150DU | 175.00 | 180.00 | 150.00 |
| GMB180060DU | 180.00 | 185.00 | 60.00 |
| GMB180070DU | 180.00 | 185.00 | 70.00 |
| GMB180080DU | 180.00 | 185.00 | 80.00 |
| GMB180090DU | 180.00 | 185.00 | 90.00 |
| GMB180100DU | 180.00 | 185.00 | 100.00 |
| GMB180110DU | 180.00 | 185.00 | 110.00 |
| GMB180120DU | 180.00 | 185.00 | 120.00 |
| GMB180130DU | 180.00 | 185.00 | 130.00 |
| GMB180140DU | 180.00 | 185.00 | 140.00 |
| GMB180150DU | 180.00 | 185.00 | 150.00 |
| GMB185060DU | 185.00 | 190.00 | 60.00 |
| GMB185070DU | 185.00 | 190.00 | 70.00 |
| GMB185080DU | 185.00 | 190.00 | 80.00 |
| GMB185090DU | 185.00 | 190.00 | 90.00 |
| GMB185100DU | 185.00 | 190.00 | 100.00 |
| GMB185110DU | 185.00 | 190.00 | 110.00 |
| GMB185120DU | 185.00 | 190.00 | 120.00 |
| GMB185130DU | 185.00 | 190.00 | 130.00 |
| GMB185140DU | 185.00 | 190.00 | 140.00 |
| GMB185150DU | 185.00 | 190.00 | 150.00 |
| GMB190060DU | 190.00 | 195.00 | 60.00 |
| GMB190070DU | 190.00 | 195.00 | 70.00 |
| GMB190080DU | 190.00 | 195.00 | 80.00 |
| GMB190090DU | 190.00 | 195.00 | 90.00 |
| GMB190100DU | 190.00 | 195.00 | 100.00 |
| GMB190110DU | 190.00 | 195.00 | 110.00 |
| GMB190120DU | 190.00 | 195.00 | 120.00 |
| GMB190130DU | 190.00 | 195.00 | 130.00 |
| GMB190140DU | 190.00 | 195.00 | 140.00 |
| GMB190150DU | 190.00 | 195.00 | 150.00 |
| GMB195060DU | 195.00 | 200.00 | 60.00 |
| GMB195070DU | 195.00 | 200.00 | 70.00 |
| GMB195080DU | 195.00 | 200.00 | 80.00 |
| GMB195090DU | 195.00 | 200.00 | 90.00 |
| GMB195100DU | 195.00 | 200.00 | 100.00 |

“DU” BEARING - BR.PTFE/STEEL

| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|--------|--------|
| | d | D | H |
| GMB195110DU | 195.00 | 200.00 | 110.00 |
| GMB195120DU | 195.00 | 200.00 | 120.00 |
| GMB195130DU | 195.00 | 200.00 | 130.00 |
| GMB195140DU | 195.00 | 200.00 | 140.00 |
| GMB195150DU | 195.00 | 200.00 | 150.00 |
| GMB200060DU | 200.00 | 205.00 | 60.00 |
| GMB200070DU | 200.00 | 205.00 | 70.00 |
| GMB200080DU | 200.00 | 205.00 | 80.00 |
| GMB200090DU | 200.00 | 205.00 | 90.00 |
| GMB200100DU | 200.00 | 205.00 | 100.00 |
| GMB200110DU | 200.00 | 205.00 | 110.00 |
| GMB200120DU | 200.00 | 205.00 | 120.00 |
| GMB200130DU | 200.00 | 205.00 | 130.00 |
| GMB200140DU | 200.00 | 205.00 | 140.00 |
| GMB200150DU | 200.00 | 205.00 | 150.00 |
| GMB205060DU | 205.00 | 210.00 | 60.00 |
| GMB205070DU | 205.00 | 210.00 | 70.00 |
| GMB205080DU | 205.00 | 210.00 | 80.00 |
| GMB205090DU | 205.00 | 210.00 | 90.00 |
| GMB205100DU | 205.00 | 210.00 | 100.00 |
| GMB205110DU | 205.00 | 210.00 | 110.00 |
| GMB205120DU | 205.00 | 210.00 | 120.00 |
| GMB205130DU | 205.00 | 210.00 | 130.00 |
| GMB205140DU | 205.00 | 210.00 | 140.00 |
| GMB205150DU | 205.00 | 210.00 | 150.00 |
| GMB210011DU | 210.00 | 215.00 | 11.00 |
| GMB210060DU | 210.00 | 215.00 | 60.00 |
| GMB210070DU | 210.00 | 215.00 | 70.00 |
| GMB210080DU | 210.00 | 215.00 | 80.00 |
| GMB210090DU | 210.00 | 215.00 | 90.00 |
| GMB210110DU | 210.00 | 215.00 | 110.00 |
| GMB210120DU | 210.00 | 215.00 | 120.00 |
| GMB210130DU | 210.00 | 215.00 | 130.00 |
| GMB210140DU | 210.00 | 215.00 | 140.00 |
| GMB210150DU | 210.00 | 215.00 | 150.00 |
| GMB215060DU | 215.00 | 220.00 | 60.00 |
| GMB215070DU | 215.00 | 220.00 | 70.00 |
| GMB215080DU | 215.00 | 220.00 | 80.00 |
| GMB215090DU | 215.00 | 220.00 | 90.00 |
| GMB215100DU | 215.00 | 220.00 | 100.00 |
| GMB215110DU | 215.00 | 220.00 | 110.00 |
| GMB215120DU | 215.00 | 220.00 | 120.00 |
| GMB215130DU | 215.00 | 220.00 | 130.00 |
| GMB215140DU | 215.00 | 220.00 | 140.00 |
| GMB215150DU | 215.00 | 220.00 | 150.00 |
| GMB220060DU | 220.00 | 225.00 | 60.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|--------|--------|
| | d | D | H |
| GMB220070DU | 220.00 | 225.00 | 70.00 |
| GMB220080DU | 220.00 | 225.00 | 80.00 |
| GMB220090DU | 220.00 | 225.00 | 90.00 |
| GMB220100DU | 220.00 | 225.00 | 100.00 |
| GMB220110DU | 220.00 | 225.00 | 110.00 |
| GMB220120DU | 220.00 | 225.00 | 120.00 |
| GMB220130DU | 220.00 | 225.00 | 130.00 |
| GMB220140DU | 220.00 | 225.00 | 140.00 |
| GMB220150DU | 220.00 | 225.00 | 150.00 |
| GMB225060DU | 225.00 | 230.00 | 60.00 |
| GMB225070DU | 225.00 | 230.00 | 70.00 |
| GMB225080DU | 225.00 | 230.00 | 80.00 |
| GMB225090DU | 225.00 | 230.00 | 90.00 |
| GMB225100DU | 225.00 | 230.00 | 100.00 |
| GMB225110DU | 225.00 | 230.00 | 110.00 |
| GMB225120DU | 225.00 | 230.00 | 120.00 |
| GMB225130DU | 225.00 | 230.00 | 130.00 |
| GMB225140DU | 225.00 | 230.00 | 140.00 |
| GMB230060DU | 230.00 | 235.00 | 60.00 |
| GMB230070DU | 230.00 | 235.00 | 70.00 |
| GMB230080DU | 230.00 | 235.00 | 80.00 |
| GMB230090DU | 230.00 | 235.00 | 90.00 |
| GMB230100DU | 230.00 | 235.00 | 100.00 |
| GMB230110DU | 230.00 | 235.00 | 110.00 |
| GMB230120DU | 230.00 | 235.00 | 120.00 |
| GMB230130DU | 230.00 | 235.00 | 130.00 |
| GMB230140DU | 230.00 | 235.00 | 140.00 |
| GMB230150DU | 230.00 | 235.00 | 150.00 |
| GMB235060DU | 235.00 | 240.00 | 60.00 |
| GMB235070DU | 235.00 | 240.00 | 70.00 |
| GMB235080DU | 235.00 | 240.00 | 80.00 |
| GMB235090DU | 235.00 | 240.00 | 90.00 |
| GMB235100DU | 235.00 | 240.00 | 100.00 |
| GMB235110DU | 235.00 | 240.00 | 110.00 |
| GMB235120DU | 235.00 | 240.00 | 120.00 |
| GMB235130DU | 235.00 | 240.00 | 130.00 |
| GMB235140DU | 235.00 | 240.00 | 140.00 |
| GMB235150DU | 235.00 | 240.00 | 150.00 |
| GMB240060DU | 240.00 | 245.00 | 60.00 |
| GMB240070DU | 240.00 | 245.00 | 70.00 |
| GMB240080DU | 240.00 | 245.00 | 80.00 |
| GMB240090DU | 240.00 | 245.00 | 90.00 |
| GMB240100DU | 240.00 | 245.00 | 100.00 |
| GMB240110DU | 240.00 | 245.00 | 110.00 |
| GMB240120DU | 240.00 | 245.00 | 120.00 |
| GMB240130DU | 240.00 | 245.00 | 130.00 |



"DU" BEARING - BR.PTFE/STEEL



| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|--------|--------|
| | d | D | H |
| GMB240140DU | 240.00 | 245.00 | 140.00 |
| GMB240150DU | 240.00 | 245.00 | 150.00 |
| GMB245060DU | 245.00 | 250.00 | 60.00 |
| GMB245070DU | 245.00 | 250.00 | 70.00 |
| GMB245080DU | 245.00 | 250.00 | 80.00 |
| GMB245090DU | 245.00 | 250.00 | 90.00 |
| GMB245100DU | 245.00 | 250.00 | 100.00 |
| GMB245110DU | 245.00 | 250.00 | 110.00 |
| GMB245120DU | 245.00 | 250.00 | 120.00 |
| GMB245130DU | 245.00 | 250.00 | 130.00 |
| GMB245140DU | 245.00 | 250.00 | 140.00 |
| GMB245150DU | 245.00 | 250.00 | 150.00 |
| GMB250060DU | 250.00 | 255.00 | 60.00 |
| GMB250070DU | 250.00 | 255.00 | 70.00 |
| GMB250080DU | 250.00 | 255.00 | 80.00 |
| GMB250090DU | 250.00 | 255.00 | 90.00 |
| GMB250100DU | 250.00 | 255.00 | 100.00 |
| GMB250110DU | 250.00 | 255.00 | 110.00 |
| GMB250120DU | 250.00 | 255.00 | 120.00 |
| GMB250130DU | 250.00 | 255.00 | 130.00 |
| GMB250140DU | 250.00 | 255.00 | 140.00 |
| GMB250150DU | 250.00 | 255.00 | 150.00 |
| GMB255060DU | 255.00 | 260.00 | 60.00 |
| GMB255070DU | 255.00 | 260.00 | 70.00 |
| GMB255080DU | 255.00 | 260.00 | 80.00 |
| GMB255090DU | 255.00 | 260.00 | 90.00 |
| GMB255100DU | 255.00 | 260.00 | 100.00 |
| GMB255110DU | 255.00 | 260.00 | 110.00 |
| GMB255120DU | 255.00 | 260.00 | 120.00 |
| GMB255130DU | 255.00 | 260.00 | 130.00 |
| GMB255140DU | 255.00 | 260.00 | 140.00 |
| GMB255150DU | 255.00 | 260.00 | 150.00 |
| GMB260060DU | 260.00 | 265.00 | 60.00 |
| GMB260070DU | 260.00 | 265.00 | 70.00 |
| GMB260080DU | 260.00 | 265.00 | 80.00 |
| GMB260090DU | 260.00 | 265.00 | 90.00 |
| GMB260100DU | 260.00 | 265.00 | 100.00 |
| GMB260110DU | 260.00 | 265.00 | 110.00 |
| GMB260120DU | 260.00 | 265.00 | 120.00 |
| GMB260130DU | 260.00 | 265.00 | 130.00 |
| GMB260140DU | 260.00 | 265.00 | 140.00 |
| GMB260150DU | 260.00 | 265.00 | 150.00 |
| GMB265060DU | 265.00 | 270.00 | 60.00 |
| GMB265070DU | 265.00 | 270.00 | 70.00 |
| GMB265080DU | 265.00 | 270.00 | 80.00 |
| GMB265090DU | 265.00 | 270.00 | 90.00 |

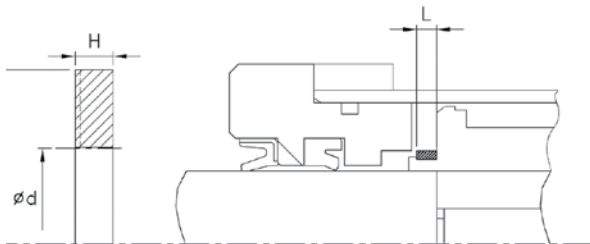
| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|--------|--------|
| | d | D | H |
| GMB265100DU | 265.00 | 270.00 | 100.00 |
| GMB265110DU | 265.00 | 270.00 | 110.00 |
| GMB265120DU | 265.00 | 270.00 | 120.00 |
| GMB265130DU | 265.00 | 270.00 | 130.00 |
| GMB265140DU | 265.00 | 270.00 | 140.00 |
| GMB265150DU | 265.00 | 270.00 | 150.00 |
| GMB270060DU | 270.00 | 275.00 | 60.00 |
| GMB270070DU | 270.00 | 275.00 | 70.00 |
| GMB270080DU | 270.00 | 275.00 | 80.00 |
| GMB270090DU | 270.00 | 275.00 | 90.00 |
| GMB270100DU | 270.00 | 275.00 | 100.00 |
| GMB270110DU | 270.00 | 275.00 | 110.00 |
| GMB270120DU | 270.00 | 275.00 | 120.00 |
| GMB270130DU | 270.00 | 275.00 | 130.00 |
| GMB270140DU | 270.00 | 275.00 | 140.00 |
| GMB270150DU | 270.00 | 275.00 | 150.00 |
| GMB275060DU | 275.00 | 280.00 | 60.00 |
| GMB275070DU | 275.00 | 280.00 | 70.00 |
| GMB275080DU | 275.00 | 280.00 | 80.00 |
| GMB275090DU | 275.00 | 280.00 | 90.00 |
| GMB275100DU | 275.00 | 280.00 | 100.00 |
| GMB275110DU | 275.00 | 280.00 | 110.00 |
| GMB275120DU | 275.00 | 280.00 | 120.00 |
| GMB275130DU | 275.00 | 280.00 | 130.00 |
| GMB275140DU | 275.00 | 280.00 | 140.00 |
| GMB275150DU | 275.00 | 280.00 | 150.00 |
| GMB280060DU | 280.00 | 285.00 | 60.00 |
| GMB280070DU | 280.00 | 285.00 | 70.00 |
| GMB280080DU | 280.00 | 285.00 | 80.00 |
| GMB280090DU | 280.00 | 285.00 | 90.00 |
| GMB280100DU | 280.00 | 285.00 | 100.00 |
| GMB280110DU | 280.00 | 285.00 | 110.00 |
| GMB280120DU | 280.00 | 285.00 | 120.00 |
| GMB280130DU | 280.00 | 285.00 | 130.00 |
| GMB280140DU | 280.00 | 285.00 | 140.00 |
| GMB280150DU | 280.00 | 285.00 | 150.00 |
| GMB285060DU | 285.00 | 290.00 | 60.00 |
| GMB285070DU | 285.00 | 290.00 | 70.00 |
| GMB285080DU | 285.00 | 290.00 | 80.00 |
| GMB285090DU | 285.00 | 290.00 | 90.00 |
| GMB285100DU | 285.00 | 290.00 | 100.00 |
| GMB285110DU | 285.00 | 290.00 | 110.00 |
| GMB285120DU | 285.00 | 290.00 | 120.00 |
| GMB285130DU | 285.00 | 290.00 | 130.00 |
| GMB285140DU | 285.00 | 290.00 | 140.00 |
| GMB285150DU | 285.00 | 290.00 | 150.00 |

“DU” BEARING - BR.PTFE/STEEL

| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|--------|--------|
| | d | D | H |
| GMB290060DU | 290.00 | 295.00 | 60.00 |
| GMB290070DU | 290.00 | 295.00 | 70.00 |
| GMB290080DU | 290.00 | 295.00 | 80.00 |
| GMB290090DU | 290.00 | 295.00 | 90.00 |
| GMB290100DU | 290.00 | 295.00 | 100.00 |
| GMB290110DU | 290.00 | 295.00 | 110.00 |
| GMB290120DU | 290.00 | 295.00 | 120.00 |
| GMB290130DU | 290.00 | 295.00 | 130.00 |
| GMB290140DU | 290.00 | 295.00 | 140.00 |
| GMB290150DU | 290.00 | 295.00 | 150.00 |
| GMB295060DU | 295.00 | 300.00 | 60.00 |
| GMB295070DU | 295.00 | 300.00 | 70.00 |
| GMB295080DU | 295.00 | 300.00 | 80.00 |
| GMB295090DU | 295.00 | 300.00 | 90.00 |
| GMB295100DU | 295.00 | 300.00 | 100.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|--------|--------|
| | d | D | H |
| GMB295110DU | 295.00 | 300.00 | 110.00 |
| GMB295120DU | 295.00 | 300.00 | 120.00 |
| GMB295130DU | 295.00 | 300.00 | 130.00 |
| GMB295140DU | 295.00 | 300.00 | 140.00 |
| GMB295150DU | 295.00 | 300.00 | 150.00 |
| GMB300060DU | 300.00 | 305.00 | 60.00 |
| GMB300070DU | 300.00 | 305.00 | 70.00 |
| GMB300080DU | 300.00 | 305.00 | 80.00 |
| GMB300090DU | 300.00 | 305.00 | 90.00 |
| GMB300100DU | 300.00 | 305.00 | 100.00 |
| GMB300110DU | 300.00 | 305.00 | 110.00 |
| GMB300120DU | 300.00 | 305.00 | 120.00 |
| GMB300130DU | 300.00 | 305.00 | 130.00 |
| GMB300140DU | 300.00 | 305.00 | 140.00 |
| GMB300150DU | 300.00 | 305.00 | 150.00 |

GE - Cushion Seals - Metric



| Standard Material | Temperature Range | Pressure Range | Surface Speed |
|-------------------|--------------------------------------|--------------------------|-------------------|
| Nylon | -67°F to +250°F (-55°C to +121°C) | ≤5000 psi (≤ 345 bar) | <3.3 ft/s (1 m/s) |

GE-style is a stepped cushion seal used to slow down extend and retract speeds at the end of the cylinder stroke. Manufactured out of glass-filled nylon and supplied split for ease of assembly.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department.



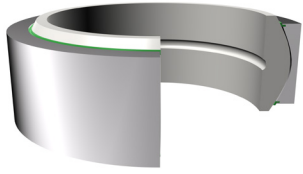
GE series - NYLON

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|------|
| | d | D | H |
| G025030050GE | 24.80 | 30.00 | 5.00 |
| G026030050GE | 25.80 | 30.00 | 5.00 |
| G032038060GE | 31.76 | 38.00 | 6.00 |
| G032038060GE-1 | 31.80 | 38.00 | 6.00 |
| G033038060GE | 33.00 | 38.00 | 6.00 |
| G034039060GE | 33.65 | 38.85 | 6.00 |
| G041046060GE | 41.00 | 46.00 | 6.00 |
| G059065060GE | 58.80 | 65.00 | 6.00 |
| G060065060GE | 60.00 | 65.00 | 6.00 |
| G061064060GE | 61.05 | 64.00 | 6.00 |
| G063069060GE | 63.00 | 69.00 | 6.00 |
| G065070060GE | 65.00 | 70.00 | 6.00 |
| G065071060GE | 64.80 | 70.80 | 6.00 |
| G068074060GE | 68.00 | 74.00 | 6.00 |
| G069075060GE | 68.80 | 75.00 | 6.00 |
| G069079080GE | 68.85 | 78.85 | 8.00 |
| G070075060GE | 70.00 | 75.00 | 6.00 |
| G074080060GE | 73.80 | 80.00 | 6.00 |
| G074084080GE | 74.00 | 84.00 | 8.00 |
| G075080060GE | 75.00 | 80.00 | 6.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | H |
| G079085060GE | 78.76 | 85.00 | 6.00 |
| G079089080GE | 79.00 | 89.00 | 8.00 |
| G080085060GE | 80.00 | 85.00 | 6.00 |
| G084090060GE | 83.80 | 90.00 | 6.00 |
| G084094080GE | 83.70 | 93.70 | 8.00 |
| G085090060GE | 85.00 | 90.00 | 6.00 |
| G089094060GE | 89.00 | 94.00 | 6.00 |
| G089095060GE | 88.80 | 95.00 | 6.00 |
| G089099080GE | 88.85 | 98.85 | 8.00 |
| G090095060GE | 90.00 | 95.00 | 6.00 |
| G094104080GE | 93.50 | 103.50 | 8.00 |
| G095100060GE | 95.00 | 100.00 | 6.00 |
| G102107060GE | 101.80 | 107.00 | 6.00 |
| G105110060GE | 105.00 | 110.00 | 6.00 |
| G109119080GE | 108.50 | 118.50 | 8.00 |
| G110115060GE | 109.80 | 115.00 | 6.00 |
| G115120060GE | 114.80 | 120.00 | 6.00 |
| G116128100GE | 116.00 | 128.00 | 10.00 |
| G117122060GE | 117.00 | 122.00 | 6.00 |
| G122134100GE | 122.00 | 134.00 | 10.00 |
| G126138100GE | 125.50 | 137.50 | 10.00 |

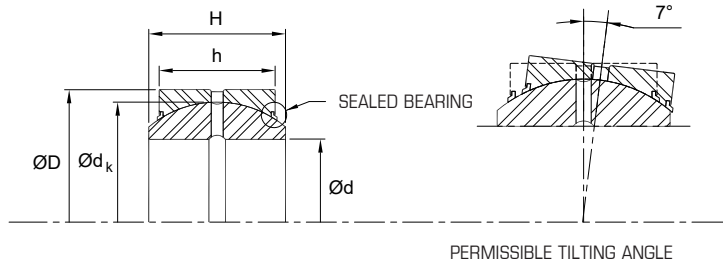


GE-ES2RS - Spherical plain bearings - Metric



| Standard Material | Temperature Range |
|-----------------------|--------------------------------------|
| Carbon Chromium Steel | -22°F to +266°F (-30°C to +130°C) |

with seals



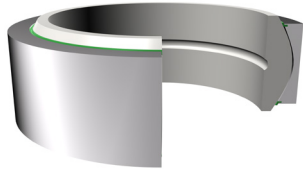
Spherical plain bearings are used to align movements between shaft and housing assemblies, where oscillating, tilting or slewing movements need to be accommodated for at slow sliding speeds.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Nominal Bearing Dimensions | | | | | Load ratings Pound-force (lbf) | | Weight | |
|-------------|----------------------------|--------|--------|--------|--------|-----------------------------------|---------|--------|---------|
| | d | dk | D | h | H | Dynamic | Static | kg | lbs |
| GE15ES-2RS | 15.00 | 22.00 | 26.00 | 9.00 | 12.00 | 3597 | 18884 | 0.026 | 0.057 |
| GE17ES-2RS | 17.00 | 25.00 | 30.00 | 10.00 | 14.00 | 4721 | 23830 | 0.040 | 0.882 |
| GE20ES-2RS | 20.00 | 29.00 | 35.00 | 12.00 | 16.00 | 6744 | 32822 | 0.064 | 0.141 |
| GE25ES-2RS | 25.00 | 35.50 | 42.00 | 16.00 | 20.00 | 10791 | 53954 | 0.115 | 0.254 |
| GE30ES-2RS | 30.00 | 40.70 | 47.00 | 18.00 | 22.00 | 13938 | 69691 | 0.149 | 0.328 |
| GE35ES-2RS | 35.00 | 47.00 | 55.00 | 20.00 | 25.00 | 17760 | 89699 | 0.228 | 0.503 |
| GE40ES-2RS | 40.00 | 53.00 | 62.00 | 22.00 | 28.00 | 22256 | 111280 | 0.318 | 0.701 |
| GE45ES-2RS | 45.00 | 60.00 | 68.00 | 25.00 | 32.00 | 28551 | 143203 | 0.421 | 0.928 |
| GE50ES-2RS | 50.00 | 66.00 | 75.00 | 28.00 | 35.00 | 35070 | 175351 | 0.562 | 1.239 |
| GE60ES-2RS | 60.00 | 80.00 | 90.00 | 36.00 | 44.00 | 55078 | 274267 | 1.030 | 2.271 |
| GE70ES-2RS | 70.00 | 92.00 | 105.00 | 40.00 | 49.00 | 70365 | 350702 | 1.570 | 3.461 |
| GE80ES-2RS | 80.00 | 105.00 | 120.00 | 45.00 | 55.00 | 89923 | 449618 | 2.320 | 5.115 |
| GE90ES-2RS | 90.00 | 115.00 | 130.00 | 50.00 | 60.00 | 109707 | 548534 | 2.790 | 6.151 |
| GE100ES-2RS | 100.00 | 130.00 | 150.00 | 55.00 | 70.00 | 136459 | 681171 | 4.440 | 9.789 |
| GE110ES-2RS | 110.00 | 140.00 | 160.00 | 55.00 | 70.00 | 147025 | 735125 | 4.830 | 10.648 |
| GE120ES-2RS | 120.00 | 160.00 | 180.00 | 70.00 | 85.00 | 213568 | 1067842 | 8.110 | 17.879 |
| GE140ES-2RS | 140.00 | 180.00 | 210.00 | 70.00 | 90.00 | 240546 | 1202728 | 11.200 | 24.692 |
| GE160ES-2RS | 160.00 | 200.00 | 230.00 | 80.00 | 105.00 | 305740 | 1528701 | 14.100 | 31.085 |
| GE180ES-2RS | 180.00 | 225.00 | 260.00 | 80.00 | 105.00 | 343958 | 1719788 | 18.500 | 40.786 |
| GE200ES-2RS | 200.00 | 250.00 | 290.00 | 100.00 | 130.00 | 476820 | 2382975 | 28.400 | 62.611 |
| GE220ES-2RS | 220.00 | 275.00 | 320.00 | 100.00 | 135.00 | 521557 | 2607784 | 35.700 | 78.705 |
| GE240ES-2RS | 240.00 | 300.00 | 340.00 | 100.00 | 140.00 | 573263 | 2855074 | 39.700 | 87.524 |
| GE260ES-2RS | 260.00 | 325.00 | 370.00 | 110.00 | 150.00 | 681171 | 3414849 | 51.500 | 113.538 |
| GE280ES-2RS | 280.00 | 350.00 | 400.00 | 120.00 | 155.00 | 802568 | 4012840 | 64.900 | 143.080 |
| GE300ES-2RS | 300.00 | 375.00 | 430.00 | 120.00 | 165.00 | 854274 | 4293851 | 77.600 | 171.079 |

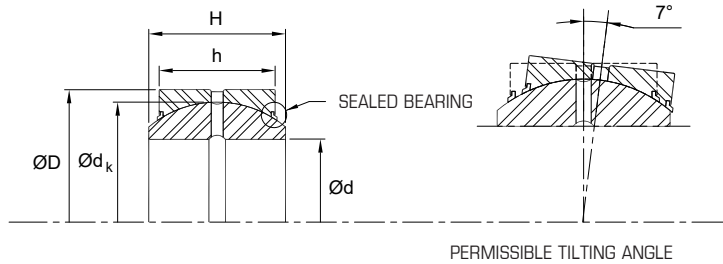


GE - GS2RS - Spherical plain bearings - Metric



| Standard Material | Temperature Range |
|-----------------------|--------------------------------------|
| Carbon Chromium Steel | -22°F to +266°F (-30°C to +130°C) |

with seals



See **GE-ES2RS** product listing, but with larger housing dimensions.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref. Number | Nominal Bearing Dimensions | | | | | Load ratings Pound-force (lbf) | | Weight | |
|-------------|----------------------------|--------|--------|--------|--------|-----------------------------------|---------|--------|---------|
| | d | dk | D | h | H | Dynamic | Static | kg | lbs |
| GE15GS-2RS | 15.00 | 25.00 | 30.00 | 10.00 | 16.00 | 4721 | 23830 | 0.048 | 0.106 |
| GE17GS-2RS | 17.00 | 29.00 | 35.00 | 12.00 | 20.00 | 6744 | 32822 | 0.080 | 0.176 |
| GE20GS-2RS | 20.00 | 35.50 | 42.00 | 16.00 | 25.00 | 10791 | 53954 | 0.152 | 0.335 |
| GE25GS-2RS | 25.00 | 40.70 | 47.00 | 18.00 | 28.00 | 13938 | 69691 | 0.199 | 0.439 |
| GE30GS-2RS | 30.00 | 47.00 | 55.00 | 20.00 | 32.00 | 17760 | 89699 | 0.296 | 0.653 |
| GE35GS-2RS | 35.00 | 53.00 | 62.00 | 22.00 | 35.00 | 22256 | 111280 | 0.402 | 0.886 |
| GE40GS-2RS | 40.00 | 60.00 | 68.00 | 25.00 | 40.00 | 28551 | 143203 | 0.535 | 1.179 |
| GE45GS-2RS | 45.00 | 66.00 | 75.00 | 28.00 | 43.00 | 35070 | 175351 | 0.698 | 1.539 |
| GE50GS-2RS | 50.00 | 80.00 | 90.00 | 36.00 | 56.00 | 55078 | 274267 | 1.420 | 3.131 |
| GE60GS-2RS | 60.00 | 92.00 | 105.00 | 40.00 | 63.00 | 70365 | 350702 | 2.090 | 4.608 |
| GE70GS-2RS | 70.00 | 105.00 | 120.00 | 45.00 | 70.00 | 89924 | 449618 | 3.010 | 6.636 |
| GE80GS-2RS | 80.00 | 115.00 | 130.00 | 50.00 | 75.00 | 109707 | 548534 | 3.610 | 7.959 |
| GE90GS-2RS | 90.00 | 130.00 | 150.00 | 55.00 | 85.00 | 136459 | 681171 | 5.500 | 12.125 |
| GE100GS-2RS | 100.00 | 140.00 | 160.00 | 55.00 | 85.00 | 147025 | 735125 | 6.040 | 13.316 |
| GE110GS-2RS | 110.00 | 160.00 | 180.00 | 70.00 | 100.00 | 213568 | 1067842 | 9.740 | 21.473 |
| GE120GS-2RS | 120.00 | 180.00 | 210.00 | 70.00 | 115.00 | 240546 | 1202728 | 15.100 | 33.290 |
| GE140GS-2RS | 140.00 | 200.00 | 230.00 | 80.00 | 130.00 | 305740 | 1528701 | 18.900 | 41.667 |
| GE160GS-2RS | 160.00 | 225.00 | 260.00 | 80.00 | 135.00 | 343958 | 1719788 | 24.800 | 54.670 |
| GE180GS-2RS | 180.00 | 250.00 | 290.00 | 100.00 | 155.00 | 476595 | 2382975 | 35.900 | 79.146 |
| GE200GS-2RS | 200.00 | 275.00 | 320.00 | 100.00 | 165.00 | 521557 | 2607784 | 44.900 | 98.986 |
| GE220GS-2RS | 220.00 | 300.00 | 340.00 | 100.00 | 175.00 | 573263 | 2855074 | 50.900 | 112.215 |
| GE240GS-2RS | 240.00 | 325.00 | 370.00 | 110.00 | 190.00 | 681171 | 3414848 | 65.300 | 143.962 |
| GE260GS-2RS | 260.00 | 350.00 | 400.00 | 120.00 | 205.00 | 802568 | 4012840 | 82.000 | 180.779 |
| GE280GS-2RS | 280.00 | 375.00 | 430.00 | 120.00 | 210.00 | 854274 | 4293851 | 96.600 | 211.644 |

OTHER PROFILES ARE ALSO AVAILABLE ON REQUEST

Though this product offering contains a wide selection of commonly used parts in the marketplace, it is possible that you haven't found the exact part you were looking for.

We have many other seal profiles available on request. please do not hesitate to contact us and we will do our best to help you locate the required part.



G. ELEMENTS

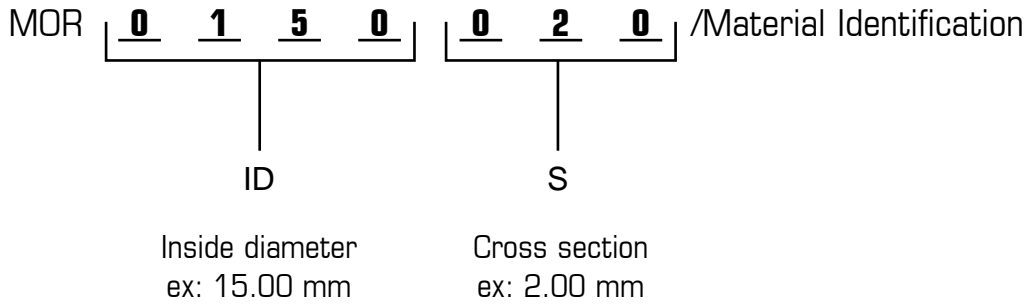
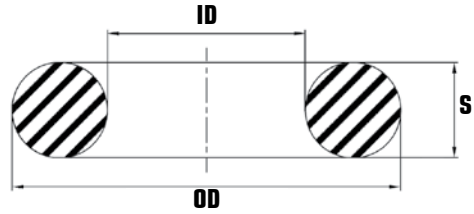






| | | | |
|-------------|--------------------------------|---|-----|
| INFO | MATERIAL SELECTION | 0 | 2 |
| INFO | O'RING INSTALLATION DIMENSIONS | 0 | 3 |
| ● | O'RINGS | 0 | 10 |
| ● | O'RING CHART JIS B2401 | 0 | 83 |
| ● | O'RINGS JIS METRIC | 0 | 85 |
| ✕ | QUAD RINGS | 0 | 88 |
| ■ | HEAD SEALS | 0 | 91 |
| ● | O'RING CORD | 0 | 94 |
| ● | VULC. O'RING (NBR) | 0 | 94 |
| ● | VULC. O'RING (FPM) | 0 | 94 |
| | O'RING KITS | 0 | 95 |
| ■ | SD/T - BACK-UP RINGS | 0 | 96 |
| ■ | SD/U - BACK-UP RINGS | 0 | 99 |
| ⬇ | USIT RINGS | 0 | 101 |
| ⬆ | USIT RINGS SELF CENTERING | 0 | 103 |
| INFO | USIT RINGS REFERENCE TABLE | 0 | 104 |

Material selection



O'RINGS

| Material | Abbreviation | Duro | Color | Identification | Temperature Range * |
|-------------------------------|--------------|------------|-------------|----------------|--|
| Nitrile | NBR | 70 | Black | N | -40°F to +250°F (-40°C to +121°C) |
| Nitrile | NBR | 90 | Black | N90 | -40°F to +250°F (-40°C to +121°C) |
| Fluorocarbon | FPM/FKM | 80 | Brown/Black | V80B/V | -15°F to +400°F (-26°C to +205°C) |
| Fluorocarbon | FPM/FKM | 90 | Brown/Black | V90B/V90 | -15°F to +400°F (-26°C to +205°C) |
| Tetrafluoroethylene-Propylene | AFLAS | 75 | Black | AFLAS | 25°F to +450°F (-2°C to +230°C) |
| Ethylene Propylene | EPDM | 70 | Black | E70 | -70°F to +250°F (-57°C to +121°C) |
| Highly Saturated Nitrile | HSN/HNBR | 70 | Black | HSN70 | -40°F to +300°F (-40°C to +150°C) |
| Highly Saturated Nitrile | HSN/HNBR | 80 | Black | HSN80 | -40°F to +300°F (-40°C to +150°C) |
| Silicone | SI | 70 | Rust | S70 | -65°F to +450°F (-54°C to +232°C) |
| Polyurethane | AU | 90 | Black/Clear | U90 | -60°F to +250°F (-51°C to +121°C) |
| Polytetrafluoroethylene | PTFE | 55 Shore D | White | TF | -320°F to +450°F (-196°C to +232°C) |

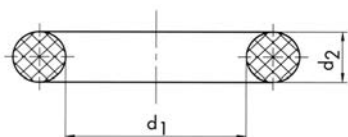
Please note that material choices are not necessarily available for all profiles and minimum purchases may apply. Other materials are available upon request.

* The temperature range is for general purpose materials. A range of high performance materials is also available on request.

O'RING INSTALLATION DIMENSIONS

Dimensions and tolerances

Basic tolerances for O'Rings DIN ISO 3601 and DIN 3771



For intermediate sizes, the next tolerance up is chosen.

The dimensional tolerances of the finished O'Ring are achieved by using appropriately designed form tools and allowing for the shrinkage factor of the elastomer. It is often possible to use moulds and elastomer with similar shrinkage; in these cases the tolerances in the above chart do not apply. The quoted tolerances can be reduced even further by modifying the elastomer and using special manufacturing procedures.

| d1 | Tol. | d1 | Tol. | d1 | Tol. | d1 | Tol. | d1 | Tol. |
|--------|--------|-------|--------|--------|--------|--------|--------|-----------|-------------|
| ≤ 2.50 | ± 0.13 | 43.70 | ± 0.41 | 95.00 | ± 0.81 | 206.00 | ± 1.59 | 450.00 | ± 1.41 |
| 4.50 | ± 0.14 | 45.00 | ± 0.42 | 97.50 | ± 0.83 | 212.00 | ± 1.63 | 462.00 | ± 1.44 |
| 6.30 | ± 0.15 | 46.20 | ± 0.43 | 100.00 | ± 0.84 | 218.00 | ± 1.67 | 475.00 | ± 1.48 |
| 8.50 | ± 0.16 | 47.50 | ± 0.44 | 103.00 | ± 0.87 | 224.00 | ± 1.71 | 487.00 | ± 1.51 |
| 10.00 | ± 0.17 | 48.70 | ± 0.45 | 106.00 | ± 0.89 | 230.00 | ± 1.75 | 500.00 | ± 1.55 |
| 11.20 | ± 0.18 | 50.00 | ± 0.46 | 109.00 | ± 0.91 | 236.00 | ± 1.79 | 515.00 | ± 1.59 |
| 14.00 | ± 0.19 | 51.50 | ± 0.47 | 112.00 | ± 0.93 | 243.00 | ± 1.83 | 530.00 | ± 1.63 |
| 16.00 | ± 0.20 | 53.00 | ± 0.48 | 115.00 | ± 0.95 | 250.00 | ± 1.88 | 545.00 | ± 1.67 |
| 18.00 | ± 0.21 | 54.50 | ± 0.50 | 118.00 | ± 0.97 | 258.00 | ± 1.93 | 560.00 | ± 1.71 |
| 20.00 | ± 0.22 | 56.00 | ± 0.51 | 122.00 | ± 1.00 | 265.00 | ± 1.98 | 580.00 | ± 1.75 |
| 21.20 | ± 0.23 | 58.00 | ± 0.52 | 125.00 | ± 1.03 | 272.00 | ± 2.02 | 600.00 | ± 1.79 |
| 23.60 | ± 0.24 | 60.00 | ± 0.54 | 128.00 | ± 1.05 | 280.00 | ± 2.08 | 615.00 | ± 1.83 |
| 25.00 | ± 0.25 | 61.50 | ± 0.55 | 132.00 | ± 1.08 | 290.00 | ± 2.14 | 630.00 | ± 1.88 |
| 26.50 | ± 0.26 | 63.00 | ± 0.56 | 136.00 | ± 1.10 | 300.00 | ± 2.21 | 650.00 | ± 1.93 |
| 28.00 | ± 0.28 | 65.00 | ± 0.58 | 140.00 | ± 1.13 | 307.00 | ± 2.25 | 670.00 | ± 1.98 |
| 30.00 | ± 0.29 | 67.00 | ± 0.59 | 145.00 | ± 1.17 | 315.00 | ± 2.30 | > 670.00 | 0.70% |
| 31.50 | ± 0.31 | 69.00 | ± 0.61 | 150.00 | ± 1.20 | 325.00 | ± 2.37 | | |
| 33.50 | ± 0.32 | 71.00 | ± 0.63 | 155.00 | ± 1.24 | 335.00 | ± 2.43 | d2 | Tol. |
| 34.50 | ± 0.33 | 73.00 | ± 0.64 | 160.00 | ± 1.27 | 345.00 | ± 2.49 | ≤ 1.80 | ± 0.08 |
| 35.50 | ± 0.34 | 75.00 | ± 0.66 | 165.00 | ± 1.31 | 355.00 | ± 2.56 | ≤ 2.65 | ± 0.09 |
| 36.50 | ± 0.35 | 77.50 | ± 0.67 | 170.00 | ± 1.34 | 365.00 | ± 2.62 | ≤ 3.55 | ± 0.10 |
| 37.50 | ± 0.36 | 80.00 | ± 0.69 | 175.00 | ± 1.38 | 375.00 | ± 2.68 | ≤ 5.30 | ± 0.13 |
| 38.70 | ± 0.37 | 82.50 | ± 0.71 | 180.00 | ± 1.41 | 387.00 | ± 2.76 | ≤ 7.00 | ± 0.15 |
| 40.00 | ± 0.38 | 85.00 | ± 0.73 | 185.00 | ± 1.44 | 400.00 | ± 2.84 | ≤ 8.00 | ± 0.16 |
| 41.20 | ± 0.39 | 87.50 | ± 0.75 | 190.00 | ± 1.48 | 412.00 | ± 2.91 | ≤ 10.00 | ± 0.18 |
| 42.50 | ± 0.40 | 90.00 | ± 0.77 | 195.00 | ± 1.51 | 425.00 | ± 2.99 | | |
| 43.70 | ± 0.41 | 92.50 | ± 0.79 | 200.00 | ± 1.55 | 437.00 | ± 3.07 | | |

Installation housings and design recommendations

The installation housings

(grooves) for O'Rings should if possible be produce with right angles. The dimensions for the required depth and width depend on the particular application and cross-section. The dimensions are recommendations for the particular type of installation. and refer to the nominal sizes. They should be observed because the sealing function depends on the precise execution of the grooves.



O'RING INSTALLATION DIMENSIONS

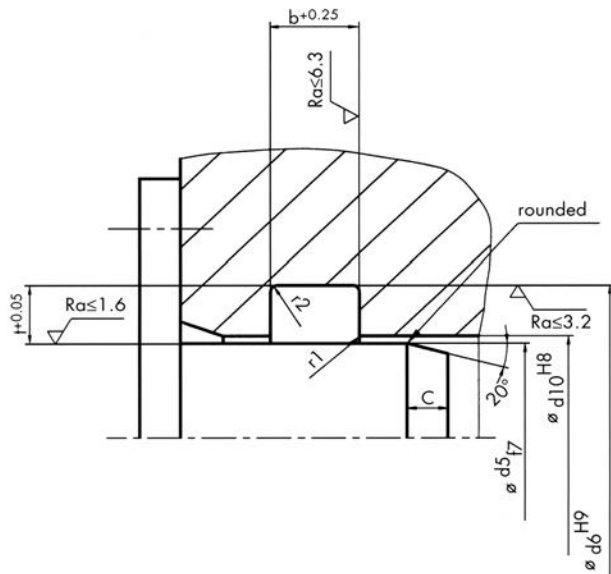
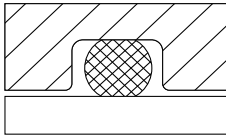
Static Sealing

O'Rings are ideal for sealing resting machine elements. We speak of a static or resting seal when the machine elements that are to be sealed do not move in relation to each other. If the groove is executed correctly, the items used as intended and the right material chosen. O'Rings can seal pressures of up to 1000 bar. (Back-rings may also be required)

Rectangular groove by radial dimensions

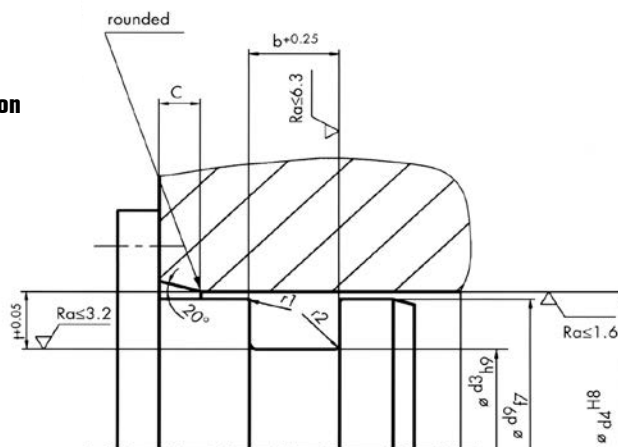
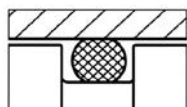
This type of sealing is the preferred choice for sealing pins, bolts, tube connections or cylindrical tubes. The O'Ring section is deformed radially on installation, i.e. in the direction of the centre of the bolt/pipe. The position of the groove, whether on the inside or the outside, does not play a functional part on solid components, but depends on the processing and installation possibilities. On thin walled parts where elastic deformation could occur such as with a cylindrical pipe, the groove should be on the fixed outer part (cylinder bottom) so that the groove on the side that is not subject to pressure does not increase as the items opens out.

Static sealing, internal sealing,
rectangular groove by radial deformation



O'RING INSTALLATION DIMENSIONS

Static sealing, external sealing,
rectangular groove by radial deformation



Groove dimensions

| d2 | Groove depth $t+0.05$ | Groove width $b+0.25$ | Lead-in chamfer C | d2 | Groove depth $t+0.05$ | Groove width $b+0.25$ | Lead-in chamfer C | d2 | Groove depth $t+0.05$ | Groove width $b+0.25$ | Lead-in chamfer C |
|------|--------------------------|--------------------------|----------------------|------|--------------------------|--------------------------|----------------------|-------|--------------------------|--------------------------|----------------------|
| 1.00 | 0.75 | 1.30 | 1.20 | 2.70 | 2.10 | 3.60 | 2.00 | 5.70 | 4.60 | 7.60 | 3.50 |
| 1.20 | 0.90 | 1.60 | 1.20 | 2.80 | 2.20 | 3.70 | 2.00 | 6.00 | 4.90 | 7.90 | 3.50 |
| 1.25 | 0.90 | 1.70 | 1.20 | 3.00 | 2.30 | 3.90 | 2.50 | 6.50 | 5.40 | 8.40 | 4.00 |
| 1.30 | 1.00 | 1.70 | 1.20 | 3.10 | 2.40 | 4.00 | 2.50 | 6.99 | 5.80 | 9.20 | 4.00 |
| 1.50 | 1.10 | 2.00 | 1.50 | 3.50 | 2.70 | 4.60 | 2.50 | 7.00 | 5.80 | 9.30 | 4.00 |
| 1.60 | 1.20 | 2.10 | 1.50 | 3.53 | 2.70 | 4.70 | 2.50 | 7.50 | 6.30 | 9.80 | 4.00 |
| 1.78 | 1.30 | 2.40 | 1.50 | 3.55 | 2.80 | 4.70 | 2.50 | 8.00 | 6.70 | 10.50 | 4.00 |
| 1.80 | 1.30 | 2.40 | 1.50 | 3.60 | 2.80 | 4.80 | 2.50 | 8.40 | 7.10 | 10.90 | 4.50 |
| 1.90 | 1.40 | 2.50 | 1.50 | 3.70 | 2.90 | 4.90 | 2.50 | 8.50 | 7.20 | 11.00 | 4.50 |
| 2.00 | 1.50 | 2.60 | 2.00 | 4.00 | 3.20 | 5.20 | 3.00 | 9.00 | 7.70 | 11.70 | 4.50 |
| 2.20 | 1.70 | 3.00 | 2.00 | 4.30 | 3.40 | 5.60 | 3.00 | 9.50 | 8.20 | 12.30 | 4.50 |
| 2.40 | 1.80 | 3.20 | 2.00 | 4.50 | 3.60 | 5.80 | 3.00 | 10.00 | 8.60 | 13.00 | 5.00 |
| 2.50 | 1.90 | 3.30 | 2.00 | 5.00 | 4.00 | 6.50 | 3.00 | 10.50 | 9.00 | 13.80 | 5.00 |
| 2.60 | 2.00 | 3.40 | 2.00 | 5.30 | 4.30 | 7.00 | 3.00 | 11.00 | 9.50 | 14.30 | 5.00 |
| 2.62 | 2.00 | 3.50 | 2.00 | 5.33 | 4.30 | 7.10 | 3.50 | 12.00 | 10.50 | 15.60 | 5.00 |
| 2.65 | 2.00 | 3.60 | 2.00 | 5.50 | 4.50 | 7.20 | 3.50 | 15.00 | 13.20 | 19.20 | 5.00 |



O'RING INSTALLATION DIMENSIONS

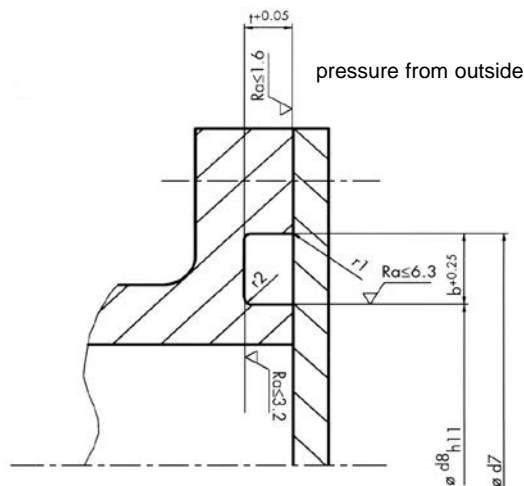
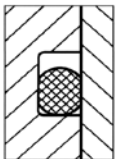
Static Sealing

Rectangular groove by axial deformation

This type of installation is used primarily for flange and cover sealing. The O'ring cross section is deformed axially. Note that the O'ring should be placed against the non-pressure side of the groove on installation in order to prevent it from the groove when pressure is applied or increases. If the O'ring moves in the groove, it will be stretched and compressed, which causes material fatigue and premature wear. Observing the pressure direction will prevent the surface of O'ring from possibly rolling, and thus being destroyed.

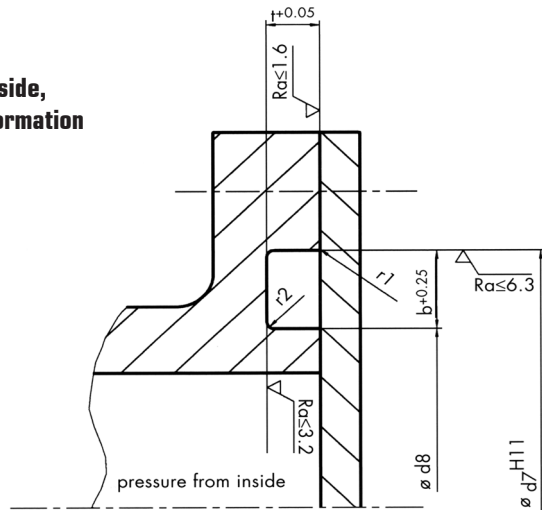
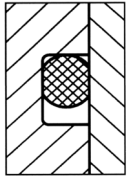
- If pressure is applied from the inside, the outer diameter of the O'ring should be placed against the outer diameter of the groove, or else be up to max. 3 % bigger (the O'ring will be compressed).
- If pressure is applied from the outside, the inner diameter of the O'ring should be placed against the inner diameter of the groove or else be up to max. 6 % smaller (the O'ring will be stretched).
- When the item is intended for axial installation, the cover screwing should be very strongly designed to ensure that the gap between the sealed surfaces never exceeds the permitted size. The pressure could otherwise squeeze out the O'ring.

Static sealing, pressure from outside,
rectangular groove by axial deformation



O'RING INSTALLATION DIMENSIONS

Static sealing, pressure from inside,
rectangular groove by axial deformation



Groove dimensions

| d2 | Groove depth $t \pm 0.05$ | Groove width $b \pm 0.25$ | d2 | Groove depth $t \pm 0.05$ | Groove width $b \pm 0.25$ | d2 | Groove depth $t \pm 0.05$ | Groove width $b \pm 0.25$ |
|------|------------------------------|------------------------------|------|------------------------------|------------------------------|-------|------------------------------|------------------------------|
| 1.00 | 0.70 | 1.40 | 2.70 | 2.10 | 3.80 | 5.70 | 4.60 | 7.60 |
| 1.20 | 0.90 | 1.60 | 2.80 | 2.30 | 4.10 | 6.00 | 4.80 | 8.10 |
| 1.25 | 0.90 | 1.70 | 3.00 | 2.40 | 4.20 | 6.50 | 5.30 | 8.60 |
| 1.30 | 1.00 | 1.70 | 3.10 | 2.70 | 4.80 | 6.99 | 5.70 | 9.70 |
| 1.50 | 1.10 | 2.10 | 3.50 | 2.70 | 4.80 | 7.00 | 5.70 | 9.70 |
| 1.60 | 1.20 | 2.20 | 3.53 | 2.70 | 4.90 | 7.50 | 6.20 | 10.10 |
| 1.78 | 1.30 | 2.50 | 3.55 | 2.70 | 5.00 | 8.00 | 6.60 | 10.70 |
| 1.80 | 1.30 | 2.60 | 3.60 | 2.80 | 5.10 | 8.40 | 7.10 | 11.10 |
| 1.90 | 1.40 | 2.70 | 3.70 | 2.90 | 5.20 | 8.50 | 7.20 | 11.30 |
| 2.00 | 1.50 | 2.80 | 4.00 | 3.10 | 5.50 | 9.00 | 7.60 | 12.00 |
| 2.20 | 1.60 | 3.10 | 4.30 | 3.30 | 5.90 | 9.50 | 8.10 | 12.50 |
| 2.40 | 1.80 | 3.30 | 4.50 | 3.50 | 6.10 | 10.00 | 8.50 | 13.60 |
| 2.50 | 1.90 | 3.50 | 5.00 | 4.00 | 6.70 | 10.50 | 8.90 | 14.00 |
| 2.60 | 2.00 | 3.60 | 5.30 | 4.20 | 7.20 | 11.00 | 9.40 | 14.70 |
| 2.62 | 2.00 | 3.70 | 5.33 | 4.20 | 7.30 | 12.00 | 10.40 | 15.70 |
| 2.65 | 2.00 | 3.80 | 5.50 | 4.50 | 7.40 | 15.00 | 13.20 | 19.40 |



O'RING INSTALLATION DIMENSIONS

Dynamic sealing

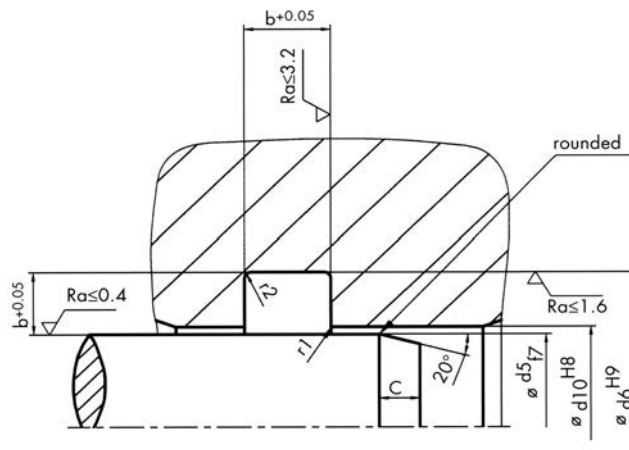
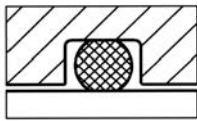
O'Rings are used successfully as sealing elements in dynamic applications. However, their use is limited to lower pressures and speeds, or to use in small installation housings. Because of the friction resistance in movement. e.g. in hydraulic or pneumatic components. A smaller O'Ring deformation is chosen than for static sealing. The item should always be well lubricated in order to prevent a loss of power due to friction and premature wear of the O'Ring if it runs dry.

The installation housings are the same for the reciprocating movement, and for the movement with simultaneous rotating (helical) movement. There are differences between the housings of hydraulic and pneumatic applications, because of the differences in pressure and lubrication.

Hydraulics

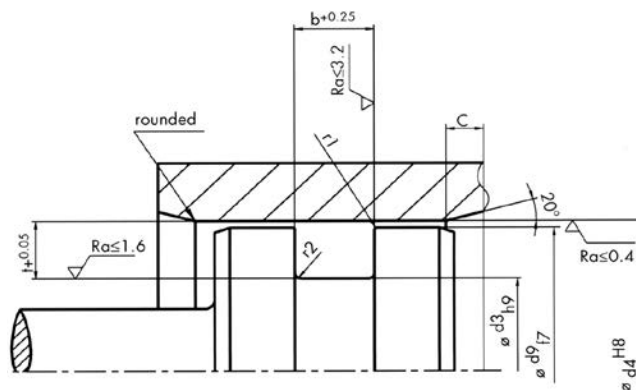
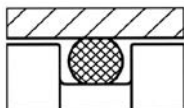
O'Rings should only be used to seal hydraulic pistons and rods if there is little space for the installation, or if the rod stroke is relatively short with a low frequency, and the seal does not have to be completely leak-proof. In fact, a tiny amount of leakage is desirable as it provides a lubricant film that reduces friction and wear.

Dynamic sealing, internal sealing, rectangular groove by radial deformation



O'RING INSTALLATION DIMENSIONS

Dynamic sealing, external sealing,
rectangular groove by radial deformation

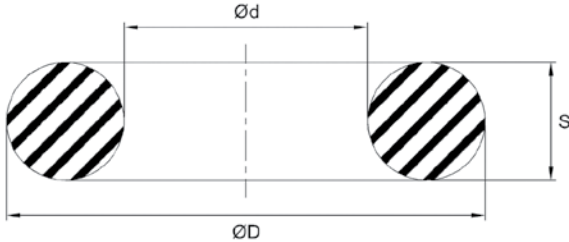


Groove dimensions

| d2 | Groove depth $t \pm 0.05$ | Groove width $b + 0.25$ | Lead-in chamfer C | d2 | Groove depth $t \pm 0.05$ | Groove width $b + 0.25$ | Lead-in chamfer C | d2 | Groove depth $t \pm 0.05$ | Groove width $b + 0.25$ | Lead-in chamfer C |
|------|------------------------------|----------------------------|----------------------|------|------------------------------|----------------------------|----------------------|-------|------------------------------|----------------------------|----------------------|
| 1.00 | 0.90 | 1.30 | 1.00 | 2.70 | 2.40 | 3.40 | 1.50 | 5.70 | 5.10 | 7.20 | 3.00 |
| 1.20 | 1.00 | 1.60 | 1.00 | 2.80 | 2.40 | 3.60 | 1.60 | 6.00 | 5.40 | 7.50 | 3.60 |
| 1.25 | 1.10 | 1.60 | 1.00 | 3.00 | 2.60 | 3.80 | 1.80 | 6.50 | 5.80 | 8.10 | 3.60 |
| 1.30 | 1.10 | 1.70 | 1.20 | 3.10 | 2.70 | 3.90 | 1.80 | 6.99 | 6.20 | 8.80 | 3.60 |
| 1.50 | 1.30 | 1.90 | 1.20 | 3.50 | 3.10 | 4.40 | 2.00 | 7.00 | 6.20 | 8.90 | 3.60 |
| 1.60 | 1.40 | 2.00 | 1.20 | 3.53 | 3.10 | 4.50 | 2.00 | 7.50 | 6.70 | 9.40 | 3.80 |
| 1.78 | 1.50 | 2.30 | 1.30 | 3.55 | 3.10 | 4.50 | 2.00 | 8.00 | 7.10 | 10.20 | 4.00 |
| 1.80 | 1.50 | 2.40 | 1.30 | 3.60 | 3.10 | 4.60 | 2.00 | 8.40 | 7.50 | 10.60 | 4.20 |
| 1.90 | 1.60 | 2.50 | 1.30 | 3.70 | 3.20 | 4.80 | 2.00 | 8.50 | 7.60 | 10.80 | 4.20 |
| 2.00 | 1.70 | 2.60 | 1.30 | 4.00 | 3.50 | 5.10 | 2.00 | 9.00 | 8.10 | 11.40 | 4.50 |
| 2.20 | 1.90 | 2.80 | 1.30 | 4.30 | 3.80 | 5.50 | 2.50 | 9.50 | 8.50 | 12.00 | 4.50 |
| 2.40 | 2.10 | 3.00 | 1.40 | 4.50 | 4.00 | 5.70 | 2.50 | 10.00 | 9.00 | 12.60 | 4.50 |
| 2.50 | 2.20 | 3.10 | 1.40 | 5.00 | 4.40 | 6.40 | 2.70 | 10.50 | 9.50 | 13.20 | 5.00 |
| 2.60 | 2.20 | 3.30 | 1.50 | 5.30 | 4.70 | 6.80 | 2.90 | 11.00 | 9.90 | 13.90 | 5.00 |
| 2.62 | 2.20 | 3.40 | 1.50 | 5.33 | 4.70 | 6.90 | 2.90 | 12.00 | 10.90 | 15.10 | 5.00 |
| 2.65 | 2.30 | 3.40 | 1.50 | 5.50 | 4.90 | 7.10 | 3.00 | 15.00 | 13.70 | 18.80 | 5.00 |



O'Rings - NBR 70A, NBR 90A, FPM 80A - Metric



| Standard Materials | Temperature Range |
|--------------------|--------------------------------------|
| Nitrile /N | -40°F to +266°F (-40°C to +130°C) |
| Fluorocarbon /V | -13°F to +428°F (-25°C to +220°C) |

O'Rings are toroidal-shaped elastomeric seals used in a variety of applications. Supplied in standard nitrile and fluorocarbon materials, various hardnesses, and in a wide range of available dimensions.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|------|------|
| | d | D | S |
| MOR0007010-1 | 0.75 | 2.75 | 1.00 |
| MOR0008010 | 0.80 | 2.80 | 1.00 |
| MOR0008012 | 0.80 | 3.30 | 1.25 |
| MOR0010010 | 1.00 | 3.00 | 1.00 |
| MOR0010020 | 1.00 | 5.00 | 2.00 |
| MOR0010012 | 1.07 | 3.57 | 1.25 |
| MOR0011020 | 1.10 | 5.10 | 2.00 |
| MOR0011010 | 1.15 | 3.15 | 1.00 |
| MOR0012010 | 1.20 | 3.20 | 1.00 |
| MOR0012012 | 1.20 | 3.70 | 1.25 |
| MOR0012010-1 | 1.22 | 3.36 | 1.07 |
| MOR0012010-2 | 1.25 | 3.25 | 1.00 |
| MOR0012015 | 1.25 | 4.25 | 1.50 |
| MOR0013010 | 1.30 | 3.30 | 1.00 |
| MOR0013011 | 1.30 | 3.50 | 1.10 |
| MOR0014012 | 1.40 | 3.90 | 1.25 |
| MOR0015010 | 1.50 | 3.50 | 1.00 |
| MOR0015015 | 1.50 | 4.50 | 1.50 |
| MOR0016010 | 1.60 | 3.60 | 1.00 |
| MOR0016013 | 1.60 | 4.30 | 1.35 |
| MOR0017010 | 1.70 | 3.70 | 1.00 |
| MOR0017015 | 1.70 | 4.70 | 1.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|------|------|
| | d | D | S |
| MOR0018010 | 1.80 | 3.80 | 1.00 |
| MOR0018012 | 1.80 | 4.20 | 1.20 |
| MOR0018012-1 | 1.80 | 4.30 | 1.25 |
| MOR0018015 | 1.80 | 4.80 | 1.50 |
| MOR0018018 | 1.80 | 5.40 | 1.80 |
| MOR0018015-1 | 1.85 | 4.85 | 1.50 |
| MOR0019010 | 1.90 | 3.90 | 1.00 |
| MOR0019012 | 1.90 | 4.40 | 1.25 |
| MOR0020010 | 2.00 | 4.00 | 1.00 |
| MOR0020012 | 2.00 | 4.50 | 1.25 |
| MOR0020013 | 2.00 | 4.60 | 1.30 |
| MOR0020015 | 2.00 | 5.00 | 1.50 |
| MOR0020018 | 2.00 | 5.60 | 1.80 |
| MOR0020020 | 2.00 | 6.00 | 2.00 |
| MOR0020022 | 2.00 | 6.50 | 2.25 |
| MOR0020025 | 2.00 | 7.00 | 2.50 |
| MOR0020016 | 2.01 | 5.21 | 1.60 |
| MOR0021032 | 2.13 | 8.53 | 3.20 |
| MOR0022010 | 2.20 | 4.20 | 1.00 |
| MOR0022013 | 2.20 | 4.80 | 1.30 |
| MOR0022015 | 2.20 | 5.20 | 1.50 |
| MOR0022016 | 2.20 | 5.40 | 1.60 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|------|------|
| | d | D | S |
| MOR0022018 | 2.24 | 5.84 | 1.80 |
| MOR0023013 | 2.30 | 4.90 | 1.30 |
| MOR0023024 | 2.30 | 7.10 | 2.40 |
| MOR0023015 | 2.31 | 5.31 | 1.50 |
| MOR0023010 | 2.35 | 4.35 | 1.00 |
| MOR0024010 | 2.40 | 4.50 | 1.05 |
| MOR0024013 | 2.40 | 5.00 | 1.30 |
| MOR0024015 | 2.40 | 5.40 | 1.50 |
| MOR0024019 | 2.40 | 6.20 | 1.90 |
| MOR0025010 | 2.50 | 4.50 | 1.00 |
| MOR0025011 | 2.50 | 4.70 | 1.10 |
| MOR0025012 | 2.50 | 4.90 | 1.20 |
| MOR0025013 | 2.50 | 5.10 | 1.30 |
| MOR0025015 | 2.50 | 5.50 | 1.50 |
| MOR0025016 | 2.50 | 5.70 | 1.60 |
| MOR0025017 | 2.50 | 6.00 | 1.75 |
| MOR0025018 | 2.50 | 6.10 | 1.80 |
| MOR0025020 | 2.50 | 6.50 | 2.00 |
| MOR0026010 | 2.60 | 4.60 | 1.00 |
| MOR0026012 | 2.60 | 5.00 | 1.20 |
| MOR0026013 | 2.60 | 5.20 | 1.30 |
| MOR0026016 | 2.60 | 5.80 | 1.60 |
| MOR0026018 | 2.60 | 6.20 | 1.80 |
| MOR0026019 | 2.60 | 6.40 | 1.90 |
| MOR0026020 | 2.60 | 6.60 | 2.00 |
| MOR0026022 | 2.60 | 7.10 | 2.25 |
| MOR0026024 | 2.60 | 7.40 | 2.40 |
| MOR0026016-1 | 2.65 | 5.85 | 1.60 |
| MOR0027010 | 2.70 | 4.70 | 1.00 |
| MOR0027015 | 2.70 | 5.70 | 1.50 |
| MOR0027019 | 2.70 | 6.50 | 1.90 |
| MOR0027016 | 2.75 | 5.95 | 1.60 |
| MOR0028010 | 2.80 | 4.80 | 1.00 |
| MOR0028011 | 2.80 | 5.00 | 1.10 |
| MOR0028015 | 2.80 | 5.80 | 1.50 |
| MOR0028016 | 2.80 | 6.00 | 1.60 |
| MOR0028018 | 2.80 | 6.40 | 1.80 |
| MOR0028019 | 2.80 | 6.60 | 1.90 |
| MOR0028020 | 2.80 | 6.80 | 2.00 |
| MOR0028010-1 | 2.87 | 4.97 | 1.05 |
| MOR0029010 | 2.90 | 4.90 | 1.00 |
| MOR0029010-1 | 2.90 | 5.00 | 1.05 |
| MOR0029012 | 2.90 | 5.30 | 1.20 |
| MOR0029012-1 | 2.90 | 5.40 | 1.25 |
| MOR0029015 | 2.90 | 5.90 | 1.50 |
| MOR0029017 | 2.90 | 6.40 | 1.75 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0030010 | 3.00 | 5.00 | 1.00 |
| MOR0030011 | 3.00 | 5.20 | 1.10 |
| MOR0030012 | 3.00 | 5.40 | 1.20 |
| MOR0030012-1 | 3.00 | 5.50 | 1.25 |
| MOR0030015 | 3.00 | 6.00 | 1.50 |
| MOR0030016 | 3.00 | 6.20 | 1.60 |
| MOR0030017 | 3.00 | 6.40 | 1.70 |
| MOR0030018 | 3.00 | 6.60 | 1.80 |
| MOR0030020 | 3.00 | 7.00 | 2.00 |
| MOR0030023 | 3.00 | 7.60 | 2.30 |
| MOR0030024 | 3.00 | 7.80 | 2.40 |
| MOR0030025 | 3.00 | 8.00 | 2.50 |
| MOR0030027 | 3.00 | 8.40 | 2.70 |
| MOR0030030 | 3.00 | 9.00 | 3.00 |
| MOR0030035 | 3.00 | 10.00 | 3.50 |
| MOR0031012 | 3.10 | 5.60 | 1.25 |
| MOR0031016 | 3.10 | 6.30 | 1.60 |
| MOR0031012-1 | 3.15 | 5.65 | 1.25 |
| MOR0031018 | 3.15 | 6.75 | 1.80 |
| MOR0032010 | 3.20 | 5.20 | 1.00 |
| MOR0032016 | 3.20 | 6.40 | 1.60 |
| MOR0032018 | 3.20 | 6.80 | 1.80 |
| MOR0033010 | 3.30 | 5.30 | 1.00 |
| MOR0033015 | 3.30 | 6.30 | 1.50 |
| MOR0033024 | 3.30 | 8.10 | 2.40 |
| MOR0034013 | 3.40 | 6.00 | 1.30 |
| MOR0034018 | 3.40 | 7.00 | 1.80 |
| MOR0034019 | 3.40 | 7.20 | 1.90 |
| MOR0035010 | 3.50 | 5.50 | 1.00 |
| MOR0035011 | 3.50 | 5.70 | 1.10 |
| MOR0035012 | 3.50 | 5.90 | 1.20 |
| MOR0035012-1 | 3.50 | 6.00 | 1.25 |
| MOR0035015 | 3.50 | 6.50 | 1.50 |
| MOR0035018 | 3.50 | 7.10 | 1.80 |
| MOR0035019 | 3.50 | 7.30 | 1.90 |
| MOR0035020 | 3.50 | 7.50 | 2.00 |
| MOR0035030 | 3.50 | 9.50 | 3.00 |
| MOR0035018-1 | 3.55 | 7.15 | 1.80 |
| MOR0036012 | 3.60 | 6.00 | 1.20 |
| MOR0036013 | 3.60 | 6.20 | 1.30 |
| MOR0036019 | 3.60 | 7.40 | 1.90 |
| MOR0036020 | 3.60 | 7.60 | 2.00 |
| MOR0036023 | 3.60 | 8.20 | 2.30 |
| MOR0036024 | 3.60 | 8.40 | 2.40 |
| MOR0036027 | 3.60 | 9.00 | 2.70 |
| MOR0036024-1 | 3.65 | 8.45 | 2.40 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0036016 | 3.66 | 6.86 | 1.60 |
| MOR0036019-1 | 3.66 | 7.46 | 1.90 |
| MOR0037010 | 3.70 | 5.70 | 1.00 |
| MOR0037012 | 3.70 | 6.10 | 1.20 |
| MOR0037018 | 3.70 | 7.30 | 1.80 |
| MOR0037019 | 3.70 | 7.50 | 1.90 |
| MOR0037020 | 3.70 | 7.70 | 2.00 |
| MOR0037010-1 | 3.71 | 5.71 | 1.00 |
| MOR0037018-1 | 3.75 | 7.35 | 1.80 |
| MOR0038012 | 3.80 | 6.30 | 1.25 |
| MOR0038015 | 3.80 | 6.80 | 1.50 |
| MOR0038019 | 3.80 | 7.60 | 1.90 |
| MOR0038024 | 3.80 | 8.60 | 2.40 |
| MOR0039015 | 3.90 | 6.90 | 1.50 |
| MOR0039018 | 3.90 | 7.50 | 1.80 |
| MOR0040010 | 4.00 | 6.00 | 1.00 |
| MOR0040011 | 4.00 | 6.20 | 1.10 |
| MOR0040012 | 4.00 | 6.40 | 1.20 |
| MOR0040015 | 4.00 | 7.00 | 1.50 |
| MOR0040016 | 4.00 | 7.20 | 1.60 |
| MOR0040017 | 4.00 | 7.50 | 1.75 |
| MOR0040018 | 4.00 | 7.60 | 1.80 |
| MOR0040020 | 4.00 | 8.00 | 2.00 |
| MOR0040022 | 4.00 | 8.40 | 2.20 |
| MOR0040025 | 4.00 | 9.00 | 2.50 |
| MOR0040030 | 4.00 | 10.00 | 3.00 |
| MOR0040040 | 4.00 | 12.00 | 4.00 |
| MOR0040050 | 4.00 | 14.00 | 5.00 |
| MOR0040058 | 4.00 | 15.60 | 5.80 |
| MOR0041010 | 4.10 | 6.10 | 1.00 |
| MOR0041016 | 4.10 | 7.30 | 1.60 |
| MOR0042019 | 4.20 | 8.00 | 1.90 |
| MOR0043013 | 4.30 | 6.90 | 1.30 |
| MOR0043024 | 4.30 | 9.10 | 2.40 |
| MOR0043010 | 4.35 | 6.35 | 1.00 |
| MOR0044015 | 4.40 | 7.40 | 1.50 |
| MOR0045010 | 4.50 | 6.50 | 1.00 |
| MOR0045015 | 4.50 | 7.50 | 1.50 |
| MOR0045018 | 4.50 | 8.10 | 1.80 |
| MOR0045020 | 4.50 | 8.50 | 2.00 |
| MOR0045024 | 4.50 | 9.30 | 2.40 |
| MOR0045025 | 4.50 | 9.50 | 2.50 |
| MOR0045030 | 4.50 | 10.50 | 3.00 |
| MOR0045058 | 4.50 | 16.10 | 5.80 |
| MOR0046016 | 4.60 | 7.80 | 1.60 |
| MOR0046020 | 4.60 | 8.60 | 2.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | St |
| MOR0046023 | 4.60 | 9.20 | 2.30 |
| MOR0046024 | 4.60 | 9.40 | 2.40 |
| MOR0046025 | 4.60 | 9.60 | 2.50 |
| MOR0047010 | 4.70 | 6.70 | 1.00 |
| MOR0047015 | 4.70 | 7.70 | 1.50 |
| MOR0047016 | 4.70 | 7.90 | 1.60 |
| MOR0047019 | 4.70 | 8.50 | 1.90 |
| MOR0047020 | 4.70 | 8.70 | 2.00 |
| MOR0048013 | 4.80 | 7.40 | 1.30 |
| MOR0048016 | 4.80 | 8.00 | 1.60 |
| MOR0048018 | 4.80 | 8.40 | 1.80 |
| MOR0048019 | 4.80 | 8.60 | 1.90 |
| MOR0048020 | 4.80 | 8.80 | 2.00 |
| MOR0048030 | 4.80 | 10.80 | 3.00 |
| MOR0048018-1 | 4.87 | 8.47 | 1.80 |
| MOR0049019 | 4.90 | 8.70 | 1.90 |
| MOR0049019-1 | 4.90 | 8.80 | 1.95 |
| MOR0049015 | 4.93 | 7.93 | 1.50 |
| MOR0050010 | 5.00 | 7.00 | 1.00 |
| MOR0050012 | 5.00 | 7.40 | 1.20 |
| MOR0050012-1 | 5.00 | 7.50 | 1.25 |
| MOR0050015 | 5.00 | 8.00 | 1.50 |
| MOR0050016 | 5.00 | 8.20 | 1.60 |
| MOR0050017 | 5.00 | 8.50 | 1.75 |
| MOR0050018 | 5.00 | 8.60 | 1.80 |
| MOR0050019 | 5.00 | 8.80 | 1.90 |
| MOR0050020 | 5.00 | 9.00 | 2.00 |
| MOR0050025 | 5.00 | 10.00 | 2.50 |
| MOR0050030 | 5.00 | 11.00 | 3.00 |
| MOR0050032 | 5.00 | 11.40 | 3.20 |
| MOR0050035 | 5.00 | 12.00 | 3.50 |
| MOR0050040 | 5.00 | 13.00 | 4.00 |
| MOR0050050 | 5.00 | 15.00 | 5.00 |
| MOR0051010 | 5.10 | 7.10 | 1.00 |
| MOR0051011 | 5.10 | 7.30 | 1.10 |
| MOR0051016 | 5.10 | 8.30 | 1.60 |
| MOR0051018 | 5.10 | 8.70 | 1.80 |
| MOR0051018-1 | 5.15 | 8.75 | 1.80 |
| MOR0052022 | 5.20 | 9.60 | 2.20 |
| MOR0053012 | 5.30 | 7.70 | 1.20 |
| MOR0053018 | 5.30 | 8.90 | 1.80 |
| MOR0053024 | 5.30 | 10.10 | 2.40 |
| MOR0053035 | 5.30 | 12.30 | 3.50 |
| MOR0055010 | 5.50 | 7.50 | 1.00 |
| MOR0055012 | 5.50 | 7.90 | 1.20 |
| MOR0055015 | 5.50 | 8.50 | 1.50 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0055015-1 | 5.50 | 8.60 | 1.55 |
| MOR0055016 | 5.50 | 8.70 | 1.60 |
| MOR0055017 | 5.50 | 9.00 | 1.75 |
| MOR0055018 | 5.50 | 9.10 | 1.80 |
| MOR0055020 | 5.50 | 9.50 | 2.00 |
| MOR0055024 | 5.50 | 10.30 | 2.40 |
| MOR0055025 | 5.50 | 10.50 | 2.50 |
| MOR0055030 | 5.50 | 11.50 | 3.00 |
| MOR0055035 | 5.50 | 12.50 | 3.50 |
| MOR0056010 | 5.60 | 7.60 | 1.00 |
| MOR0056018 | 5.60 | 9.20 | 1.80 |
| MOR0056019 | 5.60 | 9.40 | 1.90 |
| MOR0056020 | 5.60 | 9.60 | 2.00 |
| MOR0056021 | 5.60 | 9.80 | 2.10 |
| MOR0056023 | 5.60 | 10.20 | 2.30 |
| MOR0056024 | 5.60 | 10.40 | 2.40 |
| MOR0057012 | 5.70 | 8.10 | 1.20 |
| MOR0057018 | 5.70 | 9.30 | 1.80 |
| MOR0057019 | 5.70 | 9.50 | 1.90 |
| MOR0057021 | 5.70 | 10.00 | 2.15 |
| MOR0057021-1 | 5.75 | 10.05 | 2.15 |
| MOR0058015 | 5.80 | 8.80 | 1.50 |
| MOR0058019 | 5.80 | 9.60 | 1.90 |
| MOR0058021 | 5.80 | 10.10 | 2.15 |
| MOR0058022 | 5.80 | 10.20 | 2.20 |
| MOR0058012 | 5.82 | 8.22 | 1.20 |
| MOR0058020 | 5.87 | 9.87 | 2.00 |
| MOR0060010 | 6.00 | 8.00 | 1.00 |
| MOR0060011 | 6.00 | 8.20 | 1.10 |
| MOR0060012 | 6.00 | 8.40 | 1.20 |
| MOR0060012-1 | 6.00 | 8.50 | 1.25 |
| MOR0060015 | 6.00 | 9.00 | 1.50 |
| MOR0060016 | 6.00 | 9.20 | 1.60 |
| MOR0060018 | 6.00 | 9.60 | 1.80 |
| MOR0060020 | 6.00 | 10.00 | 2.00 |
| MOR0060021 | 6.00 | 10.20 | 2.10 |
| MOR0060022 | 6.00 | 10.40 | 2.20 |
| MOR0060023 | 6.00 | 10.60 | 2.30 |
| MOR0060025 | 6.00 | 11.00 | 2.50 |
| MOR0060030 | 6.00 | 12.00 | 3.00 |
| MOR0060032 | 6.00 | 12.40 | 3.20 |
| MOR0060035 | 6.00 | 13.00 | 3.50 |
| MOR0060040 | 6.00 | 14.00 | 4.00 |
| MOR0060045 | 6.00 | 15.00 | 4.50 |
| MOR0060050 | 6.00 | 16.00 | 5.00 |
| MOR0060052 | 6.00 | 16.40 | 5.20 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0060060 | 6.00 | 18.00 | 6.00 |
| MOR0060013 | 6.07 | 8.67 | 1.30 |
| MOR0061016 | 6.10 | 9.30 | 1.60 |
| MOR0061055 | 6.10 | 17.10 | 5.50 |
| MOR0062010 | 6.20 | 8.20 | 1.00 |
| MOR0062016 | 6.20 | 9.40 | 1.60 |
| MOR0062018 | 6.20 | 9.80 | 1.80 |
| MOR0062041 | 6.20 | 14.40 | 4.10 |
| MOR0063018 | 6.30 | 9.90 | 1.80 |
| MOR0063020 | 6.30 | 10.30 | 2.00 |
| MOR0063024 | 6.30 | 11.10 | 2.40 |
| MOR0063025 | 6.30 | 11.30 | 2.50 |
| MOR0063016 | 6.35 | 9.55 | 1.60 |
| MOR0063025-1 | 6.35 | 11.35 | 2.50 |
| MOR0064018 | 6.40 | 10.00 | 1.80 |
| MOR0064019 | 6.40 | 10.20 | 1.90 |
| MOR0064025 | 6.40 | 11.40 | 2.50 |
| MOR0065010 | 6.50 | 8.50 | 1.00 |
| MOR0065011 | 6.50 | 8.70 | 1.10 |
| MOR0065015 | 6.50 | 9.50 | 1.50 |
| MOR0065016 | 6.50 | 9.70 | 1.60 |
| MOR0065019 | 6.50 | 10.30 | 1.90 |
| MOR0065020 | 6.50 | 10.50 | 2.00 |
| MOR0065022 | 6.50 | 10.90 | 2.20 |
| MOR0065025 | 6.50 | 11.50 | 2.50 |
| MOR0065030 | 6.50 | 12.50 | 3.00 |
| MOR00650 b40 | 6.50 | 14.50 | 4.00 |
| MOR0065010-1 | 6.55 | 8.55 | 1.00 |
| MOR0065011-1 | 6.55 | 8.75 | 1.10 |
| MOR0065037 | 6.55 | 13.95 | 3.70 |
| MOR0066023 | 6.60 | 11.20 | 2.30 |
| MOR0066024 | 6.60 | 11.40 | 2.40 |
| MOR0067016 | 6.70 | 9.90 | 1.60 |
| MOR0067016-1 | 6.70 | 10.00 | 1.65 |
| MOR0067018 | 6.70 | 10.30 | 1.80 |
| MOR0067020 | 6.70 | 10.70 | 2.00 |
| MOR0068013 | 6.80 | 9.40 | 1.30 |
| MOR0068019 | 6.80 | 10.60 | 1.90 |
| MOR0068020 | 6.80 | 10.80 | 2.00 |
| MOR0068024 | 6.80 | 11.60 | 2.40 |
| MOR0069018 | 6.90 | 10.50 | 1.80 |
| MOR0070010 | 7.00 | 9.00 | 1.00 |
| MOR0070012 | 7.00 | 9.40 | 1.20 |
| MOR0070013 | 7.00 | 9.60 | 1.30 |
| MOR0070013-1 | 7.00 | 9.70 | 1.35 |
| MOR0070014 | 7.00 | 9.80 | 1.40 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|------|
| | d | D | S |
| MOR0070015 | 7.00 | 10.00 | 1.50 |
| MOR0070016 | 7.00 | 10.20 | 1.60 |
| MOR0070017 | 7.00 | 10.40 | 1.70 |
| MOR0070018 | 7.00 | 10.60 | 1.80 |
| MOR0070020 | 7.00 | 11.00 | 2.00 |
| MOR0070025 | 7.00 | 12.00 | 2.50 |
| MOR0070030 | 7.00 | 13.00 | 3.00 |
| MOR0070032 | 7.00 | 13.40 | 3.20 |
| MOR0070035 | 7.00 | 14.00 | 3.50 |
| MOR0070040 | 7.00 | 15.00 | 4.00 |
| MOR0070050 | 7.00 | 17.00 | 5.00 |
| MOR0070060 | 7.00 | 19.00 | 6.00 |
| MOR0071015 | 7.10 | 10.10 | 1.50 |
| MOR0071016 | 7.10 | 10.30 | 1.60 |
| MOR0071018 | 7.10 | 10.70 | 1.80 |
| MOR0072012 | 7.20 | 9.60 | 1.20 |
| MOR0072013 | 7.20 | 9.80 | 1.30 |
| MOR0072015 | 7.20 | 10.20 | 1.50 |
| MOR0072019 | 7.20 | 11.00 | 1.90 |
| MOR0072022 | 7.20 | 11.60 | 2.20 |
| MOR0073012 | 7.30 | 9.70 | 1.20 |
| MOR0073022 | 7.30 | 11.70 | 2.20 |
| MOR0073024 | 7.30 | 12.10 | 2.40 |
| MOR0073027 | 7.30 | 12.70 | 2.70 |
| MOR0074020 | 7.40 | 11.40 | 2.00 |
| MOR0074021 | 7.40 | 11.60 | 2.10 |
| MOR0075010 | 7.50 | 9.50 | 1.00 |
| MOR0075013 | 7.50 | 10.10 | 1.30 |
| MOR0075015 | 7.50 | 10.50 | 1.50 |
| MOR0075016 | 7.50 | 10.70 | 1.60 |
| MOR0075018 | 7.50 | 11.10 | 1.80 |
| MOR0075019 | 7.50 | 11.30 | 1.90 |
| MOR0075020 | 7.50 | 11.50 | 2.00 |
| MOR0075022 | 7.50 | 11.90 | 2.20 |
| MOR0075024 | 7.50 | 12.30 | 2.40 |
| MOR0075025 | 7.50 | 12.50 | 2.50 |
| MOR0075030 | 7.50 | 13.50 | 3.00 |
| MOR0075035 | 7.50 | 14.50 | 3.50 |
| MOR0076012 | 7.60 | 10.00 | 1.20 |
| MOR0076013 | 7.60 | 10.20 | 1.30 |
| MOR0076016 | 7.60 | 10.80 | 1.60 |
| MOR0076018 | 7.60 | 11.20 | 1.80 |
| MOR0076020 | 7.60 | 11.60 | 2.00 |
| MOR0076023 | 7.60 | 12.20 | 2.30 |
| MOR0076024 | 7.60 | 12.40 | 2.40 |
| MOR0076040 | 7.60 | 15.60 | 4.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0076026-2 | 7.65 | 12.95 | 2.65 |
| MOR0076024-1 | 7.66 | 12.46 | 2.40 |
| MOR0077015 | 7.70 | 10.70 | 1.50 |
| MOR0078012 | 7.80 | 10.30 | 1.25 |
| MOR0078036 | 7.80 | 15.00 | 3.60 |
| MOR0078050 | 7.80 | 17.80 | 5.00 |
| MOR0079016 | 7.90 | 11.10 | 1.60 |
| MOR0079019 | 7.90 | 11.70 | 1.90 |
| MOR0079021 | 7.90 | 12.10 | 2.10 |
| MOR0079025 | 7.90 | 12.90 | 2.50 |
| MOR0080010 | 8.00 | 10.00 | 1.00 |
| MOR0080011 | 8.00 | 10.20 | 1.10 |
| MOR0080012 | 8.00 | 10.50 | 1.25 |
| MOR0080013 | 8.00 | 10.60 | 1.30 |
| MOR0080015 | 8.00 | 11.00 | 1.50 |
| MOR0080016 | 8.00 | 11.20 | 1.60 |
| MOR0080017 | 8.00 | 11.40 | 1.70 |
| MOR0080017-1 | 8.00 | 11.50 | 1.75 |
| MOR0080018 | 8.00 | 11.60 | 1.80 |
| MOR0080019 | 8.00 | 11.80 | 1.90 |
| MOR0080020 | 8.00 | 12.00 | 2.00 |
| MOR0080021 | 8.00 | 12.20 | 2.10 |
| MOR0080022 | 8.00 | 12.40 | 2.20 |
| MOR0080024 | 8.00 | 12.80 | 2.40 |
| MOR0080025 | 8.00 | 13.00 | 2.50 |
| MOR0080026 | 8.00 | 13.20 | 2.60 |
| MOR0080030 | 8.00 | 14.00 | 3.00 |
| MOR0080035 | 8.00 | 15.00 | 3.50 |
| MOR0080037 | 8.00 | 15.40 | 3.70 |
| MOR0080040 | 8.00 | 16.00 | 4.00 |
| MOR0080045 | 8.00 | 17.00 | 4.50 |
| MOR0080050 | 8.00 | 18.00 | 5.00 |
| MOR0080060 | 8.00 | 20.00 | 6.00 |
| MOR0080010-1 | 8.04 | 10.04 | 1.00 |
| MOR0081016 | 8.10 | 11.30 | 1.60 |
| MOR0082015 | 8.20 | 11.20 | 1.50 |
| MOR0082016 | 8.20 | 11.50 | 1.65 |
| MOR0083010 | 8.30 | 10.30 | 1.00 |
| MOR0083024 | 8.30 | 13.10 | 2.40 |
| MOR0084022 | 8.40 | 12.80 | 2.20 |
| MOR0084025 | 8.40 | 13.40 | 2.50 |
| MOR0085010 | 8.50 | 10.50 | 1.00 |
| MOR0085013 | 8.50 | 11.20 | 1.35 |
| MOR0085015 | 8.50 | 11.50 | 1.50 |
| MOR0085018 | 8.50 | 12.10 | 1.80 |
| MOR0085019 | 8.50 | 12.30 | 1.90 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0085020 | 8.50 | 12.50 | 2.00 |
| MOR0085025 | 8.50 | 13.50 | 2.50 |
| MOR0085030 | 8.50 | 14.50 | 3.00 |
| MOR0085035 | 8.50 | 15.50 | 3.50 |
| MOR0085021 | 8.55 | 12.75 | 2.10 |
| MOR0086018 | 8.60 | 12.20 | 1.80 |
| MOR0086024 | 8.60 | 13.40 | 2.40 |
| MOR0087016 | 8.70 | 11.90 | 1.60 |
| MOR0087018 | 8.76 | 12.36 | 1.80 |
| MOR0088019 | 8.80 | 12.60 | 1.90 |
| MOR0088024 | 8.80 | 13.60 | 2.40 |
| MOR0088032 | 8.80 | 15.20 | 3.20 |
| MOR0089013 | 8.90 | 11.50 | 1.30 |
| MOR0089016 | 8.90 | 12.10 | 1.60 |
| MOR0089018 | 8.90 | 12.50 | 1.80 |
| MOR0089019 | 8.90 | 12.70 | 1.90 |
| MOR0089027 | 8.90 | 14.30 | 2.70 |
| MOR0090010 | 9.00 | 11.00 | 1.00 |
| MOR0090012 | 9.00 | 11.40 | 1.20 |
| MOR0090013 | 9.00 | 11.60 | 1.30 |
| MOR0090014 | 9.00 | 11.80 | 1.40 |
| MOR0090015 | 9.00 | 12.00 | 1.50 |
| MOR0090015-1 | 9.00 | 12.10 | 1.55 |
| MOR0090016 | 9.00 | 12.20 | 1.60 |
| MOR0090017 | 9.00 | 12.40 | 1.70 |
| MOR0090018 | 9.00 | 12.60 | 1.80 |
| MOR0090020 | 9.00 | 13.00 | 2.00 |
| MOR0090022 | 9.00 | 13.40 | 2.20 |
| MOR0090022-1 | 9.00 | 13.50 | 2.25 |
| MOR0090025 | 9.00 | 14.00 | 2.50 |
| MOR0090029 | 9.00 | 14.80 | 2.90 |
| MOR0090030 | 9.00 | 15.00 | 3.00 |
| MOR0090032 | 9.00 | 15.40 | 3.20 |
| MOR0090032-1 | 9.00 | 15.50 | 3.25 |
| MOR0090035 | 9.00 | 16.00 | 3.50 |
| MOR0090040 | 9.00 | 17.00 | 4.00 |
| MOR0090045 | 9.00 | 18.00 | 4.50 |
| MOR0090050 | 9.00 | 19.00 | 5.00 |
| MOR0090060 | 9.00 | 21.00 | 6.00 |
| MOR0091016 | 9.10 | 12.30 | 1.60 |
| MOR0091016-1 | 9.10 | 12.40 | 1.65 |
| MOR0091078 | 9.10 | 24.80 | 7.85 |
| MOR0091024 | 9.15 | 13.95 | 2.40 |
| MOR0091030 | 9.15 | 15.15 | 3.00 |
| MOR0092035 | 9.20 | 16.20 | 3.50 |
| MOR0092018 | 9.25 | 12.95 | 1.85 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0092020 | 9.25 | 13.25 | 2.00 |
| MOR0093015 | 9.30 | 12.30 | 1.50 |
| MOR0093020 | 9.30 | 13.30 | 2.00 |
| MOR0093024 | 9.30 | 14.10 | 2.40 |
| MOR0093027 | 9.30 | 14.70 | 2.70 |
| MOR0094019 | 9.40 | 13.20 | 1.90 |
| MOR0094031 | 9.40 | 15.60 | 3.10 |
| MOR0095010 | 9.50 | 11.50 | 1.00 |
| MOR0095014 | 9.50 | 12.30 | 1.40 |
| MOR0095015 | 9.50 | 12.50 | 1.50 |
| MOR0095016 | 9.50 | 12.70 | 1.60 |
| MOR0095018 | 9.50 | 13.10 | 1.80 |
| MOR0095019 | 9.50 | 13.30 | 1.90 |
| MOR0095020 | 9.50 | 13.50 | 2.00 |
| MOR0095021 | 9.50 | 13.70 | 2.10 |
| MOR0095025 | 9.50 | 14.50 | 2.50 |
| MOR0095028 | 9.50 | 15.10 | 2.80 |
| MOR0095030 | 9.50 | 15.50 | 3.00 |
| MOR0095035 | 9.50 | 16.50 | 3.50 |
| MOR0095042 | 9.50 | 17.90 | 4.20 |
| MOR0095045 | 9.50 | 18.50 | 4.50 |
| MOR0096012 | 9.60 | 12.00 | 1.20 |
| MOR0096023 | 9.60 | 14.20 | 2.30 |
| MOR0096024 | 9.60 | 14.40 | 2.40 |
| MOR0097010 | 9.70 | 11.70 | 1.00 |
| MOR0097016 | 9.70 | 12.90 | 1.60 |
| MOR0098010 | 9.80 | 11.80 | 1.00 |
| MOR0098014 | 9.80 | 12.60 | 1.40 |
| MOR0098019 | 9.80 | 13.60 | 1.90 |
| MOR0098022 | 9.80 | 14.20 | 2.20 |
| MOR0098024 | 9.80 | 14.60 | 2.40 |
| MOR0098014-1 | 9.85 | 12.65 | 1.40 |
| MOR0099018 | 9.90 | 13.50 | 1.80 |
| MOR0099019 | 9.90 | 13.70 | 1.90 |
| MOR0099024 | 9.90 | 14.70 | 2.40 |
| MOR0100010 | 10.00 | 12.00 | 1.00 |
| MOR0100012 | 10.00 | 12.40 | 1.20 |
| MOR0100013 | 10.00 | 12.60 | 1.30 |
| MOR0100014 | 10.00 | 12.80 | 1.40 |
| MOR0100015 | 10.00 | 13.00 | 1.50 |
| MOR0100016 | 10.00 | 13.20 | 1.60 |
| MOR0100018 | 10.00 | 13.60 | 1.80 |
| MOR0100020 | 10.00 | 14.00 | 2.00 |
| MOR0100021 | 10.00 | 14.20 | 2.10 |
| MOR0100022 | 10.00 | 14.40 | 2.20 |
| MOR0100025 | 10.00 | 15.00 | 2.50 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0100026 | 10.00 | 15.20 | 2.60 |
| MOR0100026-1 | 10.00 | 15.30 | 2.65 |
| MOR0100027 | 10.00 | 15.40 | 2.70 |
| MOR0100030 | 10.00 | 16.00 | 3.00 |
| MOR0100032 | 10.00 | 16.40 | 3.20 |
| MOR0100033 | 10.00 | 16.60 | 3.30 |
| MOR0100035 | 10.00 | 17.00 | 3.50 |
| MOR0100040 | 10.00 | 18.00 | 4.00 |
| MOR0100045 | 10.00 | 19.00 | 4.50 |
| MOR0100050 | 10.00 | 20.00 | 5.00 |
| MOR0100060 | 10.00 | 22.00 | 6.00 |
| MOR0100065 | 10.00 | 23.00 | 6.50 |
| MOR0100080 | 10.00 | 26.00 | 8.00 |
| MOR0100100 | 10.00 | 30.00 | 10.00 |
| MOR0101010 | 10.10 | 12.10 | 1.00 |
| MOR0101016 | 10.10 | 13.30 | 1.60 |
| MOR0101017 | 10.10 | 13.60 | 1.75 |
| MOR0102025 | 10.20 | 15.20 | 2.50 |
| MOR0102030 | 10.25 | 16.25 | 3.00 |
| MOR0103012 | 10.30 | 12.70 | 1.20 |
| MOR0103024 | 10.30 | 15.10 | 2.40 |
| MOR0103034 | 10.30 | 17.10 | 3.40 |
| MOR0104010 | 10.40 | 12.40 | 1.00 |
| MOR0104025 | 10.40 | 15.40 | 2.50 |
| MOR0104020 | 10.45 | 14.45 | 2.00 |
| MOR0105010 | 10.50 | 12.50 | 1.00 |
| MOR0105013 | 10.50 | 13.10 | 1.30 |
| MOR0105015 | 10.50 | 13.50 | 1.50 |
| MOR0105018 | 10.50 | 14.10 | 1.80 |
| MOR0105020 | 10.50 | 14.50 | 2.00 |
| MOR0105022 | 10.50 | 15.00 | 2.25 |
| MOR0105024 | 10.50 | 15.30 | 2.40 |
| MOR0105025 | 10.50 | 15.50 | 2.50 |
| MOR0105027 | 10.50 | 15.90 | 2.70 |
| MOR0105030 | 10.50 | 16.50 | 3.00 |
| MOR0105045 | 10.50 | 19.50 | 4.50 |
| MOR0106010 | 10.60 | 12.60 | 1.00 |
| MOR0106018 | 10.60 | 14.20 | 1.80 |
| MOR0106023 | 10.60 | 15.20 | 2.30 |
| MOR0106024 | 10.60 | 15.40 | 2.40 |
| MOR0107011 | 10.70 | 12.90 | 1.10 |
| MOR0107029 | 10.77 | 16.67 | 2.95 |
| MOR0108012 | 10.80 | 13.20 | 1.20 |
| MOR0108015 | 10.80 | 13.80 | 1.50 |
| MOR0108016 | 10.80 | 14.00 | 1.60 |
| MOR0108017 | 10.80 | 14.20 | 1.70 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0108018 | 10.80 | 14.40 | 1.80 |
| MOR0108020 | 10.80 | 14.80 | 2.00 |
| MOR0108024 | 10.80 | 15.60 | 2.40 |
| MOR0108026 | 10.80 | 16.00 | 2.60 |
| MOR0108026-1 | 10.80 | 16.10 | 2.65 |
| MOR0108027 | 10.80 | 16.30 | 2.75 |
| MOR0109012 | 10.90 | 13.40 | 1.25 |
| MOR0110010 | 11.00 | 13.00 | 1.00 |
| MOR0110012 | 11.00 | 13.40 | 1.20 |
| MOR0110013 | 11.00 | 13.60 | 1.30 |
| MOR0110015 | 11.00 | 14.00 | 1.50 |
| MOR0110016 | 11.00 | 14.20 | 1.60 |
| MOR0110018 | 11.00 | 14.60 | 1.80 |
| MOR0110019 | 11.00 | 14.80 | 1.90 |
| MOR0110020 | 11.00 | 15.00 | 2.00 |
| MOR0110022 | 11.00 | 15.50 | 2.25 |
| MOR0110025 | 11.00 | 16.00 | 2.50 |
| MOR0110027 | 11.00 | 16.50 | 2.75 |
| MOR0110030 | 11.00 | 17.00 | 3.00 |
| MOR0110034 | 11.00 | 17.80 | 3.40 |
| MOR0110035 | 11.00 | 18.00 | 3.50 |
| MOR0110040 | 11.00 | 19.00 | 4.00 |
| MOR0110045 | 11.00 | 20.00 | 4.50 |
| MOR0110050 | 11.00 | 21.00 | 5.00 |
| MOR0110060 | 11.00 | 23.00 | 6.00 |
| MOR0110070 | 11.00 | 25.00 | 7.00 |
| MOR0110080 | 11.00 | 27.00 | 8.00 |
| MOR0111016 | 11.10 | 14.30 | 1.60 |
| MOR0111013 | 11.15 | 13.75 | 1.30 |
| MOR0111015 | 11.15 | 14.15 | 1.50 |
| MOR0112018 | 11.20 | 14.80 | 1.80 |
| MOR0112019 | 11.20 | 15.00 | 1.90 |
| MOR0112025 | 11.20 | 16.20 | 2.50 |
| MOR0112026 | 11.20 | 16.50 | 2.65 |
| MOR0113012 | 11.30 | 13.70 | 1.20 |
| MOR0113024 | 11.30 | 16.10 | 2.40 |
| MOR0114028 | 11.40 | 17.00 | 2.80 |
| MOR0115010 | 11.50 | 13.50 | 1.00 |
| MOR0115012 | 11.50 | 14.00 | 1.25 |
| MOR0115013 | 11.50 | 14.10 | 1.30 |
| MOR0115015 | 11.50 | 14.50 | 1.50 |
| MOR0115016 | 11.50 | 14.70 | 1.60 |
| MOR0115018 | 11.50 | 15.10 | 1.80 |
| MOR0115020 | 11.50 | 15.50 | 2.00 |
| MOR0115021 | 11.50 | 15.70 | 2.10 |
| MOR0115022 | 11.50 | 15.90 | 2.20 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0115024 | 11.50 | 16.30 | 2.40 |
| MOR0115025 | 11.50 | 16.50 | 2.50 |
| MOR0115026 | 11.50 | 16.70 | 2.60 |
| MOR0115028 | 11.50 | 17.10 | 2.80 |
| MOR0115030 | 11.50 | 17.50 | 3.00 |
| MOR0116012 | 11.60 | 14.00 | 1.20 |
| MOR0116016 | 11.60 | 14.80 | 1.60 |
| MOR0116019 | 11.60 | 15.40 | 1.90 |
| MOR0116023 | 11.60 | 16.20 | 2.30 |
| MOR0116024 | 11.60 | 16.40 | 2.40 |
| MOR0116028 | 11.60 | 17.20 | 2.80 |
| MOR0116029 | 11.60 | 17.40 | 2.90 |
| MOR0116063 | 11.60 | 24.30 | 6.35 |
| MOR0116013 | 11.63 | 14.33 | 1.35 |
| MOR0116015 | 11.65 | 14.65 | 1.50 |
| MOR0116018 | 11.65 | 15.35 | 1.85 |
| MOR0117020 | 11.70 | 15.70 | 2.00 |
| MOR0118015 | 11.80 | 14.80 | 1.50 |
| MOR0118018 | 11.80 | 15.40 | 1.80 |
| MOR0118019 | 11.80 | 15.60 | 1.90 |
| MOR0118020 | 11.80 | 15.80 | 2.00 |
| MOR0118024 | 11.80 | 16.60 | 2.40 |
| MOR0118026-1 | 11.80 | 17.10 | 2.65 |
| MOR0120010 | 12.00 | 14.00 | 1.00 |
| MOR0120012 | 12.00 | 14.40 | 1.20 |
| MOR0120015 | 12.00 | 15.00 | 1.50 |
| MOR0120017 | 12.00 | 15.40 | 1.70 |
| MOR0120019 | 12.00 | 15.80 | 1.90 |
| MOR0120020 | 12.00 | 16.00 | 2.00 |
| MOR0120022 | 12.00 | 16.40 | 2.20 |
| MOR0120022-1 | 12.00 | 16.50 | 2.25 |
| MOR0120025 | 12.00 | 17.00 | 2.50 |
| MOR0120030 | 12.00 | 18.00 | 3.00 |
| MOR0120032 | 12.00 | 18.40 | 3.20 |
| MOR0120035 | 12.00 | 19.00 | 3.50 |
| MOR0120040 | 12.00 | 20.00 | 4.00 |
| MOR0120045 | 12.00 | 21.00 | 4.50 |
| MOR0120050 | 12.00 | 22.00 | 5.00 |
| MOR0120055 | 12.00 | 23.00 | 5.50 |
| MOR0120060 | 12.00 | 24.00 | 6.00 |
| MOR0120070 | 12.00 | 26.00 | 7.00 |
| MOR0120080 | 12.00 | 28.00 | 8.00 |
| MOR0121014 | 12.10 | 15.00 | 1.45 |
| MOR0121016 | 12.10 | 15.30 | 1.60 |
| MOR0121017 | 12.10 | 15.50 | 1.70 |
| MOR0121019 | 12.10 | 15.90 | 1.90 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0121027 | 12.10 | 17.50 | 2.70 |
| MOR0121036 | 12.16 | 19.36 | 3.60 |
| MOR0121010 | 12.19 | 14.19 | 1.00 |
| MOR0122016 | 12.20 | 15.40 | 1.60 |
| MOR0122019 | 12.20 | 16.00 | 1.90 |
| MOR0122025 | 12.20 | 17.20 | 2.50 |
| MOR0123019 | 12.30 | 16.10 | 1.90 |
| MOR0123021 | 12.30 | 16.50 | 2.10 |
| MOR0123024 | 12.30 | 17.10 | 2.40 |
| MOR0123034 | 12.30 | 19.10 | 3.40 |
| MOR0123042 | 12.30 | 20.70 | 4.20 |
| MOR0124010 | 12.40 | 14.40 | 1.00 |
| MOR0124020 | 12.40 | 16.40 | 2.00 |
| MOR0124026 | 12.40 | 17.60 | 2.60 |
| MOR0124035 | 12.40 | 19.40 | 3.50 |
| MOR0125010 | 12.50 | 14.50 | 1.00 |
| MOR0125011 | 12.50 | 14.70 | 1.10 |
| MOR0125015 | 12.50 | 15.50 | 1.50 |
| MOR0125016 | 12.50 | 15.70 | 1.60 |
| MOR0125018 | 12.50 | 16.10 | 1.80 |
| MOR0125020 | 12.50 | 16.50 | 2.00 |
| MOR0125024 | 12.50 | 17.30 | 2.40 |
| MOR0125025 | 12.50 | 17.50 | 2.50 |
| MOR0125030 | 12.50 | 18.50 | 3.00 |
| MOR0125035 | 12.50 | 19.50 | 3.50 |
| MOR0126024 | 12.60 | 17.40 | 2.40 |
| MOR0126026 | 12.60 | 17.80 | 2.60 |
| MOR0126032 | 12.60 | 19.10 | 3.25 |
| MOR0126036 | 12.60 | 19.80 | 3.60 |
| MOR0128016 | 12.80 | 16.00 | 1.60 |
| MOR0128024 | 12.80 | 17.60 | 2.40 |
| MOR0130010 | 13.00 | 15.00 | 1.00 |
| MOR0130012 | 13.00 | 15.40 | 1.20 |
| MOR0130012-1 | 13.00 | 15.50 | 1.25 |
| MOR0130013 | 13.00 | 15.60 | 1.30 |
| MOR0130014 | 13.00 | 15.80 | 1.40 |
| MOR0130015 | 13.00 | 16.00 | 1.50 |
| MOR0130015-1 | 13.00 | 16.10 | 1.55 |
| MOR0130016 | 13.00 | 16.20 | 1.60 |
| MOR0130020 | 13.00 | 17.00 | 2.00 |
| MOR0130022 | 13.00 | 17.40 | 2.20 |
| MOR0130025 | 13.00 | 18.00 | 2.50 |
| MOR0130026 | 13.00 | 18.20 | 2.60 |
| MOR0130030 | 13.00 | 19.00 | 3.00 |
| MOR0130035 | 13.00 | 20.00 | 3.50 |
| MOR0130040 | 13.00 | 21.00 | 4.00 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0130045 | 13.00 | 22.00 | 4.50 |
| MOR0130050 | 13.00 | 23.00 | 5.00 |
| MOR0130060 | 13.00 | 25.00 | 6.00 |
| MOR0131016 | 13.10 | 16.30 | 1.60 |
| MOR0131030 | 13.15 | 19.15 | 3.00 |
| MOR0132016 | 13.20 | 16.40 | 1.60 |
| MOR0132018 | 13.20 | 16.80 | 1.80 |
| MOR0132019 | 13.20 | 17.00 | 1.90 |
| MOR0132025 | 13.20 | 18.20 | 2.50 |
| MOR0133018 | 13.30 | 16.90 | 1.80 |
| MOR0133024 | 13.30 | 18.10 | 2.40 |
| MOR0133018-1 | 13.34 | 16.94 | 1.80 |
| MOR0134019 | 13.40 | 17.20 | 1.90 |
| MOR0134027 | 13.40 | 18.80 | 2.70 |
| MOR0134028 | 13.40 | 19.00 | 2.80 |
| MOR0134021 | 13.44 | 17.64 | 2.10 |
| MOR0134025 | 13.44 | 18.44 | 2.50 |
| MOR0135010 | 13.50 | 15.50 | 1.00 |
| MOR0135015 | 13.50 | 16.50 | 1.50 |
| MOR0135020 | 13.50 | 17.50 | 2.00 |
| MOR0135024 | 13.50 | 18.30 | 2.40 |
| MOR0135025 | 13.50 | 18.50 | 2.50 |
| MOR0135027 | 13.50 | 19.00 | 2.75 |
| MOR0135030 | 13.50 | 19.50 | 3.00 |
| MOR0135042 | 13.50 | 22.00 | 4.25 |
| MOR0136020 | 13.60 | 17.60 | 2.00 |
| MOR0136023 | 13.60 | 18.20 | 2.30 |
| MOR0136023-1 | 13.60 | 18.30 | 2.35 |
| MOR0136024 | 13.60 | 18.40 | 2.40 |
| MOR0136025 | 13.60 | 18.60 | 2.50 |
| MOR0136027 | 13.60 | 19.00 | 2.70 |
| MOR0136028 | 13.60 | 19.20 | 2.80 |
| MOR0136030 | 13.60 | 19.60 | 3.00 |
| MOR0136036 | 13.60 | 20.80 | 3.60 |
| MOR0138020 | 13.80 | 17.80 | 2.00 |
| MOR0138024 | 13.80 | 18.60 | 2.40 |
| MOR0138030 | 13.80 | 19.80 | 3.00 |
| MOR0139036 | 13.94 | 21.14 | 3.60 |
| MOR0140010 | 14.00 | 16.00 | 1.00 |
| MOR0140012 | 14.00 | 16.40 | 1.20 |
| MOR0140012-1 | 14.00 | 16.50 | 1.25 |
| MOR0140015 | 14.00 | 17.00 | 1.50 |
| MOR0140016 | 14.00 | 17.20 | 1.60 |
| MOR0140018 | 14.00 | 17.60 | 1.80 |
| MOR0140019 | 14.00 | 17.80 | 1.90 |
| MOR0140020 | 14.00 | 18.00 | 2.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0140021 | 14.00 | 18.20 | 2.10 |
| MOR0140023 | 14.00 | 18.60 | 2.30 |
| MOR0140024 | 14.00 | 18.80 | 2.40 |
| MOR0140025 | 14.00 | 19.00 | 2.50 |
| MOR0140026 | 14.00 | 19.20 | 2.60 |
| MOR0140026-1 | 14.00 | 19.30 | 2.65 |
| MOR0140027 | 14.00 | 19.40 | 2.70 |
| MOR0140030 | 14.00 | 20.00 | 3.00 |
| MOR0140032 | 14.00 | 20.40 | 3.20 |
| MOR0140033 | 14.00 | 20.60 | 3.30 |
| MOR0140035 | 14.00 | 21.00 | 3.50 |
| MOR0140039 | 14.00 | 21.80 | 3.90 |
| MOR0140040 | 14.00 | 22.00 | 4.00 |
| MOR0140050 | 14.00 | 24.00 | 5.00 |
| MOR0140060 | 14.00 | 26.00 | 6.00 |
| MOR0140070 | 14.00 | 28.00 | 7.00 |
| MOR0140075 | 14.00 | 29.00 | 7.50 |
| MOR0140080 | 14.00 | 30.00 | 8.00 |
| MOR0141016 | 14.10 | 17.30 | 1.60 |
| MOR0141022 | 14.10 | 18.50 | 2.20 |
| MOR0141024 | 14.18 | 18.98 | 2.40 |
| MOR0142012 | 14.20 | 16.60 | 1.20 |
| MOR0142063 | 14.29 | 26.99 | 6.35 |
| MOR0143024 | 14.30 | 19.10 | 2.40 |
| MOR0144010 | 14.40 | 16.40 | 1.00 |
| MOR0144020 | 14.40 | 18.40 | 2.00 |
| MOR0145010 | 14.50 | 16.50 | 1.00 |
| MOR0145015 | 14.50 | 17.50 | 1.50 |
| MOR0145018 | 14.50 | 18.10 | 1.80 |
| MOR0145020 | 14.50 | 18.50 | 2.00 |
| MOR0145024 | 14.50 | 19.30 | 2.40 |
| MOR0145025 | 14.50 | 19.50 | 2.50 |
| MOR0145030 | 14.50 | 20.50 | 3.00 |
| MOR0145040 | 14.50 | 22.50 | 4.00 |
| MOR0145058 | 14.50 | 26.10 | 5.80 |
| MOR0146023 | 14.60 | 19.20 | 2.30 |
| MOR0146024 | 14.60 | 19.40 | 2.40 |
| MOR0146026 | 14.60 | 19.80 | 2.60 |
| MOR0146020 | 14.65 | 18.65 | 2.00 |
| MOR0148015 | 14.80 | 17.80 | 1.50 |
| MOR0148024 | 14.80 | 19.60 | 2.40 |
| MOR0148015-1 | 14.85 | 17.85 | 1.50 |
| MOR0149020 | 14.90 | 18.90 | 2.00 |
| MOR0150010 | 15.00 | 17.00 | 1.00 |
| MOR0150015 | 15.00 | 18.00 | 1.50 |
| MOR0150016 | 15.00 | 18.20 | 1.60 |

O'Rings - NBR 70A. NBR 90A. FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0150017 | 15.00 | 18.40 | 1.70 |
| MOR0150018 | 15.00 | 18.60 | 1.80 |
| MOR0150020 | 15.00 | 19.00 | 2.00 |
| MOR0150022 | 15.00 | 19.40 | 2.20 |
| MOR0150024 | 15.00 | 19.80 | 2.40 |
| MOR0150025 | 15.00 | 20.00 | 2.50 |
| MOR0150026 | 15.00 | 20.20 | 2.60 |
| MOR0150026-1 | 15.00 | 20.30 | 2.65 |
| MOR0150029 | 15.00 | 20.80 | 2.90 |
| MOR0150030 | 15.00 | 21.00 | 3.00 |
| MOR0150032 | 15.00 | 21.40 | 3.20 |
| MOR0150032-1 | 15.00 | 21.50 | 3.25 |
| MOR0150035 | 15.00 | 22.00 | 3.50 |
| MOR0150040 | 15.00 | 23.00 | 4.00 |
| MOR0150042 | 15.00 | 23.50 | 4.25 |
| MOR0150045 | 15.00 | 24.00 | 4.50 |
| MOR0150050 | 15.00 | 25.00 | 5.00 |
| MOR0150060 | 15.00 | 27.00 | 6.00 |
| MOR0150070 | 15.00 | 29.00 | 7.00 |
| MOR0151016 | 15.10 | 18.30 | 1.60 |
| MOR0151027 | 15.10 | 20.50 | 2.70 |
| MOR0152013 | 15.20 | 17.80 | 1.30 |
| MOR0152018 | 15.20 | 18.80 | 1.80 |
| MOR0152040 | 15.20 | 23.20 | 4.00 |
| MOR0153018 | 15.30 | 18.90 | 1.80 |
| MOR0153024 | 15.30 | 20.10 | 2.40 |
| MOR0153030 | 15.30 | 21.30 | 3.00 |
| MOR0154010 | 15.40 | 17.40 | 1.00 |
| MOR0154013 | 15.40 | 18.00 | 1.30 |
| MOR0154015 | 15.40 | 18.40 | 1.50 |
| MOR0154028 | 15.40 | 21.00 | 2.80 |
| MOR0155010 | 15.50 | 17.50 | 1.00 |
| MOR0155012 | 15.50 | 18.00 | 1.25 |
| MOR0155015 | 15.50 | 18.50 | 1.50 |
| MOR0155016 | 15.50 | 18.70 | 1.60 |
| MOR0155020 | 15.50 | 19.50 | 2.00 |
| MOR0155024 | 15.50 | 20.30 | 2.40 |
| MOR0155025 | 15.50 | 20.50 | 2.50 |
| MOR0155030 | 15.50 | 21.50 | 3.00 |
| MOR0155032 | 15.50 | 22.00 | 3.25 |
| MOR0155035 | 15.50 | 22.50 | 3.50 |
| MOR0155038 | 15.50 | 23.10 | 3.80 |
| MOR0155040 | 15.50 | 23.50 | 4.00 |
| MOR0155042 | 15.50 | 23.90 | 4.20 |
| MOR0155045 | 15.50 | 24.50 | 4.50 |
| MOR0156020 | 15.60 | 19.60 | 2.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0156023 | 15.60 | 20.20 | 2.30 |
| MOR0156024 | 15.60 | 20.40 | 2.40 |
| MOR0156026 | 15.60 | 20.80 | 2.60 |
| MOR0156030 | 15.60 | 21.60 | 3.00 |
| MOR0156034 | 15.60 | 22.40 | 3.40 |
| MOR0158010 | 15.80 | 17.80 | 1.00 |
| MOR0158014 | 15.80 | 18.60 | 1.40 |
| MOR0158024 | 15.80 | 20.60 | 2.40 |
| MOR0159014 | 15.90 | 18.80 | 1.45 |
| MOR0159027 | 15.90 | 21.30 | 2.70 |
| MOR0160010 | 16.00 | 18.00 | 1.00 |
| MOR0160011 | 16.00 | 18.20 | 1.10 |
| MOR0160012 | 16.00 | 18.50 | 1.25 |
| MOR0160015 | 16.00 | 19.00 | 1.50 |
| MOR0160016 | 16.00 | 19.20 | 1.60 |
| MOR0160018 | 16.00 | 19.60 | 1.80 |
| MOR0160019 | 16.00 | 19.80 | 1.90 |
| MOR0160020 | 16.00 | 20.00 | 2.00 |
| MOR0160022 | 16.00 | 20.40 | 2.20 |
| MOR0160023 | 16.00 | 20.60 | 2.30 |
| MOR0160025 | 16.00 | 21.00 | 2.50 |
| MOR0160026 | 16.00 | 21.30 | 2.65 |
| MOR0160027 | 16.00 | 21.40 | 2.70 |
| MOR0160030 | 16.00 | 22.00 | 3.00 |
| MOR0160033 | 16.00 | 22.60 | 3.30 |
| MOR0160035 | 16.00 | 23.00 | 3.50 |
| MOR0160035-1 | 16.00 | 23.10 | 3.55 |
| MOR0160040 | 16.00 | 24.00 | 4.00 |
| MOR0160045 | 16.00 | 25.00 | 4.50 |
| MOR0160050 | 16.00 | 26.00 | 5.00 |
| MOR0160055 | 16.00 | 27.00 | 5.50 |
| MOR0160060 | 16.00 | 28.00 | 6.00 |
| MOR0160070 | 16.00 | 30.00 | 7.00 |
| MOR0160080 | 16.00 | 32.00 | 8.00 |
| MOR0160100 | 16.00 | 36.00 | 10.00 |
| MOR0161015 | 16.10 | 19.10 | 1.50 |
| MOR0161016 | 16.10 | 19.30 | 1.60 |
| MOR0161023 | 16.10 | 20.70 | 2.30 |
| MOR0162011 | 16.20 | 18.50 | 1.15 |
| MOR0163024 | 16.30 | 21.10 | 2.40 |
| MOR0163022 | 16.36 | 20.76 | 2.20 |
| MOR0164025 | 16.40 | 21.40 | 2.50 |
| MOR0165010 | 16.50 | 18.50 | 1.00 |
| MOR0165015 | 16.50 | 19.50 | 1.50 |
| MOR0165020 | 16.50 | 20.50 | 2.00 |
| MOR0165025 | 16.50 | 21.50 | 2.50 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0165027 | 16.50 | 21.90 | 2.70 |
| MOR0165028 | 16.50 | 22.10 | 2.80 |
| MOR0165030 | 16.50 | 22.50 | 3.00 |
| MOR0166010 | 16.60 | 18.60 | 1.00 |
| MOR0166024 | 16.60 | 21.40 | 2.40 |
| MOR0166011 | 16.65 | 18.85 | 1.10 |
| MOR0167014 | 16.70 | 19.60 | 1.45 |
| MOR0167025 | 16.70 | 21.70 | 2.50 |
| MOR0168013 | 16.80 | 19.40 | 1.30 |
| MOR0168024 | 16.80 | 21.60 | 2.40 |
| MOR0168028 | 16.80 | 22.40 | 2.80 |
| MOR0169027 | 16.90 | 22.30 | 2.70 |
| MOR0170010 | 17.00 | 19.00 | 1.00 |
| MOR0170011 | 17.00 | 19.20 | 1.10 |
| MOR0170012 | 17.00 | 19.40 | 1.20 |
| MOR0170012-1 | 17.00 | 19.50 | 1.25 |
| MOR0170013 | 17.00 | 19.60 | 1.30 |
| MOR0170015 | 17.00 | 20.00 | 1.50 |
| MOR0170016 | 17.00 | 20.20 | 1.60 |
| MOR0170018 | 17.00 | 20.60 | 1.80 |
| MOR0170020 | 17.00 | 21.00 | 2.00 |
| MOR0170021 | 17.00 | 21.20 | 2.10 |
| MOR0170022 | 17.00 | 21.40 | 2.20 |
| MOR0170025 | 17.00 | 22.00 | 2.50 |
| MOR0170026 | 17.00 | 22.30 | 2.65 |
| MOR0170028 | 17.00 | 22.60 | 2.80 |
| MOR0170030 | 17.00 | 23.00 | 3.00 |
| MOR0170032 | 17.00 | 23.50 | 3.25 |
| MOR0170035 | 17.00 | 24.00 | 3.50 |
| MOR0170038 | 17.00 | 24.60 | 3.80 |
| MOR0170040 | 17.00 | 25.00 | 4.00 |
| MOR0170045 | 17.00 | 26.00 | 4.50 |
| MOR0170050 | 17.00 | 27.00 | 5.00 |
| MOR0170055 | 17.00 | 28.00 | 5.50 |
| MOR0170080 | 17.00 | 33.00 | 8.00 |
| MOR0171013 | 17.10 | 19.70 | 1.30 |
| MOR0171016 | 17.10 | 20.30 | 1.60 |
| MOR0172015 | 17.20 | 20.20 | 1.50 |
| MOR0172030 | 17.20 | 23.20 | 3.00 |
| MOR0172012 | 17.25 | 19.65 | 1.20 |
| MOR0173010 | 17.30 | 19.30 | 1.00 |
| MOR0173022 | 17.30 | 21.70 | 2.20 |
| MOR0173024 | 17.30 | 22.10 | 2.40 |
| MOR0174028 | 17.40 | 23.00 | 2.80 |
| MOR0175010 | 17.50 | 19.50 | 1.00 |
| MOR0175012 | 17.50 | 19.90 | 1.20 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0175013 | 17.50 | 20.10 | 1.30 |
| MOR0175015 | 17.50 | 20.50 | 1.50 |
| MOR0175016 | 17.50 | 20.70 | 1.60 |
| MOR0175020 | 17.50 | 21.50 | 2.00 |
| MOR0175024 | 17.50 | 22.30 | 2.40 |
| MOR0175025 | 17.50 | 22.50 | 2.50 |
| MOR0175030 | 17.50 | 23.50 | 3.00 |
| MOR0175035 | 17.50 | 24.50 | 3.50 |
| MOR0176010 | 17.60 | 19.60 | 1.00 |
| MOR0176023 | 17.60 | 22.20 | 2.30 |
| MOR0176024 | 17.60 | 22.40 | 2.40 |
| MOR0177010 | 17.70 | 19.70 | 1.00 |
| MOR0177013 | 17.70 | 20.30 | 1.30 |
| MOR0178015 | 17.80 | 20.80 | 1.50 |
| MOR0178024 | 17.80 | 22.60 | 2.40 |
| MOR0178026 | 17.80 | 23.00 | 2.60 |
| MOR0179026 | 17.90 | 23.10 | 2.60 |
| MOR0180010 | 18.00 | 20.00 | 1.00 |
| MOR0180011 | 18.00 | 20.30 | 1.15 |
| MOR0180012 | 18.00 | 20.40 | 1.20 |
| MOR0180012-1 | 18.00 | 20.50 | 1.25 |
| MOR0180013 | 18.00 | 20.60 | 1.30 |
| MOR0180015 | 18.00 | 21.00 | 1.50 |
| MOR0180016 | 18.00 | 21.30 | 1.65 |
| MOR0180018 | 18.00 | 21.60 | 1.80 |
| MOR0180020 | 18.00 | 22.00 | 2.00 |
| MOR0180022 | 18.00 | 22.40 | 2.20 |
| MOR0180025 | 18.00 | 23.00 | 2.50 |
| MOR0180026 | 18.00 | 23.30 | 2.65 |
| MOR0180028 | 18.00 | 23.60 | 2.80 |
| MOR0180030 | 18.00 | 24.00 | 3.00 |
| MOR0180031 | 18.00 | 24.30 | 3.15 |
| MOR0180032 | 18.00 | 24.50 | 3.25 |
| MOR0180035 | 18.00 | 25.00 | 3.50 |
| MOR0180035-1 | 18.00 | 25.10 | 3.55 |
| MOR0180040 | 18.00 | 26.00 | 4.00 |
| MOR0180045 | 18.00 | 27.00 | 4.50 |
| MOR0180050 | 18.00 | 28.00 | 5.00 |
| MOR0180060 | 18.00 | 30.00 | 6.00 |
| MOR0180070 | 18.00 | 32.00 | 7.00 |
| MOR0180100 | 18.00 | 38.00 | 10.00 |
| MOR0181016 | 18.10 | 21.30 | 1.60 |
| MOR0182017 | 18.20 | 21.60 | 1.70 |
| MOR0182030 | 18.20 | 24.20 | 3.00 |
| MOR0182034 | 18.20 | 25.00 | 3.40 |
| MOR0183024 | 18.30 | 23.10 | 2.40 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0183026 | 18.30 | 23.50 | 2.60 |
| MOR0183030 | 18.30 | 24.30 | 3.00 |
| MOR0183036 | 18.30 | 25.50 | 3.60 |
| MOR0184027 | 18.40 | 23.80 | 2.70 |
| MOR0184044 | 18.45 | 27.35 | 4.45 |
| MOR0185010 | 18.50 | 20.50 | 1.00 |
| MOR0185012 | 18.50 | 20.90 | 1.20 |
| MOR0185013 | 18.50 | 21.10 | 1.30 |
| MOR0185015 | 18.50 | 21.50 | 1.50 |
| MOR0185016 | 18.50 | 21.70 | 1.60 |
| MOR0185020 | 18.50 | 22.50 | 2.00 |
| MOR0185025 | 18.50 | 23.50 | 2.50 |
| MOR0185030 | 18.50 | 24.50 | 3.00 |
| MOR0185027 | 18.55 | 23.95 | 2.70 |
| MOR0186013 | 18.60 | 21.20 | 1.30 |
| MOR0186022 | 18.60 | 23.00 | 2.20 |
| MOR0186024 | 18.60 | 23.40 | 2.40 |
| MOR0186027 | 18.60 | 24.00 | 2.70 |
| MOR0186015 | 18.65 | 21.65 | 1.50 |
| MOR0187030 | 18.70 | 24.70 | 3.00 |
| MOR0187012 | 18.75 | 21.15 | 1.20 |
| MOR0187018 | 18.77 | 22.47 | 1.85 |
| MOR0188024 | 18.80 | 23.60 | 2.40 |
| MOR0188030 | 18.80 | 24.80 | 3.00 |
| MOR0189017 | 18.90 | 22.30 | 1.70 |
| MOR0189030 | 18.90 | 24.90 | 3.00 |
| MOR0190010 | 19.00 | 21.00 | 1.00 |
| MOR0190012 | 19.00 | 21.40 | 1.20 |
| MOR0190012-1 | 19.00 | 21.50 | 1.25 |
| MOR0190013 | 19.00 | 21.60 | 1.30 |
| MOR0190015 | 19.00 | 22.00 | 1.50 |
| MOR0190016 | 19.00 | 22.20 | 1.60 |
| MOR0190017 | 19.00 | 22.40 | 1.70 |
| MOR0190017-1 | 19.00 | 22.50 | 1.75 |
| MOR0190018 | 19.00 | 22.60 | 1.80 |
| MOR0190020 | 19.00 | 23.00 | 2.00 |
| MOR0190024 | 19.00 | 23.80 | 2.40 |
| MOR0190025 | 19.00 | 24.00 | 2.50 |
| MOR0190026 | 19.00 | 24.30 | 2.65 |
| MOR0190030 | 19.00 | 25.00 | 3.00 |
| MOR0190031 | 19.00 | 25.30 | 3.15 |
| MOR0190035 | 19.00 | 26.00 | 3.50 |
| MOR0190035-1 | 19.00 | 26.10 | 3.55 |
| MOR0190040 | 19.00 | 27.00 | 4.00 |
| MOR0190045 | 19.00 | 28.00 | 4.50 |
| MOR0190050 | 19.00 | 29.00 | 5.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0190055 | 19.00 | 30.00 | 5.50 |
| MOR0190060 | 19.00 | 31.00 | 6.00 |
| MOR0190070 | 19.00 | 33.00 | 7.00 |
| MOR0190120 | 19.00 | 43.00 | 12.00 |
| MOR0190050-1 | 19.05 | 29.05 | 5.00 |
| MOR0191016 | 19.10 | 22.30 | 1.60 |
| MOR0192020 | 19.20 | 23.20 | 2.00 |
| MOR0192025 | 19.20 | 24.20 | 2.50 |
| MOR0192030 | 19.20 | 25.20 | 3.00 |
| MOR0192040 | 19.20 | 27.20 | 4.00 |
| MOR0192045 | 19.20 | 28.20 | 4.50 |
| MOR0193024 | 19.30 | 24.10 | 2.40 |
| MOR0193045 | 19.30 | 28.30 | 4.50 |
| MOR0193046 | 19.30 | 28.50 | 4.60 |
| MOR0193014 | 19.35 | 22.25 | 1.45 |
| MOR0194014 | 19.40 | 22.20 | 1.40 |
| MOR0194024 | 19.40 | 24.20 | 2.40 |
| MOR0194080 | 19.45 | 35.45 | 8.00 |
| MOR0195010 | 19.50 | 21.50 | 1.00 |
| MOR0195015 | 19.50 | 22.50 | 1.50 |
| MOR0195018 | 19.50 | 23.10 | 1.80 |
| MOR0195020 | 19.50 | 23.50 | 2.00 |
| MOR0195024 | 19.50 | 24.30 | 2.40 |
| MOR0195025 | 19.50 | 24.50 | 2.50 |
| MOR0195030 | 19.50 | 25.50 | 3.00 |
| MOR0195035 | 19.50 | 26.50 | 3.50 |
| MOR0195040 | 19.50 | 27.50 | 4.00 |
| MOR0195041 | 19.50 | 27.70 | 4.10 |
| MOR0195060 | 19.50 | 31.50 | 6.00 |
| MOR0196015 | 19.60 | 22.60 | 1.50 |
| MOR0196023 | 19.60 | 24.20 | 2.30 |
| MOR0196024 | 19.60 | 24.40 | 2.40 |
| MOR0196030 | 19.60 | 25.60 | 3.00 |
| MOR0196032 | 19.60 | 26.10 | 3.25 |
| MOR0196048 | 19.60 | 29.20 | 4.80 |
| MOR0197015 | 19.70 | 22.70 | 1.50 |
| MOR0197017 | 19.70 | 23.10 | 1.70 |
| MOR0197030 | 19.70 | 25.70 | 3.00 |
| MOR0197035 | 19.70 | 26.70 | 3.50 |
| MOR0197036 | 19.70 | 26.90 | 3.60 |
| MOR0197080 | 19.75 | 35.75 | 8.00 |
| MOR0198013 | 19.80 | 22.40 | 1.30 |
| MOR0198024 | 19.80 | 24.60 | 2.40 |
| MOR0198036 | 19.80 | 27.00 | 3.60 |
| MOR0199026 | 19.90 | 25.10 | 2.60 |
| MOR0200010 | 20.00 | 22.00 | 1.00 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0200012 | 20.00 | 22.40 | 1.20 |
| MOR0200013 | 20.00 | 22.60 | 1.30 |
| MOR0200013-1 | 20.00 | 22.70 | 1.35 |
| MOR0200014 | 20.00 | 22.90 | 1.45 |
| MOR0200015 | 20.00 | 23.00 | 1.50 |
| MOR0200016 | 20.00 | 23.20 | 1.60 |
| MOR0200020 | 20.00 | 24.00 | 2.00 |
| MOR0200022 | 20.00 | 24.40 | 2.20 |
| MOR0200022-1 | 20.00 | 24.50 | 2.25 |
| MOR0200024 | 20.00 | 24.80 | 2.40 |
| MOR0200025 | 20.00 | 25.00 | 2.50 |
| MOR0200026-1 | 20.00 | 25.30 | 2.65 |
| MOR0200030 | 20.00 | 26.00 | 3.00 |
| MOR0200031 | 20.00 | 26.30 | 3.15 |
| MOR0200035 | 20.00 | 27.00 | 3.50 |
| MOR0200035-1 | 20.00 | 27.10 | 3.55 |
| MOR0200036 | 20.00 | 27.20 | 3.60 |
| MOR0200040 | 20.00 | 28.00 | 4.00 |
| MOR0200043 | 20.00 | 28.60 | 4.30 |
| MOR0200045 | 20.00 | 29.00 | 4.50 |
| MOR0200050 | 20.00 | 30.00 | 5.00 |
| MOR0200055 | 20.00 | 31.00 | 5.50 |
| MOR0200060 | 20.00 | 32.00 | 6.00 |
| MOR0200080 | 20.00 | 36.00 | 8.00 |
| MOR0200100 | 20.00 | 40.00 | 10.00 |
| MOR0201015 | 20.10 | 23.10 | 1.50 |
| MOR0201016 | 20.10 | 23.30 | 1.60 |
| MOR0201020 | 20.12 | 24.12 | 2.00 |
| MOR0201024 | 20.15 | 25.05 | 2.45 |
| MOR0202010 | 20.20 | 22.20 | 1.00 |
| MOR0202025 | 20.20 | 25.20 | 2.50 |
| MOR0202026 | 20.20 | 25.40 | 2.60 |
| MOR0202030 | 20.20 | 26.20 | 3.00 |
| MOR0203024 | 20.30 | 25.10 | 2.40 |
| MOR0204012 | 20.40 | 22.80 | 1.20 |
| MOR0204025 | 20.40 | 25.40 | 2.50 |
| MOR0205010 | 20.50 | 22.50 | 1.00 |
| MOR0205015 | 20.50 | 23.50 | 1.50 |
| MOR0205018 | 20.50 | 24.10 | 1.80 |
| MOR0205020 | 20.50 | 24.50 | 2.00 |
| MOR0205024 | 20.50 | 25.30 | 2.40 |
| MOR0205025 | 20.50 | 25.50 | 2.50 |
| MOR0205030 | 20.50 | 26.50 | 3.00 |
| MOR0205032 | 20.50 | 26.90 | 3.20 |
| MOR0205040 | 20.50 | 28.50 | 4.00 |
| MOR0206013 | 20.60 | 23.20 | 1.30 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|------|
| | d | D | S |
| MOR0206019 | 20.60 | 24.40 | 1.90 |
| MOR0206023 | 20.60 | 25.20 | 2.30 |
| MOR0206024 | 20.60 | 25.40 | 2.40 |
| MOR0208015 | 20.80 | 23.80 | 1.50 |
| MOR0208016 | 20.80 | 24.00 | 1.60 |
| MOR0208024 | 20.80 | 25.60 | 2.40 |
| MOR0209015 | 20.90 | 23.90 | 1.50 |
| MOR0210010 | 21.00 | 23.00 | 1.00 |
| MOR0210015 | 21.00 | 24.00 | 1.50 |
| MOR0210020 | 21.00 | 25.00 | 2.00 |
| MOR0210024 | 21.00 | 25.80 | 2.40 |
| MOR0210025 | 21.00 | 26.00 | 2.50 |
| MOR0210030 | 21.00 | 27.00 | 3.00 |
| MOR0210035 | 21.00 | 28.00 | 3.50 |
| MOR0210040 | 21.00 | 29.00 | 4.00 |
| MOR0210045 | 21.00 | 30.00 | 4.50 |
| MOR0210050 | 21.00 | 31.00 | 5.00 |
| MOR0210060 | 21.00 | 33.00 | 6.00 |
| MOR0211016 | 21.10 | 24.30 | 1.60 |
| MOR0211019 | 21.10 | 24.90 | 1.90 |
| MOR0211030 | 21.10 | 27.10 | 3.00 |
| MOR0212014 | 21.20 | 24.00 | 1.40 |
| MOR0212018 | 21.20 | 24.80 | 1.80 |
| MOR0212024 | 21.20 | 26.00 | 2.40 |
| MOR0212025 | 21.20 | 26.20 | 2.50 |
| MOR0212026 | 21.20 | 26.50 | 2.65 |
| MOR0212030 | 21.20 | 27.20 | 3.00 |
| MOR0212035 | 21.20 | 28.30 | 3.55 |
| MOR0212049 | 21.20 | 31.00 | 4.90 |
| MOR0213010 | 21.30 | 23.30 | 1.00 |
| MOR0213021 | 21.30 | 25.50 | 2.10 |
| MOR0213024 | 21.30 | 26.10 | 2.40 |
| MOR0213035 | 21.30 | 28.30 | 3.50 |
| MOR0213036 | 21.30 | 28.50 | 3.60 |
| MOR0213039 | 21.30 | 29.20 | 3.95 |
| MOR0213046 | 21.30 | 30.50 | 4.60 |
| MOR0213053 | 21.30 | 31.90 | 5.30 |
| MOR0213030 | 21.35 | 27.35 | 3.00 |
| MOR0214024 | 21.40 | 26.20 | 2.40 |
| MOR0215010 | 21.50 | 23.50 | 1.00 |
| MOR0215012 | 21.50 | 23.90 | 1.20 |
| MOR0215015 | 21.50 | 24.50 | 1.50 |
| MOR0215020 | 21.50 | 25.50 | 2.00 |
| MOR0215024 | 21.50 | 26.30 | 2.40 |
| MOR0215025 | 21.50 | 26.50 | 2.50 |
| MOR0215028 | 21.50 | 27.10 | 2.80 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0215030 | 21.50 | 27.50 | 3.00 |
| MOR0215035 | 21.50 | 28.50 | 3.50 |
| MOR0215039 | 21.50 | 29.30 | 3.90 |
| MOR0215045 | 21.50 | 30.50 | 4.50 |
| MOR0216024 | 21.60 | 26.40 | 2.40 |
| MOR0218015 | 21.80 | 24.80 | 1.50 |
| MOR0218024 | 21.80 | 26.60 | 2.40 |
| MOR0218030 | 21.80 | 27.80 | 3.00 |
| MOR0219020 | 21.90 | 25.90 | 2.00 |
| MOR0219029 | 21.92 | 27.82 | 2.95 |
| MOR0220010 | 22.00 | 24.00 | 1.00 |
| MOR0220011 | 22.00 | 24.20 | 1.10 |
| MOR0220012 | 22.00 | 24.40 | 1.20 |
| MOR0220013 | 22.00 | 24.60 | 1.30 |
| MOR0220015 | 22.00 | 25.00 | 1.50 |
| MOR0220018 | 22.00 | 25.60 | 1.80 |
| MOR0220020 | 22.00 | 26.00 | 2.00 |
| MOR0220021 | 22.00 | 26.20 | 2.10 |
| MOR0220021-1 | 22.00 | 26.30 | 2.15 |
| MOR0220023 | 22.00 | 26.60 | 2.30 |
| MOR0220025 | 22.00 | 27.00 | 2.50 |
| MOR0220030 | 22.00 | 28.00 | 3.00 |
| MOR0220035 | 22.00 | 29.00 | 3.50 |
| MOR0220037 | 22.00 | 29.40 | 3.70 |
| MOR0220040 | 22.00 | 30.00 | 4.00 |
| MOR0220045 | 22.00 | 31.00 | 4.50 |
| MOR0220050 | 22.00 | 32.00 | 5.00 |
| MOR0220055 | 22.00 | 33.00 | 5.50 |
| MOR0220060 | 22.00 | 34.00 | 6.00 |
| MOR0220080 | 22.00 | 38.00 | 8.00 |
| MOR0220016 | 22.05 | 25.25 | 1.60 |
| MOR0221016 | 22.10 | 25.30 | 1.60 |
| MOR0221020 | 22.10 | 26.10 | 2.00 |
| MOR0221053 | 22.16 | 32.86 | 5.35 |
| MOR0222018 | 22.20 | 25.80 | 1.80 |
| MOR0222030 | 22.20 | 28.20 | 3.00 |
| MOR0222032 | 22.20 | 28.60 | 3.20 |
| MOR0222063 | 22.23 | 34.93 | 6.35 |
| MOR0223011 | 22.30 | 24.50 | 1.10 |
| MOR0223024 | 22.30 | 27.10 | 2.40 |
| MOR0224025 | 22.40 | 27.40 | 2.50 |
| MOR0224026 | 22.40 | 27.70 | 2.65 |
| MOR0224031 | 22.40 | 28.70 | 3.15 |
| MOR0224035 | 22.40 | 29.50 | 3.55 |
| MOR0225010 | 22.50 | 24.50 | 1.00 |
| MOR0225015 | 22.50 | 25.50 | 1.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0225020 | 22.50 | 26.50 | 2.00 |
| MOR0225025 | 22.50 | 27.50 | 2.50 |
| MOR0225027 | 22.50 | 28.00 | 2.75 |
| MOR0225030 | 22.50 | 28.50 | 3.00 |
| MOR0225032 | 22.50 | 29.00 | 3.25 |
| MOR0225045 | 22.50 | 31.50 | 4.50 |
| MOR0225050 | 22.50 | 32.50 | 5.00 |
| MOR0225065 | 22.50 | 35.50 | 6.50 |
| MOR0226011 | 22.60 | 24.80 | 1.10 |
| MOR0227015 | 22.70 | 25.70 | 1.50 |
| MOR0227028 | 22.70 | 28.30 | 2.80 |
| MOR0228015 | 22.80 | 25.80 | 1.50 |
| MOR0228030 | 22.80 | 28.80 | 3.00 |
| MOR0228053 | 22.80 | 33.40 | 5.30 |
| MOR0230010 | 23.00 | 25.00 | 1.00 |
| MOR0230012 | 23.00 | 25.40 | 1.20 |
| MOR0230015 | 23.00 | 26.00 | 1.50 |
| MOR0230016 | 23.00 | 26.20 | 1.60 |
| MOR0230020 | 23.00 | 27.00 | 2.00 |
| MOR0230022 | 23.00 | 27.40 | 2.20 |
| MOR0230025 | 23.00 | 28.00 | 2.50 |
| MOR0230028 | 23.00 | 28.60 | 2.80 |
| MOR0230030 | 23.00 | 29.00 | 3.00 |
| MOR0230035 | 23.00 | 30.00 | 3.50 |
| MOR0230036 | 23.00 | 30.20 | 3.60 |
| MOR0230040 | 23.00 | 31.00 | 4.00 |
| MOR0230045 | 23.00 | 32.00 | 4.50 |
| MOR0230050 | 23.00 | 33.00 | 5.00 |
| MOR0230060 | 23.00 | 35.00 | 6.00 |
| MOR0230070 | 23.00 | 37.00 | 7.00 |
| MOR0230125 | 23.00 | 48.00 | 12.50 |
| MOR0232030 | 23.20 | 29.20 | 3.00 |
| MOR0233010 | 23.30 | 25.30 | 1.00 |
| MOR0233012 | 23.30 | 25.70 | 1.20 |
| MOR0233019 | 23.30 | 27.10 | 1.90 |
| MOR0233024 | 23.30 | 28.10 | 2.40 |
| MOR0233046 | 23.30 | 32.50 | 4.60 |
| MOR0234029 | 23.47 | 29.37 | 2.95 |
| MOR0235010 | 23.50 | 25.50 | 1.00 |
| MOR0235012 | 23.50 | 25.90 | 1.20 |
| MOR0235015 | 23.50 | 26.50 | 1.50 |
| MOR0235016 | 23.50 | 26.70 | 1.60 |
| MOR0235020 | 23.50 | 27.50 | 2.00 |
| MOR0235024 | 23.50 | 28.30 | 2.40 |
| MOR0235025 | 23.50 | 28.50 | 2.50 |
| MOR0235025-1 | 23.50 | 28.60 | 2.55 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0235030 | 23.50 | 29.50 | 3.00 |
| MOR0235035 | 23.50 | 30.50 | 3.50 |
| MOR0235055 | 23.50 | 34.50 | 5.50 |
| MOR0235060 | 23.50 | 35.50 | 6.00 |
| MOR0235072 | 23.50 | 38.00 | 7.25 |
| MOR0235010-1 | 23.59 | 25.59 | 1.00 |
| MOR0236025 | 23.60 | 28.60 | 2.50 |
| MOR0236026 | 23.60 | 28.90 | 2.65 |
| MOR0236035 | 23.60 | 30.70 | 3.55 |
| MOR0237028 | 23.70 | 29.30 | 2.80 |
| MOR0237035 | 23.70 | 30.70 | 3.50 |
| MOR0237050 | 23.75 | 33.75 | 5.00 |
| MOR0237063 | 23.79 | 36.49 | 6.35 |
| MOR0238013 | 23.80 | 26.40 | 1.30 |
| MOR0240010 | 24.00 | 26.00 | 1.00 |
| MOR0240012 | 24.00 | 26.40 | 1.20 |
| MOR0240013 | 24.00 | 26.60 | 1.30 |
| MOR0240015 | 24.00 | 27.00 | 1.50 |
| MOR0240016 | 24.00 | 27.20 | 1.60 |
| MOR0240016-1 | 24.00 | 27.30 | 1.65 |
| MOR0240020 | 24.00 | 28.00 | 2.00 |
| MOR0240021 | 24.00 | 28.20 | 2.10 |
| MOR0240025 | 24.00 | 29.00 | 2.50 |
| MOR0240026 | 24.00 | 29.20 | 2.60 |
| MOR0240030 | 24.00 | 30.00 | 3.00 |
| MOR0240035 | 24.00 | 31.00 | 3.50 |
| MOR0240036 | 24.00 | 31.20 | 3.60 |
| MOR0240038 | 24.00 | 31.60 | 3.80 |
| MOR0240040 | 24.00 | 32.00 | 4.00 |
| MOR0240042 | 24.00 | 32.40 | 4.20 |
| MOR0240045 | 24.00 | 33.00 | 4.50 |
| MOR0240048 | 24.00 | 33.60 | 4.80 |
| MOR0240050 | 24.00 | 34.00 | 5.00 |
| MOR0240055 | 24.00 | 35.00 | 5.50 |
| MOR0240060 | 24.00 | 36.00 | 6.00 |
| MOR0240080 | 24.00 | 40.00 | 8.00 |
| MOR0240090 | 24.00 | 42.00 | 9.00 |
| MOR0240100 | 24.00 | 44.00 | 10.00 |
| MOR0241030 | 24.10 | 30.10 | 3.00 |
| MOR0242030 | 24.20 | 30.20 | 3.00 |
| MOR0242033 | 24.20 | 30.80 | 3.30 |
| MOR0243024 | 24.30 | 29.10 | 2.40 |
| MOR0243046 | 24.30 | 33.50 | 4.60 |
| MOR0244030 | 24.40 | 30.40 | 3.00 |
| MOR0244035 | 24.40 | 31.40 | 3.50 |
| MOR0244012 | 24.45 | 26.85 | 1.20 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0245010 | 24.50 | 26.50 | 1.00 |
| MOR0245015 | 24.50 | 27.50 | 1.50 |
| MOR0245018 | 24.50 | 28.10 | 1.80 |
| MOR0245020 | 24.50 | 28.50 | 2.00 |
| MOR0245024 | 24.50 | 29.30 | 2.40 |
| MOR0245025 | 24.50 | 29.50 | 2.50 |
| MOR0245027 | 24.50 | 29.90 | 2.70 |
| MOR0245030 | 24.50 | 30.50 | 3.00 |
| MOR0245035 | 24.50 | 31.50 | 3.50 |
| MOR0245040 | 24.50 | 32.50 | 4.00 |
| MOR0245045 | 24.50 | 33.50 | 4.50 |
| MOR0245067 | 24.50 | 37.90 | 6.70 |
| MOR0246018 | 24.60 | 28.20 | 1.80 |
| MOR0246024 | 24.60 | 29.40 | 2.40 |
| MOR0246030 | 24.60 | 30.60 | 3.00 |
| MOR0246035 | 24.60 | 31.60 | 3.50 |
| MOR0246036 | 24.60 | 31.80 | 3.60 |
| MOR0247017 | 24.70 | 28.10 | 1.70 |
| MOR0247035 | 24.70 | 31.70 | 3.50 |
| MOR0247050 | 24.77 | 34.77 | 5.00 |
| MOR0248010 | 24.80 | 26.80 | 1.00 |
| MOR0248015 | 24.80 | 27.80 | 1.50 |
| MOR0248019 | 24.80 | 28.60 | 1.90 |
| MOR0250010 | 25.00 | 27.00 | 1.00 |
| MOR0250012 | 25.00 | 27.40 | 1.20 |
| MOR0250013 | 25.00 | 27.60 | 1.30 |
| MOR0250015 | 25.00 | 28.00 | 1.50 |
| MOR0250018 | 25.00 | 28.60 | 1.80 |
| MOR0250020 | 25.00 | 29.00 | 2.00 |
| MOR0250021 | 25.00 | 29.20 | 2.10 |
| MOR0250024 | 25.00 | 29.80 | 2.40 |
| MOR0250025 | 25.00 | 30.00 | 2.50 |
| MOR0250026 | 25.00 | 30.20 | 2.60 |
| MOR0250026-1 | 25.00 | 30.30 | 2.65 |
| MOR0250030 | 25.00 | 31.00 | 3.00 |
| MOR0250031 | 25.00 | 31.30 | 3.15 |
| MOR0250035 | 25.00 | 32.00 | 3.50 |
| MOR0250035-1 | 25.00 | 32.10 | 3.55 |
| MOR0250040 | 25.00 | 33.00 | 4.00 |
| MOR0250045 | 25.00 | 34.00 | 4.50 |
| MOR0250046 | 25.00 | 34.20 | 4.60 |
| MOR0250050 | 25.00 | 35.00 | 5.00 |
| MOR0250055 | 25.00 | 36.00 | 5.50 |
| MOR0250060 | 25.00 | 37.00 | 6.00 |
| MOR0250080 | 25.00 | 41.00 | 8.00 |
| MOR0250029 | 25.04 | 30.94 | 2.95 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0251016 | 25.10 | 28.30 | 1.60 |
| MOR0252012 | 25.20 | 27.60 | 1.20 |
| MOR0252018 | 25.20 | 28.80 | 1.80 |
| MOR0252030 | 25.20 | 31.20 | 3.00 |
| MOR0253016 | 25.30 | 28.50 | 1.60 |
| MOR0253024 | 25.30 | 30.10 | 2.40 |
| MOR0253025 | 25.30 | 30.30 | 2.50 |
| MOR0253030 | 25.30 | 31.30 | 3.00 |
| MOR0254015 | 25.40 | 28.40 | 1.50 |
| MOR0255010 | 25.50 | 27.50 | 1.00 |
| MOR0255012 | 25.50 | 27.90 | 1.20 |
| MOR0255015 | 25.50 | 28.50 | 1.50 |
| MOR0255020 | 25.50 | 29.50 | 2.00 |
| MOR0255025 | 25.50 | 30.50 | 2.50 |
| MOR0255030 | 25.50 | 31.50 | 3.00 |
| MOR0255032 | 25.50 | 31.90 | 3.20 |
| MOR0255035 | 25.50 | 32.50 | 3.50 |
| MOR0255040 | 25.50 | 33.50 | 4.00 |
| MOR0256024 | 25.60 | 30.40 | 2.40 |
| MOR0257015 | 25.70 | 28.70 | 1.50 |
| MOR0257019 | 25.70 | 29.50 | 1.90 |
| MOR0258026 | 25.80 | 31.10 | 2.65 |
| MOR0258035-1 | 25.80 | 32.90 | 3.55 |
| MOR0258069 | 25.80 | 39.60 | 6.90 |
| MOR0259030 | 25.98 | 31.98 | 3.00 |
| MOR0260010 | 26.00 | 28.00 | 1.00 |
| MOR0260012 | 26.00 | 28.40 | 1.20 |
| MOR0260015 | 26.00 | 29.00 | 1.50 |
| MOR0260020 | 26.00 | 30.00 | 2.00 |
| MOR0260021 | 26.00 | 30.30 | 2.15 |
| MOR0260022 | 26.00 | 30.50 | 2.25 |
| MOR0260025 | 26.00 | 31.00 | 2.50 |
| MOR0260030 | 26.00 | 32.00 | 3.00 |
| MOR0260035 | 26.00 | 33.00 | 3.50 |
| MOR0260040 | 26.00 | 34.00 | 4.00 |
| MOR0260045 | 26.00 | 35.00 | 4.50 |
| MOR0260050 | 26.00 | 36.00 | 5.00 |
| MOR0260060 | 26.00 | 38.00 | 6.00 |
| MOR0260065 | 26.00 | 39.00 | 6.50 |
| MOR0260070 | 26.00 | 40.00 | 7.00 |
| MOR0260080 | 26.00 | 42.00 | 8.00 |
| MOR0262024 | 26.20 | 31.00 | 2.40 |
| MOR0262030 | 26.20 | 32.20 | 3.00 |
| MOR0262030-1 | 26.20 | 32.30 | 3.05 |
| MOR0262036 | 26.20 | 33.40 | 3.60 |
| MOR0263024 | 26.30 | 31.10 | 2.40 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0263046 | 26.30 | 35.50 | 4.60 |
| MOR0263020 | 26.33 | 30.33 | 2.00 |
| MOR0265010 | 26.50 | 28.50 | 1.00 |
| MOR0265012 | 26.50 | 28.90 | 1.20 |
| MOR0265015 | 26.50 | 29.50 | 1.50 |
| MOR0265020 | 26.50 | 30.50 | 2.00 |
| MOR0265022 | 26.50 | 30.90 | 2.20 |
| MOR0265025 | 26.50 | 31.50 | 2.50 |
| MOR0265026 | 26.50 | 31.80 | 2.65 |
| MOR0265030 | 26.50 | 32.50 | 3.00 |
| MOR0265035 | 26.50 | 33.50 | 3.50 |
| MOR0265035-1 | 26.50 | 33.60 | 3.55 |
| MOR0265050 | 26.50 | 36.50 | 5.00 |
| MOR0265029 | 26.59 | 32.49 | 2.95 |
| MOR0266035 | 26.60 | 33.60 | 3.50 |
| MOR0267034 | 26.70 | 33.50 | 3.40 |
| MOR0268025 | 26.80 | 31.80 | 2.50 |
| MOR0268026 | 26.80 | 32.10 | 2.65 |
| MOR0268030 | 26.80 | 32.80 | 3.00 |
| MOR0270013 | 27.00 | 29.60 | 1.30 |
| MOR0270014 | 27.00 | 29.80 | 1.40 |
| MOR0270015 | 27.00 | 30.00 | 1.50 |
| MOR0270020 | 27.00 | 31.00 | 2.00 |
| MOR0270025 | 27.00 | 32.00 | 2.50 |
| MOR0270030 | 27.00 | 33.00 | 3.00 |
| MOR0270032 | 27.00 | 33.40 | 3.20 |
| MOR0270035 | 27.00 | 34.00 | 3.50 |
| MOR0270040 | 27.00 | 35.00 | 4.00 |
| MOR0270045 | 27.00 | 36.00 | 4.50 |
| MOR0270050 | 27.00 | 37.00 | 5.00 |
| MOR0270060 | 27.00 | 39.00 | 6.00 |
| MOR0270070 | 27.00 | 41.00 | 7.00 |
| MOR0271016 | 27.10 | 30.30 | 1.60 |
| MOR0272057 | 27.20 | 38.60 | 5.70 |
| MOR0273024 | 27.30 | 32.10 | 2.40 |
| MOR0273025 | 27.30 | 32.30 | 2.50 |
| MOR0273027 | 27.30 | 32.70 | 2.70 |
| MOR0273032 | 27.30 | 33.70 | 3.20 |
| MOR0273046 | 27.30 | 36.50 | 4.60 |
| MOR0274025 | 27.40 | 32.40 | 2.50 |
| MOR0274027 | 27.40 | 32.80 | 2.70 |
| MOR0274030 | 27.40 | 33.40 | 3.00 |
| MOR0275010 | 27.50 | 29.50 | 1.00 |
| MOR0275015 | 27.50 | 30.50 | 1.50 |
| MOR0275020 | 27.50 | 31.50 | 2.00 |
| MOR0275024 | 27.50 | 32.30 | 2.40 |

O'RINGS



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0275025 | 27.50 | 32.50 | 2.50 |
| MOR0275030 | 27.50 | 33.50 | 3.00 |
| MOR0275032 | 27.50 | 33.90 | 3.20 |
| MOR0275045 | 27.50 | 36.50 | 4.50 |
| MOR0276024 | 27.60 | 32.40 | 2.40 |
| MOR0276030 | 27.60 | 33.60 | 3.00 |
| MOR0278015 | 27.80 | 30.80 | 1.50 |
| MOR0278024 | 27.80 | 32.60 | 2.40 |
| MOR0278030 | 27.80 | 33.80 | 3.00 |
| MOR0278036 | 27.80 | 35.00 | 3.60 |
| MOR0280010 | 28.00 | 30.00 | 1.00 |
| MOR0280012 | 28.00 | 30.40 | 1.20 |
| MOR0280015 | 28.00 | 31.00 | 1.50 |
| MOR0280017 | 28.00 | 31.40 | 1.70 |
| MOR0280019 | 28.00 | 31.80 | 1.90 |
| MOR0280020 | 28.00 | 32.00 | 2.00 |
| MOR0280022 | 28.00 | 32.40 | 2.20 |
| MOR0280025 | 28.00 | 33.00 | 2.50 |
| MOR0280026-1 | 28.00 | 33.30 | 2.65 |
| MOR0280030 | 28.00 | 34.00 | 3.00 |
| MOR0280031 | 28.00 | 34.30 | 3.15 |
| MOR0280035 | 28.00 | 35.00 | 3.50 |
| MOR0280035-1 | 28.00 | 35.10 | 3.55 |
| MOR0280040 | 28.00 | 36.00 | 4.00 |
| MOR0280041 | 28.00 | 36.20 | 4.10 |
| MOR0280045 | 28.00 | 37.00 | 4.50 |
| MOR0280050 | 28.00 | 38.00 | 5.00 |
| MOR0280060 | 28.00 | 40.00 | 6.00 |
| MOR0280070 | 28.00 | 42.00 | 7.00 |
| MOR0281043 | 28.10 | 36.70 | 4.30 |
| MOR0281031 | 28.15 | 34.45 | 3.15 |
| MOR0281032 | 28.15 | 34.55 | 3.20 |
| MOR0282010 | 28.20 | 30.20 | 1.00 |
| MOR0282030 | 28.20 | 34.20 | 3.00 |
| MOR0283035 | 28.30 | 35.40 | 3.55 |
| MOR0284030 | 28.40 | 34.40 | 3.00 |
| MOR0284032 | 28.40 | 34.80 | 3.20 |
| MOR0285010 | 28.50 | 30.50 | 1.00 |
| MOR0285015 | 28.50 | 31.50 | 1.50 |
| MOR0285020 | 28.50 | 32.50 | 2.00 |
| MOR0285025 | 28.50 | 33.50 | 2.50 |
| MOR0285030 | 28.50 | 34.50 | 3.00 |
| MOR0285045 | 28.50 | 37.50 | 4.50 |
| MOR0285050 | 28.50 | 38.50 | 5.00 |
| MOR0286022 | 28.60 | 33.00 | 2.20 |
| MOR0289030 | 28.90 | 34.90 | 3.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0290010 | 29.00 | 31.00 | 1.00 |
| MOR0290015 | 29.00 | 32.00 | 1.50 |
| MOR0290018 | 29.00 | 32.60 | 1.80 |
| MOR0290020 | 29.00 | 33.00 | 2.00 |
| MOR0290025 | 29.00 | 34.00 | 2.50 |
| MOR0290030 | 29.00 | 35.00 | 3.00 |
| MOR0290031 | 29.00 | 35.30 | 3.15 |
| MOR0290032 | 29.00 | 35.40 | 3.20 |
| MOR0290032-1 | 29.00 | 35.50 | 3.25 |
| MOR0290035 | 29.00 | 36.00 | 3.50 |
| MOR0290038 | 29.00 | 36.60 | 3.80 |
| MOR0290040 | 29.00 | 37.00 | 4.00 |
| MOR0290045 | 29.00 | 38.00 | 4.50 |
| MOR0290050 | 29.00 | 39.00 | 5.00 |
| MOR0290060 | 29.00 | 41.00 | 6.00 |
| MOR0290100 | 29.00 | 49.00 | 10.00 |
| MOR0291016 | 29.10 | 32.30 | 1.60 |
| MOR0291025 | 29.10 | 34.20 | 2.55 |
| MOR0291030 | 29.10 | 35.10 | 3.00 |
| MOR0292030 | 29.20 | 35.20 | 3.00 |
| MOR0292032 | 29.20 | 35.60 | 3.20 |
| MOR0292033 | 29.20 | 35.80 | 3.30 |
| MOR0292016 | 29.25 | 32.45 | 1.60 |
| MOR0293036 | 29.30 | 36.50 | 3.60 |
| MOR0294010 | 29.40 | 31.40 | 1.00 |
| MOR0294030 | 29.40 | 35.40 | 3.00 |
| MOR0295010 | 29.50 | 31.50 | 1.00 |
| MOR0295015 | 29.50 | 32.50 | 1.50 |
| MOR0295020 | 29.50 | 33.50 | 2.00 |
| MOR0295023 | 29.50 | 34.10 | 2.30 |
| MOR0295025 | 29.50 | 34.50 | 2.50 |
| MOR0295027 | 29.50 | 34.90 | 2.70 |
| MOR0295030 | 29.50 | 35.50 | 3.00 |
| MOR0295038 | 29.50 | 37.10 | 3.80 |
| MOR0295045 | 29.50 | 38.50 | 4.50 |
| MOR0295047 | 29.50 | 39.00 | 4.75 |
| MOR0295055 | 29.50 | 40.50 | 5.50 |
| MOR0295057 | 29.50 | 40.90 | 5.70 |
| MOR0296020 | 29.60 | 33.60 | 2.00 |
| MOR0296024 | 29.60 | 34.40 | 2.40 |
| MOR0297010 | 29.70 | 31.70 | 1.00 |
| MOR0297027 | 29.70 | 35.10 | 2.70 |
| MOR0297028 | 29.70 | 35.30 | 2.80 |
| MOR0297029 | 29.74 | 35.64 | 2.95 |
| MOR0297010-1 | 29.75 | 31.75 | 1.00 |
| MOR0300010 | 30.00 | 32.00 | 1.00 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0300013 | 30.00 | 32.60 | 1.30 |
| MOR0300015 | 30.00 | 33.00 | 1.50 |
| MOR0300018 | 30.00 | 33.60 | 1.80 |
| MOR0300020 | 30.00 | 34.00 | 2.00 |
| MOR0300022 | 30.00 | 34.40 | 2.20 |
| MOR0300025 | 30.00 | 35.00 | 2.50 |
| MOR0300026 | 30.00 | 35.30 | 2.65 |
| MOR0300027 | 30.00 | 35.40 | 2.70 |
| MOR0300030 | 30.00 | 36.00 | 3.00 |
| MOR0300031 | 30.00 | 36.30 | 3.15 |
| MOR0300035 | 30.00 | 37.00 | 3.50 |
| MOR0300035-1 | 30.00 | 37.10 | 3.55 |
| MOR0300040 | 30.00 | 38.00 | 4.00 |
| MOR0300045 | 30.00 | 39.00 | 4.50 |
| MOR0300050 | 30.00 | 40.00 | 5.00 |
| MOR0300055 | 30.00 | 41.00 | 5.50 |
| MOR0300060 | 30.00 | 42.00 | 6.00 |
| MOR0300070 | 30.00 | 44.00 | 7.00 |
| MOR0300075 | 30.00 | 45.00 | 7.50 |
| MOR0300080 | 30.00 | 46.00 | 8.00 |
| MOR0302010 | 30.20 | 32.20 | 1.00 |
| MOR0302030 | 30.20 | 36.20 | 3.00 |
| MOR0303024 | 30.30 | 35.10 | 2.40 |
| MOR0303036 | 30.35 | 37.55 | 3.60 |
| MOR0304048 | 30.40 | 40.00 | 4.80 |
| MOR0305010 | 30.50 | 32.50 | 1.00 |
| MOR0305012 | 30.50 | 32.90 | 1.20 |
| MOR0305015 | 30.50 | 33.50 | 1.50 |
| MOR0305020 | 30.50 | 34.50 | 2.00 |
| MOR0305025 | 30.50 | 35.50 | 2.50 |
| MOR0305030 | 30.50 | 36.50 | 3.00 |
| MOR0305050 | 30.50 | 40.50 | 5.00 |
| MOR0306010 | 30.60 | 32.60 | 1.00 |
| MOR0307020 | 30.70 | 34.70 | 2.00 |
| MOR0308024 | 30.80 | 35.60 | 2.40 |
| MOR0308025 | 30.80 | 35.80 | 2.50 |
| MOR0308036 | 30.80 | 38.00 | 3.60 |
| MOR0308037 | 30.80 | 38.20 | 3.70 |
| MOR0310010 | 31.00 | 33.00 | 1.00 |
| MOR0310015 | 31.00 | 34.00 | 1.50 |
| MOR0310020 | 31.00 | 35.00 | 2.00 |
| MOR0310025 | 31.00 | 36.00 | 2.50 |
| MOR0310030 | 31.00 | 37.00 | 3.00 |
| MOR0310035 | 31.00 | 38.00 | 3.50 |
| MOR0310038 | 31.00 | 38.60 | 3.80 |
| MOR0310040 | 31.00 | 39.00 | 4.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0310045 | 31.00 | 40.00 | 4.50 |
| MOR0310050 | 31.00 | 41.00 | 5.00 |
| MOR0310055 | 31.00 | 42.00 | 5.50 |
| MOR0310060 | 31.00 | 43.00 | 6.00 |
| MOR0310065 | 31.00 | 44.00 | 6.50 |
| MOR0312030 | 31.20 | 37.20 | 3.00 |
| MOR0313020 | 31.30 | 35.30 | 2.00 |
| MOR0314050 | 31.40 | 41.40 | 5.00 |
| MOR0314015 | 31.42 | 34.42 | 1.50 |
| MOR0314029 | 31.42 | 37.32 | 2.95 |
| MOR0315012 | 31.50 | 33.90 | 1.20 |
| MOR0315015 | 31.50 | 34.50 | 1.50 |
| MOR0315017 | 31.50 | 35.00 | 1.75 |
| MOR0315019 | 31.50 | 35.40 | 1.95 |
| MOR0315020 | 31.50 | 35.50 | 2.00 |
| MOR0315025 | 31.50 | 36.50 | 2.50 |
| MOR0315026 | 31.50 | 36.80 | 2.65 |
| MOR0315030 | 31.50 | 37.50 | 3.00 |
| MOR0315035 | 31.50 | 38.50 | 3.50 |
| MOR0315035-1 | 31.50 | 38.60 | 3.55 |
| MOR0315040 | 31.50 | 39.50 | 4.00 |
| MOR0315045 | 31.50 | 40.50 | 4.50 |
| MOR0315050 | 31.50 | 41.50 | 5.00 |
| MOR0315060 | 31.50 | 43.50 | 6.00 |
| MOR0315065 | 31.50 | 44.50 | 6.50 |
| MOR0316012 | 31.60 | 34.00 | 1.20 |
| MOR0316013 | 31.60 | 34.20 | 1.30 |
| MOR0316024 | 31.60 | 36.40 | 2.40 |
| MOR0316020 | 31.63 | 35.63 | 2.00 |
| MOR0317010 | 31.75 | 33.75 | 1.00 |
| MOR0318010 | 31.80 | 33.80 | 1.00 |
| MOR0318015 | 31.80 | 34.80 | 1.50 |
| MOR0320010 | 32.00 | 34.00 | 1.00 |
| MOR0320011 | 32.00 | 34.20 | 1.10 |
| MOR0320015 | 32.00 | 35.00 | 1.50 |
| MOR0320016 | 32.00 | 35.20 | 1.60 |
| MOR0320020 | 32.00 | 36.00 | 2.00 |
| MOR0320022 | 32.00 | 36.40 | 2.20 |
| MOR0320024 | 32.00 | 36.80 | 2.40 |
| MOR0320025 | 32.00 | 37.00 | 2.50 |
| MOR0320028 | 32.00 | 37.60 | 2.80 |
| MOR0320030 | 32.00 | 38.00 | 3.00 |
| MOR0320035 | 32.00 | 39.00 | 3.50 |
| MOR0320040 | 32.00 | 40.00 | 4.00 |
| MOR0320045 | 32.00 | 41.00 | 4.50 |
| MOR0320050 | 32.00 | 42.00 | 5.00 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0320055 | 32.00 | 43.00 | 5.50 |
| MOR0320060 | 32.00 | 44.00 | 6.00 |
| MOR0320080 | 32.00 | 48.00 | 8.00 |
| MOR0320090 | 32.00 | 50.00 | 9.00 |
| MOR0320100 | 32.00 | 52.00 | 10.00 |
| MOR0320120 | 32.00 | 56.00 | 12.00 |
| MOR0320135 | 32.00 | 59.00 | 13.50 |
| MOR0320015-1 | 32.05 | 35.15 | 1.55 |
| MOR0320036 | 32.05 | 39.25 | 3.60 |
| MOR0321016 | 32.10 | 35.30 | 1.60 |
| MOR0322014 | 32.20 | 35.00 | 1.40 |
| MOR0322025 | 32.20 | 37.20 | 2.50 |
| MOR0322030 | 32.20 | 38.20 | 3.00 |
| MOR0323020 | 32.30 | 36.30 | 2.00 |
| MOR0325010 | 32.50 | 34.50 | 1.00 |
| MOR0325015 | 32.50 | 35.50 | 1.50 |
| MOR0325018 | 32.50 | 36.10 | 1.80 |
| MOR0325020 | 32.50 | 36.50 | 2.00 |
| MOR0325022 | 32.50 | 36.90 | 2.20 |
| MOR0325025 | 32.50 | 37.50 | 2.50 |
| MOR0325026 | 32.50 | 37.70 | 2.60 |
| MOR0325026-1 | 32.50 | 37.80 | 2.65 |
| MOR0325030 | 32.50 | 38.50 | 3.00 |
| MOR0325035 | 32.50 | 39.60 | 3.55 |
| MOR0325036 | 32.50 | 39.70 | 3.60 |
| MOR0325050 | 32.50 | 42.50 | 5.00 |
| MOR0326018 | 32.60 | 36.20 | 1.80 |
| MOR0326024 | 32.60 | 37.40 | 2.40 |
| MOR0327013 | 32.70 | 35.30 | 1.30 |
| MOR0327015 | 32.70 | 35.70 | 1.50 |
| MOR0330012 | 33.00 | 35.40 | 1.20 |
| MOR0330015 | 33.00 | 36.00 | 1.50 |
| MOR0330020 | 33.00 | 37.00 | 2.00 |
| MOR0330024 | 33.00 | 37.80 | 2.40 |
| MOR0330025 | 33.00 | 38.00 | 2.50 |
| MOR0330030 | 33.00 | 39.00 | 3.00 |
| MOR0330035 | 33.00 | 40.00 | 3.50 |
| MOR0330040 | 33.00 | 41.00 | 4.00 |
| MOR0330045 | 33.00 | 42.00 | 4.50 |
| MOR0330050 | 33.00 | 43.00 | 5.00 |
| MOR0330060 | 33.00 | 45.00 | 6.00 |
| MOR0330065 | 33.00 | 46.00 | 6.50 |
| MOR0330070 | 33.00 | 47.00 | 7.00 |
| MOR0330080 | 33.00 | 49.00 | 8.00 |
| MOR0330100 | 33.00 | 53.00 | 10.00 |
| MOR0332036 | 33.20 | 40.40 | 3.60 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0333013 | 33.30 | 35.90 | 1.30 |
| MOR0333024 | 33.30 | 38.10 | 2.40 |
| MOR0333026 | 33.30 | 38.50 | 2.60 |
| MOR0333035 | 33.30 | 40.30 | 3.50 |
| MOR0334020 | 33.40 | 37.40 | 2.00 |
| MOR0334030 | 33.40 | 39.40 | 3.00 |
| MOR0335015 | 33.50 | 36.50 | 1.50 |
| MOR0335020 | 33.50 | 37.50 | 2.00 |
| MOR0335025 | 33.50 | 38.50 | 2.50 |
| MOR0335026 | 33.50 | 38.80 | 2.65 |
| MOR0335030 | 33.50 | 39.50 | 3.00 |
| MOR0335031 | 33.50 | 39.80 | 3.15 |
| MOR0335035 | 33.50 | 40.60 | 3.55 |
| MOR0335040 | 33.50 | 41.50 | 4.00 |
| MOR0335050 | 33.50 | 43.50 | 5.00 |
| MOR0337022 | 33.70 | 38.10 | 2.20 |
| MOR0337037 | 33.70 | 41.10 | 3.70 |
| MOR0340010 | 34.00 | 36.00 | 1.00 |
| MOR0340011 | 34.00 | 36.20 | 1.10 |
| MOR0340012 | 34.00 | 36.40 | 1.20 |
| MOR0340015 | 34.00 | 37.00 | 1.50 |
| MOR0340020 | 34.00 | 38.00 | 2.00 |
| MOR0340021 | 34.00 | 38.20 | 2.10 |
| MOR0340023 | 34.00 | 38.60 | 2.30 |
| MOR0340025 | 34.00 | 39.00 | 2.50 |
| MOR0340030 | 34.00 | 40.00 | 3.00 |
| MOR0340032 | 34.00 | 40.50 | 3.25 |
| MOR0340035 | 34.00 | 41.00 | 3.50 |
| MOR0340038 | 34.00 | 41.60 | 3.80 |
| MOR0340040 | 34.00 | 42.00 | 4.00 |
| MOR0340045 | 34.00 | 43.00 | 4.50 |
| MOR0340050 | 34.00 | 44.00 | 5.00 |
| MOR0340060 | 34.00 | 46.00 | 6.00 |
| MOR0340080 | 34.00 | 50.00 | 8.00 |
| MOR0340110 | 34.00 | 56.00 | 11.00 |
| MOR0341030 | 34.10 | 40.10 | 3.00 |
| MOR0341036 | 34.10 | 41.30 | 3.60 |
| MOR0342023 | 34.20 | 38.80 | 2.30 |
| MOR0342030 | 34.20 | 40.20 | 3.00 |
| MOR0343025 | 34.30 | 39.30 | 2.50 |
| MOR0343036 | 34.30 | 41.50 | 3.60 |
| MOR0343046 | 34.30 | 43.50 | 4.60 |
| MOR0344029 | 34.42 | 40.32 | 2.95 |
| MOR0344030 | 34.47 | 40.47 | 3.00 |
| MOR0345010 | 34.50 | 36.50 | 1.00 |
| MOR0345015 | 34.50 | 37.50 | 1.50 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0345020 | 34.50 | 38.50 | 2.00 |
| MOR0345025 | 34.50 | 39.50 | 2.50 |
| MOR0345026 | 34.50 | 39.80 | 2.65 |
| MOR0345030 | 34.50 | 40.50 | 3.00 |
| MOR0345035 | 34.50 | 41.50 | 3.50 |
| MOR0345035-1 | 34.50 | 41.60 | 3.55 |
| MOR0345040 | 34.50 | 42.50 | 4.00 |
| MOR0345045 | 34.50 | 43.50 | 4.50 |
| MOR0346024 | 34.60 | 39.40 | 2.40 |
| MOR0346026 | 34.60 | 39.80 | 2.60 |
| MOR0346036 | 34.60 | 41.80 | 3.60 |
| MOR0347028 | 34.70 | 40.30 | 2.80 |
| MOR0348013 | 34.80 | 37.40 | 1.30 |
| MOR0350010 | 35.00 | 37.00 | 1.00 |
| MOR0350012 | 35.00 | 37.40 | 1.20 |
| MOR0350012-1 | 35.00 | 37.50 | 1.25 |
| MOR0350015 | 35.00 | 38.00 | 1.50 |
| MOR0350020 | 35.00 | 39.00 | 2.00 |
| MOR0350021 | 35.00 | 39.30 | 2.15 |
| MOR0350022 | 35.00 | 39.40 | 2.20 |
| MOR0350025 | 35.00 | 40.00 | 2.50 |
| MOR0350028 | 35.00 | 40.60 | 2.80 |
| MOR0350030 | 35.00 | 41.00 | 3.00 |
| MOR0350032 | 35.00 | 41.40 | 3.20 |
| MOR0350035 | 35.00 | 42.00 | 3.50 |
| MOR0350040 | 35.00 | 43.00 | 4.00 |
| MOR0350045 | 35.00 | 44.00 | 4.50 |
| MOR0350050 | 35.00 | 45.00 | 5.00 |
| MOR0350053 | 35.00 | 45.60 | 5.30 |
| MOR0350060 | 35.00 | 47.00 | 6.00 |
| MOR0350070 | 35.00 | 49.00 | 7.00 |
| MOR0350075 | 35.00 | 50.00 | 7.50 |
| MOR0350080 | 35.00 | 51.00 | 8.00 |
| MOR0351010 | 35.10 | 37.10 | 1.00 |
| MOR0351016 | 35.10 | 38.30 | 1.60 |
| MOR0352010 | 35.20 | 37.20 | 1.00 |
| MOR0352024 | 35.20 | 40.00 | 2.40 |
| MOR0352025 | 35.20 | 40.20 | 2.50 |
| MOR0352030 | 35.20 | 41.20 | 3.00 |
| MOR0352035 | 35.20 | 42.20 | 3.50 |
| MOR0352050 | 35.20 | 45.20 | 5.00 |
| MOR0352057 | 35.20 | 46.60 | 5.70 |
| MOR0353024 | 35.30 | 40.10 | 2.40 |
| MOR0353025 | 35.30 | 40.30 | 2.50 |
| MOR0353046 | 35.30 | 44.50 | 4.60 |
| MOR0354030 | 35.40 | 41.40 | 3.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0354031 | 35.40 | 41.60 | 3.10 |
| MOR0354032 | 35.40 | 41.80 | 3.20 |
| MOR0355010 | 35.50 | 37.50 | 1.00 |
| MOR0355011 | 35.50 | 37.80 | 1.15 |
| MOR0355015 | 35.50 | 38.50 | 1.50 |
| MOR0355020 | 35.50 | 39.50 | 2.00 |
| MOR0355025 | 35.50 | 40.50 | 2.50 |
| MOR0355026-1 | 35.50 | 40.80 | 2.65 |
| MOR0355030 | 35.50 | 41.50 | 3.00 |
| MOR0355031 | 35.50 | 41.80 | 3.15 |
| MOR0355035 | 35.50 | 42.60 | 3.55 |
| MOR0355040 | 35.50 | 43.50 | 4.00 |
| MOR0355045 | 35.50 | 44.50 | 4.50 |
| MOR0355115 | 35.50 | 58.50 | 11.50 |
| MOR0356036 | 35.60 | 42.80 | 3.60 |
| MOR0358010 | 35.80 | 37.80 | 1.00 |
| MOR0360010 | 36.00 | 38.00 | 1.00 |
| MOR0360012 | 36.00 | 38.40 | 1.20 |
| MOR0360015 | 36.00 | 39.00 | 1.50 |
| MOR0360016 | 36.00 | 39.20 | 1.60 |
| MOR0360018 | 36.00 | 39.60 | 1.80 |
| MOR0360020 | 36.00 | 40.00 | 2.00 |
| MOR0360025 | 36.00 | 41.00 | 2.50 |
| MOR0360030 | 36.00 | 42.00 | 3.00 |
| MOR0360031 | 36.00 | 42.20 | 3.10 |
| MOR0360032 | 36.00 | 42.40 | 3.20 |
| MOR0360035 | 36.00 | 43.00 | 3.50 |
| MOR0360040 | 36.00 | 44.00 | 4.00 |
| MOR0360045 | 36.00 | 45.00 | 4.50 |
| MOR0360050 | 36.00 | 46.00 | 5.00 |
| MOR0360060 | 36.00 | 48.00 | 6.00 |
| MOR0360062 | 36.00 | 48.40 | 6.20 |
| MOR0360070 | 36.00 | 50.00 | 7.00 |
| MOR0360080 | 36.00 | 52.00 | 8.00 |
| MOR0360090 | 36.00 | 54.00 | 9.00 |
| MOR0361030 | 36.10 | 42.10 | 3.00 |
| MOR0361035 | 36.10 | 43.10 | 3.50 |
| MOR0362014 | 36.20 | 39.00 | 1.40 |
| MOR0362018 | 36.20 | 39.80 | 1.80 |
| MOR0362026 | 36.20 | 41.50 | 2.65 |
| MOR0362030 | 36.20 | 42.20 | 3.00 |
| MOR0362033 | 36.20 | 42.80 | 3.30 |
| MOR0362057 | 36.20 | 47.60 | 5.70 |
| MOR0363046 | 36.30 | 45.50 | 4.60 |
| MOR0365010 | 36.50 | 38.50 | 1.00 |
| MOR0365015 | 36.50 | 39.50 | 1.50 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|------|
| | d | D | S |
| MOR0365020 | 36.50 | 40.50 | 2.00 |
| MOR0365025 | 36.50 | 41.50 | 2.50 |
| MOR0365026 | 36.50 | 41.80 | 2.65 |
| MOR0365030 | 36.50 | 42.50 | 3.00 |
| MOR0365035 | 36.50 | 43.60 | 3.55 |
| MOR0365037 | 36.50 | 44.00 | 3.75 |
| MOR0366025 | 36.60 | 41.60 | 2.50 |
| MOR0367020 | 36.70 | 40.70 | 2.00 |
| MOR0368010 | 36.80 | 38.80 | 1.00 |
| MOR0368012 | 36.80 | 39.20 | 1.20 |
| MOR0368030 | 36.80 | 42.80 | 3.00 |
| MOR0370010 | 37.00 | 39.00 | 1.00 |
| MOR0370015 | 37.00 | 40.00 | 1.50 |
| MOR0370016 | 37.00 | 40.20 | 1.60 |
| MOR0370020 | 37.00 | 41.00 | 2.00 |
| MOR0370022 | 37.00 | 41.40 | 2.20 |
| MOR0370025 | 37.00 | 42.00 | 2.50 |
| MOR0370026 | 37.00 | 42.20 | 2.60 |
| MOR0370030 | 37.00 | 43.00 | 3.00 |
| MOR0370035 | 37.00 | 44.00 | 3.50 |
| MOR0370040 | 37.00 | 45.00 | 4.00 |
| MOR0370045 | 37.00 | 46.00 | 4.50 |
| MOR0370050 | 37.00 | 47.00 | 5.00 |
| MOR0370055 | 37.00 | 48.00 | 5.50 |
| MOR0370060 | 37.00 | 49.00 | 6.00 |
| MOR0370070 | 37.00 | 51.00 | 7.00 |
| MOR0371010 | 37.10 | 39.10 | 1.00 |
| MOR0371016 | 37.10 | 40.30 | 1.60 |
| MOR0372030 | 37.20 | 43.20 | 3.00 |
| MOR0372057 | 37.20 | 48.60 | 5.70 |
| MOR0373015 | 37.30 | 40.30 | 1.50 |
| MOR0373035 | 37.30 | 44.30 | 3.50 |
| MOR0373036 | 37.30 | 44.50 | 3.60 |
| MOR0373046 | 37.30 | 46.50 | 4.60 |
| MOR0374030 | 37.47 | 43.47 | 3.00 |
| MOR0375015 | 37.50 | 40.50 | 1.50 |
| MOR0375018 | 37.50 | 41.10 | 1.80 |
| MOR0375020 | 37.50 | 41.50 | 2.00 |
| MOR0375025 | 37.50 | 42.50 | 2.50 |
| MOR0375026 | 37.50 | 42.80 | 2.65 |
| MOR0375030 | 37.50 | 43.50 | 3.00 |
| MOR0375031 | 37.50 | 43.80 | 3.15 |
| MOR0375035 | 37.50 | 44.60 | 3.55 |
| MOR0375040 | 37.50 | 45.50 | 4.00 |
| MOR0375045 | 37.50 | 46.50 | 4.50 |
| MOR0376012 | 37.60 | 40.00 | 1.20 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|------|
| | d | D | S |
| MOR0376024 | 37.60 | 42.40 | 2.40 |
| MOR0377022 | 37.75 | 42.15 | 2.20 |
| MOR0378020 | 37.80 | 41.80 | 2.00 |
| MOR0380010 | 38.00 | 40.00 | 1.00 |
| MOR0380015 | 38.00 | 41.00 | 1.50 |
| MOR0380020 | 38.00 | 42.00 | 2.00 |
| MOR0380022 | 38.00 | 42.40 | 2.20 |
| MOR0380025 | 38.00 | 43.00 | 2.50 |
| MOR0380030 | 38.00 | 44.00 | 3.00 |
| MOR0380033 | 38.00 | 44.60 | 3.30 |
| MOR0380035 | 38.00 | 45.00 | 3.50 |
| MOR0380040 | 38.00 | 46.00 | 4.00 |
| MOR0380045 | 38.00 | 47.00 | 4.50 |
| MOR0380050 | 38.00 | 48.00 | 5.00 |
| MOR0380053 | 38.00 | 48.60 | 5.30 |
| MOR0380060 | 38.00 | 50.00 | 6.00 |
| MOR0380065 | 38.00 | 51.00 | 6.50 |
| MOR0380070 | 38.00 | 52.00 | 7.00 |
| MOR0381011 | 38.10 | 40.30 | 1.10 |
| MOR0381022 | 38.10 | 42.50 | 2.20 |
| MOR0381030 | 38.10 | 44.10 | 3.00 |
| MOR0382020 | 38.20 | 42.20 | 2.00 |
| MOR0382050 | 38.20 | 48.20 | 5.00 |
| MOR0383036 | 38.30 | 45.50 | 3.60 |
| MOR0383040 | 38.30 | 46.30 | 4.00 |
| MOR0384016 | 38.40 | 41.60 | 1.60 |
| MOR0384040 | 38.40 | 46.40 | 4.00 |
| MOR0385015 | 38.50 | 41.50 | 1.50 |
| MOR0385020 | 38.50 | 42.50 | 2.00 |
| MOR0385025 | 38.50 | 43.50 | 2.50 |
| MOR0385030 | 38.50 | 44.50 | 3.00 |
| MOR0385040 | 38.50 | 46.50 | 4.00 |
| MOR0387026 | 38.70 | 44.00 | 2.65 |
| MOR0387035 | 38.70 | 45.80 | 3.55 |
| MOR0389010 | 38.90 | 40.90 | 1.00 |
| MOR0389014 | 38.90 | 41.80 | 1.45 |
| MOR0390010 | 39.00 | 41.00 | 1.00 |
| MOR0390012 | 39.00 | 41.40 | 1.20 |
| MOR0390015 | 39.00 | 42.00 | 1.50 |
| MOR0390016 | 39.00 | 42.20 | 1.60 |
| MOR0390020 | 39.00 | 43.00 | 2.00 |
| MOR0390022 | 39.00 | 43.40 | 2.20 |
| MOR0390023 | 39.00 | 43.60 | 2.30 |
| MOR0390025 | 39.00 | 44.00 | 2.50 |
| MOR0390030 | 39.00 | 45.00 | 3.00 |
| MOR0390032 | 39.00 | 45.40 | 3.20 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0390035 | 39.00 | 46.00 | 3.50 |
| MOR0390040 | 39.00 | 47.00 | 4.00 |
| MOR0390045 | 39.00 | 48.00 | 4.50 |
| MOR0390050 | 39.00 | 49.00 | 5.00 |
| MOR0390055 | 39.00 | 50.00 | 5.50 |
| MOR0390060 | 39.00 | 51.00 | 6.00 |
| MOR0391013 | 39.10 | 41.70 | 1.30 |
| MOR0391023 | 39.10 | 43.70 | 2.30 |
| MOR0392010 | 39.20 | 41.20 | 1.00 |
| MOR0392020 | 39.20 | 43.20 | 2.00 |
| MOR0392025 | 39.20 | 44.20 | 2.50 |
| MOR0392030 | 39.20 | 45.20 | 3.00 |
| MOR0392039 | 39.20 | 47.00 | 3.90 |
| MOR0392050 | 39.20 | 49.20 | 5.00 |
| MOR0392057 | 39.20 | 50.60 | 5.70 |
| MOR0392012 | 39.25 | 41.75 | 1.25 |
| MOR0394031 | 39.40 | 45.60 | 3.10 |
| MOR0395012 | 39.50 | 41.90 | 1.20 |
| MOR0395015 | 39.50 | 42.50 | 1.50 |
| MOR0395016 | 39.50 | 42.70 | 1.60 |
| MOR0395020 | 39.50 | 43.50 | 2.00 |
| MOR0395025 | 39.50 | 44.50 | 2.50 |
| MOR0395030 | 39.50 | 45.50 | 3.00 |
| MOR0395032 | 39.50 | 46.00 | 3.25 |
| MOR0395055 | 39.50 | 50.50 | 5.50 |
| MOR0396024 | 39.60 | 44.40 | 2.40 |
| MOR0397043 | 39.70 | 48.40 | 4.35 |
| MOR0397030 | 39.76 | 45.76 | 3.00 |
| MOR0398022 | 39.80 | 44.20 | 2.20 |
| MOR0400010 | 40.00 | 42.00 | 1.00 |
| MOR0400012 | 40.00 | 42.40 | 1.20 |
| MOR0400015 | 40.00 | 43.00 | 1.50 |
| MOR0400016 | 40.00 | 43.20 | 1.60 |
| MOR0400018 | 40.00 | 43.60 | 1.80 |
| MOR0400020 | 40.00 | 44.00 | 2.00 |
| MOR0400025 | 40.00 | 45.00 | 2.50 |
| MOR0400028 | 40.00 | 45.60 | 2.80 |
| MOR0400030 | 40.00 | 46.00 | 3.00 |
| MOR0400032 | 40.00 | 46.40 | 3.20 |
| MOR0400035 | 40.00 | 47.00 | 3.50 |
| MOR0400035-1 | 40.00 | 47.10 | 3.55 |
| MOR0400040 | 40.00 | 48.00 | 4.00 |
| MOR0400045 | 40.00 | 49.00 | 4.50 |
| MOR0400050 | 40.00 | 50.00 | 5.00 |
| MOR0400052 | 40.00 | 50.50 | 5.25 |
| MOR0400053 | 40.00 | 50.60 | 5.30 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0400055 | 40.00 | 51.00 | 5.50 |
| MOR0400060 | 40.00 | 52.00 | 6.00 |
| MOR0400070 | 40.00 | 54.00 | 7.00 |
| MOR0400080 | 40.00 | 56.00 | 8.00 |
| MOR0400100 | 40.00 | 60.00 | 10.00 |
| MOR0402017 | 40.20 | 43.70 | 1.75 |
| MOR0402030 | 40.20 | 46.20 | 3.00 |
| MOR0402053 | 40.20 | 50.80 | 5.30 |
| MOR0403024 | 40.30 | 45.10 | 2.40 |
| MOR0405024 | 40.50 | 45.30 | 2.40 |
| MOR0405045 | 40.50 | 49.50 | 4.50 |
| MOR0407030 | 40.70 | 46.70 | 3.00 |
| MOR0410010 | 41.00 | 43.00 | 1.00 |
| MOR0410015 | 41.00 | 44.00 | 1.50 |
| MOR0410016 | 41.00 | 44.20 | 1.60 |
| MOR0410018 | 41.00 | 44.60 | 1.80 |
| MOR0410020 | 41.00 | 45.00 | 2.00 |
| MOR0410025 | 41.00 | 46.00 | 2.50 |
| MOR0410030 | 41.00 | 47.00 | 3.00 |
| MOR0410035 | 41.00 | 48.00 | 3.50 |
| MOR0410040 | 41.00 | 49.00 | 4.00 |
| MOR0410045 | 41.00 | 50.00 | 4.50 |
| MOR0410050 | 41.00 | 51.00 | 5.00 |
| MOR0410060 | 41.00 | 53.00 | 6.00 |
| MOR0410080 | 41.00 | 57.00 | 8.00 |
| MOR0412016 | 41.20 | 44.40 | 1.60 |
| MOR0412030 | 41.20 | 47.20 | 3.00 |
| MOR0412035 | 41.20 | 48.30 | 3.55 |
| MOR0412053 | 41.20 | 51.80 | 5.30 |
| MOR0412057 | 41.20 | 52.60 | 5.70 |
| MOR0413016 | 41.30 | 44.50 | 1.60 |
| MOR0413018 | 41.30 | 44.90 | 1.80 |
| MOR0414053 | 41.40 | 52.00 | 5.30 |
| MOR0415015 | 41.50 | 44.50 | 1.50 |
| MOR0415025 | 41.50 | 46.50 | 2.50 |
| MOR0415030 | 41.50 | 47.50 | 3.00 |
| MOR0415035 | 41.50 | 48.60 | 3.55 |
| MOR0415045 | 41.50 | 50.50 | 4.50 |
| MOR0415060 | 41.50 | 53.50 | 6.00 |
| MOR0416024 | 41.60 | 46.40 | 2.40 |
| MOR0420010 | 42.00 | 44.00 | 1.00 |
| MOR0420011 | 42.00 | 44.30 | 1.15 |
| MOR0420015 | 42.00 | 45.00 | 1.50 |
| MOR0420016 | 42.00 | 45.20 | 1.60 |
| MOR0420020 | 42.00 | 46.00 | 2.00 |
| MOR0420022 | 42.00 | 46.50 | 2.25 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|------|
| | d | D | S |
| MOR0420025 | 42.00 | 47.00 | 2.50 |
| MOR0420027 | 42.00 | 47.40 | 2.70 |
| MOR0420030 | 42.00 | 48.00 | 3.00 |
| MOR0420031 | 42.00 | 48.30 | 3.15 |
| MOR0420032 | 42.00 | 48.40 | 3.20 |
| MOR0420035 | 42.00 | 49.00 | 3.50 |
| MOR0420040 | 42.00 | 50.00 | 4.00 |
| MOR0420045 | 42.00 | 51.00 | 4.50 |
| MOR0420050 | 42.00 | 52.00 | 5.00 |
| MOR0420053 | 42.00 | 52.60 | 5.30 |
| MOR0420055 | 42.00 | 53.00 | 5.50 |
| MOR0420060 | 42.00 | 54.00 | 6.00 |
| MOR0420070 | 42.00 | 56.00 | 7.00 |
| MOR0420080 | 42.00 | 58.00 | 8.00 |
| MOR0420090 | 42.00 | 60.00 | 9.00 |
| MOR0422015 | 42.20 | 45.20 | 1.50 |
| MOR0422024 | 42.20 | 47.00 | 2.40 |
| MOR0422030 | 42.20 | 48.20 | 3.00 |
| MOR0422057 | 42.20 | 53.60 | 5.70 |
| MOR0424012 | 42.40 | 44.80 | 1.20 |
| MOR0424050 | 42.40 | 52.40 | 5.00 |
| MOR0425018 | 42.50 | 46.10 | 1.80 |
| MOR0425020 | 42.50 | 46.50 | 2.00 |
| MOR0425027 | 42.50 | 47.90 | 2.70 |
| MOR0425028 | 42.50 | 48.10 | 2.80 |
| MOR0425030 | 42.50 | 48.50 | 3.00 |
| MOR0425035 | 42.50 | 49.60 | 3.55 |
| MOR0425040 | 42.50 | 50.50 | 4.00 |
| MOR0425050 | 42.50 | 52.50 | 5.00 |
| MOR0425051 | 42.50 | 52.80 | 5.15 |
| MOR0425053 | 42.50 | 53.10 | 5.30 |
| MOR0428037 | 42.80 | 50.20 | 3.70 |
| MOR0430013 | 43.00 | 45.60 | 1.30 |
| MOR0430015 | 43.00 | 46.00 | 1.50 |
| MOR0430016 | 43.00 | 46.20 | 1.60 |
| MOR0430020 | 43.00 | 47.00 | 2.00 |
| MOR0430025 | 43.00 | 48.00 | 2.50 |
| MOR0430030 | 43.00 | 49.00 | 3.00 |
| MOR0430035 | 43.00 | 50.00 | 3.50 |
| MOR0430040 | 43.00 | 51.00 | 4.00 |
| MOR0430045 | 43.00 | 52.00 | 4.50 |
| MOR0430050 | 43.00 | 53.00 | 5.00 |
| MOR0430055 | 43.00 | 54.00 | 5.50 |
| MOR0430060 | 43.00 | 55.00 | 6.00 |
| MOR0434036 | 43.40 | 50.60 | 3.60 |
| MOR0434053 | 43.40 | 54.00 | 5.30 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0435016 | 43.50 | 46.70 | 1.60 |
| MOR0435030 | 43.50 | 49.50 | 3.00 |
| MOR0435040 | 43.50 | 51.50 | 4.00 |
| MOR0436030 | 43.69 | 49.69 | 3.00 |
| MOR0437035 | 43.70 | 50.80 | 3.55 |
| MOR0437053 | 43.70 | 54.30 | 5.30 |
| MOR0440010 | 44.00 | 46.00 | 1.00 |
| MOR0440015 | 44.00 | 47.00 | 1.50 |
| MOR0440020 | 44.00 | 48.00 | 2.00 |
| MOR0440025 | 44.00 | 49.00 | 2.50 |
| MOR0440030 | 44.00 | 50.00 | 3.00 |
| MOR0440035 | 44.00 | 51.00 | 3.50 |
| MOR0440036 | 44.00 | 51.30 | 3.65 |
| MOR0440037 | 44.00 | 51.40 | 3.70 |
| MOR0440040 | 44.00 | 52.00 | 4.00 |
| MOR0440045 | 44.00 | 53.00 | 4.50 |
| MOR0440050 | 44.00 | 54.00 | 5.00 |
| MOR0440055 | 44.00 | 55.00 | 5.50 |
| MOR0440060 | 44.00 | 56.00 | 6.00 |
| MOR0440080 | 44.00 | 60.00 | 8.00 |
| MOR0440100 | 44.00 | 64.00 | 10.00 |
| MOR0441025 | 44.12 | 49.12 | 2.50 |
| MOR0442020 | 44.20 | 48.20 | 2.00 |
| MOR0442023 | 44.20 | 48.80 | 2.30 |
| MOR0442030 | 44.20 | 50.20 | 3.00 |
| MOR0442057 | 44.20 | 55.60 | 5.70 |
| MOR0443057 | 44.30 | 55.70 | 5.70 |
| MOR0444031 | 44.40 | 50.60 | 3.10 |
| MOR0444048 | 44.40 | 54.00 | 4.80 |
| MOR0445015 | 44.50 | 47.50 | 1.50 |
| MOR0445024 | 44.50 | 49.30 | 2.40 |
| MOR0445030 | 44.50 | 50.50 | 3.00 |
| MOR0445060 | 44.50 | 56.50 | 6.00 |
| MOR0446024 | 44.60 | 49.40 | 2.40 |
| MOR0446034 | 44.60 | 51.40 | 3.40 |
| MOR0447035 | 44.70 | 51.70 | 3.50 |
| MOR0450010 | 45.00 | 47.00 | 1.00 |
| MOR0450012 | 45.00 | 47.40 | 1.20 |
| MOR0450015 | 45.00 | 48.00 | 1.50 |
| MOR0450018 | 45.00 | 48.60 | 1.80 |
| MOR0450020 | 45.00 | 49.00 | 2.00 |
| MOR0450025 | 45.00 | 50.00 | 2.50 |
| MOR0450030 | 45.00 | 51.00 | 3.00 |
| MOR0450035 | 45.00 | 52.00 | 3.50 |
| MOR0450035-1 | 45.00 | 52.10 | 3.55 |
| MOR0450040 | 45.00 | 53.00 | 4.00 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0450045 | 45.00 | 54.00 | 4.50 |
| MOR0450050 | 45.00 | 55.00 | 5.00 |
| MOR0450053 | 45.00 | 55.60 | 5.30 |
| MOR0450055 | 45.00 | 56.00 | 5.50 |
| MOR0450060 | 45.00 | 57.00 | 6.00 |
| MOR0450070 | 45.00 | 59.00 | 7.00 |
| MOR0450080 | 45.00 | 61.00 | 8.00 |
| MOR0450100 | 45.00 | 65.00 | 10.00 |
| MOR0452030 | 45.20 | 51.20 | 3.00 |
| MOR0452057 | 45.20 | 56.60 | 5.70 |
| MOR0453057 | 45.30 | 56.70 | 5.70 |
| MOR0455010 | 45.50 | 47.50 | 1.00 |
| MOR0455015 | 45.50 | 48.50 | 1.50 |
| MOR0455020 | 45.50 | 49.50 | 2.00 |
| MOR0455025 | 45.50 | 50.50 | 2.50 |
| MOR0455055 | 45.50 | 56.50 | 5.50 |
| MOR0456012 | 45.60 | 48.00 | 1.20 |
| MOR0456015 | 45.60 | 48.60 | 1.50 |
| MOR0456024 | 45.60 | 50.40 | 2.40 |
| MOR0457015 | 45.70 | 48.70 | 1.50 |
| MOR0460010 | 46.00 | 48.00 | 1.00 |
| MOR0460015 | 46.00 | 49.00 | 1.50 |
| MOR0460016 | 46.00 | 49.20 | 1.60 |
| MOR0460020 | 46.00 | 50.00 | 2.00 |
| MOR0460025 | 46.00 | 51.00 | 2.50 |
| MOR0460030 | 46.00 | 52.00 | 3.00 |
| MOR0460035 | 46.00 | 53.00 | 3.50 |
| MOR0460038 | 46.00 | 53.60 | 3.80 |
| MOR0460040 | 46.00 | 54.00 | 4.00 |
| MOR0460042 | 46.00 | 54.40 | 4.20 |
| MOR0460045 | 46.00 | 55.00 | 4.50 |
| MOR0460050 | 46.00 | 56.00 | 5.00 |
| MOR0460060 | 46.00 | 58.00 | 6.00 |
| MOR0460070 | 46.00 | 60.00 | 7.00 |
| MOR0460080 | 46.00 | 62.00 | 8.00 |
| MOR0462015 | 46.20 | 49.20 | 1.50 |
| MOR0462020 | 46.20 | 50.20 | 2.00 |
| MOR0462030 | 46.20 | 52.20 | 3.00 |
| MOR0462035 | 46.20 | 53.30 | 3.55 |
| MOR0462053 | 46.20 | 56.80 | 5.30 |
| MOR0465018 | 46.50 | 50.10 | 1.80 |
| MOR0465025 | 46.50 | 51.50 | 2.50 |
| MOR0465030 | 46.50 | 52.50 | 3.00 |
| MOR0465050 | 46.50 | 56.50 | 5.00 |
| MOR0466016 | 46.60 | 49.80 | 1.60 |
| MOR0467010 | 46.70 | 48.70 | 1.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0467025 | 46.70 | 51.70 | 2.50 |
| MOR0470010 | 47.00 | 49.00 | 1.00 |
| MOR0470012 | 47.00 | 49.40 | 1.20 |
| MOR0470015 | 47.00 | 50.00 | 1.50 |
| MOR0470020 | 47.00 | 51.00 | 2.00 |
| MOR0470025 | 47.00 | 52.00 | 2.50 |
| MOR0470030 | 47.00 | 53.00 | 3.00 |
| MOR0470035 | 47.00 | 54.00 | 3.50 |
| MOR0470040 | 47.00 | 55.00 | 4.00 |
| MOR0470045 | 47.00 | 56.00 | 4.50 |
| MOR0470050 | 47.00 | 57.00 | 5.00 |
| MOR0470055 | 47.00 | 58.00 | 5.50 |
| MOR0470060 | 47.00 | 59.00 | 6.00 |
| MOR0470067 | 47.00 | 60.40 | 6.70 |
| MOR0470070 | 47.00 | 61.00 | 7.00 |
| MOR0471010 | 47.11 | 49.11 | 1.00 |
| MOR0472057 | 47.20 | 58.60 | 5.70 |
| MOR0474040 | 47.40 | 55.40 | 4.00 |
| MOR0474048 | 47.40 | 57.00 | 4.80 |
| MOR0475015 | 47.50 | 50.50 | 1.50 |
| MOR0475031 | 47.50 | 53.80 | 3.15 |
| MOR0475035 | 47.50 | 54.60 | 3.55 |
| MOR0475040 | 47.50 | 55.50 | 4.00 |
| MOR0475053 | 47.50 | 58.10 | 5.30 |
| MOR0475065 | 47.50 | 60.50 | 6.50 |
| MOR0476024 | 47.60 | 52.40 | 2.40 |
| MOR0478030 | 47.80 | 53.80 | 3.00 |
| MOR0480010 | 48.00 | 50.00 | 1.00 |
| MOR0480012 | 48.00 | 50.40 | 1.20 |
| MOR0480015 | 48.00 | 51.00 | 1.50 |
| MOR0480015-1 | 48.00 | 51.10 | 1.55 |
| MOR0480020 | 48.00 | 52.00 | 2.00 |
| MOR0480022 | 48.00 | 52.40 | 2.20 |
| MOR0480025 | 48.00 | 53.00 | 2.50 |
| MOR0480030 | 48.00 | 54.00 | 3.00 |
| MOR0480035 | 48.00 | 55.00 | 3.50 |
| MOR0480040 | 48.00 | 56.00 | 4.00 |
| MOR0480042 | 48.00 | 56.40 | 4.20 |
| MOR0480045 | 48.00 | 57.00 | 4.50 |
| MOR0480050 | 48.00 | 58.00 | 5.00 |
| MOR0480055 | 48.00 | 59.00 | 5.50 |
| MOR0480060 | 48.00 | 60.00 | 6.00 |
| MOR0480065 | 48.00 | 61.00 | 6.50 |
| MOR0480075 | 48.00 | 63.00 | 7.50 |
| MOR0480080 | 48.00 | 64.00 | 8.00 |
| MOR0481012 | 48.10 | 50.50 | 1.20 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0482012 | 48.20 | 50.60 | 1.20 |
| MOR0482034 | 48.20 | 55.00 | 3.40 |
| MOR0484035 | 48.40 | 55.40 | 3.50 |
| MOR0485040 | 48.50 | 56.50 | 4.00 |
| MOR0487035 | 48.70 | 55.80 | 3.55 |
| MOR0487053 | 48.70 | 59.30 | 5.30 |
| MOR0490010 | 49.00 | 51.00 | 1.00 |
| MOR0490015 | 49.00 | 52.00 | 1.50 |
| MOR0490016 | 49.00 | 52.20 | 1.60 |
| MOR0490020 | 49.00 | 53.00 | 2.00 |
| MOR0490025 | 49.00 | 54.00 | 2.50 |
| MOR0490030 | 49.00 | 55.00 | 3.00 |
| MOR0490033 | 49.00 | 55.60 | 3.30 |
| MOR0490035 | 49.00 | 56.00 | 3.50 |
| MOR0490040 | 49.00 | 57.00 | 4.00 |
| MOR0490045 | 49.00 | 58.00 | 4.50 |
| MOR0490050 | 49.00 | 59.00 | 5.00 |
| MOR0490060 | 49.00 | 61.00 | 6.00 |
| MOR0491058 | 49.10 | 60.70 | 5.80 |
| MOR0492018 | 49.20 | 52.80 | 1.80 |
| MOR0492025 | 49.20 | 54.20 | 2.50 |
| MOR0492030 | 49.20 | 55.20 | 3.00 |
| MOR0492057 | 49.20 | 60.60 | 5.70 |
| MOR0493057 | 49.30 | 60.70 | 5.70 |
| MOR0494031 | 49.40 | 55.60 | 3.10 |
| MOR0495020 | 49.50 | 53.50 | 2.00 |
| MOR0495030 | 49.50 | 55.50 | 3.00 |
| MOR0496024 | 49.60 | 54.40 | 2.40 |
| MOR0496057 | 49.60 | 61.00 | 5.70 |
| MOR0497025 | 49.70 | 54.70 | 2.50 |
| MOR0500010 | 50.00 | 52.00 | 1.00 |
| MOR0500012 | 50.00 | 52.40 | 1.20 |
| MOR0500015 | 50.00 | 53.00 | 1.50 |
| MOR0500020 | 50.00 | 54.00 | 2.00 |
| MOR0500023 | 50.00 | 54.70 | 2.35 |
| MOR0500025 | 50.00 | 55.00 | 2.50 |
| MOR0500028 | 50.00 | 55.60 | 2.80 |
| MOR0500030 | 50.00 | 56.00 | 3.00 |
| MOR0500035 | 50.00 | 57.00 | 3.50 |
| MOR0500035-1 | 50.00 | 57.10 | 3.55 |
| MOR0500040 | 50.00 | 58.00 | 4.00 |
| MOR0500045 | 50.00 | 59.00 | 4.50 |
| MOR0500050 | 50.00 | 60.00 | 5.00 |
| MOR0500053 | 50.00 | 60.60 | 5.30 |
| MOR0500055 | 50.00 | 61.00 | 5.50 |
| MOR0500057 | 50.00 | 61.40 | 5.70 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0500060 | 50.00 | 62.00 | 6.00 |
| MOR0500065 | 50.00 | 63.00 | 6.50 |
| MOR0500068 | 50.00 | 63.60 | 6.80 |
| MOR0500070 | 50.00 | 64.00 | 7.00 |
| MOR0500100 | 50.00 | 70.00 | 10.00 |
| MOR0501032 | 50.10 | 56.50 | 3.20 |
| MOR0501033 | 50.10 | 56.70 | 3.30 |
| MOR0502030 | 50.20 | 56.20 | 3.00 |
| MOR0503024 | 50.30 | 55.10 | 2.40 |
| MOR0505024 | 50.50 | 55.30 | 2.40 |
| MOR0505030 | 50.50 | 56.50 | 3.00 |
| MOR0506012 | 50.60 | 53.10 | 1.25 |
| MOR0508035-1 | 50.80 | 57.90 | 3.55 |
| MOR0508120 | 50.80 | 74.80 | 12.00 |
| MOR0510015 | 51.00 | 54.00 | 1.50 |
| MOR0510020 | 51.00 | 55.00 | 2.00 |
| MOR0510025 | 51.00 | 56.00 | 2.50 |
| MOR0510030 | 51.00 | 57.00 | 3.00 |
| MOR0510032 | 51.00 | 57.40 | 3.20 |
| MOR0510035 | 51.00 | 58.00 | 3.50 |
| MOR0510040 | 51.00 | 59.00 | 4.00 |
| MOR0510043 | 51.00 | 59.60 | 4.30 |
| MOR0510045 | 51.00 | 60.00 | 4.50 |
| MOR0510050 | 51.00 | 61.00 | 5.00 |
| MOR0512057 | 51.20 | 62.60 | 5.70 |
| MOR0515020 | 51.50 | 55.50 | 2.00 |
| MOR0515021 | 51.50 | 55.70 | 2.10 |
| MOR0515035 | 51.50 | 58.60 | 3.55 |
| MOR0515053 | 51.50 | 62.10 | 5.30 |
| MOR0516022 | 51.60 | 56.00 | 2.20 |
| MOR0516024 | 51.60 | 56.40 | 2.40 |
| MOR0518030 | 51.80 | 57.80 | 3.00 |
| MOR0520015 | 52.00 | 55.00 | 1.50 |
| MOR0520020 | 52.00 | 56.00 | 2.00 |
| MOR0520025 | 52.00 | 57.00 | 2.50 |
| MOR0520030 | 52.00 | 58.00 | 3.00 |
| MOR0520035 | 52.00 | 59.00 | 3.50 |
| MOR0520040 | 52.00 | 60.00 | 4.00 |
| MOR0520050 | 52.00 | 62.00 | 5.00 |
| MOR0520057 | 52.00 | 63.40 | 5.70 |
| MOR0520060 | 52.00 | 64.00 | 6.00 |
| MOR0520065 | 52.00 | 65.00 | 6.50 |
| MOR0520110 | 52.00 | 74.00 | 11.00 |
| MOR0520130 | 52.00 | 78.00 | 13.00 |
| MOR0521012 | 52.10 | 54.60 | 1.25 |
| MOR0522018 | 52.20 | 55.80 | 1.80 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0522030 | 52.20 | 58.20 | 3.00 |
| MOR0522057 | 52.20 | 63.60 | 5.70 |
| MOR0523032 | 52.30 | 58.70 | 3.20 |
| MOR0523057 | 52.30 | 63.70 | 5.70 |
| MOR0524063 | 52.40 | 65.10 | 6.35 |
| MOR0525018 | 52.50 | 56.10 | 1.80 |
| MOR0525035 | 52.50 | 59.50 | 3.50 |
| MOR0525050 | 52.50 | 62.50 | 5.00 |
| MOR0525057 | 52.50 | 63.90 | 5.70 |
| MOR0530015 | 53.00 | 56.00 | 1.50 |
| MOR0530020 | 53.00 | 57.00 | 2.00 |
| MOR0530025 | 53.00 | 58.00 | 2.50 |
| MOR0530030 | 53.00 | 59.00 | 3.00 |
| MOR0530035 | 53.00 | 60.00 | 3.50 |
| MOR0530035-1 | 53.00 | 60.10 | 3.55 |
| MOR0530040 | 53.00 | 61.00 | 4.00 |
| MOR0530045 | 53.00 | 62.00 | 4.50 |
| MOR0530050 | 53.00 | 63.00 | 5.00 |
| MOR0530053 | 53.00 | 63.60 | 5.30 |
| MOR0530055 | 53.00 | 64.00 | 5.50 |
| MOR0530060 | 53.00 | 65.00 | 6.00 |
| MOR0530065 | 53.00 | 66.00 | 6.50 |
| MOR0530030-1 | 53.09 | 59.09 | 3.00 |
| MOR0532015 | 53.20 | 56.20 | 1.50 |
| MOR0535020 | 53.50 | 57.50 | 2.00 |
| MOR0536026 | 53.64 | 58.94 | 2.65 |
| MOR0539063 | 53.98 | 66.68 | 6.35 |
| MOR0540015 | 54.00 | 57.00 | 1.50 |
| MOR0540020 | 54.00 | 58.00 | 2.00 |
| MOR0540025 | 54.00 | 59.00 | 2.50 |
| MOR0540030 | 54.00 | 60.00 | 3.00 |
| MOR0540035 | 54.00 | 61.00 | 3.50 |
| MOR0540040 | 54.00 | 62.00 | 4.00 |
| MOR0540050 | 54.00 | 64.00 | 5.00 |
| MOR0540055 | 54.00 | 65.00 | 5.50 |
| MOR0540060 | 54.00 | 66.00 | 6.00 |
| MOR0540070 | 54.00 | 68.00 | 7.00 |
| MOR0540080 | 54.00 | 70.00 | 8.00 |
| MOR0542030 | 54.20 | 60.20 | 3.00 |
| MOR0542057 | 54.20 | 65.60 | 5.70 |
| MOR0543057 | 54.30 | 65.70 | 5.70 |
| MOR0544053 | 54.40 | 65.00 | 5.30 |
| MOR0545025 | 54.50 | 59.50 | 2.50 |
| MOR0545030 | 54.50 | 60.50 | 3.00 |
| MOR0545035 | 54.50 | 61.60 | 3.55 |
| MOR0546024 | 54.60 | 59.40 | 2.40 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0546057 | 54.60 | 66.00 | 5.70 |
| MOR0547014 | 54.70 | 57.50 | 1.40 |
| MOR0547020 | 54.75 | 58.75 | 2.00 |
| MOR0550010 | 55.00 | 57.00 | 1.00 |
| MOR0550012 | 55.00 | 57.40 | 1.20 |
| MOR0550015 | 55.00 | 58.00 | 1.50 |
| MOR0550020 | 55.00 | 59.00 | 2.00 |
| MOR0550024 | 55.00 | 59.80 | 2.40 |
| MOR0550025 | 55.00 | 60.00 | 2.50 |
| MOR0550030 | 55.00 | 61.00 | 3.00 |
| MOR0550032 | 55.00 | 61.40 | 3.20 |
| MOR0550035 | 55.00 | 62.00 | 3.50 |
| MOR0550040 | 55.00 | 63.00 | 4.00 |
| MOR0550045 | 55.00 | 64.00 | 4.50 |
| MOR0550050 | 55.00 | 65.00 | 5.00 |
| MOR0550060 | 55.00 | 67.00 | 6.00 |
| MOR0550065 | 55.00 | 68.00 | 6.50 |
| MOR0550067 | 55.00 | 68.50 | 6.75 |
| MOR0550080 | 55.00 | 71.00 | 8.00 |
| MOR0550090 | 55.00 | 73.00 | 9.00 |
| MOR0552030 | 55.20 | 61.20 | 3.00 |
| MOR0552057 | 55.20 | 66.60 | 5.70 |
| MOR0553057 | 55.30 | 66.70 | 5.70 |
| MOR0555030 | 55.50 | 61.50 | 3.00 |
| MOR0555050 | 55.50 | 65.50 | 5.00 |
| MOR0556057 | 55.60 | 67.00 | 5.70 |
| MOR0560015 | 56.00 | 59.00 | 1.50 |
| MOR0560016 | 56.00 | 59.20 | 1.60 |
| MOR0560020 | 56.00 | 60.00 | 2.00 |
| MOR0560025 | 56.00 | 61.00 | 2.50 |
| MOR0560030 | 56.00 | 62.00 | 3.00 |
| MOR0560035 | 56.00 | 63.00 | 3.50 |
| MOR0560035-1 | 56.00 | 63.10 | 3.55 |
| MOR0560040 | 56.00 | 64.00 | 4.00 |
| MOR0560045 | 56.00 | 65.00 | 4.50 |
| MOR0560050 | 56.00 | 66.00 | 5.00 |
| MOR0560052 | 56.00 | 66.40 | 5.20 |
| MOR0560053 | 56.00 | 66.60 | 5.30 |
| MOR0560058 | 56.00 | 67.60 | 5.80 |
| MOR0560060 | 56.00 | 68.00 | 6.00 |
| MOR0560065 | 56.00 | 69.00 | 6.50 |
| MOR0560075 | 56.00 | 71.00 | 7.50 |
| MOR0560080 | 56.00 | 72.00 | 8.00 |
| MOR0560100 | 56.00 | 76.00 | 10.00 |
| MOR0562030 | 56.20 | 62.20 | 3.00 |
| MOR0565020 | 56.50 | 60.50 | 2.00 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0565023 | 56.50 | 61.10 | 2.30 |
| MOR0565025 | 56.50 | 61.50 | 2.50 |
| MOR0565072 | 56.50 | 70.90 | 7.20 |
| MOR0566024 | 56.60 | 61.40 | 2.40 |
| MOR0567028 | 56.70 | 62.30 | 2.80 |
| MOR0570013 | 57.00 | 59.60 | 1.30 |
| MOR0570015 | 57.00 | 60.00 | 1.50 |
| MOR0570020 | 57.00 | 61.00 | 2.00 |
| MOR0570025 | 57.00 | 62.00 | 2.50 |
| MOR0570030 | 57.00 | 63.00 | 3.00 |
| MOR0570035 | 57.00 | 64.00 | 3.50 |
| MOR0570040 | 57.00 | 65.00 | 4.00 |
| MOR0570045 | 57.00 | 66.00 | 4.50 |
| MOR0570050 | 57.00 | 67.00 | 5.00 |
| MOR0570060 | 57.00 | 69.00 | 6.00 |
| MOR0570070 | 57.00 | 71.00 | 7.00 |
| MOR0570016 | 57.04 | 60.24 | 1.60 |
| MOR0571016 | 57.15 | 60.35 | 1.60 |
| MOR0572030 | 57.20 | 63.20 | 3.00 |
| MOR0572057 | 57.20 | 68.60 | 5.70 |
| MOR0573015 | 57.30 | 60.30 | 1.50 |
| MOR0573070 | 57.35 | 71.35 | 7.00 |
| MOR0575020 | 57.50 | 61.50 | 2.00 |
| MOR0575025 | 57.50 | 62.50 | 2.50 |
| MOR0575053 | 57.50 | 68.10 | 5.30 |
| MOR0575070 | 57.50 | 71.50 | 7.00 |
| MOR0576014 | 57.60 | 60.40 | 1.40 |
| MOR0576024 | 57.60 | 62.40 | 2.40 |
| MOR0577040 | 57.75 | 65.75 | 4.00 |
| MOR0580010 | 58.00 | 60.00 | 1.00 |
| MOR0580015 | 58.00 | 61.00 | 1.50 |
| MOR0580020 | 58.00 | 62.00 | 2.00 |
| MOR0580025 | 58.00 | 63.00 | 2.50 |
| MOR0580030 | 58.00 | 64.00 | 3.00 |
| MOR0580035 | 58.00 | 65.00 | 3.50 |
| MOR0580035-1 | 58.00 | 65.10 | 3.55 |
| MOR0580040 | 58.00 | 66.00 | 4.00 |
| MOR0580050 | 58.00 | 68.00 | 5.00 |
| MOR0580053 | 58.00 | 68.60 | 5.30 |
| MOR0580055 | 58.00 | 69.00 | 5.50 |
| MOR0580060 | 58.00 | 70.00 | 6.00 |
| MOR0580080 | 58.00 | 74.00 | 8.00 |
| MOR0580100 | 58.00 | 78.00 | 10.00 |
| MOR0584013 | 58.40 | 61.00 | 1.30 |
| MOR0584025 | 58.40 | 63.40 | 2.50 |
| MOR0585025 | 58.50 | 63.50 | 2.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0585030 | 58.50 | 64.50 | 3.00 |
| MOR0585040 | 58.50 | 66.50 | 4.00 |
| MOR0585045 | 58.50 | 67.50 | 4.50 |
| MOR0588042 | 58.80 | 67.20 | 4.20 |
| MOR0588060 | 58.80 | 70.80 | 6.00 |
| MOR0588069 | 58.80 | 72.60 | 6.90 |
| MOR0590015 | 59.00 | 62.00 | 1.50 |
| MOR0590020 | 59.00 | 63.00 | 2.00 |
| MOR0590024 | 59.00 | 63.80 | 2.40 |
| MOR0590025 | 59.00 | 64.00 | 2.50 |
| MOR0590030 | 59.00 | 65.00 | 3.00 |
| MOR0590035 | 59.00 | 66.00 | 3.50 |
| MOR0590040 | 59.00 | 67.00 | 4.00 |
| MOR0590050 | 59.00 | 69.00 | 5.00 |
| MOR0590060 | 59.00 | 71.00 | 6.00 |
| MOR0590065 | 59.00 | 72.00 | 6.50 |
| MOR0590070 | 59.00 | 73.00 | 7.00 |
| MOR0592020 | 59.20 | 63.20 | 2.00 |
| MOR0592057 | 59.20 | 70.60 | 5.70 |
| MOR0593050 | 59.30 | 69.30 | 5.00 |
| MOR0593057 | 59.30 | 70.70 | 5.70 |
| MOR0593030 | 59.36 | 65.36 | 3.00 |
| MOR0594024 | 59.40 | 64.20 | 2.40 |
| MOR0594028 | 59.40 | 65.00 | 2.80 |
| MOR0594031 | 59.40 | 65.60 | 3.10 |
| MOR0594038 | 59.40 | 67.00 | 3.80 |
| MOR0594070 | 59.40 | 73.40 | 7.00 |
| MOR0595020 | 59.50 | 63.50 | 2.00 |
| MOR0595030 | 59.50 | 65.50 | 3.00 |
| MOR0595035 | 59.50 | 66.50 | 3.50 |
| MOR0595050 | 59.50 | 69.50 | 5.00 |
| MOR0595060 | 59.50 | 71.50 | 6.00 |
| MOR0596024 | 59.60 | 64.40 | 2.40 |
| MOR0597070 | 59.70 | 73.70 | 7.00 |
| MOR0600015 | 60.00 | 63.00 | 1.50 |
| MOR0600020 | 60.00 | 64.00 | 2.00 |
| MOR0600025 | 60.00 | 65.00 | 2.50 |
| MOR0600030 | 60.00 | 66.00 | 3.00 |
| MOR0600035 | 60.00 | 67.00 | 3.50 |
| MOR0600035-1 | 60.00 | 67.10 | 3.55 |
| MOR0600040 | 60.00 | 68.00 | 4.00 |
| MOR0600042 | 60.00 | 68.40 | 4.20 |
| MOR0600045 | 60.00 | 69.00 | 4.50 |
| MOR0600046 | 60.00 | 69.20 | 4.60 |
| MOR0600050 | 60.00 | 70.00 | 5.00 |
| MOR0600053 | 60.00 | 70.60 | 5.30 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0600055 | 60.00 | 71.00 | 5.50 |
| MOR0600060 | 60.00 | 72.00 | 6.00 |
| MOR0600070 | 60.00 | 74.00 | 7.00 |
| MOR0600080 | 60.00 | 76.00 | 8.00 |
| MOR0600100 | 60.00 | 80.00 | 10.00 |
| MOR0602030 | 60.20 | 66.20 | 3.00 |
| MOR0602057 | 60.20 | 71.60 | 5.70 |
| MOR0602066 | 60.20 | 73.40 | 6.60 |
| MOR0605020 | 60.50 | 64.50 | 2.00 |
| MOR0605022 | 60.50 | 65.00 | 2.25 |
| MOR0608020 | 60.80 | 64.80 | 2.00 |
| MOR0610015 | 61.00 | 64.00 | 1.50 |
| MOR0610020 | 61.00 | 65.00 | 2.00 |
| MOR0610025 | 61.00 | 66.00 | 2.50 |
| MOR0610030 | 61.00 | 67.00 | 3.00 |
| MOR0610032 | 61.00 | 67.40 | 3.20 |
| MOR0610035 | 61.00 | 68.00 | 3.50 |
| MOR0610040 | 61.00 | 69.00 | 4.00 |
| MOR0610045 | 61.00 | 70.00 | 4.50 |
| MOR0610050 | 61.00 | 71.00 | 5.00 |
| MOR0610059 | 61.00 | 72.80 | 5.90 |
| MOR0610060 | 61.00 | 73.00 | 6.00 |
| MOR0610080 | 61.00 | 77.00 | 8.00 |
| MOR0610090 | 61.00 | 79.00 | 9.00 |
| MOR0612015 | 61.20 | 64.20 | 1.50 |
| MOR0612042 | 61.20 | 69.60 | 4.20 |
| MOR0612057 | 61.20 | 72.60 | 5.70 |
| MOR0615015 | 61.50 | 64.50 | 1.50 |
| MOR0615020 | 61.50 | 65.50 | 2.00 |
| MOR0615025 | 61.50 | 66.50 | 2.50 |
| MOR0615027 | 61.50 | 66.90 | 2.70 |
| MOR0615035 | 61.50 | 68.60 | 3.55 |
| MOR0615053 | 61.50 | 72.10 | 5.30 |
| MOR0615075 | 61.50 | 76.50 | 7.50 |
| MOR0616024 | 61.60 | 66.40 | 2.40 |
| MOR0616027 | 61.60 | 67.00 | 2.70 |
| MOR0620012 | 62.00 | 64.40 | 1.20 |
| MOR0620015 | 62.00 | 65.00 | 1.50 |
| MOR0620020 | 62.00 | 66.00 | 2.00 |
| MOR0620025 | 62.00 | 67.00 | 2.50 |
| MOR0620030 | 62.00 | 68.00 | 3.00 |
| MOR0620031 | 62.00 | 68.20 | 3.10 |
| MOR0620035 | 62.00 | 69.00 | 3.50 |
| MOR0620040 | 62.00 | 70.00 | 4.00 |
| MOR0620045 | 62.00 | 71.00 | 4.50 |
| MOR0620050 | 62.00 | 72.00 | 5.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0620057 | 62.00 | 73.40 | 5.70 |
| MOR0620060 | 62.00 | 74.00 | 6.00 |
| MOR0620070 | 62.00 | 76.00 | 7.00 |
| MOR0620075 | 62.00 | 77.00 | 7.50 |
| MOR0620080 | 62.00 | 78.00 | 8.00 |
| MOR0620100 | 62.00 | 82.00 | 10.00 |
| MOR0622030 | 62.20 | 68.20 | 3.00 |
| MOR0622057 | 62.20 | 73.60 | 5.70 |
| MOR0623057 | 62.30 | 73.70 | 5.70 |
| MOR0625015 | 62.50 | 65.50 | 1.50 |
| MOR0625023 | 62.50 | 67.10 | 2.30 |
| MOR0626057 | 62.60 | 74.00 | 5.70 |
| MOR0628023 | 62.80 | 67.40 | 2.30 |
| MOR0629024 | 62.90 | 67.70 | 2.40 |
| MOR0630015 | 63.00 | 66.00 | 1.50 |
| MOR0630020 | 63.00 | 67.00 | 2.00 |
| MOR0630025 | 63.00 | 68.00 | 2.50 |
| MOR0630030 | 63.00 | 69.00 | 3.00 |
| MOR0630032 | 63.00 | 69.40 | 3.20 |
| MOR0630035 | 63.00 | 70.00 | 3.50 |
| MOR0630035-1 | 63.00 | 70.10 | 3.55 |
| MOR0630040 | 63.00 | 71.00 | 4.00 |
| MOR0630045 | 63.00 | 72.00 | 4.50 |
| MOR0630050 | 63.00 | 73.00 | 5.00 |
| MOR0630053 | 63.00 | 73.60 | 5.30 |
| MOR0630055 | 63.00 | 74.00 | 5.50 |
| MOR0630060 | 63.00 | 75.00 | 6.00 |
| MOR0630070 | 63.00 | 77.00 | 7.00 |
| MOR0630080 | 63.00 | 79.00 | 8.00 |
| MOR0632015 | 63.22 | 66.22 | 1.50 |
| MOR0634025 | 63.40 | 68.40 | 2.50 |
| MOR0635025 | 63.50 | 68.50 | 2.50 |
| MOR0635030 | 63.50 | 69.50 | 3.00 |
| MOR0635031 | 63.50 | 69.80 | 3.15 |
| MOR0635037 | 63.50 | 70.90 | 3.70 |
| MOR0635040 | 63.50 | 71.50 | 4.00 |
| MOR0635050 | 63.50 | 73.50 | 5.00 |
| MOR0639020 | 63.90 | 67.90 | 2.00 |
| MOR0640015 | 64.00 | 67.00 | 1.50 |
| MOR0640016 | 64.00 | 67.20 | 1.60 |
| MOR0640020 | 64.00 | 68.00 | 2.00 |
| MOR0640025 | 64.00 | 69.00 | 2.50 |
| MOR0640030 | 64.00 | 70.00 | 3.00 |
| MOR0640035 | 64.00 | 71.00 | 3.50 |
| MOR0640040 | 64.00 | 72.00 | 4.00 |
| MOR0640045 | 64.00 | 73.00 | 4.50 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0640050 | 64.00 | 74.00 | 5.00 |
| MOR0640057 | 64.00 | 75.40 | 5.70 |
| MOR0640060 | 64.00 | 76.00 | 6.00 |
| MOR0640070 | 64.00 | 78.00 | 7.00 |
| MOR0641070 | 64.10 | 78.10 | 7.00 |
| MOR0642016 | 64.20 | 67.40 | 1.60 |
| MOR0642019 | 64.20 | 68.00 | 1.90 |
| MOR0642057 | 64.20 | 75.60 | 5.70 |
| MOR0643057 | 64.30 | 75.70 | 5.70 |
| MOR0644030 | 64.40 | 70.40 | 3.00 |
| MOR0644031 | 64.40 | 70.60 | 3.10 |
| MOR0644031-1 | 64.40 | 70.70 | 3.15 |
| MOR0645020 | 64.50 | 68.50 | 2.00 |
| MOR0645030 | 64.50 | 70.50 | 3.00 |
| MOR0646015 | 64.60 | 67.70 | 1.55 |
| MOR0646024 | 64.60 | 69.40 | 2.40 |
| MOR0647030 | 64.70 | 70.70 | 3.00 |
| MOR0647057 | 64.70 | 76.20 | 5.75 |
| MOR0650010 | 65.00 | 67.00 | 1.00 |
| MOR0650015 | 65.00 | 68.00 | 1.50 |
| MOR0650018 | 65.00 | 68.60 | 1.80 |
| MOR0650020 | 65.00 | 69.00 | 2.00 |
| MOR0650025 | 65.00 | 70.00 | 2.50 |
| MOR0650030 | 65.00 | 71.00 | 3.00 |
| MOR0650035 | 65.00 | 72.00 | 3.50 |
| MOR0650035-1 | 65.00 | 72.10 | 3.55 |
| MOR0650038 | 65.00 | 72.60 | 3.80 |
| MOR0650040 | 65.00 | 73.00 | 4.00 |
| MOR0650045 | 65.00 | 74.00 | 4.50 |
| MOR0650050 | 65.00 | 75.00 | 5.00 |
| MOR0650053 | 65.00 | 75.60 | 5.30 |
| MOR0650055 | 65.00 | 76.00 | 5.50 |
| MOR0650060 | 65.00 | 77.00 | 6.00 |
| MOR0650075 | 65.00 | 80.00 | 7.50 |
| MOR0650100 | 65.00 | 85.00 | 10.00 |
| MOR0653015-1 | 65.35 | 68.45 | 1.55 |
| MOR0655015 | 65.50 | 68.50 | 1.50 |
| MOR0655015-1 | 65.50 | 68.60 | 1.55 |
| MOR0655050 | 65.50 | 75.50 | 5.00 |
| MOR0660015 | 66.00 | 69.00 | 1.50 |
| MOR0660020 | 66.00 | 70.00 | 2.00 |
| MOR0660022 | 66.00 | 70.40 | 2.20 |
| MOR0660025 | 66.00 | 71.00 | 2.50 |
| MOR0660030 | 66.00 | 72.00 | 3.00 |
| MOR0660035 | 66.00 | 73.00 | 3.50 |
| MOR0660040 | 66.00 | 74.00 | 4.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0660045 | 66.00 | 75.00 | 4.50 |
| MOR0660050 | 66.00 | 76.00 | 5.00 |
| MOR0660060 | 66.00 | 78.00 | 6.00 |
| MOR0660065 | 66.00 | 79.00 | 6.50 |
| MOR0665035 | 66.50 | 73.50 | 3.50 |
| MOR0667020 | 66.70 | 70.70 | 2.00 |
| MOR0670013 | 67.00 | 69.60 | 1.30 |
| MOR0670015 | 67.00 | 70.00 | 1.50 |
| MOR0670020 | 67.00 | 71.00 | 2.00 |
| MOR0670021 | 67.00 | 71.20 | 2.10 |
| MOR0670025 | 67.00 | 72.00 | 2.50 |
| MOR0670028 | 67.00 | 72.60 | 2.80 |
| MOR0670030 | 67.00 | 73.00 | 3.00 |
| MOR0670035 | 67.00 | 74.00 | 3.50 |
| MOR0670035-1 | 67.00 | 74.10 | 3.55 |
| MOR0670040 | 67.00 | 75.00 | 4.00 |
| MOR0670050 | 67.00 | 77.00 | 5.00 |
| MOR0670053 | 67.00 | 77.60 | 5.30 |
| MOR0670060 | 67.00 | 79.00 | 6.00 |
| MOR0670065 | 67.00 | 80.00 | 6.50 |
| MOR0671016 | 67.10 | 70.30 | 1.60 |
| MOR0672030 | 67.20 | 73.20 | 3.00 |
| MOR0672057 | 67.20 | 78.60 | 5.70 |
| MOR0675030 | 67.50 | 73.50 | 3.00 |
| MOR0675040 | 67.50 | 75.50 | 4.00 |
| MOR0676024 | 67.60 | 72.40 | 2.40 |
| MOR0680015 | 68.00 | 71.00 | 1.50 |
| MOR0680020 | 68.00 | 72.00 | 2.00 |
| MOR0680024 | 68.00 | 72.80 | 2.40 |
| MOR0680025 | 68.00 | 73.00 | 2.50 |
| MOR0680030 | 68.00 | 74.00 | 3.00 |
| MOR0680035 | 68.00 | 75.00 | 3.50 |
| MOR0680040 | 68.00 | 76.00 | 4.00 |
| MOR0680045 | 68.00 | 77.00 | 4.50 |
| MOR0680050 | 68.00 | 78.00 | 5.00 |
| MOR0680055 | 68.00 | 79.00 | 5.50 |
| MOR0680060 | 68.00 | 80.00 | 6.00 |
| MOR0680070 | 68.00 | 82.00 | 7.00 |
| MOR0680080 | 68.00 | 84.00 | 8.00 |
| MOR0683015 | 68.30 | 71.30 | 1.50 |
| MOR0685018 | 68.50 | 72.10 | 1.80 |
| MOR0685025 | 68.50 | 73.50 | 2.50 |
| MOR0685050 | 68.50 | 78.50 | 5.00 |
| MOR0686022 | 68.60 | 73.00 | 2.20 |
| MOR0688053 | 68.84 | 79.44 | 5.30 |
| MOR0689053 | 68.95 | 79.55 | 5.30 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0690010 | 69.00 | 71.00 | 1.00 |
| MOR0690015 | 69.00 | 72.00 | 1.50 |
| MOR0690020 | 69.00 | 73.00 | 2.00 |
| MOR0690021 | 69.00 | 73.20 | 2.10 |
| MOR0690025 | 69.00 | 74.00 | 2.50 |
| MOR0690030 | 69.00 | 75.00 | 3.00 |
| MOR0690035 | 69.00 | 76.00 | 3.50 |
| MOR0690035-1 | 69.00 | 76.10 | 3.55 |
| MOR0690040 | 69.00 | 77.00 | 4.00 |
| MOR0690045 | 69.00 | 78.00 | 4.50 |
| MOR0690050 | 69.00 | 79.00 | 5.00 |
| MOR0690051 | 69.00 | 79.20 | 5.10 |
| MOR0690053 | 69.00 | 79.60 | 5.30 |
| MOR0690057 | 69.00 | 80.40 | 5.70 |
| MOR0690060 | 69.00 | 81.00 | 6.00 |
| MOR0692057 | 69.20 | 80.60 | 5.70 |
| MOR0693057 | 69.30 | 80.70 | 5.70 |
| MOR0694028 | 69.40 | 75.00 | 2.80 |
| MOR0694031 | 69.40 | 75.60 | 3.10 |
| MOR0695025 | 69.50 | 74.50 | 2.50 |
| MOR0695030 | 69.50 | 75.50 | 3.00 |
| MOR0695035 | 69.50 | 76.50 | 3.50 |
| MOR0695040 | 69.50 | 77.50 | 4.00 |
| MOR0695050 | 69.50 | 79.50 | 5.00 |
| MOR0696024 | 69.60 | 74.40 | 2.40 |
| MOR0696057 | 69.60 | 81.00 | 5.70 |
| MOR0700010 | 70.00 | 72.00 | 1.00 |
| MOR0700015 | 70.00 | 73.00 | 1.50 |
| MOR0700018 | 70.00 | 73.60 | 1.80 |
| MOR0700020 | 70.00 | 74.00 | 2.00 |
| MOR0700025 | 70.00 | 75.00 | 2.50 |
| MOR0700030 | 70.00 | 76.00 | 3.00 |
| MOR0700035 | 70.00 | 77.00 | 3.50 |
| MOR0700040 | 70.00 | 78.00 | 4.00 |
| MOR0700045 | 70.00 | 79.00 | 4.50 |
| MOR0700050 | 70.00 | 80.00 | 5.00 |
| MOR0700055 | 70.00 | 81.00 | 5.50 |
| MOR0700057 | 70.00 | 81.40 | 5.70 |
| MOR0700060 | 70.00 | 82.00 | 6.00 |
| MOR0700070 | 70.00 | 84.00 | 7.00 |
| MOR0700080 | 70.00 | 86.00 | 8.00 |
| MOR0700095 | 70.00 | 89.00 | 9.50 |
| MOR0700100 | 70.00 | 90.00 | 10.00 |
| MOR0702057 | 70.20 | 81.60 | 5.70 |
| MOR0705024 | 70.50 | 75.30 | 2.40 |
| MOR0705030 | 70.50 | 76.50 | 3.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|------|
| | d | D | S |
| MOR0705045 | 70.50 | 79.50 | 4.50 |
| MOR0710014 | 71.00 | 73.80 | 1.40 |
| MOR0710015 | 71.00 | 74.00 | 1.50 |
| MOR0710016 | 71.00 | 74.30 | 1.65 |
| MOR0710018 | 71.00 | 74.60 | 1.80 |
| MOR0710020 | 71.00 | 75.00 | 2.00 |
| MOR0710026 | 71.00 | 76.30 | 2.65 |
| MOR0710030 | 71.00 | 77.00 | 3.00 |
| MOR0710035 | 71.00 | 78.00 | 3.50 |
| MOR0710035-1 | 71.00 | 78.10 | 3.55 |
| MOR0710040 | 71.00 | 79.00 | 4.00 |
| MOR0710045 | 71.00 | 80.00 | 4.50 |
| MOR0710050 | 71.00 | 81.00 | 5.00 |
| MOR0710053 | 71.00 | 81.60 | 5.30 |
| MOR0712020 | 71.20 | 75.20 | 2.00 |
| MOR0712022 | 71.20 | 75.60 | 2.20 |
| MOR0712057 | 71.20 | 82.60 | 5.70 |
| MOR0715012 | 71.50 | 73.90 | 1.20 |
| MOR0715015 | 71.50 | 74.50 | 1.50 |
| MOR0715016 | 71.50 | 74.70 | 1.60 |
| MOR0715020 | 71.50 | 75.50 | 2.00 |
| MOR0715040 | 71.50 | 79.50 | 4.00 |
| MOR0715045 | 71.50 | 80.50 | 4.50 |
| MOR0720015 | 72.00 | 75.00 | 1.50 |
| MOR0720020 | 72.00 | 76.00 | 2.00 |
| MOR0720021 | 72.00 | 76.20 | 2.10 |
| MOR0720025 | 72.00 | 77.00 | 2.50 |
| MOR0720030 | 72.00 | 78.00 | 3.00 |
| MOR0720035 | 72.00 | 79.00 | 3.50 |
| MOR0720040 | 72.00 | 80.00 | 4.00 |
| MOR0720045 | 72.00 | 81.00 | 4.50 |
| MOR0720050 | 72.00 | 82.00 | 5.00 |
| MOR0720055 | 72.00 | 83.00 | 5.50 |
| MOR0720060 | 72.00 | 84.00 | 6.00 |
| MOR0720065 | 72.00 | 85.00 | 6.50 |
| MOR0720070 | 72.00 | 86.00 | 7.00 |
| MOR0720080 | 72.00 | 88.00 | 8.00 |
| MOR0720090 | 72.00 | 90.00 | 9.00 |
| MOR0722057 | 72.20 | 83.60 | 5.70 |
| MOR0725012 | 72.50 | 74.90 | 1.20 |
| MOR0725015 | 72.50 | 75.50 | 1.50 |
| MOR0725035 | 72.50 | 79.50 | 3.50 |
| MOR0730012 | 73.00 | 75.40 | 1.20 |
| MOR0730015 | 73.00 | 76.00 | 1.50 |
| MOR0730020 | 73.00 | 77.00 | 2.00 |
| MOR0730025 | 73.00 | 78.00 | 2.50 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|-------|-------|
| | d | D | S |
| MOR0730030 | 73.00 | 79.00 | 3.00 |
| MOR0730035 | 73.00 | 80.00 | 3.50 |
| MOR0730035-1 | 73.00 | 80.10 | 3.55 |
| MOR0730040 | 73.00 | 81.00 | 4.00 |
| MOR0730045 | 73.00 | 82.00 | 4.50 |
| MOR0730050 | 73.00 | 83.00 | 5.00 |
| MOR0730053 | 73.00 | 83.60 | 5.30 |
| MOR0730080 | 73.00 | 89.00 | 8.00 |
| MOR0730110 | 73.00 | 95.00 | 11.00 |
| MOR0735030 | 73.50 | 79.50 | 3.00 |
| MOR0738045 | 73.80 | 82.80 | 4.50 |
| MOR0740015 | 74.00 | 77.00 | 1.50 |
| MOR0740018 | 74.00 | 77.60 | 1.80 |
| MOR0740020 | 74.00 | 78.00 | 2.00 |
| MOR0740025 | 74.00 | 79.00 | 2.50 |
| MOR0740030 | 74.00 | 80.00 | 3.00 |
| MOR0740035 | 74.00 | 81.00 | 3.50 |
| MOR0740040 | 74.00 | 82.00 | 4.00 |
| MOR0740045 | 74.00 | 83.00 | 4.50 |
| MOR0740050 | 74.00 | 84.00 | 5.00 |
| MOR0740057 | 74.00 | 85.40 | 5.70 |
| MOR0740060 | 74.00 | 86.00 | 6.00 |
| MOR0740070 | 74.00 | 88.00 | 7.00 |
| MOR0740080 | 74.00 | 90.00 | 8.00 |
| MOR0742057 | 74.20 | 85.60 | 5.70 |
| MOR0743018 | 74.30 | 77.90 | 1.80 |
| MOR0743030 | 74.30 | 80.30 | 3.00 |
| MOR0743057 | 74.30 | 85.70 | 5.70 |
| MOR0744031 | 74.40 | 80.60 | 3.10 |
| MOR0745025 | 74.50 | 79.50 | 2.50 |
| MOR0745030 | 74.50 | 80.50 | 3.00 |
| MOR0745032 | 74.50 | 80.90 | 3.20 |
| MOR0746057 | 74.60 | 86.00 | 5.70 |
| MOR0750015 | 75.00 | 78.00 | 1.50 |
| MOR0750020 | 75.00 | 79.00 | 2.00 |
| MOR0750024 | 75.00 | 79.80 | 2.40 |
| MOR0750025 | 75.00 | 80.00 | 2.50 |
| MOR0750027 | 75.00 | 80.40 | 2.70 |
| MOR0750027-1 | 75.00 | 80.50 | 2.75 |
| MOR0750030 | 75.00 | 81.00 | 3.00 |
| MOR0750035 | 75.00 | 82.00 | 3.50 |
| MOR0750035-1 | 75.00 | 82.10 | 3.55 |
| MOR0750040 | 75.00 | 83.00 | 4.00 |
| MOR0750045 | 75.00 | 84.00 | 4.50 |
| MOR0750050 | 75.00 | 85.00 | 5.00 |
| MOR0750053 | 75.00 | 85.60 | 5.30 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR0750055 | 75.00 | 86.00 | 5.50 |
| MOR0750060 | 75.00 | 87.00 | 6.00 |
| MOR0750065 | 75.00 | 88.00 | 6.50 |
| MOR0750070 | 75.00 | 89.00 | 7.00 |
| MOR0750075 | 75.00 | 90.00 | 7.50 |
| MOR0750080 | 75.00 | 91.00 | 8.00 |
| MOR0750100 | 75.00 | 95.00 | 10.00 |
| MOR0755020 | 75.50 | 79.50 | 2.00 |
| MOR0756020 | 75.60 | 79.60 | 2.00 |
| MOR0760010 | 76.00 | 78.00 | 1.00 |
| MOR0760012 | 76.00 | 78.40 | 1.20 |
| MOR0760015 | 76.00 | 79.00 | 1.50 |
| MOR0760016 | 76.00 | 79.20 | 1.60 |
| MOR0760020 | 76.00 | 80.00 | 2.00 |
| MOR0760022 | 76.00 | 80.40 | 2.20 |
| MOR0760025 | 76.00 | 81.00 | 2.50 |
| MOR0760028 | 76.00 | 81.60 | 2.80 |
| MOR0760030 | 76.00 | 82.00 | 3.00 |
| MOR0760035 | 76.00 | 83.00 | 3.50 |
| MOR0760040 | 76.00 | 84.00 | 4.00 |
| MOR0760041 | 76.00 | 84.20 | 4.10 |
| MOR0760045 | 76.00 | 85.00 | 4.50 |
| MOR0760050 | 76.00 | 86.00 | 5.00 |
| MOR0760060 | 76.00 | 88.00 | 6.00 |
| MOR0760070 | 76.00 | 90.00 | 7.00 |
| MOR0760080 | 76.00 | 92.00 | 8.00 |
| MOR0760095 | 76.00 | 95.00 | 9.50 |
| MOR0760120 | 76.00 | 100.00 | 12.00 |
| MOR0762057 | 76.20 | 87.60 | 5.70 |
| MOR0763024 | 76.30 | 81.10 | 2.40 |
| MOR0765025 | 76.50 | 81.50 | 2.50 |
| MOR0765057 | 76.50 | 87.90 | 5.70 |
| MOR0770012 | 77.00 | 79.50 | 1.25 |
| MOR0770015 | 77.00 | 80.00 | 1.50 |
| MOR0770018 | 77.00 | 80.60 | 1.80 |
| MOR0770020 | 77.00 | 81.00 | 2.00 |
| MOR0770025 | 77.00 | 82.00 | 2.50 |
| MOR0770030 | 77.00 | 83.00 | 3.00 |
| MOR0770035 | 77.00 | 84.00 | 3.50 |
| MOR0770040 | 77.00 | 85.00 | 4.00 |
| MOR0770050 | 77.00 | 87.00 | 5.00 |
| MOR0770055 | 77.00 | 88.00 | 5.50 |
| MOR0771026 | 77.10 | 82.30 | 2.60 |
| MOR0772057 | 77.20 | 88.60 | 5.70 |
| MOR0775020 | 77.50 | 81.50 | 2.00 |
| MOR0775025 | 77.50 | 82.50 | 2.50 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|-------|------|
| | d | D | S |
| MOR0775035 | 77.50 | 84.60 | 3.55 |
| MOR0775053 | 77.50 | 88.10 | 5.30 |
| MOR0780012 | 78.00 | 80.40 | 1.20 |
| MOR0780120 | 78.00 | 80.40 | 1.20 |
| MOR0780015 | 78.00 | 81.00 | 1.50 |
| MOR0780020 | 78.00 | 82.00 | 2.00 |
| MOR0780025 | 78.00 | 83.00 | 2.50 |
| MOR0780030 | 78.00 | 84.00 | 3.00 |
| MOR0780035 | 78.00 | 85.00 | 3.50 |
| MOR0780040 | 78.00 | 86.00 | 4.00 |
| MOR0780043 | 78.00 | 86.60 | 4.30 |
| MOR0780045 | 78.00 | 87.00 | 4.50 |
| MOR0780050 | 78.00 | 88.00 | 5.00 |
| MOR0780055 | 78.00 | 89.00 | 5.50 |
| MOR0780060 | 78.00 | 90.00 | 6.00 |
| MOR0785020 | 78.50 | 82.50 | 2.00 |
| MOR0785035 | 78.50 | 85.50 | 3.50 |
| MOR0785060 | 78.50 | 90.50 | 6.00 |
| MOR0786010 | 78.60 | 80.60 | 1.00 |
| MOR0790012 | 79.00 | 81.50 | 1.25 |
| MOR0790015 | 79.00 | 82.00 | 1.50 |
| MOR0790020 | 79.00 | 83.00 | 2.00 |
| MOR0790021 | 79.00 | 83.20 | 2.10 |
| MOR0790025 | 79.00 | 84.00 | 2.50 |
| MOR0790026 | 79.00 | 84.20 | 2.60 |
| MOR0790030 | 79.00 | 85.00 | 3.00 |
| MOR0790032 | 79.00 | 85.40 | 3.20 |
| MOR0790035 | 79.00 | 86.00 | 3.50 |
| MOR0790040 | 79.00 | 87.00 | 4.00 |
| MOR0790050 | 79.00 | 89.00 | 5.00 |
| MOR0790057 | 79.00 | 90.40 | 5.70 |
| MOR0790060 | 79.00 | 91.00 | 6.00 |
| MOR0790063 | 79.00 | 91.60 | 6.30 |
| MOR0790070 | 79.00 | 93.00 | 7.00 |
| MOR0792027 | 79.20 | 84.60 | 2.70 |
| MOR0792057 | 79.20 | 90.60 | 5.70 |
| MOR0793024 | 79.30 | 84.10 | 2.40 |
| MOR0793057 | 79.30 | 90.70 | 5.70 |
| MOR0794010 | 79.40 | 81.40 | 1.00 |
| MOR0794031 | 79.40 | 85.60 | 3.10 |
| MOR0794061 | 79.40 | 91.60 | 6.10 |
| MOR0795024 | 79.50 | 84.30 | 2.40 |
| MOR0795025 | 79.50 | 84.50 | 2.50 |
| MOR0795030 | 79.50 | 85.50 | 3.00 |
| MOR0795052 | 79.50 | 89.90 | 5.20 |
| MOR0795070 | 79.50 | 93.50 | 7.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR0796052 | 79.60 | 90.00 | 5.20 |
| MOR0797030 | 79.75 | 85.75 | 3.00 |
| MOR0798093 | 79.80 | 98.40 | 9.30 |
| MOR0800015 | 80.00 | 83.00 | 1.50 |
| MOR0800020 | 80.00 | 84.00 | 2.00 |
| MOR0800025 | 80.00 | 85.00 | 2.50 |
| MOR0800028 | 80.00 | 85.60 | 2.80 |
| MOR0800030 | 80.00 | 86.00 | 3.00 |
| MOR0800035 | 80.00 | 87.00 | 3.50 |
| MOR0800035-1 | 80.00 | 87.10 | 3.55 |
| MOR0800040 | 80.00 | 88.00 | 4.00 |
| MOR0800043 | 80.00 | 88.60 | 4.30 |
| MOR0800045 | 80.00 | 89.00 | 4.50 |
| MOR0800050 | 80.00 | 90.00 | 5.00 |
| MOR0800053 | 80.00 | 90.60 | 5.30 |
| MOR0800055 | 80.00 | 91.00 | 5.50 |
| MOR0800060 | 80.00 | 92.00 | 6.00 |
| MOR0800065 | 80.00 | 93.00 | 6.50 |
| MOR0800080 | 80.00 | 96.00 | 8.00 |
| MOR0800100 | 80.00 | 100.00 | 10.00 |
| MOR0805015 | 80.50 | 83.50 | 1.50 |
| MOR0805020 | 80.50 | 84.50 | 2.00 |
| MOR0805024 | 80.50 | 85.30 | 2.40 |
| MOR0805030 | 80.50 | 86.50 | 3.00 |
| MOR0808026 | 80.80 | 86.00 | 2.60 |
| MOR0810011 | 81.00 | 83.20 | 1.10 |
| MOR0810015 | 81.00 | 84.00 | 1.50 |
| MOR0810020 | 81.00 | 85.00 | 2.00 |
| MOR0810025 | 81.00 | 86.00 | 2.50 |
| MOR0810030 | 81.00 | 87.00 | 3.00 |
| MOR0810035 | 81.00 | 88.00 | 3.50 |
| MOR0810040 | 81.00 | 89.00 | 4.00 |
| MOR0810045 | 81.00 | 90.00 | 4.50 |
| MOR0810050 | 81.00 | 91.00 | 5.00 |
| MOR0810051 | 81.00 | 91.20 | 5.10 |
| MOR0810060 | 81.00 | 93.00 | 6.00 |
| MOR0810070 | 81.00 | 95.00 | 7.00 |
| MOR0812057 | 81.20 | 92.60 | 5.70 |
| MOR0815012 | 81.50 | 84.00 | 1.25 |
| MOR0815040 | 81.50 | 89.50 | 4.00 |
| MOR0815060 | 81.50 | 93.50 | 6.00 |
| MOR0815025 | 81.51 | 86.51 | 2.50 |
| MOR0816022 | 81.60 | 86.00 | 2.20 |
| MOR0817070 | 81.70 | 95.70 | 7.00 |
| MOR0820015 | 82.00 | 85.00 | 1.50 |
| MOR0820020 | 82.00 | 86.00 | 2.00 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR0820025 | 82.00 | 87.00 | 2.50 |
| MOR0820030 | 82.00 | 88.00 | 3.00 |
| MOR0820035 | 82.00 | 89.00 | 3.50 |
| MOR0820040 | 82.00 | 90.00 | 4.00 |
| MOR0820045 | 82.00 | 91.00 | 4.50 |
| MOR0820050 | 82.00 | 92.00 | 5.00 |
| MOR0820055 | 82.00 | 93.00 | 5.50 |
| MOR0820065 | 82.00 | 95.00 | 6.50 |
| MOR0820070 | 82.00 | 96.00 | 7.00 |
| MOR0820080 | 82.00 | 98.00 | 8.00 |
| MOR0822057 | 82.20 | 93.60 | 5.70 |
| MOR0824012 | 82.40 | 84.90 | 1.25 |
| MOR0825020 | 82.50 | 86.50 | 2.00 |
| MOR0825022 | 82.50 | 86.90 | 2.20 |
| MOR0825035 | 82.50 | 89.60 | 3.55 |
| MOR0825053 | 82.50 | 93.10 | 5.30 |
| MOR0825018 | 82.57 | 86.17 | 1.80 |
| MOR0826022 | 82.60 | 87.00 | 2.20 |
| MOR0829020 | 82.90 | 86.90 | 2.00 |
| MOR0830015 | 83.00 | 86.00 | 1.50 |
| MOR0830020 | 83.00 | 87.00 | 2.00 |
| MOR0830025 | 83.00 | 88.00 | 2.50 |
| MOR0830029 | 83.00 | 88.80 | 2.90 |
| MOR0830030 | 83.00 | 89.00 | 3.00 |
| MOR0830035 | 83.00 | 90.00 | 3.50 |
| MOR0830040 | 83.00 | 91.00 | 4.00 |
| MOR0830045 | 83.00 | 92.00 | 4.50 |
| MOR0830050 | 83.00 | 93.00 | 5.00 |
| MOR0830055 | 83.00 | 94.00 | 5.50 |
| MOR0832020 | 83.20 | 87.20 | 2.00 |
| MOR0835012 | 83.50 | 86.00 | 1.25 |
| MOR0835030 | 83.50 | 89.50 | 3.00 |
| MOR0837045 | 83.70 | 92.70 | 4.50 |
| MOR0840012 | 84.00 | 86.40 | 1.20 |
| MOR0840015 | 84.00 | 87.00 | 1.50 |
| MOR0840020 | 84.00 | 88.00 | 2.00 |
| MOR0840025 | 84.00 | 89.00 | 2.50 |
| MOR0840030 | 84.00 | 90.00 | 3.00 |
| MOR0840035 | 84.00 | 91.00 | 3.50 |
| MOR0840040 | 84.00 | 92.00 | 4.00 |
| MOR0840045 | 84.00 | 93.00 | 4.50 |
| MOR0840050 | 84.00 | 94.00 | 5.00 |
| MOR0840057 | 84.00 | 95.40 | 5.70 |
| MOR0840060 | 84.00 | 96.00 | 6.00 |
| MOR0840090 | 84.00 | 102.00 | 9.00 |
| MOR0840110 | 84.00 | 106.00 | 11.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR0842030 | 84.20 | 90.20 | 3.00 |
| MOR0842057 | 84.20 | 95.60 | 5.70 |
| MOR0843026 | 84.30 | 89.50 | 2.60 |
| MOR0843057 | 84.30 | 95.70 | 5.70 |
| MOR0844031 | 84.40 | 90.60 | 3.10 |
| MOR0845030 | 84.50 | 90.50 | 3.00 |
| MOR0845050 | 84.50 | 94.50 | 5.00 |
| MOR0846057 | 84.60 | 96.00 | 5.70 |
| MOR0850015 | 85.00 | 88.00 | 1.50 |
| MOR0850020 | 85.00 | 89.00 | 2.00 |
| MOR0850025 | 85.00 | 90.00 | 2.50 |
| MOR0850030 | 85.00 | 91.00 | 3.00 |
| MOR0850035 | 85.00 | 92.00 | 3.50 |
| MOR0850035-1 | 85.00 | 92.10 | 3.55 |
| MOR0850040 | 85.00 | 93.00 | 4.00 |
| MOR0850045 | 85.00 | 94.00 | 4.50 |
| MOR0850050 | 85.00 | 95.00 | 5.00 |
| MOR0850053 | 85.00 | 95.60 | 5.30 |
| MOR0850055 | 85.00 | 96.00 | 5.50 |
| MOR0850060 | 85.00 | 97.00 | 6.00 |
| MOR0850070 | 85.00 | 99.00 | 7.00 |
| MOR0850080 | 85.00 | 101.00 | 8.00 |
| MOR0850095 | 85.00 | 104.00 | 9.50 |
| MOR0850100 | 85.00 | 105.00 | 10.00 |
| MOR0853010 | 85.30 | 87.30 | 1.00 |
| MOR0854030 | 85.40 | 91.40 | 3.00 |
| MOR0855024 | 85.50 | 90.30 | 2.40 |
| MOR0855035 | 85.50 | 92.50 | 3.50 |
| MOR0855060 | 85.50 | 97.50 | 6.00 |
| MOR0858012 | 85.80 | 88.30 | 1.25 |
| MOR0860012 | 86.00 | 88.40 | 1.20 |
| MOR0860015 | 86.00 | 89.00 | 1.50 |
| MOR0860020 | 86.00 | 90.00 | 2.00 |
| MOR0860025 | 86.00 | 91.00 | 2.50 |
| MOR0860030 | 86.00 | 92.00 | 3.00 |
| MOR0860035 | 86.00 | 93.00 | 3.50 |
| MOR0860040 | 86.00 | 94.00 | 4.00 |
| MOR0860045 | 86.00 | 95.00 | 4.50 |
| MOR0860050 | 86.00 | 96.00 | 5.00 |
| MOR0860055 | 86.00 | 97.00 | 5.50 |
| MOR0860060 | 86.00 | 98.00 | 6.00 |
| MOR0860064 | 86.00 | 98.80 | 6.40 |
| MOR0860080 | 86.00 | 102.00 | 8.00 |
| MOR0863026 | 86.30 | 91.50 | 2.60 |
| MOR0865030 | 86.50 | 92.50 | 3.00 |
| MOR0866020 | 86.60 | 90.60 | 2.00 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR0867030 | 86.70 | 92.70 | 3.00 |
| MOR0870015 | 87.00 | 90.00 | 1.50 |
| MOR0870020 | 87.00 | 91.00 | 2.00 |
| MOR0870025 | 87.00 | 92.00 | 2.50 |
| MOR0870030 | 87.00 | 93.00 | 3.00 |
| MOR0870035 | 87.00 | 94.00 | 3.50 |
| MOR0870040 | 87.00 | 95.00 | 4.00 |
| MOR0870050 | 87.00 | 97.00 | 5.00 |
| MOR0870060 | 87.00 | 99.00 | 6.00 |
| MOR0870070 | 87.00 | 101.00 | 7.00 |
| MOR0870090 | 87.00 | 105.00 | 9.00 |
| MOR0870100 | 87.00 | 107.00 | 10.00 |
| MOR0871024 | 87.10 | 91.90 | 2.40 |
| MOR0872025 | 87.20 | 92.20 | 2.50 |
| MOR0872028 | 87.20 | 92.80 | 2.80 |
| MOR0872057 | 87.20 | 98.60 | 5.70 |
| MOR0875035 | 87.50 | 94.50 | 3.50 |
| MOR0875035-1 | 87.50 | 94.60 | 3.55 |
| MOR0875050 | 87.50 | 97.50 | 5.00 |
| MOR0875053 | 87.50 | 98.10 | 5.30 |
| MOR0880015 | 88.00 | 91.00 | 1.50 |
| MOR0880020 | 88.00 | 92.00 | 2.00 |
| MOR0880022 | 88.00 | 92.40 | 2.20 |
| MOR0880025 | 88.00 | 93.00 | 2.50 |
| MOR0880030 | 88.00 | 94.00 | 3.00 |
| MOR0880035 | 88.00 | 95.00 | 3.50 |
| MOR0880040 | 88.00 | 96.00 | 4.00 |
| MOR0880050 | 88.00 | 98.00 | 5.00 |
| MOR0880055 | 88.00 | 99.00 | 5.50 |
| MOR0880060 | 88.00 | 100.00 | 6.00 |
| MOR0880070 | 88.00 | 102.00 | 7.00 |
| MOR0880085 | 88.00 | 105.00 | 8.50 |
| MOR0883070 | 88.30 | 102.30 | 7.00 |
| MOR0890015 | 89.00 | 92.00 | 1.50 |
| MOR0890020 | 89.00 | 93.00 | 2.00 |
| MOR0890025 | 89.00 | 94.00 | 2.50 |
| MOR0890030 | 89.00 | 95.00 | 3.00 |
| MOR0890035 | 89.00 | 96.00 | 3.50 |
| MOR0890040 | 89.00 | 97.00 | 4.00 |
| MOR0890045 | 89.00 | 98.00 | 4.50 |
| MOR0890049 | 89.00 | 98.80 | 4.90 |
| MOR0890050 | 89.00 | 99.00 | 5.00 |
| MOR0890057 | 89.00 | 100.40 | 5.70 |
| MOR0890060 | 89.00 | 101.00 | 6.00 |
| MOR0890070 | 89.00 | 103.00 | 7.00 |
| MOR0892030 | 89.20 | 95.20 | 3.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR0892057 | 89.20 | 100.60 | 5.70 |
| MOR0893057 | 89.30 | 100.70 | 5.70 |
| MOR0894020 | 89.40 | 93.40 | 2.00 |
| MOR0894031 | 89.40 | 95.60 | 3.10 |
| MOR0894033 | 89.40 | 96.00 | 3.30 |
| MOR0895020 | 89.50 | 93.50 | 2.00 |
| MOR0895025 | 89.50 | 94.50 | 2.50 |
| MOR0895030 | 89.50 | 95.50 | 3.00 |
| MOR0896057 | 89.60 | 101.00 | 5.70 |
| MOR0900011 | 90.00 | 92.20 | 1.10 |
| MOR0900015 | 90.00 | 93.00 | 1.50 |
| MOR0900020 | 90.00 | 94.00 | 2.00 |
| MOR0900025 | 90.00 | 95.00 | 2.50 |
| MOR0900030 | 90.00 | 96.00 | 3.00 |
| MOR0900035 | 90.00 | 97.00 | 3.50 |
| MOR0900035-1 | 90.00 | 97.10 | 3.55 |
| MOR0900040 | 90.00 | 98.00 | 4.00 |
| MOR0900045 | 90.00 | 99.00 | 4.50 |
| MOR0900050 | 90.00 | 100.00 | 5.00 |
| MOR0900053 | 90.00 | 100.60 | 5.30 |
| MOR0900055 | 90.00 | 101.00 | 5.50 |
| MOR0900060 | 90.00 | 102.00 | 6.00 |
| MOR0900070 | 90.00 | 104.00 | 7.00 |
| MOR0900080 | 90.00 | 106.00 | 8.00 |
| MOR0900090 | 90.00 | 108.00 | 9.00 |
| MOR0900100 | 90.00 | 110.00 | 10.00 |
| MOR0903040 | 90.30 | 98.30 | 4.00 |
| MOR0905015 | 90.50 | 93.50 | 1.50 |
| MOR0905025 | 90.50 | 95.50 | 2.50 |
| MOR0907040 | 90.77 | 98.77 | 4.00 |
| MOR0907063 | 90.78 | 103.48 | 6.35 |
| MOR0908012 | 90.80 | 93.30 | 1.25 |
| MOR0910015 | 91.00 | 94.00 | 1.50 |
| MOR0910020 | 91.00 | 95.00 | 2.00 |
| MOR0910025 | 91.00 | 96.00 | 2.50 |
| MOR0910030 | 91.00 | 97.00 | 3.00 |
| MOR0910035 | 91.00 | 98.00 | 3.50 |
| MOR0910040 | 91.00 | 99.00 | 4.00 |
| MOR0910050 | 91.00 | 101.00 | 5.00 |
| MOR0912057 | 91.20 | 102.60 | 5.70 |
| MOR0915025 | 91.50 | 96.50 | 2.50 |
| MOR0915030 | 91.50 | 97.50 | 3.00 |
| MOR0920015 | 92.00 | 95.00 | 1.50 |
| MOR0920020 | 92.00 | 96.00 | 2.00 |
| MOR0920025 | 92.00 | 97.00 | 2.50 |
| MOR0920030 | 92.00 | 98.00 | 3.00 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|------|
| | d | D | S |
| MOR0920032 | 92.00 | 98.40 | 3.20 |
| MOR0920035 | 92.00 | 99.00 | 3.50 |
| MOR0920040 | 92.00 | 100.00 | 4.00 |
| MOR0920045 | 92.00 | 101.00 | 4.50 |
| MOR0920050 | 92.00 | 102.00 | 5.00 |
| MOR0920060 | 92.00 | 104.00 | 6.00 |
| MOR0920070 | 92.00 | 106.00 | 7.00 |
| MOR0920085 | 92.00 | 109.00 | 8.50 |
| MOR0922057 | 92.20 | 103.60 | 5.70 |
| MOR0925020 | 92.50 | 96.50 | 2.00 |
| MOR0925022 | 92.50 | 96.90 | 2.20 |
| MOR0925032 | 92.50 | 98.90 | 3.20 |
| MOR0925035 | 92.50 | 99.50 | 3.50 |
| MOR0925035-1 | 92.50 | 99.60 | 3.55 |
| MOR0925045 | 92.50 | 101.50 | 4.50 |
| MOR0925053 | 92.50 | 103.10 | 5.30 |
| MOR0930014 | 93.00 | 95.80 | 1.40 |
| MOR0930015 | 93.00 | 96.00 | 1.50 |
| MOR0930016 | 93.00 | 96.20 | 1.60 |
| MOR0930020 | 93.00 | 97.00 | 2.00 |
| MOR0930021 | 93.00 | 97.20 | 2.10 |
| MOR0930025 | 93.00 | 98.00 | 2.50 |
| MOR0930030 | 93.00 | 99.00 | 3.00 |
| MOR0930032 | 93.00 | 99.40 | 3.20 |
| MOR0930035 | 93.00 | 100.00 | 3.50 |
| MOR0930040 | 93.00 | 101.00 | 4.00 |
| MOR0930050 | 93.00 | 103.00 | 5.00 |
| MOR0930060 | 93.00 | 105.00 | 6.00 |
| MOR0935020 | 93.50 | 97.50 | 2.00 |
| MOR0935025 | 93.50 | 98.50 | 2.50 |
| MOR0935032 | 93.50 | 99.90 | 3.20 |
| MOR0935045 | 93.50 | 102.50 | 4.50 |
| MOR0940015 | 94.00 | 97.00 | 1.50 |
| MOR0940020 | 94.00 | 98.00 | 2.00 |
| MOR0940025 | 94.00 | 99.00 | 2.50 |
| MOR0940030 | 94.00 | 100.00 | 3.00 |
| MOR0940035 | 94.00 | 101.00 | 3.50 |
| MOR0940040 | 94.00 | 102.00 | 4.00 |
| MOR0940045 | 94.00 | 103.00 | 4.50 |
| MOR0940050 | 94.00 | 104.00 | 5.00 |
| MOR0940055 | 94.00 | 105.00 | 5.50 |
| MOR0940057 | 94.00 | 105.40 | 5.70 |
| MOR0940070 | 94.00 | 108.00 | 7.00 |
| MOR0940080 | 94.00 | 110.00 | 8.00 |
| MOR0942025 | 94.20 | 99.20 | 2.50 |
| MOR0942057 | 94.20 | 105.60 | 5.70 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR0943057 | 94.30 | 105.70 | 5.70 |
| MOR0944031 | 94.40 | 100.60 | 3.10 |
| MOR0945030 | 94.50 | 100.50 | 3.00 |
| MOR0950012 | 95.00 | 97.40 | 1.20 |
| MOR0950015 | 95.00 | 98.00 | 1.50 |
| MOR0950016 | 95.00 | 98.20 | 1.60 |
| MOR0950018 | 95.00 | 98.60 | 1.80 |
| MOR0950020 | 95.00 | 99.00 | 2.00 |
| MOR0950025 | 95.00 | 100.00 | 2.50 |
| MOR0950030 | 95.00 | 101.00 | 3.00 |
| MOR0950032 | 95.00 | 101.40 | 3.20 |
| MOR0950035 | 95.00 | 102.00 | 3.50 |
| MOR0950035-1 | 95.00 | 102.10 | 3.55 |
| MOR0950040 | 95.00 | 103.00 | 4.00 |
| MOR0950045 | 95.00 | 104.00 | 4.50 |
| MOR0950050 | 95.00 | 105.00 | 5.00 |
| MOR0950053 | 95.00 | 105.60 | 5.30 |
| MOR0950055 | 95.00 | 106.00 | 5.50 |
| MOR0950060 | 95.00 | 107.00 | 6.00 |
| MOR0950070 | 95.00 | 109.00 | 7.00 |
| MOR0950075 | 95.00 | 110.00 | 7.50 |
| MOR0955030 | 95.50 | 101.50 | 3.00 |
| MOR0955040 | 95.50 | 103.50 | 4.00 |
| MOR0955060 | 95.50 | 107.50 | 6.00 |
| MOR0960015 | 96.00 | 99.00 | 1.50 |
| MOR0960020 | 96.00 | 100.00 | 2.00 |
| MOR0960025 | 96.00 | 101.00 | 2.50 |
| MOR0960030 | 96.00 | 102.00 | 3.00 |
| MOR0960035 | 96.00 | 103.00 | 3.50 |
| MOR0960040 | 96.00 | 104.00 | 4.00 |
| MOR0960043 | 96.00 | 104.60 | 4.30 |
| MOR0960045 | 96.00 | 105.00 | 4.50 |
| MOR0960050 | 96.00 | 106.00 | 5.00 |
| MOR0960060 | 96.00 | 108.00 | 6.00 |
| MOR0960140 | 96.00 | 124.00 | 14.00 |
| MOR0965040 | 96.50 | 104.50 | 4.00 |
| MOR0970015 | 97.00 | 100.00 | 1.50 |
| MOR0970016 | 97.00 | 100.20 | 1.60 |
| MOR0970020 | 97.00 | 101.00 | 2.00 |
| MOR0970025 | 97.00 | 102.00 | 2.50 |
| MOR0970027 | 97.00 | 102.50 | 2.75 |
| MOR0970030 | 97.00 | 103.00 | 3.00 |
| MOR0970035 | 97.00 | 104.00 | 3.50 |
| MOR0970035-1 | 97.00 | 104.10 | 3.55 |
| MOR0970040 | 97.00 | 105.00 | 4.00 |
| MOR0970050 | 97.00 | 107.00 | 5.00 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR0970055 | 97.00 | 108.00 | 5.50 |
| MOR0970070 | 97.00 | 111.00 | 7.00 |
| MOR0972057 | 97.20 | 108.60 | 5.70 |
| MOR0975030 | 97.50 | 103.50 | 3.00 |
| MOR0975035 | 97.50 | 104.60 | 3.55 |
| MOR0975045 | 97.50 | 106.50 | 4.50 |
| MOR0975050 | 97.50 | 107.50 | 5.00 |
| MOR0975053 | 97.50 | 108.10 | 5.30 |
| MOR0980015 | 98.00 | 101.00 | 1.50 |
| MOR0980020 | 98.00 | 102.00 | 2.00 |
| MOR0980022 | 98.00 | 102.40 | 2.20 |
| MOR0980025 | 98.00 | 103.00 | 2.50 |
| MOR0980030 | 98.00 | 104.00 | 3.00 |
| MOR0980035 | 98.00 | 105.00 | 3.50 |
| MOR0980040 | 98.00 | 106.00 | 4.00 |
| MOR0980045 | 98.00 | 107.00 | 4.50 |
| MOR0980050 | 98.00 | 108.00 | 5.00 |
| MOR0980060 | 98.00 | 110.00 | 6.00 |
| MOR0980075 | 98.00 | 113.00 | 7.50 |
| MOR0980080 | 98.00 | 114.00 | 8.00 |
| MOR0980100 | 98.00 | 118.00 | 10.00 |
| MOR0990015 | 99.00 | 102.00 | 1.50 |
| MOR0990020 | 99.00 | 103.00 | 2.00 |
| MOR0990025 | 99.00 | 104.00 | 2.50 |
| MOR0990030 | 99.00 | 105.00 | 3.00 |
| MOR0990035 | 99.00 | 106.00 | 3.50 |
| MOR0990040 | 99.00 | 107.00 | 4.00 |
| MOR0990045 | 99.00 | 108.00 | 4.50 |
| MOR0990050 | 99.00 | 109.00 | 5.00 |
| MOR0990057 | 99.00 | 110.40 | 5.70 |
| MOR0990060 | 99.00 | 111.00 | 6.00 |
| MOR0990065 | 99.00 | 112.00 | 6.50 |
| MOR0990070 | 99.00 | 113.00 | 7.00 |
| MOR0991024 | 99.10 | 103.90 | 2.40 |
| MOR0992057 | 99.20 | 110.60 | 5.70 |
| MOR0993030 | 99.30 | 105.30 | 3.00 |
| MOR0993057 | 99.30 | 110.70 | 5.70 |
| MOR0994041 | 99.40 | 107.60 | 4.10 |
| MOR0995018 | 99.50 | 103.10 | 1.80 |
| MOR0995030 | 99.50 | 105.50 | 3.00 |
| MOR0995045 | 99.50 | 108.50 | 4.50 |
| MOR0995050 | 99.50 | 109.50 | 5.00 |
| MOR1000010 | 100.00 | 102.00 | 1.00 |
| MOR1000015 | 100.00 | 103.00 | 1.50 |
| MOR1000017 | 100.00 | 103.40 | 1.70 |
| MOR1000020 | 100.00 | 104.00 | 2.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1000025 | 100.00 | 105.00 | 2.50 |
| MOR1000030 | 100.00 | 106.00 | 3.00 |
| MOR1000032 | 100.00 | 106.40 | 3.20 |
| MOR1000035 | 100.00 | 107.00 | 3.50 |
| MOR1000035-1 | 100.00 | 107.10 | 3.55 |
| MOR1000040 | 100.00 | 108.00 | 4.00 |
| MOR1000045 | 100.00 | 109.00 | 4.50 |
| MOR1000047 | 100.00 | 109.40 | 4.70 |
| MOR1000050 | 100.00 | 110.00 | 5.00 |
| MOR1000053 | 100.00 | 110.60 | 5.30 |
| MOR1000055 | 100.00 | 111.00 | 5.50 |
| MOR1000060 | 100.00 | 112.00 | 6.00 |
| MOR1000065 | 100.00 | 113.00 | 6.50 |
| MOR1000070 | 100.00 | 114.00 | 7.00 |
| MOR1000078 | 100.00 | 115.60 | 7.80 |
| MOR1000080 | 100.00 | 116.00 | 8.00 |
| MOR1000100 | 100.00 | 120.00 | 10.00 |
| MOR1000145 | 100.00 | 129.00 | 14.50 |
| MOR1002057 | 100.20 | 111.60 | 5.70 |
| MOR1005045 | 100.50 | 109.50 | 4.50 |
| MOR1005070 | 100.50 | 114.50 | 7.00 |
| MOR1008028 | 100.80 | 106.40 | 2.80 |
| MOR1009016 | 100.95 | 104.15 | 1.60 |
| MOR1010015 | 101.00 | 104.00 | 1.50 |
| MOR1010025 | 101.00 | 106.00 | 2.50 |
| MOR1010030 | 101.00 | 107.00 | 3.00 |
| MOR1010035 | 101.00 | 108.00 | 3.50 |
| MOR1010040 | 101.00 | 109.00 | 4.00 |
| MOR1010043 | 101.00 | 109.60 | 4.30 |
| MOR1010045 | 101.00 | 110.00 | 4.50 |
| MOR1010050 | 101.00 | 111.00 | 5.00 |
| MOR1010060 | 101.00 | 113.00 | 6.00 |
| MOR1010070 | 101.00 | 115.00 | 7.00 |
| MOR1010140 | 101.00 | 129.00 | 14.00 |
| MOR1012042 | 101.20 | 109.60 | 4.20 |
| MOR1013072 | 101.30 | 115.70 | 7.20 |
| MOR1015030 | 101.50 | 107.50 | 3.00 |
| MOR1015057 | 101.50 | 112.90 | 5.70 |
| MOR1016013 | 101.60 | 104.20 | 1.30 |
| MOR1016032 | 101.60 | 108.00 | 3.20 |
| MOR1016130 | 101.60 | 127.60 | 13.00 |
| MOR1020020 | 102.00 | 106.00 | 2.00 |
| MOR1020025 | 102.00 | 107.00 | 2.50 |
| MOR1020030 | 102.00 | 108.00 | 3.00 |
| MOR1020035 | 102.00 | 109.00 | 3.50 |
| MOR1020040 | 102.00 | 110.00 | 4.00 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1020047 | 102.00 | 111.50 | 4.75 |
| MOR1020050 | 102.00 | 112.00 | 5.00 |
| MOR1020055 | 102.00 | 113.00 | 5.50 |
| MOR1020070 | 102.00 | 116.00 | 7.00 |
| MOR1025025 | 102.50 | 107.50 | 2.50 |
| MOR1025030 | 102.50 | 108.50 | 3.00 |
| MOR1025040 | 102.50 | 110.50 | 4.00 |
| MOR1026045 | 102.60 | 111.60 | 4.50 |
| MOR1030020 | 103.00 | 107.00 | 2.00 |
| MOR1030025 | 103.00 | 108.00 | 2.50 |
| MOR1030030 | 103.00 | 109.00 | 3.00 |
| MOR1030035 | 103.00 | 110.00 | 3.50 |
| MOR1030035-1 | 103.00 | 110.10 | 3.55 |
| MOR1030040 | 103.00 | 111.00 | 4.00 |
| MOR1030045 | 103.00 | 112.00 | 4.50 |
| MOR1030050 | 103.00 | 113.00 | 5.00 |
| MOR1030053 | 103.00 | 113.60 | 5.30 |
| MOR1030060 | 103.00 | 115.00 | 6.00 |
| MOR1030100 | 103.00 | 123.00 | 10.00 |
| MOR1033057 | 103.30 | 114.70 | 5.70 |
| MOR1035030 | 103.50 | 109.50 | 3.00 |
| MOR1035040 | 103.50 | 111.50 | 4.00 |
| MOR1035042 | 103.50 | 111.90 | 4.20 |
| MOR1035045 | 103.50 | 112.50 | 4.50 |
| MOR1036090 | 103.60 | 121.60 | 9.00 |
| MOR1040015 | 104.00 | 107.00 | 1.50 |
| MOR1040020 | 104.00 | 108.00 | 2.00 |
| MOR1040025 | 104.00 | 109.00 | 2.50 |
| MOR1040030 | 104.00 | 110.00 | 3.00 |
| MOR1040035 | 104.00 | 111.00 | 3.50 |
| MOR1040040 | 104.00 | 112.00 | 4.00 |
| MOR1040050 | 104.00 | 114.00 | 5.00 |
| MOR1040055 | 104.00 | 115.00 | 5.50 |
| MOR1040057 | 104.00 | 115.40 | 5.70 |
| MOR1040060 | 104.00 | 116.00 | 6.00 |
| MOR1040070 | 104.00 | 118.00 | 7.00 |
| MOR1040080 | 104.00 | 120.00 | 8.00 |
| MOR1042030 | 104.20 | 110.20 | 3.00 |
| MOR1042057 | 104.20 | 115.60 | 5.70 |
| MOR1043057 | 104.30 | 115.70 | 5.70 |
| MOR1043060 | 104.30 | 116.30 | 6.00 |
| MOR1044031 | 104.40 | 110.60 | 3.10 |
| MOR1045030 | 104.50 | 110.50 | 3.00 |
| MOR1045040 | 104.50 | 112.50 | 4.00 |
| MOR1045050 | 104.50 | 114.50 | 5.00 |
| MOR1045060 | 104.50 | 116.50 | 6.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1046057 | 104.60 | 116.00 | 5.70 |
| MOR1050015 | 105.00 | 108.00 | 1.50 |
| MOR1050020 | 105.00 | 109.00 | 2.00 |
| MOR1050025 | 105.00 | 110.00 | 2.50 |
| MOR1050030 | 105.00 | 111.00 | 3.00 |
| MOR1050035 | 105.00 | 112.00 | 3.50 |
| MOR1050040 | 105.00 | 113.00 | 4.00 |
| MOR1050045 | 105.00 | 114.00 | 4.50 |
| MOR1050046 | 105.00 | 114.20 | 4.60 |
| MOR1050050 | 105.00 | 115.00 | 5.00 |
| MOR1050055 | 105.00 | 116.00 | 5.50 |
| MOR1050060 | 105.00 | 117.00 | 6.00 |
| MOR1050065 | 105.00 | 118.00 | 6.50 |
| MOR1050070 | 105.00 | 119.00 | 7.00 |
| MOR1050085 | 105.00 | 122.00 | 8.50 |
| MOR1050100 | 105.00 | 125.00 | 10.00 |
| MOR1055027 | 105.50 | 110.90 | 2.70 |
| MOR1055030 | 105.50 | 111.50 | 3.00 |
| MOR1055040 | 105.50 | 113.50 | 4.00 |
| MOR1055050 | 105.50 | 115.50 | 5.00 |
| MOR1055060 | 105.50 | 117.50 | 6.00 |
| MOR1058037 | 105.80 | 113.30 | 3.75 |
| MOR1060010 | 106.00 | 108.00 | 1.00 |
| MOR1060020 | 106.00 | 110.00 | 2.00 |
| MOR1060025 | 106.00 | 111.00 | 2.50 |
| MOR1060030 | 106.00 | 112.00 | 3.00 |
| MOR1060032 | 106.00 | 112.40 | 3.20 |
| MOR1060035 | 106.00 | 113.00 | 3.50 |
| MOR1060035-1 | 106.00 | 113.10 | 3.55 |
| MOR1060040 | 106.00 | 114.00 | 4.00 |
| MOR1060042 | 106.00 | 114.40 | 4.20 |
| MOR1060045 | 106.00 | 115.00 | 4.50 |
| MOR1060050 | 106.00 | 116.00 | 5.00 |
| MOR1060053 | 106.00 | 116.60 | 5.30 |
| MOR1060055 | 106.00 | 117.00 | 5.50 |
| MOR1060060 | 106.00 | 118.00 | 6.00 |
| MOR1060070 | 106.00 | 120.00 | 7.00 |
| MOR1062030 | 106.20 | 112.20 | 3.00 |
| MOR1070012 | 107.00 | 109.40 | 1.20 |
| MOR1070020 | 107.00 | 111.00 | 2.00 |
| MOR1070025 | 107.00 | 112.00 | 2.50 |
| MOR1070030 | 107.00 | 113.00 | 3.00 |
| MOR1070032 | 107.00 | 113.40 | 3.20 |
| MOR1070035 | 107.00 | 114.00 | 3.50 |
| MOR1070040 | 107.00 | 115.00 | 4.00 |
| MOR1070043 | 107.00 | 115.60 | 4.30 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1070045 | 107.00 | 116.00 | 4.50 |
| MOR1070050 | 107.00 | 117.00 | 5.00 |
| MOR1070058 | 107.00 | 118.60 | 5.80 |
| MOR1070060 | 107.00 | 119.00 | 6.00 |
| MOR1070070 | 107.00 | 121.00 | 7.00 |
| MOR1070080 | 107.00 | 123.00 | 8.00 |
| MOR1070100 | 107.00 | 127.00 | 10.00 |
| MOR1076058 | 107.60 | 119.20 | 5.80 |
| MOR1080025 | 108.00 | 113.00 | 2.50 |
| MOR1080030 | 108.00 | 114.00 | 3.00 |
| MOR1080032 | 108.00 | 114.40 | 3.20 |
| MOR1080035 | 108.00 | 115.00 | 3.50 |
| MOR1080040 | 108.00 | 116.00 | 4.00 |
| MOR1080045 | 108.00 | 117.00 | 4.50 |
| MOR1080047 | 108.00 | 117.50 | 4.75 |
| MOR1080050 | 108.00 | 118.00 | 5.00 |
| MOR1080053 | 108.00 | 118.60 | 5.30 |
| MOR1080058 | 108.00 | 119.60 | 5.80 |
| MOR1080060 | 108.00 | 120.00 | 6.00 |
| MOR1080070 | 108.00 | 122.00 | 7.00 |
| MOR1080080 | 108.00 | 124.00 | 8.00 |
| MOR1080090 | 108.00 | 126.00 | 9.00 |
| MOR1080100 | 108.00 | 128.00 | 10.00 |
| MOR1088058 | 108.80 | 120.40 | 5.80 |
| MOR1088084 | 108.80 | 125.60 | 8.40 |
| MOR1090020 | 109.00 | 113.00 | 2.00 |
| MOR1090024 | 109.00 | 113.80 | 2.40 |
| MOR1090025 | 109.00 | 114.00 | 2.50 |
| MOR1090028 | 109.00 | 114.60 | 2.80 |
| MOR1090030 | 109.00 | 115.00 | 3.00 |
| MOR1090035 | 109.00 | 116.00 | 3.50 |
| MOR1090035-1 | 109.00 | 116.10 | 3.55 |
| MOR1090040 | 109.00 | 117.00 | 4.00 |
| MOR1090045 | 109.00 | 118.00 | 4.50 |
| MOR1090050 | 109.00 | 119.00 | 5.00 |
| MOR1090053 | 109.00 | 119.60 | 5.30 |
| MOR1090055 | 109.00 | 120.00 | 5.50 |
| MOR1090057 | 109.00 | 120.40 | 5.70 |
| MOR1090058 | 109.00 | 120.60 | 5.80 |
| MOR1090070 | 109.00 | 123.00 | 7.00 |
| MOR1091024 | 109.10 | 113.90 | 2.40 |
| MOR1091047 | 109.16 | 118.66 | 4.75 |
| MOR1091050 | 109.16 | 119.16 | 5.00 |
| MOR1092057 | 109.20 | 120.60 | 5.70 |
| MOR1093057 | 109.30 | 120.70 | 5.70 |
| MOR1094031 | 109.40 | 115.60 | 3.10 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1095030 | 109.50 | 115.50 | 3.00 |
| MOR1096057 | 109.60 | 121.00 | 5.70 |
| MOR1097048 | 109.75 | 119.35 | 4.80 |
| MOR1097048-2 | 109.78 | 119.48 | 4.85 |
| MOR1100015 | 110.00 | 113.00 | 1.50 |
| MOR1100020 | 110.00 | 114.00 | 2.00 |
| MOR1100025 | 110.00 | 115.00 | 2.50 |
| MOR1100030 | 110.00 | 116.00 | 3.00 |
| MOR1100035 | 110.00 | 117.00 | 3.50 |
| MOR1100040 | 110.00 | 118.00 | 4.00 |
| MOR1100045 | 110.00 | 119.00 | 4.50 |
| MOR1100047 | 110.00 | 119.50 | 4.75 |
| MOR1100050 | 110.00 | 120.00 | 5.00 |
| MOR1100055 | 110.00 | 121.00 | 5.50 |
| MOR1100060 | 110.00 | 122.00 | 6.00 |
| MOR1100070 | 110.00 | 124.00 | 7.00 |
| MOR1100080 | 110.00 | 126.00 | 8.00 |
| MOR1100100 | 110.00 | 130.00 | 10.00 |
| MOR1103051 | 110.34 | 120.64 | 5.15 |
| MOR1105024 | 110.50 | 115.30 | 2.40 |
| MOR1110025 | 111.00 | 116.00 | 2.50 |
| MOR1110030 | 111.00 | 117.00 | 3.00 |
| MOR1110035 | 111.00 | 118.00 | 3.50 |
| MOR1110040 | 111.00 | 119.00 | 4.00 |
| MOR1110050 | 111.00 | 121.00 | 5.00 |
| MOR1110060 | 111.00 | 123.00 | 6.00 |
| MOR1110080 | 111.00 | 127.00 | 8.00 |
| MOR1112057 | 111.20 | 122.60 | 5.70 |
| MOR1115024 | 111.50 | 116.30 | 2.40 |
| MOR1115025 | 111.50 | 116.50 | 2.50 |
| MOR1115030 | 111.50 | 117.50 | 3.00 |
| MOR1115050 | 111.50 | 121.50 | 5.00 |
| MOR1116057 | 111.60 | 123.00 | 5.70 |
| MOR1120015 | 112.00 | 115.00 | 1.50 |
| MOR1120020 | 112.00 | 116.00 | 2.00 |
| MOR1120025 | 112.00 | 117.00 | 2.50 |
| MOR1120030 | 112.00 | 118.00 | 3.00 |
| MOR1120035 | 112.00 | 119.00 | 3.50 |
| MOR1120035-1 | 112.00 | 119.10 | 3.55 |
| MOR1120040 | 112.00 | 120.00 | 4.00 |
| MOR1120050 | 112.00 | 122.00 | 5.00 |
| MOR1120053 | 112.00 | 122.60 | 5.30 |
| MOR1120060 | 112.00 | 124.00 | 6.00 |
| MOR1120063 | 112.00 | 124.60 | 6.30 |
| MOR1120070 | 112.00 | 126.00 | 7.00 |
| MOR1120080 | 112.00 | 128.00 | 8.00 |

O'RINGS



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1125100 | 112.50 | 132.50 | 10.00 |
| MOR1130015 | 113.00 | 116.00 | 1.50 |
| MOR1130025 | 113.00 | 118.00 | 2.50 |
| MOR1130030 | 113.00 | 119.00 | 3.00 |
| MOR1130035 | 113.00 | 120.00 | 3.50 |
| MOR1130040 | 113.00 | 121.00 | 4.00 |
| MOR1130050 | 113.00 | 123.00 | 5.00 |
| MOR1135020 | 113.50 | 117.50 | 2.00 |
| MOR1140016 | 114.00 | 117.20 | 1.60 |
| MOR1140020 | 114.00 | 118.00 | 2.00 |
| MOR1140025 | 114.00 | 119.00 | 2.50 |
| MOR1140030 | 114.00 | 120.00 | 3.00 |
| MOR1140035 | 114.00 | 121.00 | 3.50 |
| MOR1140040 | 114.00 | 122.00 | 4.00 |
| MOR1140042 | 114.00 | 122.40 | 4.20 |
| MOR1140046 | 114.00 | 123.20 | 4.60 |
| MOR1140050 | 114.00 | 124.00 | 5.00 |
| MOR1140057 | 114.00 | 125.40 | 5.70 |
| MOR1140058 | 114.00 | 125.60 | 5.80 |
| MOR1140060 | 114.00 | 126.00 | 6.00 |
| MOR1140070 | 114.00 | 128.00 | 7.00 |
| MOR1140090 | 114.00 | 132.00 | 9.00 |
| MOR1140100 | 114.00 | 134.00 | 10.00 |
| MOR1142057 | 114.20 | 125.60 | 5.70 |
| MOR1143057 | 114.30 | 125.70 | 5.70 |
| MOR1145025 | 114.50 | 119.50 | 2.50 |
| MOR1145030 | 114.50 | 120.50 | 3.00 |
| MOR1145033 | 114.50 | 121.10 | 3.30 |
| MOR1145040 | 114.50 | 122.50 | 4.00 |
| MOR1145060 | 114.50 | 126.50 | 6.00 |
| MOR1146057 | 114.60 | 126.00 | 5.70 |
| MOR1150016 | 115.00 | 118.20 | 1.60 |
| MOR1150020 | 115.00 | 119.00 | 2.00 |
| MOR1150025 | 115.00 | 120.00 | 2.50 |
| MOR1150030 | 115.00 | 121.00 | 3.00 |
| MOR1150031 | 115.00 | 121.20 | 3.10 |
| MOR1150035 | 115.00 | 122.00 | 3.50 |
| MOR1150035-1 | 115.00 | 122.10 | 3.55 |
| MOR1150040 | 115.00 | 123.00 | 4.00 |
| MOR1150041 | 115.00 | 123.20 | 4.10 |
| MOR1150045 | 115.00 | 124.00 | 4.50 |
| MOR1150050 | 115.00 | 125.00 | 5.00 |
| MOR1150051 | 115.00 | 125.20 | 5.10 |
| MOR1150053 | 115.00 | 125.60 | 5.30 |
| MOR1150055 | 115.00 | 126.00 | 5.50 |
| MOR1150060 | 115.00 | 127.00 | 6.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1150070 | 115.00 | 129.00 | 7.00 |
| MOR1150080 | 115.00 | 131.00 | 8.00 |
| MOR1150090 | 115.00 | 133.00 | 9.00 |
| MOR1150091 | 115.00 | 133.20 | 9.10 |
| MOR1150100 | 115.00 | 135.00 | 10.00 |
| MOR1152025 | 115.20 | 120.20 | 2.50 |
| MOR1155035 | 115.50 | 122.50 | 3.50 |
| MOR1157057 | 115.70 | 127.10 | 5.70 |
| MOR1158058 | 115.80 | 127.40 | 5.80 |
| MOR1160015 | 116.00 | 119.00 | 1.50 |
| MOR1160020 | 116.00 | 120.00 | 2.00 |
| MOR1160025 | 116.00 | 121.00 | 2.50 |
| MOR1160030 | 116.00 | 122.00 | 3.00 |
| MOR1160035 | 116.00 | 123.00 | 3.50 |
| MOR1160040 | 116.00 | 124.00 | 4.00 |
| MOR1160050 | 116.00 | 126.00 | 5.00 |
| MOR1160055 | 116.00 | 127.00 | 5.50 |
| MOR1160070 | 116.00 | 130.00 | 7.00 |
| MOR1160100 | 116.00 | 136.00 | 10.00 |
| MOR1163057 | 116.30 | 127.70 | 5.70 |
| MOR1165045 | 116.50 | 125.50 | 4.50 |
| MOR1170025 | 117.00 | 122.00 | 2.50 |
| MOR1170030 | 117.00 | 123.00 | 3.00 |
| MOR1170035 | 117.00 | 124.00 | 3.50 |
| MOR1170040 | 117.00 | 125.00 | 4.00 |
| MOR1170042 | 117.00 | 125.40 | 4.20 |
| MOR1170044 | 117.00 | 125.80 | 4.40 |
| MOR1170050 | 117.00 | 127.00 | 5.00 |
| MOR1170057 | 117.00 | 128.40 | 5.70 |
| MOR1170070 | 117.00 | 131.00 | 7.00 |
| MOR1174027 | 117.40 | 122.80 | 2.70 |
| MOR1175040 | 117.50 | 125.50 | 4.00 |
| MOR1175050 | 117.50 | 127.50 | 5.00 |
| MOR1180020 | 118.00 | 122.00 | 2.00 |
| MOR1180025 | 118.00 | 123.00 | 2.50 |
| MOR1180027 | 118.00 | 123.40 | 2.70 |
| MOR1180030 | 118.00 | 124.00 | 3.00 |
| MOR1180035 | 118.00 | 125.00 | 3.50 |
| MOR1180035-1 | 118.00 | 125.10 | 3.55 |
| MOR1180040 | 118.00 | 126.00 | 4.00 |
| MOR1180045 | 118.00 | 127.00 | 4.50 |
| MOR1180050 | 118.00 | 128.00 | 5.00 |
| MOR1180053 | 118.00 | 128.60 | 5.30 |
| MOR1180060 | 118.00 | 130.00 | 6.00 |
| MOR1180100 | 118.00 | 138.00 | 10.00 |
| MOR1180120 | 118.00 | 142.00 | 12.00 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1180130 | 118.00 | 144.00 | 13.00 |
| MOR1184040 | 118.40 | 126.40 | 4.00 |
| MOR1185030 | 118.50 | 124.50 | 3.00 |
| MOR1185050 | 118.50 | 128.50 | 5.00 |
| MOR1186044 | 118.65 | 127.55 | 4.45 |
| MOR1190020 | 119.00 | 123.00 | 2.00 |
| MOR1190025 | 119.00 | 124.00 | 2.50 |
| MOR1190030 | 119.00 | 125.00 | 3.00 |
| MOR1190035 | 119.00 | 126.00 | 3.50 |
| MOR1190040 | 119.00 | 127.00 | 4.00 |
| MOR1190050 | 119.00 | 129.00 | 5.00 |
| MOR1190057 | 119.00 | 130.40 | 5.70 |
| MOR1190070 | 119.00 | 133.00 | 7.00 |
| MOR1190100 | 119.00 | 139.00 | 10.00 |
| MOR1190120 | 119.00 | 143.00 | 12.00 |
| MOR1192052 | 119.20 | 129.60 | 5.20 |
| MOR1192057 | 119.20 | 130.60 | 5.70 |
| MOR1193057 | 119.30 | 130.70 | 5.70 |
| MOR1195020 | 119.50 | 123.50 | 2.00 |
| MOR1195030 | 119.50 | 125.50 | 3.00 |
| MOR1195070 | 119.50 | 133.50 | 7.00 |
| MOR1196057 | 119.60 | 131.00 | 5.70 |
| MOR1198044 | 119.85 | 128.75 | 4.45 |
| MOR1200020 | 120.00 | 124.00 | 2.00 |
| MOR1200022 | 120.00 | 124.40 | 2.20 |
| MOR1200025 | 120.00 | 125.00 | 2.50 |
| MOR1200030 | 120.00 | 126.00 | 3.00 |
| MOR1200032 | 120.00 | 126.40 | 3.20 |
| MOR1200035 | 120.00 | 127.00 | 3.50 |
| MOR1200040 | 120.00 | 128.00 | 4.00 |
| MOR1200043 | 120.00 | 128.60 | 4.30 |
| MOR1200045 | 120.00 | 129.00 | 4.50 |
| MOR1200050 | 120.00 | 130.00 | 5.00 |
| MOR1200054 | 120.00 | 130.90 | 5.45 |
| MOR1200055 | 120.00 | 131.00 | 5.50 |
| MOR1200060 | 120.00 | 132.00 | 6.00 |
| MOR1200070 | 120.00 | 134.00 | 7.00 |
| MOR1200091 | 120.00 | 138.20 | 9.10 |
| MOR1200100 | 120.00 | 140.00 | 10.00 |
| MOR1200140 | 120.00 | 148.00 | 14.00 |
| MOR1203035 | 120.30 | 127.30 | 3.50 |
| MOR1210020 | 121.00 | 125.00 | 2.00 |
| MOR1210025 | 121.00 | 126.00 | 2.50 |
| MOR1210030 | 121.00 | 127.00 | 3.00 |
| MOR1210035 | 121.00 | 128.00 | 3.50 |
| MOR1210040 | 121.00 | 129.00 | 4.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1210050 | 121.00 | 131.00 | 5.00 |
| MOR1215022 | 121.50 | 125.90 | 2.20 |
| MOR1215032 | 121.50 | 127.90 | 3.20 |
| MOR1215040 | 121.50 | 129.50 | 4.00 |
| MOR1220012 | 122.00 | 124.50 | 1.25 |
| MOR1220020 | 122.00 | 126.00 | 2.00 |
| MOR1220025 | 122.00 | 127.00 | 2.50 |
| MOR1220030 | 122.00 | 128.00 | 3.00 |
| MOR1220035 | 122.00 | 129.00 | 3.50 |
| MOR1220035-1 | 122.00 | 129.10 | 3.55 |
| MOR1220040 | 122.00 | 130.00 | 4.00 |
| MOR1220045 | 122.00 | 131.00 | 4.50 |
| MOR1220047 | 122.00 | 131.40 | 4.70 |
| MOR1220050 | 122.00 | 132.00 | 5.00 |
| MOR1220053 | 122.00 | 132.60 | 5.30 |
| MOR1220055 | 122.00 | 133.00 | 5.50 |
| MOR1220060 | 122.00 | 134.00 | 6.00 |
| MOR1220063 | 122.00 | 134.60 | 6.30 |
| MOR1220080 | 122.00 | 138.00 | 8.00 |
| MOR1220100 | 122.00 | 142.00 | 10.00 |
| MOR1228035 | 122.80 | 129.80 | 3.50 |
| MOR1230020 | 123.00 | 127.00 | 2.00 |
| MOR1230024 | 123.00 | 127.80 | 2.40 |
| MOR1230025 | 123.00 | 128.00 | 2.50 |
| MOR1230030 | 123.00 | 129.00 | 3.00 |
| MOR1230035 | 123.00 | 130.00 | 3.50 |
| MOR1230040 | 123.00 | 131.00 | 4.00 |
| MOR1230050 | 123.00 | 133.00 | 5.00 |
| MOR1230060 | 123.00 | 135.00 | 6.00 |
| MOR1230070 | 123.00 | 137.00 | 7.00 |
| MOR1230080 | 123.00 | 139.00 | 8.00 |
| MOR1230150 | 123.00 | 153.00 | 15.00 |
| MOR1235026 | 123.50 | 128.80 | 2.65 |
| MOR1235030 | 123.50 | 129.50 | 3.00 |
| MOR1235035 | 123.50 | 130.50 | 3.50 |
| MOR1235040 | 123.50 | 131.50 | 4.00 |
| MOR1240020 | 124.00 | 128.00 | 2.00 |
| MOR1240025 | 124.00 | 129.00 | 2.50 |
| MOR1240030 | 124.00 | 130.00 | 3.00 |
| MOR1240032 | 124.00 | 130.40 | 3.20 |
| MOR1240035 | 124.00 | 131.00 | 3.50 |
| MOR1240040 | 124.00 | 132.00 | 4.00 |
| MOR1240041 | 124.00 | 132.30 | 4.15 |
| MOR1240045 | 124.00 | 133.00 | 4.50 |
| MOR1240050 | 124.00 | 134.00 | 5.00 |
| MOR1240057 | 124.00 | 135.40 | 5.70 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1240060 | 124.00 | 136.00 | 6.00 |
| MOR1240070 | 124.00 | 138.00 | 7.00 |
| MOR1240080 | 124.00 | 140.00 | 8.00 |
| MOR1241084 | 124.10 | 140.90 | 8.40 |
| MOR1242057 | 124.20 | 135.60 | 5.70 |
| MOR1243057 | 124.30 | 135.70 | 5.70 |
| MOR1245030 | 124.50 | 130.50 | 3.00 |
| MOR1245040 | 124.50 | 132.50 | 4.00 |
| MOR1245050 | 124.50 | 134.50 | 5.00 |
| MOR1246057 | 124.60 | 136.00 | 5.70 |
| MOR1248025 | 124.80 | 129.80 | 2.50 |
| MOR1250015 | 125.00 | 128.00 | 1.50 |
| MOR1250018 | 125.00 | 128.60 | 1.80 |
| MOR1250020 | 125.00 | 129.00 | 2.00 |
| MOR1250024 | 125.00 | 129.80 | 2.40 |
| MOR1250025 | 125.00 | 130.00 | 2.50 |
| MOR1250030 | 125.00 | 131.00 | 3.00 |
| MOR1250032 | 125.00 | 131.40 | 3.20 |
| MOR1250035 | 125.00 | 132.00 | 3.50 |
| MOR1250035-1 | 125.00 | 132.10 | 3.55 |
| MOR1250040 | 125.00 | 133.00 | 4.00 |
| MOR1250050 | 125.00 | 135.00 | 5.00 |
| MOR1250053 | 125.00 | 135.60 | 5.30 |
| MOR1250060 | 125.00 | 137.00 | 6.00 |
| MOR1250063 | 125.00 | 137.60 | 6.30 |
| MOR1250070 | 125.00 | 139.00 | 7.00 |
| MOR1250075 | 125.00 | 140.00 | 7.50 |
| MOR1250080 | 125.00 | 141.00 | 8.00 |
| MOR1250091 | 125.00 | 143.20 | 9.10 |
| MOR1250100 | 125.00 | 145.00 | 10.00 |
| MOR1250120 | 125.00 | 149.00 | 12.00 |
| MOR1251066 | 125.10 | 138.30 | 6.60 |
| MOR1252057 | 125.20 | 136.60 | 5.70 |
| MOR1259030 | 125.90 | 131.90 | 3.00 |
| MOR1260020 | 126.00 | 130.00 | 2.00 |
| MOR1260022 | 126.00 | 130.40 | 2.20 |
| MOR1260025 | 126.00 | 131.00 | 2.50 |
| MOR1260030 | 126.00 | 132.00 | 3.00 |
| MOR1260032 | 126.00 | 132.40 | 3.20 |
| MOR1260035 | 126.00 | 133.00 | 3.50 |
| MOR1260040 | 126.00 | 134.00 | 4.00 |
| MOR1260045 | 126.00 | 135.00 | 4.50 |
| MOR1260050 | 126.00 | 136.00 | 5.00 |
| MOR1260055 | 126.00 | 137.00 | 5.50 |
| MOR1260070 | 126.00 | 140.00 | 7.00 |
| MOR1260100 | 126.00 | 146.00 | 10.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1265030 | 126.50 | 132.50 | 3.00 |
| MOR1265051 | 126.50 | 136.70 | 5.10 |
| MOR1267070 | 126.70 | 140.70 | 7.00 |
| MOR1269064 | 126.90 | 139.70 | 6.40 |
| MOR1270012 | 127.00 | 129.40 | 1.20 |
| MOR1270025 | 127.00 | 132.00 | 2.50 |
| MOR1270030 | 127.00 | 133.00 | 3.00 |
| MOR1270035 | 127.00 | 134.00 | 3.50 |
| MOR1270040 | 127.00 | 135.00 | 4.00 |
| MOR1270050 | 127.00 | 137.00 | 5.00 |
| MOR1275030 | 127.50 | 133.50 | 3.00 |
| MOR1275040 | 127.50 | 135.50 | 4.00 |
| MOR1277015 | 127.70 | 130.70 | 1.50 |
| MOR1277040 | 127.70 | 135.70 | 4.00 |
| MOR1280020 | 128.00 | 132.00 | 2.00 |
| MOR1280025 | 128.00 | 133.00 | 2.50 |
| MOR1280030 | 128.00 | 134.00 | 3.00 |
| MOR1280035 | 128.00 | 135.00 | 3.50 |
| MOR1280035-1 | 128.00 | 135.10 | 3.55 |
| MOR1280040 | 128.00 | 136.00 | 4.00 |
| MOR1280045 | 128.00 | 137.00 | 4.50 |
| MOR1280050 | 128.00 | 138.00 | 5.00 |
| MOR1280053 | 128.00 | 138.60 | 5.30 |
| MOR1280060 | 128.00 | 140.00 | 6.00 |
| MOR1280070 | 128.00 | 142.00 | 7.00 |
| MOR1280090 | 128.00 | 146.00 | 9.00 |
| MOR1280120 | 128.00 | 152.00 | 12.00 |
| MOR1285030 | 128.50 | 134.50 | 3.00 |
| MOR1285040 | 128.50 | 136.50 | 4.00 |
| MOR1285051 | 128.50 | 138.70 | 5.10 |
| MOR1290020 | 129.00 | 133.00 | 2.00 |
| MOR1290025 | 129.00 | 134.00 | 2.50 |
| MOR1290030 | 129.00 | 135.00 | 3.00 |
| MOR1290035 | 129.00 | 136.00 | 3.50 |
| MOR1290040 | 129.00 | 137.00 | 4.00 |
| MOR1290043 | 129.00 | 137.60 | 4.30 |
| MOR1290045 | 129.00 | 138.00 | 4.50 |
| MOR1290050 | 129.00 | 139.00 | 5.00 |
| MOR1290055 | 129.00 | 140.00 | 5.50 |
| MOR1290060 | 129.00 | 141.00 | 6.00 |
| MOR1290070 | 129.00 | 143.00 | 7.00 |
| MOR1290080 | 129.00 | 145.00 | 8.00 |
| MOR1292057 | 129.20 | 140.60 | 5.70 |
| MOR1293057 | 129.30 | 140.70 | 5.70 |
| MOR1294031 | 129.40 | 135.60 | 3.10 |
| MOR1295030 | 129.50 | 135.50 | 3.00 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1295040 | 129.50 | 137.50 | 4.00 |
| MOR1295050 | 129.50 | 139.50 | 5.00 |
| MOR1295055 | 129.50 | 140.50 | 5.50 |
| MOR1295016 | 129.54 | 132.84 | 1.65 |
| MOR1296057 | 129.60 | 141.00 | 5.70 |
| MOR1300015 | 130.00 | 133.00 | 1.50 |
| MOR1300020 | 130.00 | 134.00 | 2.00 |
| MOR1300025 | 130.00 | 135.00 | 2.50 |
| MOR1300030 | 130.00 | 136.00 | 3.00 |
| MOR1300031 | 130.00 | 136.30 | 3.15 |
| MOR1300035 | 130.00 | 137.00 | 3.50 |
| MOR1300040 | 130.00 | 138.00 | 4.00 |
| MOR1300043 | 130.00 | 138.60 | 4.30 |
| MOR1300045 | 130.00 | 139.00 | 4.50 |
| MOR1300050 | 130.00 | 140.00 | 5.00 |
| MOR1300060 | 130.00 | 142.00 | 6.00 |
| MOR1300065 | 130.00 | 143.00 | 6.50 |
| MOR1300070 | 130.00 | 144.00 | 7.00 |
| MOR1300075 | 130.00 | 145.00 | 7.50 |
| MOR1300080 | 130.00 | 146.00 | 8.00 |
| MOR1300095 | 130.00 | 149.00 | 9.50 |
| MOR1300100 | 130.00 | 150.00 | 10.00 |
| MOR1300150 | 130.00 | 160.00 | 15.00 |
| MOR1304028 | 130.40 | 136.00 | 2.80 |
| MOR1305025 | 130.50 | 135.50 | 2.50 |
| MOR1305035 | 130.50 | 137.50 | 3.50 |
| MOR1305040 | 130.50 | 138.50 | 4.00 |
| MOR1310015 | 131.00 | 134.00 | 1.50 |
| MOR1310017 | 131.00 | 134.40 | 1.70 |
| MOR1310024 | 131.00 | 135.80 | 2.40 |
| MOR1310025 | 131.00 | 136.00 | 2.50 |
| MOR1310030 | 131.00 | 137.00 | 3.00 |
| MOR1310035 | 131.00 | 138.00 | 3.50 |
| MOR1310040 | 131.00 | 139.00 | 4.00 |
| MOR1310045 | 131.00 | 140.00 | 4.50 |
| MOR1310050 | 131.00 | 141.00 | 5.00 |
| MOR1312057 | 131.20 | 142.60 | 5.70 |
| MOR1315045 | 131.50 | 140.50 | 4.50 |
| MOR1316057 | 131.60 | 143.00 | 5.70 |
| MOR1320015 | 132.00 | 135.00 | 1.50 |
| MOR1320016 | 132.00 | 135.20 | 1.60 |
| MOR1320017 | 132.00 | 135.40 | 1.70 |
| MOR1320020 | 132.00 | 136.00 | 2.00 |
| MOR1320024 | 132.00 | 136.80 | 2.40 |
| MOR1320025 | 132.00 | 137.00 | 2.50 |
| MOR1320030 | 132.00 | 138.00 | 3.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|------|
| | d | D | S |
| MOR1320035 | 132.00 | 139.00 | 3.50 |
| MOR1320035-1 | 132.00 | 139.10 | 3.55 |
| MOR1320040 | 132.00 | 140.00 | 4.00 |
| MOR1320045 | 132.00 | 141.00 | 4.50 |
| MOR1320050 | 132.00 | 142.00 | 5.00 |
| MOR1320053 | 132.00 | 142.60 | 5.30 |
| MOR1320056 | 132.00 | 143.30 | 5.65 |
| MOR1320058 | 132.00 | 143.60 | 5.80 |
| MOR1320060 | 132.00 | 144.00 | 6.00 |
| MOR1320070 | 132.00 | 146.00 | 7.00 |
| MOR1320080 | 132.00 | 148.00 | 8.00 |
| MOR1322057 | 132.20 | 143.60 | 5.70 |
| MOR1325016 | 132.50 | 135.70 | 1.60 |
| MOR1325030 | 132.50 | 138.50 | 3.00 |
| MOR1325035 | 132.50 | 139.50 | 3.50 |
| MOR1328058 | 132.80 | 144.40 | 5.80 |
| MOR1329025 | 132.90 | 137.90 | 2.50 |
| MOR1330015 | 133.00 | 136.00 | 1.50 |
| MOR1330020 | 133.00 | 137.00 | 2.00 |
| MOR1330025 | 133.00 | 138.00 | 2.50 |
| MOR1330030 | 133.00 | 139.00 | 3.00 |
| MOR1330035 | 133.00 | 140.00 | 3.50 |
| MOR1330037 | 133.00 | 140.40 | 3.70 |
| MOR1330040 | 133.00 | 141.00 | 4.00 |
| MOR1330044 | 133.00 | 141.80 | 4.40 |
| MOR1330050 | 133.00 | 143.00 | 5.00 |
| MOR1330070 | 133.00 | 147.00 | 7.00 |
| MOR1332057 | 133.20 | 144.60 | 5.70 |
| MOR1335040 | 133.50 | 141.50 | 4.00 |
| MOR1336022 | 133.60 | 138.00 | 2.20 |
| MOR1336058 | 133.60 | 145.20 | 5.80 |
| MOR1340015 | 134.00 | 137.00 | 1.50 |
| MOR1340016 | 134.00 | 137.20 | 1.60 |
| MOR1340025 | 134.00 | 139.00 | 2.50 |
| MOR1340030 | 134.00 | 140.00 | 3.00 |
| MOR1340031 | 134.00 | 140.20 | 3.10 |
| MOR1340032 | 134.00 | 140.40 | 3.20 |
| MOR1340035 | 134.00 | 141.00 | 3.50 |
| MOR1340040 | 134.00 | 142.00 | 4.00 |
| MOR1340045 | 134.00 | 143.00 | 4.50 |
| MOR1340050 | 134.00 | 144.00 | 5.00 |
| MOR1340058 | 134.00 | 145.60 | 5.80 |
| MOR1340060 | 134.00 | 146.00 | 6.00 |
| MOR1340070 | 134.00 | 148.00 | 7.00 |
| MOR1341084 | 134.10 | 150.90 | 8.40 |
| MOR1342057 | 134.20 | 145.60 | 5.70 |

O'RINGS



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|------|
| | d | D | S |
| MOR1343057 | 134.30 | 145.70 | 5.70 |
| MOR1343060 | 134.30 | 146.30 | 6.00 |
| MOR1345030 | 134.50 | 140.50 | 3.00 |
| MOR1345040 | 134.50 | 142.50 | 4.00 |
| MOR1345045 | 134.50 | 143.50 | 4.50 |
| MOR1346057 | 134.60 | 146.00 | 5.70 |
| MOR1350015 | 135.00 | 138.00 | 1.50 |
| MOR1350019 | 135.00 | 138.80 | 1.90 |
| MOR1350020 | 135.00 | 139.00 | 2.00 |
| MOR1350025 | 135.00 | 140.00 | 2.50 |
| MOR1350030 | 135.00 | 141.00 | 3.00 |
| MOR1350035 | 135.00 | 142.00 | 3.50 |
| MOR1350040 | 135.00 | 143.00 | 4.00 |
| MOR1350041 | 135.00 | 143.20 | 4.10 |
| MOR1350045 | 135.00 | 144.00 | 4.50 |
| MOR1350050 | 135.00 | 145.00 | 5.00 |
| MOR1350060 | 135.00 | 147.00 | 6.00 |
| MOR1350070 | 135.00 | 149.00 | 7.00 |
| MOR1350080 | 135.00 | 151.00 | 8.00 |
| MOR1350090 | 135.00 | 153.00 | 9.00 |
| MOR1350091 | 135.00 | 153.20 | 9.10 |
| MOR1354042 | 135.40 | 143.80 | 4.20 |
| MOR1360020 | 136.00 | 140.00 | 2.00 |
| MOR1360025 | 136.00 | 141.00 | 2.50 |
| MOR1360030 | 136.00 | 142.00 | 3.00 |
| MOR1360035 | 136.00 | 143.00 | 3.50 |
| MOR1360035-1 | 136.00 | 143.10 | 3.55 |
| MOR1360038 | 136.00 | 143.60 | 3.80 |
| MOR1360040 | 136.00 | 144.00 | 4.00 |
| MOR1360050 | 136.00 | 146.00 | 5.00 |
| MOR1360053 | 136.00 | 146.60 | 5.30 |
| MOR1360055 | 136.00 | 147.00 | 5.50 |
| MOR1360060 | 136.00 | 148.00 | 6.00 |
| MOR1360070 | 136.00 | 150.00 | 7.00 |
| MOR1360080 | 136.00 | 152.00 | 8.00 |
| MOR1365040 | 136.50 | 144.50 | 4.00 |
| MOR1370020 | 137.00 | 141.00 | 2.00 |
| MOR1370025 | 137.00 | 142.00 | 2.50 |
| MOR1370030 | 137.00 | 143.00 | 3.00 |
| MOR1370034 | 137.00 | 143.80 | 3.40 |
| MOR1370035 | 137.00 | 144.00 | 3.50 |
| MOR1370040 | 137.00 | 145.00 | 4.00 |
| MOR1370045 | 137.00 | 146.00 | 4.50 |
| MOR1370050 | 137.00 | 147.00 | 5.00 |
| MOR1370060 | 137.00 | 149.00 | 6.00 |
| MOR1370065 | 137.00 | 150.00 | 6.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1370072 | 137.00 | 151.40 | 7.20 |
| MOR1375022 | 137.50 | 141.90 | 2.20 |
| MOR1375030 | 137.50 | 143.50 | 3.00 |
| MOR1380010 | 138.00 | 140.00 | 1.00 |
| MOR1380019 | 138.00 | 141.80 | 1.90 |
| MOR1380020 | 138.00 | 142.00 | 2.00 |
| MOR1380021 | 138.00 | 142.20 | 2.10 |
| MOR1380025 | 138.00 | 143.00 | 2.50 |
| MOR1380030 | 138.00 | 144.00 | 3.00 |
| MOR1380035 | 138.00 | 145.00 | 3.50 |
| MOR1380040 | 138.00 | 146.00 | 4.00 |
| MOR1380050 | 138.00 | 148.00 | 5.00 |
| MOR1380060 | 138.00 | 150.00 | 6.00 |
| MOR1380100 | 138.00 | 158.00 | 10.00 |
| MOR1385065 | 138.50 | 151.60 | 6.55 |
| MOR1390025 | 139.00 | 144.00 | 2.50 |
| MOR1390030 | 139.00 | 145.00 | 3.00 |
| MOR1390035 | 139.00 | 146.00 | 3.50 |
| MOR1390040 | 139.00 | 147.00 | 4.00 |
| MOR1390060 | 139.00 | 151.00 | 6.00 |
| MOR1390070 | 139.00 | 153.00 | 7.00 |
| MOR1392057 | 139.20 | 150.60 | 5.70 |
| MOR1392060 | 139.20 | 151.20 | 6.00 |
| MOR1393057 | 139.30 | 150.70 | 5.70 |
| MOR1394031 | 139.40 | 145.60 | 3.10 |
| MOR1395030 | 139.50 | 145.50 | 3.00 |
| MOR1395040 | 139.50 | 147.50 | 4.00 |
| MOR1396057 | 139.60 | 151.00 | 5.70 |
| MOR1397047 | 139.70 | 149.20 | 4.75 |
| MOR1400015 | 140.00 | 143.00 | 1.50 |
| MOR1400020 | 140.00 | 144.00 | 2.00 |
| MOR1400021 | 140.00 | 144.20 | 2.10 |
| MOR1400025 | 140.00 | 145.00 | 2.50 |
| MOR1400028 | 140.00 | 145.60 | 2.80 |
| MOR1400030 | 140.00 | 146.00 | 3.00 |
| MOR1400031 | 140.00 | 146.30 | 3.15 |
| MOR1400035 | 140.00 | 147.00 | 3.50 |
| MOR1400035-1 | 140.00 | 147.10 | 3.55 |
| MOR1400038 | 140.00 | 147.60 | 3.80 |
| MOR1400040 | 140.00 | 148.00 | 4.00 |
| MOR1400043 | 140.00 | 148.60 | 4.30 |
| MOR1400045 | 140.00 | 149.00 | 4.50 |
| MOR1400050 | 140.00 | 150.00 | 5.00 |
| MOR1400053 | 140.00 | 150.60 | 5.30 |
| MOR1400060 | 140.00 | 152.00 | 6.00 |
| MOR1400070 | 140.00 | 154.00 | 7.00 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1400075 | 140.00 | 155.00 | 7.50 |
| MOR1400080 | 140.00 | 156.00 | 8.00 |
| MOR1400100 | 140.00 | 160.00 | 10.00 |
| MOR1405024 | 140.50 | 145.30 | 2.40 |
| MOR1405045 | 140.50 | 149.50 | 4.50 |
| MOR1410019 | 141.00 | 144.80 | 1.90 |
| MOR1410020 | 141.00 | 145.00 | 2.00 |
| MOR1410024 | 141.00 | 145.80 | 2.40 |
| MOR1410025 | 141.00 | 146.00 | 2.50 |
| MOR1410030 | 141.00 | 147.00 | 3.00 |
| MOR1410035 | 141.00 | 148.00 | 3.50 |
| MOR1410040 | 141.00 | 149.00 | 4.00 |
| MOR1410050 | 141.00 | 151.00 | 5.00 |
| MOR1410058 | 141.00 | 152.60 | 5.80 |
| MOR1415030 | 141.50 | 147.50 | 3.00 |
| MOR1420016 | 142.00 | 145.20 | 1.60 |
| MOR1420025 | 142.00 | 147.00 | 2.50 |
| MOR1420030 | 142.00 | 148.00 | 3.00 |
| MOR1420035 | 142.00 | 149.00 | 3.50 |
| MOR1420040 | 142.00 | 150.00 | 4.00 |
| MOR1420050 | 142.00 | 152.00 | 5.00 |
| MOR1420058 | 142.00 | 153.60 | 5.80 |
| MOR1420060 | 142.00 | 154.00 | 6.00 |
| MOR1420063 | 142.00 | 154.60 | 6.30 |
| MOR1420070 | 142.00 | 156.00 | 7.00 |
| MOR1425030 | 142.50 | 148.50 | 3.00 |
| MOR1427057 | 142.70 | 154.10 | 5.70 |
| MOR1428058 | 142.80 | 154.40 | 5.80 |
| MOR1430016 | 143.00 | 146.20 | 1.60 |
| MOR1430020 | 143.00 | 147.00 | 2.00 |
| MOR1430025 | 143.00 | 148.00 | 2.50 |
| MOR1430030 | 143.00 | 149.00 | 3.00 |
| MOR1430035 | 143.00 | 150.00 | 3.50 |
| MOR1430040 | 143.00 | 151.00 | 4.00 |
| MOR1430050 | 143.00 | 153.00 | 5.00 |
| MOR1430055 | 143.00 | 154.00 | 5.50 |
| MOR1430070 | 143.00 | 157.00 | 7.00 |
| MOR1430080 | 143.00 | 159.00 | 8.00 |
| MOR1433057 | 143.30 | 154.70 | 5.70 |
| MOR1434030 | 143.40 | 149.40 | 3.00 |
| MOR1435016 | 143.50 | 146.70 | 1.60 |
| MOR1435040 | 143.50 | 151.50 | 4.00 |
| MOR1440020 | 144.00 | 148.00 | 2.00 |
| MOR1440025 | 144.00 | 149.00 | 2.50 |
| MOR1440030 | 144.00 | 150.00 | 3.00 |
| MOR1440032 | 144.00 | 150.50 | 3.25 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1440035 | 144.00 | 151.00 | 3.50 |
| MOR1440037 | 144.00 | 151.40 | 3.70 |
| MOR1440038 | 144.00 | 151.60 | 3.80 |
| MOR1440040 | 144.00 | 152.00 | 4.00 |
| MOR1440045 | 144.00 | 153.00 | 4.50 |
| MOR1440050 | 144.00 | 154.00 | 5.00 |
| MOR1440057 | 144.00 | 155.40 | 5.70 |
| MOR1440060 | 144.00 | 156.00 | 6.00 |
| MOR1441084 | 144.10 | 160.90 | 8.40 |
| MOR1442057 | 144.20 | 155.60 | 5.70 |
| MOR1443057 | 144.30 | 155.70 | 5.70 |
| MOR1444031 | 144.40 | 150.60 | 3.10 |
| MOR1445030 | 144.50 | 150.50 | 3.00 |
| MOR1445040 | 144.50 | 152.50 | 4.00 |
| MOR1446057 | 144.60 | 156.00 | 5.70 |
| MOR1447030 | 144.70 | 150.70 | 3.00 |
| MOR1450015 | 145.00 | 148.00 | 1.50 |
| MOR1450025 | 145.00 | 150.00 | 2.50 |
| MOR1450030 | 145.00 | 151.00 | 3.00 |
| MOR1450035 | 145.00 | 152.00 | 3.50 |
| MOR1450035-1 | 145.00 | 152.10 | 3.55 |
| MOR1450040 | 145.00 | 153.00 | 4.00 |
| MOR1450045 | 145.00 | 154.00 | 4.50 |
| MOR1450050 | 145.00 | 155.00 | 5.00 |
| MOR1450053 | 145.00 | 155.60 | 5.30 |
| MOR1450055 | 145.00 | 156.00 | 5.50 |
| MOR1450057 | 145.00 | 156.40 | 5.70 |
| MOR1450060 | 145.00 | 157.00 | 6.00 |
| MOR1450065 | 145.00 | 158.00 | 6.50 |
| MOR1450070 | 145.00 | 159.00 | 7.00 |
| MOR1450075 | 145.00 | 160.00 | 7.50 |
| MOR1450080 | 145.00 | 161.00 | 8.00 |
| MOR1450100 | 145.00 | 165.00 | 10.00 |
| MOR1454065 | 145.45 | 158.55 | 6.55 |
| MOR1455065 | 145.50 | 158.50 | 6.50 |
| MOR1457070 | 145.70 | 159.70 | 7.00 |
| MOR1460020 | 146.00 | 150.00 | 2.00 |
| MOR1460025 | 146.00 | 151.00 | 2.50 |
| MOR1460030 | 146.00 | 152.00 | 3.00 |
| MOR1460035 | 146.00 | 153.00 | 3.50 |
| MOR1460040 | 146.00 | 154.00 | 4.00 |
| MOR1460045 | 146.00 | 155.00 | 4.50 |
| MOR1460050 | 146.00 | 156.00 | 5.00 |
| MOR1460060 | 146.00 | 158.00 | 6.00 |
| MOR1460070 | 146.00 | 160.00 | 7.00 |
| MOR1460047 | 146.07 | 155.47 | 4.70 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1465040 | 146.50 | 154.50 | 4.00 |
| MOR1470015 | 147.00 | 150.00 | 1.50 |
| MOR1470025 | 147.00 | 152.00 | 2.50 |
| MOR1470030 | 147.00 | 153.00 | 3.00 |
| MOR1470035 | 147.00 | 154.00 | 3.50 |
| MOR1470040 | 147.00 | 155.00 | 4.00 |
| MOR1470050 | 147.00 | 157.00 | 5.00 |
| MOR1475030 | 147.50 | 153.50 | 3.00 |
| MOR1480020 | 148.00 | 152.00 | 2.00 |
| MOR1480025 | 148.00 | 153.00 | 2.50 |
| MOR1480030 | 148.00 | 154.00 | 3.00 |
| MOR1480035 | 148.00 | 155.00 | 3.50 |
| MOR1480040 | 148.00 | 156.00 | 4.00 |
| MOR1480050 | 148.00 | 158.00 | 5.00 |
| MOR1480060 | 148.00 | 160.00 | 6.00 |
| MOR1480070 | 148.00 | 162.00 | 7.00 |
| MOR1480084 | 148.00 | 164.80 | 8.40 |
| MOR1480100 | 148.00 | 168.00 | 10.00 |
| MOR1480120 | 148.00 | 172.00 | 12.00 |
| MOR1482057 | 148.20 | 159.60 | 5.70 |
| MOR1482058 | 148.20 | 159.80 | 5.80 |
| MOR1484016 | 148.40 | 151.60 | 1.60 |
| MOR1490020 | 149.00 | 153.00 | 2.00 |
| MOR1490025 | 149.00 | 154.00 | 2.50 |
| MOR1490030 | 149.00 | 155.00 | 3.00 |
| MOR1490035 | 149.00 | 156.00 | 3.50 |
| MOR1490040 | 149.00 | 157.00 | 4.00 |
| MOR1490050 | 149.00 | 159.00 | 5.00 |
| MOR1490060 | 149.00 | 161.00 | 6.00 |
| MOR1490070 | 149.00 | 163.00 | 7.00 |
| MOR1491094 | 149.10 | 167.90 | 9.40 |
| MOR1492057 | 149.20 | 160.60 | 5.70 |
| MOR1493057 | 149.30 | 160.70 | 5.70 |
| MOR1495020 | 149.50 | 153.50 | 2.00 |
| MOR1495030 | 149.50 | 155.50 | 3.00 |
| MOR1496057 | 149.60 | 161.00 | 5.70 |
| MOR1500012 | 150.00 | 152.40 | 1.20 |
| MOR1500020 | 150.00 | 154.00 | 2.00 |
| MOR1500025 | 150.00 | 155.00 | 2.50 |
| MOR1500030 | 150.00 | 156.00 | 3.00 |
| MOR1500032 | 150.00 | 156.40 | 3.20 |
| MOR1500035 | 150.00 | 157.00 | 3.50 |
| MOR1500035-1 | 150.00 | 157.10 | 3.55 |
| MOR1500040 | 150.00 | 158.00 | 4.00 |
| MOR1500042 | 150.00 | 158.40 | 4.20 |
| MOR1500045 | 150.00 | 159.00 | 4.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1500050 | 150.00 | 160.00 | 5.00 |
| MOR1500053 | 150.00 | 160.60 | 5.30 |
| MOR1500054 | 150.00 | 160.80 | 5.40 |
| MOR1500055 | 150.00 | 161.00 | 5.50 |
| MOR1500060 | 150.00 | 162.00 | 6.00 |
| MOR1500070 | 150.00 | 164.00 | 7.00 |
| MOR1500075 | 150.00 | 165.00 | 7.50 |
| MOR1500080 | 150.00 | 166.00 | 8.00 |
| MOR1500100 | 150.00 | 170.00 | 10.00 |
| MOR1510030 | 151.00 | 157.00 | 3.00 |
| MOR1510035 | 151.00 | 158.00 | 3.50 |
| MOR1510040 | 151.00 | 159.00 | 4.00 |
| MOR1510050 | 151.00 | 161.00 | 5.00 |
| MOR1510080 | 151.00 | 167.00 | 8.00 |
| MOR1510110 | 151.00 | 173.00 | 11.00 |
| MOR1520023 | 152.00 | 156.60 | 2.30 |
| MOR1520025 | 152.00 | 157.00 | 2.50 |
| MOR1520030 | 152.00 | 158.00 | 3.00 |
| MOR1520035 | 152.00 | 159.00 | 3.50 |
| MOR1520040 | 152.00 | 160.00 | 4.00 |
| MOR1520050 | 152.00 | 162.00 | 5.00 |
| MOR1520070 | 152.00 | 166.00 | 7.00 |
| MOR1520100 | 152.00 | 172.00 | 10.00 |
| MOR1520105 | 152.00 | 173.00 | 10.50 |
| MOR1525025 | 152.50 | 157.50 | 2.50 |
| MOR1530020 | 153.00 | 157.00 | 2.00 |
| MOR1530025 | 153.00 | 158.00 | 2.50 |
| MOR1530030 | 153.00 | 159.00 | 3.00 |
| MOR1530035 | 153.00 | 160.00 | 3.50 |
| MOR1530040 | 153.00 | 161.00 | 4.00 |
| MOR1530045 | 153.00 | 162.00 | 4.50 |
| MOR1530050 | 153.00 | 163.00 | 5.00 |
| MOR1530060 | 153.00 | 165.00 | 6.00 |
| MOR1535030 | 153.50 | 159.50 | 3.00 |
| MOR1535050 | 153.50 | 163.50 | 5.00 |
| MOR1535068 | 153.50 | 167.10 | 6.80 |
| MOR1540030 | 154.00 | 160.00 | 3.00 |
| MOR1540035 | 154.00 | 161.00 | 3.50 |
| MOR1540038 | 154.00 | 161.60 | 3.80 |
| MOR1540040 | 154.00 | 162.00 | 4.00 |
| MOR1540050 | 154.00 | 164.00 | 5.00 |
| MOR1540060 | 154.00 | 166.00 | 6.00 |
| MOR1540070 | 154.00 | 168.00 | 7.00 |
| MOR1540100 | 154.00 | 174.00 | 10.00 |
| MOR1541084 | 154.10 | 170.90 | 8.40 |
| MOR1542057 | 154.20 | 165.60 | 5.70 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1543057 | 154.30 | 165.70 | 5.70 |
| MOR1544031 | 154.40 | 160.60 | 3.10 |
| MOR1544040 | 154.40 | 162.40 | 4.00 |
| MOR1545030 | 154.50 | 160.50 | 3.00 |
| MOR1550015 | 155.00 | 158.00 | 1.50 |
| MOR1550020 | 155.00 | 159.00 | 2.00 |
| MOR1550030 | 155.00 | 161.00 | 3.00 |
| MOR1550032 | 155.00 | 161.40 | 3.20 |
| MOR1550035 | 155.00 | 162.00 | 3.50 |
| MOR1550040 | 155.00 | 163.00 | 4.00 |
| MOR1550045 | 155.00 | 164.00 | 4.50 |
| MOR1550050 | 155.00 | 165.00 | 5.00 |
| MOR1550053 | 155.00 | 165.60 | 5.30 |
| MOR1550055 | 155.00 | 166.00 | 5.50 |
| MOR1550060 | 155.00 | 167.00 | 6.00 |
| MOR1550064 | 155.00 | 167.80 | 6.40 |
| MOR1550070 | 155.00 | 169.00 | 7.00 |
| MOR1550080 | 155.00 | 171.00 | 8.00 |
| MOR1550095 | 155.00 | 174.00 | 9.50 |
| MOR1550100 | 155.00 | 175.00 | 10.00 |
| MOR1550120 | 155.00 | 179.00 | 12.00 |
| MOR1553030 | 155.30 | 161.30 | 3.00 |
| MOR1555060 | 155.50 | 167.50 | 6.00 |
| MOR1555070 | 155.50 | 169.50 | 7.00 |
| MOR1560020 | 156.00 | 160.00 | 2.00 |
| MOR1560025 | 156.00 | 161.00 | 2.50 |
| MOR1560030 | 156.00 | 162.00 | 3.00 |
| MOR1560035 | 156.00 | 163.00 | 3.50 |
| MOR1560040 | 156.00 | 164.00 | 4.00 |
| MOR1560048 | 156.00 | 165.60 | 4.80 |
| MOR1560050 | 156.00 | 166.00 | 5.00 |
| MOR1560058 | 156.00 | 167.60 | 5.80 |
| MOR1560060 | 156.00 | 168.00 | 6.00 |
| MOR1560065 | 156.00 | 169.00 | 6.50 |
| MOR1560080 | 156.00 | 172.00 | 8.00 |
| MOR1565070 | 156.50 | 170.50 | 7.00 |
| MOR1570015 | 157.00 | 160.00 | 1.50 |
| MOR1570030 | 157.00 | 163.00 | 3.00 |
| MOR1570035 | 157.00 | 164.00 | 3.50 |
| MOR1570040 | 157.00 | 165.00 | 4.00 |
| MOR1570045 | 157.00 | 166.00 | 4.50 |
| MOR1570050 | 157.00 | 167.00 | 5.00 |
| MOR1570058 | 157.00 | 168.60 | 5.80 |
| MOR1570060 | 157.00 | 169.00 | 6.00 |
| MOR1570065 | 157.00 | 170.10 | 6.55 |
| MOR1570070 | 157.00 | 171.00 | 7.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1575050 | 157.50 | 167.50 | 5.00 |
| MOR1580020 | 158.00 | 162.00 | 2.00 |
| MOR1580030 | 158.00 | 164.00 | 3.00 |
| MOR1580035 | 158.00 | 165.00 | 3.50 |
| MOR1580040 | 158.00 | 166.00 | 4.00 |
| MOR1580043 | 158.00 | 166.60 | 4.30 |
| MOR1580050 | 158.00 | 168.00 | 5.00 |
| MOR1580060 | 158.00 | 170.00 | 6.00 |
| MOR1580070 | 158.00 | 172.00 | 7.00 |
| MOR1580075 | 158.00 | 173.00 | 7.50 |
| MOR1580080 | 158.00 | 174.00 | 8.00 |
| MOR1585030 | 158.50 | 164.50 | 3.00 |
| MOR1590030 | 159.00 | 165.00 | 3.00 |
| MOR1590035 | 159.00 | 166.00 | 3.50 |
| MOR1590040 | 159.00 | 167.00 | 4.00 |
| MOR1590050 | 159.00 | 169.00 | 5.00 |
| MOR1590060 | 159.00 | 171.00 | 6.00 |
| MOR1590070 | 159.00 | 173.00 | 7.00 |
| MOR1591084 | 159.10 | 175.90 | 8.40 |
| MOR1592057 | 159.20 | 170.60 | 5.70 |
| MOR1592070 | 159.20 | 173.20 | 7.00 |
| MOR1593057 | 159.30 | 170.70 | 5.70 |
| MOR1594031 | 159.40 | 165.60 | 3.10 |
| MOR1595030 | 159.50 | 165.50 | 3.00 |
| MOR1595070 | 159.50 | 173.50 | 7.00 |
| MOR1597030 | 159.70 | 165.70 | 3.00 |
| MOR1600020 | 160.00 | 164.00 | 2.00 |
| MOR1600023 | 160.00 | 164.60 | 2.30 |
| MOR1600025 | 160.00 | 165.00 | 2.50 |
| MOR1600030 | 160.00 | 166.00 | 3.00 |
| MOR1600035 | 160.00 | 167.00 | 3.50 |
| MOR1600035-1 | 160.00 | 167.10 | 3.55 |
| MOR1600040 | 160.00 | 168.00 | 4.00 |
| MOR1600045 | 160.00 | 169.00 | 4.50 |
| MOR1600050 | 160.00 | 170.00 | 5.00 |
| MOR1600053 | 160.00 | 170.60 | 5.30 |
| MOR1600055 | 160.00 | 171.00 | 5.50 |
| MOR1600060 | 160.00 | 172.00 | 6.00 |
| MOR1600070 | 160.00 | 174.00 | 7.00 |
| MOR1600072 | 160.00 | 174.40 | 7.20 |
| MOR1600080 | 160.00 | 176.00 | 8.00 |
| MOR1600090 | 160.00 | 178.00 | 9.00 |
| MOR1600100 | 160.00 | 180.00 | 10.00 |
| MOR1600120 | 160.00 | 184.00 | 12.00 |
| MOR1610024 | 161.00 | 165.80 | 2.40 |
| MOR1610030 | 161.00 | 167.00 | 3.00 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1610035 | 161.00 | 168.00 | 3.50 |
| MOR1610040 | 161.00 | 169.00 | 4.00 |
| MOR1610050 | 161.00 | 171.00 | 5.00 |
| MOR1616024 | 161.60 | 166.40 | 2.40 |
| MOR1620025 | 162.00 | 167.00 | 2.50 |
| MOR1620030 | 162.00 | 168.00 | 3.00 |
| MOR1620035 | 162.00 | 169.00 | 3.50 |
| MOR1620040 | 162.00 | 170.00 | 4.00 |
| MOR1620050 | 162.00 | 172.00 | 5.00 |
| MOR1620060 | 162.00 | 174.00 | 6.00 |
| MOR1620070 | 162.00 | 176.00 | 7.00 |
| MOR1620080 | 162.00 | 178.00 | 8.00 |
| MOR1620100 | 162.00 | 182.00 | 10.00 |
| MOR1625040 | 162.50 | 170.50 | 4.00 |
| MOR1630030 | 163.00 | 169.00 | 3.00 |
| MOR1630035 | 163.00 | 170.00 | 3.50 |
| MOR1630040 | 163.00 | 171.00 | 4.00 |
| MOR1630050 | 163.00 | 173.00 | 5.00 |
| MOR1630060 | 163.00 | 175.00 | 6.00 |
| MOR1637086 | 163.70 | 180.90 | 8.60 |
| MOR1640020 | 164.00 | 168.00 | 2.00 |
| MOR1640030 | 164.00 | 170.00 | 3.00 |
| MOR1640035 | 164.00 | 171.00 | 3.50 |
| MOR1640040 | 164.00 | 172.00 | 4.00 |
| MOR1640042 | 164.00 | 172.40 | 4.20 |
| MOR1640050 | 164.00 | 174.00 | 5.00 |
| MOR1640060 | 164.00 | 176.00 | 6.00 |
| MOR1640070 | 164.00 | 178.00 | 7.00 |
| MOR1641082 | 164.10 | 180.50 | 8.20 |
| MOR1641084 | 164.10 | 180.90 | 8.40 |
| MOR1642057 | 164.20 | 175.60 | 5.70 |
| MOR1643057 | 164.30 | 175.70 | 5.70 |
| MOR1644031 | 164.40 | 170.60 | 3.10 |
| MOR1645020 | 164.50 | 168.50 | 2.00 |
| MOR1645030 | 164.50 | 170.50 | 3.00 |
| MOR1650020 | 165.00 | 169.00 | 2.00 |
| MOR1650024 | 165.00 | 169.80 | 2.40 |
| MOR1650030 | 165.00 | 171.00 | 3.00 |
| MOR1650035 | 165.00 | 172.00 | 3.50 |
| MOR1650035-1 | 165.00 | 172.10 | 3.55 |
| MOR1650040 | 165.00 | 173.00 | 4.00 |
| MOR1650045 | 165.00 | 174.00 | 4.50 |
| MOR1650050 | 165.00 | 175.00 | 5.00 |
| MOR1650053 | 165.00 | 175.60 | 5.30 |
| MOR1650055 | 165.00 | 176.00 | 5.50 |
| MOR1650060 | 165.00 | 177.00 | 6.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1650065 | 165.00 | 178.00 | 6.50 |
| MOR1650070 | 165.00 | 179.00 | 7.00 |
| MOR1650080 | 165.00 | 181.00 | 8.00 |
| MOR1650100 | 165.00 | 185.00 | 10.00 |
| MOR1655040 | 165.50 | 173.50 | 4.00 |
| MOR1660020 | 166.00 | 170.00 | 2.00 |
| MOR1660030 | 166.00 | 172.00 | 3.00 |
| MOR1660035 | 166.00 | 173.00 | 3.50 |
| MOR1660040 | 166.00 | 174.00 | 4.00 |
| MOR1660050 | 166.00 | 176.00 | 5.00 |
| MOR1660060 | 166.00 | 178.00 | 6.00 |
| MOR1670025 | 167.00 | 172.00 | 2.50 |
| MOR1670030 | 167.00 | 173.00 | 3.00 |
| MOR1670035 | 167.00 | 174.00 | 3.50 |
| MOR1670040 | 167.00 | 175.00 | 4.00 |
| MOR1670050 | 167.00 | 177.00 | 5.00 |
| MOR1670060 | 167.00 | 179.00 | 6.00 |
| MOR1670070 | 167.00 | 181.00 | 7.00 |
| MOR1670080 | 167.00 | 183.00 | 8.00 |
| MOR1674033 | 167.40 | 174.00 | 3.30 |
| MOR1680024 | 168.00 | 172.80 | 2.40 |
| MOR1680030 | 168.00 | 174.00 | 3.00 |
| MOR1680035 | 168.00 | 175.00 | 3.50 |
| MOR1680040 | 168.00 | 176.00 | 4.00 |
| MOR1680045 | 168.00 | 177.00 | 4.50 |
| MOR1680050 | 168.00 | 178.00 | 5.00 |
| MOR1680060 | 168.00 | 180.00 | 6.00 |
| MOR1680070 | 168.00 | 182.00 | 7.00 |
| MOR1680080 | 168.00 | 184.00 | 8.00 |
| MOR1680100 | 168.00 | 188.00 | 10.00 |
| MOR1680127 | 168.00 | 193.40 | 12.70 |
| MOR1683030 | 168.30 | 174.30 | 3.00 |
| MOR1685030 | 168.50 | 174.50 | 3.00 |
| MOR1690024 | 169.00 | 173.80 | 2.40 |
| MOR1690030 | 169.00 | 175.00 | 3.00 |
| MOR1690035 | 169.00 | 176.00 | 3.50 |
| MOR1690040 | 169.00 | 177.00 | 4.00 |
| MOR1690050 | 169.00 | 179.00 | 5.00 |
| MOR1690057 | 169.00 | 180.40 | 5.70 |
| MOR1690060 | 169.00 | 181.00 | 6.00 |
| MOR1691084 | 169.10 | 185.90 | 8.40 |
| MOR1692057 | 169.20 | 180.60 | 5.70 |
| MOR1693057 | 169.30 | 180.70 | 5.70 |
| MOR1695030 | 169.50 | 175.50 | 3.00 |
| MOR1700024 | 170.00 | 174.80 | 2.40 |
| MOR1700025 | 170.00 | 175.00 | 2.50 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1700030 | 170.00 | 176.00 | 3.00 |
| MOR1700032 | 170.00 | 176.40 | 3.20 |
| MOR1700035 | 170.00 | 177.00 | 3.50 |
| MOR1700035-1 | 170.00 | 177.10 | 3.55 |
| MOR1700040 | 170.00 | 178.00 | 4.00 |
| MOR1700045 | 170.00 | 179.00 | 4.50 |
| MOR1700050 | 170.00 | 180.00 | 5.00 |
| MOR1700053 | 170.00 | 180.60 | 5.30 |
| MOR1700060 | 170.00 | 182.00 | 6.00 |
| MOR1700075 | 170.00 | 185.00 | 7.50 |
| MOR1700080 | 170.00 | 186.00 | 8.00 |
| MOR1700100 | 170.00 | 190.00 | 10.00 |
| MOR1700150 | 170.00 | 200.00 | 15.00 |
| MOR1703047 | 170.30 | 179.70 | 4.70 |
| MOR1704040 | 170.40 | 178.40 | 4.00 |
| MOR1710030 | 171.00 | 177.00 | 3.00 |
| MOR1710035 | 171.00 | 178.00 | 3.50 |
| MOR1710040 | 171.00 | 179.00 | 4.00 |
| MOR1710050 | 171.00 | 181.00 | 5.00 |
| MOR1710070 | 171.00 | 185.00 | 7.00 |
| MOR1720025 | 172.00 | 177.00 | 2.50 |
| MOR1720030 | 172.00 | 178.00 | 3.00 |
| MOR1720035 | 172.00 | 179.00 | 3.50 |
| MOR1720040 | 172.00 | 180.00 | 4.00 |
| MOR1720045 | 172.00 | 181.00 | 4.50 |
| MOR1720050 | 172.00 | 182.00 | 5.00 |
| MOR1720060 | 172.00 | 184.00 | 6.00 |
| MOR1720075 | 172.00 | 187.00 | 7.50 |
| MOR1720080 | 172.00 | 188.00 | 8.00 |
| MOR1730020 | 173.00 | 177.00 | 2.00 |
| MOR1730030 | 173.00 | 179.00 | 3.00 |
| MOR1730035 | 173.00 | 180.00 | 3.50 |
| MOR1730040 | 173.00 | 181.00 | 4.00 |
| MOR1730050 | 173.00 | 183.00 | 5.00 |
| MOR1730060 | 173.00 | 185.00 | 6.00 |
| MOR1730070 | 173.00 | 187.00 | 7.00 |
| MOR1735050 | 173.50 | 183.50 | 5.00 |
| MOR1740030 | 174.00 | 180.00 | 3.00 |
| MOR1740032 | 174.00 | 180.40 | 3.20 |
| MOR1740035 | 174.00 | 181.00 | 3.50 |
| MOR1740040 | 174.00 | 182.00 | 4.00 |
| MOR1740050 | 174.00 | 184.00 | 5.00 |
| MOR1740060 | 174.00 | 186.00 | 6.00 |
| MOR1740070 | 174.00 | 188.00 | 7.00 |
| MOR1741084 | 174.10 | 190.90 | 8.40 |
| MOR1742057 | 174.20 | 185.60 | 5.70 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1743057 | 174.30 | 185.70 | 5.70 |
| MOR1745030 | 174.50 | 180.50 | 3.00 |
| MOR1750024 | 175.00 | 179.80 | 2.40 |
| MOR1750027 | 175.00 | 180.40 | 2.70 |
| MOR1750030 | 175.00 | 181.00 | 3.00 |
| MOR1750035 | 175.00 | 182.00 | 3.50 |
| MOR1750035-1 | 175.00 | 182.10 | 3.55 |
| MOR1750040 | 175.00 | 183.00 | 4.00 |
| MOR1750050 | 175.00 | 185.00 | 5.00 |
| MOR1750053 | 175.00 | 185.60 | 5.30 |
| MOR1750060 | 175.00 | 187.00 | 6.00 |
| MOR1750070 | 175.00 | 189.00 | 7.00 |
| MOR1750095 | 175.00 | 194.00 | 9.50 |
| MOR1750100 | 175.00 | 195.00 | 10.00 |
| MOR1760027 | 176.00 | 181.40 | 2.70 |
| MOR1760030 | 176.00 | 182.00 | 3.00 |
| MOR1760035 | 176.00 | 183.00 | 3.50 |
| MOR1760040 | 176.00 | 184.00 | 4.00 |
| MOR1760045 | 176.00 | 185.00 | 4.50 |
| MOR1760048 | 176.00 | 185.60 | 4.80 |
| MOR1760050 | 176.00 | 186.00 | 5.00 |
| MOR1760060 | 176.00 | 188.00 | 6.00 |
| MOR1768035 | 176.80 | 183.80 | 3.50 |
| MOR1770015 | 177.00 | 180.00 | 1.50 |
| MOR1770030 | 177.00 | 183.00 | 3.00 |
| MOR1770035 | 177.00 | 184.00 | 3.50 |
| MOR1770040 | 177.00 | 185.00 | 4.00 |
| MOR1770050 | 177.00 | 187.00 | 5.00 |
| MOR1770070 | 177.00 | 191.00 | 7.00 |
| MOR1779080 | 177.90 | 193.90 | 8.00 |
| MOR1780025 | 178.00 | 183.00 | 2.50 |
| MOR1780030 | 178.00 | 184.00 | 3.00 |
| MOR1780035 | 178.00 | 185.00 | 3.50 |
| MOR1780040 | 178.00 | 186.00 | 4.00 |
| MOR1780045 | 178.00 | 187.00 | 4.50 |
| MOR1780050 | 178.00 | 188.00 | 5.00 |
| MOR1780060 | 178.00 | 190.00 | 6.00 |
| MOR1780065 | 178.00 | 191.00 | 6.50 |
| MOR1780070 | 178.00 | 192.00 | 7.00 |
| MOR1780080 | 178.00 | 194.00 | 8.00 |
| MOR1780085 | 178.00 | 195.00 | 8.50 |
| MOR1780086 | 178.00 | 195.20 | 8.60 |
| MOR1780090 | 178.00 | 196.00 | 9.00 |
| MOR1780095 | 178.00 | 197.00 | 9.50 |
| MOR1780100 | 178.00 | 198.00 | 10.00 |
| MOR1790030 | 179.00 | 185.00 | 3.00 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1790035 | 179.00 | 186.00 | 3.50 |
| MOR1790040 | 179.00 | 187.00 | 4.00 |
| MOR1790045 | 179.00 | 188.00 | 4.50 |
| MOR1790050 | 179.00 | 189.00 | 5.00 |
| MOR1790060 | 179.00 | 191.00 | 6.00 |
| MOR1790100 | 179.00 | 199.00 | 10.00 |
| MOR1791084 | 179.10 | 195.90 | 8.40 |
| MOR1792057 | 179.20 | 190.60 | 5.70 |
| MOR1793057 | 179.30 | 190.70 | 5.70 |
| MOR1794031 | 179.40 | 185.60 | 3.10 |
| MOR1795030 | 179.50 | 185.50 | 3.00 |
| MOR1795045 | 179.50 | 188.50 | 4.50 |
| MOR1795050 | 179.50 | 189.50 | 5.00 |
| MOR1800015 | 180.00 | 183.00 | 1.50 |
| MOR1800020 | 180.00 | 184.00 | 2.00 |
| MOR1800030 | 180.00 | 186.00 | 3.00 |
| MOR1800035 | 180.00 | 187.00 | 3.50 |
| MOR1800035-1 | 180.00 | 187.10 | 3.55 |
| MOR1800040 | 180.00 | 188.00 | 4.00 |
| MOR1800043 | 180.00 | 188.60 | 4.30 |
| MOR1800045 | 180.00 | 189.00 | 4.50 |
| MOR1800050 | 180.00 | 190.00 | 5.00 |
| MOR1800053 | 180.00 | 190.60 | 5.30 |
| MOR1800054 | 180.00 | 190.80 | 5.40 |
| MOR1800055 | 180.00 | 191.00 | 5.50 |
| MOR1800060 | 180.00 | 192.00 | 6.00 |
| MOR1800080 | 180.00 | 196.00 | 8.00 |
| MOR1800100 | 180.00 | 200.00 | 10.00 |
| MOR1800102 | 180.00 | 200.40 | 10.20 |
| MOR1800120 | 180.00 | 204.00 | 12.00 |
| MOR1810020 | 181.00 | 185.00 | 2.00 |
| MOR1810030 | 181.00 | 187.00 | 3.00 |
| MOR1810035 | 181.00 | 188.00 | 3.50 |
| MOR1810040 | 181.00 | 189.00 | 4.00 |
| MOR1810050 | 181.00 | 191.00 | 5.00 |
| MOR1820020 | 182.00 | 186.00 | 2.00 |
| MOR1820030 | 182.00 | 188.00 | 3.00 |
| MOR1820035 | 182.00 | 189.00 | 3.50 |
| MOR1820040 | 182.00 | 190.00 | 4.00 |
| MOR1820050 | 182.00 | 192.00 | 5.00 |
| MOR1820057 | 182.00 | 193.40 | 5.70 |
| MOR1820060 | 182.00 | 194.00 | 6.00 |
| MOR1820070 | 182.00 | 196.00 | 7.00 |
| MOR1820080 | 182.00 | 198.00 | 8.00 |
| MOR1823070 | 182.30 | 196.30 | 7.00 |
| MOR1825040 | 182.50 | 190.50 | 4.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1825080 | 182.50 | 198.50 | 8.00 |
| MOR1830030 | 183.00 | 189.00 | 3.00 |
| MOR1830035 | 183.00 | 190.00 | 3.50 |
| MOR1830040 | 183.00 | 191.00 | 4.00 |
| MOR1830070 | 183.00 | 197.00 | 7.00 |
| MOR1830080 | 183.00 | 199.00 | 8.00 |
| MOR1830100 | 183.00 | 203.00 | 10.00 |
| MOR1835030 | 183.50 | 189.50 | 3.00 |
| MOR1835080 | 183.50 | 199.50 | 8.00 |
| MOR1840030 | 184.00 | 190.00 | 3.00 |
| MOR1840035 | 184.00 | 191.00 | 3.50 |
| MOR1840040 | 184.00 | 192.00 | 4.00 |
| MOR1840043 | 184.00 | 192.60 | 4.30 |
| MOR1840050 | 184.00 | 194.00 | 5.00 |
| MOR1840057 | 184.00 | 195.40 | 5.70 |
| MOR1840060 | 184.00 | 196.00 | 6.00 |
| MOR1840063 | 184.00 | 196.60 | 6.30 |
| MOR1840070 | 184.00 | 198.00 | 7.00 |
| MOR1840080 | 184.00 | 200.00 | 8.00 |
| MOR1841084 | 184.10 | 200.90 | 8.40 |
| MOR1841063 | 184.15 | 196.85 | 6.35 |
| MOR1842057 | 184.20 | 195.60 | 5.70 |
| MOR1843057 | 184.30 | 195.70 | 5.70 |
| MOR1845030 | 184.50 | 190.50 | 3.00 |
| MOR1850020 | 185.00 | 189.00 | 2.00 |
| MOR1850030 | 185.00 | 191.00 | 3.00 |
| MOR1850032 | 185.00 | 191.40 | 3.20 |
| MOR1850032-1 | 185.00 | 191.50 | 3.25 |
| MOR1850035 | 185.00 | 192.00 | 3.50 |
| MOR1850035-1 | 185.00 | 192.10 | 3.55 |
| MOR1850040 | 185.00 | 193.00 | 4.00 |
| MOR1850045 | 185.00 | 194.00 | 4.50 |
| MOR1850050 | 185.00 | 195.00 | 5.00 |
| MOR1850053 | 185.00 | 195.60 | 5.30 |
| MOR1850055 | 185.00 | 196.00 | 5.50 |
| MOR1850060 | 185.00 | 197.00 | 6.00 |
| MOR1850070 | 185.00 | 199.00 | 7.00 |
| MOR1850080 | 185.00 | 201.00 | 8.00 |
| MOR1850100 | 185.00 | 205.00 | 10.00 |
| MOR1853035 | 185.34 | 192.34 | 3.50 |
| MOR1860030 | 186.00 | 192.00 | 3.00 |
| MOR1860035 | 186.00 | 193.00 | 3.50 |
| MOR1860040 | 186.00 | 194.00 | 4.00 |
| MOR1860045 | 186.00 | 195.00 | 4.50 |
| MOR1860050 | 186.00 | 196.00 | 5.00 |
| MOR1860060 | 186.00 | 198.00 | 6.00 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1860070 | 186.00 | 200.00 | 7.00 |
| MOR1865085 | 186.50 | 203.50 | 8.50 |
| MOR1870030 | 187.00 | 193.00 | 3.00 |
| MOR1870035 | 187.00 | 194.00 | 3.50 |
| MOR1870040 | 187.00 | 195.00 | 4.00 |
| MOR1870050 | 187.00 | 197.00 | 5.00 |
| MOR1870070 | 187.00 | 201.00 | 7.00 |
| MOR1875015 | 187.50 | 190.50 | 1.50 |
| MOR1875040 | 187.50 | 195.50 | 4.00 |
| MOR1880020 | 188.00 | 192.00 | 2.00 |
| MOR1880030 | 188.00 | 194.00 | 3.00 |
| MOR1880035 | 188.00 | 195.00 | 3.50 |
| MOR1880040 | 188.00 | 196.00 | 4.00 |
| MOR1880050 | 188.00 | 198.00 | 5.00 |
| MOR1880060 | 188.00 | 200.00 | 6.00 |
| MOR1890030 | 189.00 | 195.00 | 3.00 |
| MOR1890035 | 189.00 | 196.00 | 3.50 |
| MOR1890040 | 189.00 | 197.00 | 4.00 |
| MOR1890045 | 189.00 | 198.00 | 4.50 |
| MOR1890050 | 189.00 | 199.00 | 5.00 |
| MOR1890080 | 189.00 | 205.00 | 8.00 |
| MOR1890110 | 189.00 | 211.00 | 11.00 |
| MOR1891084 | 189.10 | 205.90 | 8.40 |
| MOR1892057 | 189.20 | 200.60 | 5.70 |
| MOR1893057 | 189.30 | 200.70 | 5.70 |
| MOR1895030 | 189.50 | 195.50 | 3.00 |
| MOR1895045 | 189.50 | 198.50 | 4.50 |
| MOR1900026 | 190.00 | 195.20 | 2.60 |
| MOR1900030 | 190.00 | 196.00 | 3.00 |
| MOR1900032 | 190.00 | 196.40 | 3.20 |
| MOR1900035 | 190.00 | 197.00 | 3.50 |
| MOR1900035-1 | 190.00 | 197.10 | 3.55 |
| MOR1900040 | 190.00 | 198.00 | 4.00 |
| MOR1900045 | 190.00 | 199.00 | 4.50 |
| MOR1900050 | 190.00 | 200.00 | 5.00 |
| MOR1900053 | 190.00 | 200.60 | 5.30 |
| MOR1900055 | 190.00 | 201.00 | 5.50 |
| MOR1900057 | 190.00 | 201.40 | 5.70 |
| MOR1900060 | 190.00 | 202.00 | 6.00 |
| MOR1900063 | 190.00 | 202.60 | 6.30 |
| MOR1900070 | 190.00 | 204.00 | 7.00 |
| MOR1900080 | 190.00 | 206.00 | 8.00 |
| MOR1900100 | 190.00 | 210.00 | 10.00 |
| MOR1910030 | 191.00 | 197.00 | 3.00 |
| MOR1910035 | 191.00 | 198.00 | 3.50 |
| MOR1910040 | 191.00 | 199.00 | 4.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|------|
| | d | D | S |
| MOR1910050 | 191.00 | 201.00 | 5.00 |
| MOR1910060 | 191.00 | 203.00 | 6.00 |
| MOR1910080 | 191.00 | 207.00 | 8.00 |
| MOR1912060 | 191.20 | 203.20 | 6.00 |
| MOR1920020 | 192.00 | 196.00 | 2.00 |
| MOR1920025 | 192.00 | 197.00 | 2.50 |
| MOR1920030 | 192.00 | 198.00 | 3.00 |
| MOR1920035 | 192.00 | 199.00 | 3.50 |
| MOR1920040 | 192.00 | 200.00 | 4.00 |
| MOR1920045 | 192.00 | 201.00 | 4.50 |
| MOR1920050 | 192.00 | 202.00 | 5.00 |
| MOR1920070 | 192.00 | 206.00 | 7.00 |
| MOR1920080 | 192.00 | 208.00 | 8.00 |
| MOR1930020 | 193.00 | 197.00 | 2.00 |
| MOR1930030 | 193.00 | 199.00 | 3.00 |
| MOR1930035 | 193.00 | 200.00 | 3.50 |
| MOR1930040 | 193.00 | 201.00 | 4.00 |
| MOR1930050 | 193.00 | 203.00 | 5.00 |
| MOR1930060 | 193.00 | 205.00 | 6.00 |
| MOR1935030 | 193.50 | 199.50 | 3.00 |
| MOR1935040 | 193.50 | 201.50 | 4.00 |
| MOR1935050 | 193.50 | 203.50 | 5.00 |
| MOR1940020 | 194.00 | 198.00 | 2.00 |
| MOR1940022 | 194.00 | 198.40 | 2.20 |
| MOR1940030 | 194.00 | 200.00 | 3.00 |
| MOR1940035 | 194.00 | 201.00 | 3.50 |
| MOR1940040 | 194.00 | 202.00 | 4.00 |
| MOR1940050 | 194.00 | 204.00 | 5.00 |
| MOR1940061 | 194.00 | 206.20 | 6.10 |
| MOR1940070 | 194.00 | 208.00 | 7.00 |
| MOR1941064 | 194.10 | 206.90 | 6.40 |
| MOR1941084 | 194.10 | 210.90 | 8.40 |
| MOR1942057 | 194.20 | 205.60 | 5.70 |
| MOR1943057 | 194.30 | 205.70 | 5.70 |
| MOR1945020 | 194.50 | 198.50 | 2.00 |
| MOR1945030 | 194.50 | 200.50 | 3.00 |
| MOR1950025 | 195.00 | 200.00 | 2.50 |
| MOR1950030 | 195.00 | 201.00 | 3.00 |
| MOR1950035 | 195.00 | 202.00 | 3.50 |
| MOR1950035-1 | 195.00 | 202.10 | 3.55 |
| MOR1950040 | 195.00 | 203.00 | 4.00 |
| MOR1950043 | 195.00 | 203.60 | 4.30 |
| MOR1950050 | 195.00 | 205.00 | 5.00 |
| MOR1950053 | 195.00 | 205.60 | 5.30 |
| MOR1950055 | 195.00 | 206.00 | 5.50 |
| MOR1950060 | 195.00 | 207.00 | 6.00 |

O'RINGS



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR1950080 | 195.00 | 211.00 | 8.00 |
| MOR1950090 | 195.00 | 213.00 | 9.00 |
| MOR1950100 | 195.00 | 215.00 | 10.00 |
| MOR1955050 | 195.50 | 205.50 | 5.00 |
| MOR1960030 | 196.00 | 202.00 | 3.00 |
| MOR1960035 | 196.00 | 203.00 | 3.50 |
| MOR1960040 | 196.00 | 204.00 | 4.00 |
| MOR1960045 | 196.00 | 205.00 | 4.50 |
| MOR1960050 | 196.00 | 206.00 | 5.00 |
| MOR1960060 | 196.00 | 208.00 | 6.00 |
| MOR1960070 | 196.00 | 210.00 | 7.00 |
| MOR1970030 | 197.00 | 203.00 | 3.00 |
| MOR1970035 | 197.00 | 204.00 | 3.50 |
| MOR1970040 | 197.00 | 205.00 | 4.00 |
| MOR1970045 | 197.00 | 206.00 | 4.50 |
| MOR1970050 | 197.00 | 207.00 | 5.00 |
| MOR1980030 | 198.00 | 204.00 | 3.00 |
| MOR1980035 | 198.00 | 205.00 | 3.50 |
| MOR1980038 | 198.00 | 205.60 | 3.80 |
| MOR1980040 | 198.00 | 206.00 | 4.00 |
| MOR1980050 | 198.00 | 208.00 | 5.00 |
| MOR1980060 | 198.00 | 210.00 | 6.00 |
| MOR1980080 | 198.00 | 214.00 | 8.00 |
| MOR1980100 | 198.00 | 218.00 | 10.00 |
| MOR1990030 | 199.00 | 205.00 | 3.00 |
| MOR1990035 | 199.00 | 206.00 | 3.50 |
| MOR1990040 | 199.00 | 207.00 | 4.00 |
| MOR1990050 | 199.00 | 209.00 | 5.00 |
| MOR1991084 | 199.10 | 215.90 | 8.40 |
| MOR1992057 | 199.20 | 210.60 | 5.70 |
| MOR1993030 | 199.30 | 205.30 | 3.00 |
| MOR1993057 | 199.30 | 210.70 | 5.70 |
| MOR1994031 | 199.40 | 205.60 | 3.10 |
| MOR1995030 | 199.50 | 205.50 | 3.00 |
| MOR2000020 | 200.00 | 204.00 | 2.00 |
| MOR2000025 | 200.00 | 205.00 | 2.50 |
| MOR2000030 | 200.00 | 206.00 | 3.00 |
| MOR2000035 | 200.00 | 207.00 | 3.50 |
| MOR2000035-1 | 200.00 | 207.10 | 3.55 |
| MOR2000040 | 200.00 | 208.00 | 4.00 |
| MOR2000043 | 200.00 | 208.60 | 4.30 |
| MOR2000045 | 200.00 | 209.00 | 4.50 |
| MOR2000050 | 200.00 | 210.00 | 5.00 |
| MOR2000053 | 200.00 | 210.60 | 5.30 |
| MOR2000055 | 200.00 | 211.00 | 5.50 |
| MOR2000056 | 200.00 | 211.20 | 5.60 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2000060 | 200.00 | 212.00 | 6.00 |
| MOR2000065 | 200.00 | 213.00 | 6.50 |
| MOR2000070 | 200.00 | 214.00 | 7.00 |
| MOR2000080 | 200.00 | 216.00 | 8.00 |
| MOR2000100 | 200.00 | 220.00 | 10.00 |
| MOR2000110 | 200.00 | 222.00 | 11.00 |
| MOR2000150 | 200.00 | 230.00 | 15.00 |
| MOR2005084 | 200.50 | 217.30 | 8.40 |
| MOR2010030 | 201.00 | 207.00 | 3.00 |
| MOR2010035 | 201.00 | 208.00 | 3.50 |
| MOR2010040 | 201.00 | 209.00 | 4.00 |
| MOR2010050 | 201.00 | 211.00 | 5.00 |
| MOR2010060 | 201.00 | 213.00 | 6.00 |
| MOR2010090 | 201.00 | 219.00 | 9.00 |
| MOR2010100 | 201.00 | 221.00 | 10.00 |
| MOR2010120 | 201.00 | 225.00 | 12.00 |
| MOR2020030 | 202.00 | 208.00 | 3.00 |
| MOR2020035 | 202.00 | 209.00 | 3.50 |
| MOR2020040 | 202.00 | 210.00 | 4.00 |
| MOR2020050 | 202.00 | 212.00 | 5.00 |
| MOR2020055 | 202.00 | 213.00 | 5.50 |
| MOR2020060 | 202.00 | 214.00 | 6.00 |
| MOR2020070 | 202.00 | 216.00 | 7.00 |
| MOR2020127 | 202.00 | 227.40 | 12.70 |
| MOR2028036 | 202.80 | 210.00 | 3.60 |
| MOR2030030 | 203.00 | 209.00 | 3.00 |
| MOR2030035 | 203.00 | 210.00 | 3.50 |
| MOR2030040 | 203.00 | 211.00 | 4.00 |
| MOR2030050 | 203.00 | 213.00 | 5.00 |
| MOR2030060 | 203.00 | 215.00 | 6.00 |
| MOR2030063 | 203.00 | 215.60 | 6.30 |
| MOR2030063-1 | 203.00 | 215.70 | 6.35 |
| MOR2030070 | 203.00 | 217.00 | 7.00 |
| MOR2032040 | 203.20 | 211.20 | 4.00 |
| MOR2035040 | 203.50 | 211.50 | 4.00 |
| MOR2035060 | 203.50 | 215.50 | 6.00 |
| MOR2040025 | 204.00 | 209.00 | 2.50 |
| MOR2040030 | 204.00 | 210.00 | 3.00 |
| MOR2040035 | 204.00 | 211.00 | 3.50 |
| MOR2040040 | 204.00 | 212.00 | 4.00 |
| MOR2040045 | 204.00 | 213.00 | 4.50 |
| MOR2040050 | 204.00 | 214.00 | 5.00 |
| MOR2040055 | 204.00 | 215.00 | 5.50 |
| MOR2040060 | 204.00 | 216.00 | 6.00 |
| MOR2040100 | 204.00 | 224.00 | 10.00 |
| MOR2040150 | 204.00 | 234.00 | 15.00 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2041084 | 204.10 | 220.90 | 8.40 |
| MOR2042057 | 204.20 | 215.60 | 5.70 |
| MOR2045030 | 204.50 | 210.50 | 3.00 |
| MOR2050015 | 205.00 | 208.00 | 1.50 |
| MOR2050020 | 205.00 | 209.00 | 2.00 |
| MOR2050030 | 205.00 | 211.00 | 3.00 |
| MOR2050035 | 205.00 | 212.00 | 3.50 |
| MOR2050040 | 205.00 | 213.00 | 4.00 |
| MOR2050050 | 205.00 | 215.00 | 5.00 |
| MOR2050060 | 205.00 | 217.00 | 6.00 |
| MOR2050070 | 205.00 | 219.00 | 7.00 |
| MOR2050073 | 205.00 | 219.60 | 7.30 |
| MOR2050080 | 205.00 | 221.00 | 8.00 |
| MOR2050110 | 205.00 | 227.00 | 11.00 |
| MOR2050150 | 205.00 | 235.00 | 15.00 |
| MOR2053060 | 205.30 | 217.30 | 6.00 |
| MOR2060030 | 206.00 | 212.00 | 3.00 |
| MOR2060035 | 206.00 | 213.00 | 3.50 |
| MOR2060040 | 206.00 | 214.00 | 4.00 |
| MOR2060050 | 206.00 | 216.00 | 5.00 |
| MOR2060060 | 206.00 | 218.00 | 6.00 |
| MOR2060070 | 206.00 | 220.00 | 7.00 |
| MOR2060080 | 206.00 | 222.00 | 8.00 |
| MOR2065080 | 206.50 | 222.50 | 8.00 |
| MOR2070030 | 207.00 | 213.00 | 3.00 |
| MOR2070035 | 207.00 | 214.00 | 3.50 |
| MOR2070040 | 207.00 | 215.00 | 4.00 |
| MOR2070050 | 207.00 | 217.00 | 5.00 |
| MOR2070070 | 207.00 | 221.00 | 7.00 |
| MOR2070084 | 207.00 | 223.80 | 8.40 |
| MOR2080030 | 208.00 | 214.00 | 3.00 |
| MOR2080040 | 208.00 | 216.00 | 4.00 |
| MOR2080045 | 208.00 | 217.00 | 4.50 |
| MOR2080050 | 208.00 | 218.00 | 5.00 |
| MOR2080060 | 208.00 | 220.00 | 6.00 |
| MOR2080066 | 208.00 | 221.30 | 6.65 |
| MOR2080075 | 208.00 | 223.00 | 7.50 |
| MOR2080080 | 208.00 | 224.00 | 8.00 |
| MOR2080085 | 208.00 | 225.00 | 8.50 |
| MOR2090030 | 209.00 | 215.00 | 3.00 |
| MOR2090035 | 209.00 | 216.00 | 3.50 |
| MOR2090040 | 209.00 | 217.00 | 4.00 |
| MOR2090050 | 209.00 | 219.00 | 5.00 |
| MOR2090070 | 209.00 | 223.00 | 7.00 |
| MOR2091084 | 209.10 | 225.90 | 8.40 |
| MOR2092057 | 209.20 | 220.60 | 5.70 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2093057 | 209.30 | 220.70 | 5.70 |
| MOR2095030 | 209.50 | 215.50 | 3.00 |
| MOR2100015 | 210.00 | 213.00 | 1.50 |
| MOR2100020 | 210.00 | 214.00 | 2.00 |
| MOR2100025 | 210.00 | 215.00 | 2.50 |
| MOR2100030 | 210.00 | 216.00 | 3.00 |
| MOR2100035 | 210.00 | 217.00 | 3.50 |
| MOR2100040 | 210.00 | 218.00 | 4.00 |
| MOR2100045 | 210.00 | 219.00 | 4.50 |
| MOR2100050 | 210.00 | 220.00 | 5.00 |
| MOR2100055 | 210.00 | 221.00 | 5.50 |
| MOR2100058 | 210.00 | 221.60 | 5.80 |
| MOR2100060 | 210.00 | 222.00 | 6.00 |
| MOR2100064 | 210.00 | 222.80 | 6.40 |
| MOR2100070 | 210.00 | 224.00 | 7.00 |
| MOR2100080 | 210.00 | 226.00 | 8.00 |
| MOR2100095 | 210.00 | 229.00 | 9.50 |
| MOR2100100 | 210.00 | 230.00 | 10.00 |
| MOR2110030 | 211.00 | 217.00 | 3.00 |
| MOR2110035 | 211.00 | 218.00 | 3.50 |
| MOR2110040 | 211.00 | 219.00 | 4.00 |
| MOR2110050 | 211.00 | 221.00 | 5.00 |
| MOR2110120 | 211.00 | 235.00 | 12.00 |
| MOR2120030 | 212.00 | 218.00 | 3.00 |
| MOR2120035 | 212.00 | 219.00 | 3.50 |
| MOR2120040 | 212.00 | 220.00 | 4.00 |
| MOR2120050 | 212.00 | 222.00 | 5.00 |
| MOR2120060 | 212.00 | 224.00 | 6.00 |
| MOR2120070 | 212.00 | 226.00 | 7.00 |
| MOR2120080 | 212.00 | 228.00 | 8.00 |
| MOR2124073 | 212.40 | 227.00 | 7.30 |
| MOR2130030 | 213.00 | 219.00 | 3.00 |
| MOR2130035 | 213.00 | 220.00 | 3.50 |
| MOR2130040 | 213.00 | 221.00 | 4.00 |
| MOR2130050 | 213.00 | 223.00 | 5.00 |
| MOR2130054 | 213.00 | 223.80 | 5.40 |
| MOR2140020 | 214.00 | 218.00 | 2.00 |
| MOR2140030 | 214.00 | 220.00 | 3.00 |
| MOR2140035 | 214.00 | 221.00 | 3.50 |
| MOR2140040 | 214.00 | 222.00 | 4.00 |
| MOR2140045 | 214.00 | 223.00 | 4.50 |
| MOR2140050 | 214.00 | 224.00 | 5.00 |
| MOR2140080 | 214.00 | 230.00 | 8.00 |
| MOR2140084 | 214.00 | 230.80 | 8.40 |
| MOR2141084 | 214.10 | 230.90 | 8.40 |
| MOR2145030 | 214.50 | 220.50 | 3.00 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2150030 | 215.00 | 221.00 | 3.00 |
| MOR2150035 | 215.00 | 222.00 | 3.50 |
| MOR2150040 | 215.00 | 223.00 | 4.00 |
| MOR2150045 | 215.00 | 224.00 | 4.50 |
| MOR2150050 | 215.00 | 225.00 | 5.00 |
| MOR2150057 | 215.00 | 226.40 | 5.70 |
| MOR2150058 | 215.00 | 226.60 | 5.80 |
| MOR2150060 | 215.00 | 227.00 | 6.00 |
| MOR2150064 | 215.00 | 227.80 | 6.40 |
| MOR2150070 | 215.00 | 229.00 | 7.00 |
| MOR2150080 | 215.00 | 231.00 | 8.00 |
| MOR2150100 | 215.00 | 235.00 | 10.00 |
| MOR2156019 | 215.65 | 219.45 | 1.90 |
| MOR2160020 | 216.00 | 220.00 | 2.00 |
| MOR2160030 | 216.00 | 222.00 | 3.00 |
| MOR2160035 | 216.00 | 223.00 | 3.50 |
| MOR2160040 | 216.00 | 224.00 | 4.00 |
| MOR2160050 | 216.00 | 226.00 | 5.00 |
| MOR2160060 | 216.00 | 228.00 | 6.00 |
| MOR2160080 | 216.00 | 232.00 | 8.00 |
| MOR2170030 | 217.00 | 223.00 | 3.00 |
| MOR2170035 | 217.00 | 224.00 | 3.50 |
| MOR2170040 | 217.00 | 225.00 | 4.00 |
| MOR2170050 | 217.00 | 227.00 | 5.00 |
| MOR2170060 | 217.00 | 229.00 | 6.00 |
| MOR2170080 | 217.00 | 233.00 | 8.00 |
| MOR2175040 | 217.50 | 225.50 | 4.00 |
| MOR2180022 | 218.00 | 222.40 | 2.20 |
| MOR2180030 | 218.00 | 224.00 | 3.00 |
| MOR2180035 | 218.00 | 225.00 | 3.50 |
| MOR2180040 | 218.00 | 226.00 | 4.00 |
| MOR2180045 | 218.00 | 227.00 | 4.50 |
| MOR2180050 | 218.00 | 228.00 | 5.00 |
| MOR2180053 | 218.00 | 228.60 | 5.30 |
| MOR2180058 | 218.00 | 229.60 | 5.80 |
| MOR2180060 | 218.00 | 230.00 | 6.00 |
| MOR2180070 | 218.00 | 232.00 | 7.00 |
| MOR2180072 | 218.00 | 232.40 | 7.20 |
| MOR2185045 | 218.50 | 227.50 | 4.50 |
| MOR2187020 | 218.70 | 222.70 | 2.00 |
| MOR2190030 | 219.00 | 225.00 | 3.00 |
| MOR2190035 | 219.00 | 226.00 | 3.50 |
| MOR2190040 | 219.00 | 227.00 | 4.00 |
| MOR2190045 | 219.00 | 228.00 | 4.50 |
| MOR2190050 | 219.00 | 229.00 | 5.00 |
| MOR2190100 | 219.00 | 239.00 | 10.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2191084 | 219.10 | 235.90 | 8.40 |
| MOR2192057 | 219.20 | 230.60 | 5.70 |
| MOR2193057 | 219.30 | 230.70 | 5.70 |
| MOR2195030 | 219.50 | 225.50 | 3.00 |
| MOR2200020 | 220.00 | 224.00 | 2.00 |
| MOR2200030 | 220.00 | 226.00 | 3.00 |
| MOR2200035 | 220.00 | 227.00 | 3.50 |
| MOR2200040 | 220.00 | 228.00 | 4.00 |
| MOR2200043 | 220.00 | 228.60 | 4.30 |
| MOR2200050 | 220.00 | 230.00 | 5.00 |
| MOR2200060 | 220.00 | 232.00 | 6.00 |
| MOR2200065 | 220.00 | 233.00 | 6.50 |
| MOR2200070 | 220.00 | 234.00 | 7.00 |
| MOR2200080 | 220.00 | 236.00 | 8.00 |
| MOR2200100 | 220.00 | 240.00 | 10.00 |
| MOR2210030 | 221.00 | 227.00 | 3.00 |
| MOR2210035 | 221.00 | 228.00 | 3.50 |
| MOR2210040 | 221.00 | 229.00 | 4.00 |
| MOR2210050 | 221.00 | 231.00 | 5.00 |
| MOR2210060 | 221.00 | 233.00 | 6.00 |
| MOR2210070 | 221.00 | 235.00 | 7.00 |
| MOR2215057 | 221.50 | 232.90 | 5.70 |
| MOR2220025 | 222.00 | 227.00 | 2.50 |
| MOR2220030 | 222.00 | 228.00 | 3.00 |
| MOR2220032 | 222.00 | 228.40 | 3.20 |
| MOR2220035 | 222.00 | 229.00 | 3.50 |
| MOR2220040 | 222.00 | 230.00 | 4.00 |
| MOR2220050 | 222.00 | 232.00 | 5.00 |
| MOR2220060 | 222.00 | 234.00 | 6.00 |
| MOR2220070 | 222.00 | 236.00 | 7.00 |
| MOR2230030 | 223.00 | 229.00 | 3.00 |
| MOR2230035 | 223.00 | 230.00 | 3.50 |
| MOR2230040 | 223.00 | 231.00 | 4.00 |
| MOR2230050 | 223.00 | 233.00 | 5.00 |
| MOR2240030 | 224.00 | 230.00 | 3.00 |
| MOR2240035 | 224.00 | 231.00 | 3.50 |
| MOR2240038 | 224.00 | 231.60 | 3.80 |
| MOR2240040 | 224.00 | 232.00 | 4.00 |
| MOR2240050 | 224.00 | 234.00 | 5.00 |
| MOR2240060 | 224.00 | 236.00 | 6.00 |
| MOR2240070 | 224.00 | 238.00 | 7.00 |
| MOR2240084 | 224.00 | 240.80 | 8.40 |
| MOR2250025 | 225.00 | 230.00 | 2.50 |
| MOR2250028 | 225.00 | 230.60 | 2.80 |
| MOR2250030 | 225.00 | 231.00 | 3.00 |
| MOR2250035 | 225.00 | 232.00 | 3.50 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2250040 | 225.00 | 233.00 | 4.00 |
| MOR2250045 | 225.00 | 234.00 | 4.50 |
| MOR2250050 | 225.00 | 235.00 | 5.00 |
| MOR2250057 | 225.00 | 236.40 | 5.70 |
| MOR2250060 | 225.00 | 237.00 | 6.00 |
| MOR2250070 | 225.00 | 239.00 | 7.00 |
| MOR2250080 | 225.00 | 241.00 | 8.00 |
| MOR2250100 | 225.00 | 245.00 | 10.00 |
| MOR2250150 | 225.00 | 255.00 | 15.00 |
| MOR2255050 | 225.50 | 235.50 | 5.00 |
| MOR2260030 | 226.00 | 232.00 | 3.00 |
| MOR2260035 | 226.00 | 233.00 | 3.50 |
| MOR2260040 | 226.00 | 234.00 | 4.00 |
| MOR2260050 | 226.00 | 236.00 | 5.00 |
| MOR2260057 | 226.00 | 237.40 | 5.70 |
| MOR2260060 | 226.00 | 238.00 | 6.00 |
| MOR2260080 | 226.00 | 242.00 | 8.00 |
| MOR2260127 | 226.00 | 251.40 | 12.70 |
| MOR2270030 | 227.00 | 233.00 | 3.00 |
| MOR2270032 | 227.00 | 233.40 | 3.20 |
| MOR2270035 | 227.00 | 234.00 | 3.50 |
| MOR2270040 | 227.00 | 235.00 | 4.00 |
| MOR2270045 | 227.00 | 236.00 | 4.50 |
| MOR2270050 | 227.00 | 237.00 | 5.00 |
| MOR2270070 | 227.00 | 241.00 | 7.00 |
| MOR2280030 | 228.00 | 234.00 | 3.00 |
| MOR2280035 | 228.00 | 235.00 | 3.50 |
| MOR2280040 | 228.00 | 236.00 | 4.00 |
| MOR2280050 | 228.00 | 238.00 | 5.00 |
| MOR2280057 | 228.00 | 239.40 | 5.70 |
| MOR2280060 | 228.00 | 240.00 | 6.00 |
| MOR2280070 | 228.00 | 242.00 | 7.00 |
| MOR2280072 | 228.00 | 242.40 | 7.20 |
| MOR2280100 | 228.00 | 248.00 | 10.00 |
| MOR2290030 | 229.00 | 235.00 | 3.00 |
| MOR2290035 | 229.00 | 236.00 | 3.50 |
| MOR2290040 | 229.00 | 237.00 | 4.00 |
| MOR2290050 | 229.00 | 239.00 | 5.00 |
| MOR2290060 | 229.00 | 241.00 | 6.00 |
| MOR2291084 | 229.10 | 245.90 | 8.40 |
| MOR2292057 | 229.20 | 240.60 | 5.70 |
| MOR2293057 | 229.30 | 240.70 | 5.70 |
| MOR2295030 | 229.50 | 235.50 | 3.00 |
| MOR2295050 | 229.50 | 239.50 | 5.00 |
| MOR2300020 | 230.00 | 234.00 | 2.00 |
| MOR2300025 | 230.00 | 235.00 | 2.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2300030 | 230.00 | 236.00 | 3.00 |
| MOR2300035 | 230.00 | 237.00 | 3.50 |
| MOR2300040 | 230.00 | 238.00 | 4.00 |
| MOR2300050 | 230.00 | 240.00 | 5.00 |
| MOR2300060 | 230.00 | 242.00 | 6.00 |
| MOR2300070 | 230.00 | 244.00 | 7.00 |
| MOR2300075 | 230.00 | 245.00 | 7.50 |
| MOR2300080 | 230.00 | 246.00 | 8.00 |
| MOR2300090 | 230.00 | 248.00 | 9.00 |
| MOR2300100 | 230.00 | 250.00 | 10.00 |
| MOR2300120 | 230.00 | 254.00 | 12.00 |
| MOR2308035 | 230.84 | 237.84 | 3.50 |
| MOR2310030 | 231.00 | 237.00 | 3.00 |
| MOR2310035 | 231.00 | 238.00 | 3.50 |
| MOR2310040 | 231.00 | 239.00 | 4.00 |
| MOR2310050 | 231.00 | 241.00 | 5.00 |
| MOR2320025 | 232.00 | 237.00 | 2.50 |
| MOR2320030 | 232.00 | 238.00 | 3.00 |
| MOR2320035 | 232.00 | 239.00 | 3.50 |
| MOR2320040 | 232.00 | 240.00 | 4.00 |
| MOR2320045 | 232.00 | 241.00 | 4.50 |
| MOR2320050 | 232.00 | 242.00 | 5.00 |
| MOR2330030 | 233.00 | 239.00 | 3.00 |
| MOR2330035 | 233.00 | 240.00 | 3.50 |
| MOR2330040 | 233.00 | 241.00 | 4.00 |
| MOR2330050 | 233.00 | 243.00 | 5.00 |
| MOR2330070 | 233.00 | 247.00 | 7.00 |
| MOR2330100 | 233.00 | 253.00 | 10.00 |
| MOR2340030 | 234.00 | 240.00 | 3.00 |
| MOR2340035 | 234.00 | 241.00 | 3.50 |
| MOR2340040 | 234.00 | 242.00 | 4.00 |
| MOR2340045 | 234.00 | 243.00 | 4.50 |
| MOR2340050 | 234.00 | 244.00 | 5.00 |
| MOR2340060 | 234.00 | 246.00 | 6.00 |
| MOR2340065 | 234.00 | 247.00 | 6.50 |
| MOR2340070 | 234.00 | 248.00 | 7.00 |
| MOR2340100 | 234.00 | 254.00 | 10.00 |
| MOR2341084 | 234.10 | 250.90 | 8.40 |
| MOR2343057 | 234.30 | 245.70 | 5.70 |
| MOR2345070 | 234.50 | 248.50 | 7.00 |
| MOR2350030 | 235.00 | 241.00 | 3.00 |
| MOR2350035 | 235.00 | 242.00 | 3.50 |
| MOR2350040 | 235.00 | 243.00 | 4.00 |
| MOR2350050 | 235.00 | 245.00 | 5.00 |
| MOR2350060 | 235.00 | 247.00 | 6.00 |
| MOR2350070 | 235.00 | 249.00 | 7.00 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2350080 | 235.00 | 251.00 | 8.00 |
| MOR2350100 | 235.00 | 255.00 | 10.00 |
| MOR2360030 | 236.00 | 242.00 | 3.00 |
| MOR2360035 | 236.00 | 243.00 | 3.50 |
| MOR2360040 | 236.00 | 244.00 | 4.00 |
| MOR2360050 | 236.00 | 246.00 | 5.00 |
| MOR2360060 | 236.00 | 248.00 | 6.00 |
| MOR2360063 | 236.00 | 248.60 | 6.30 |
| MOR2360070 | 236.00 | 250.00 | 7.00 |
| MOR2360120 | 236.00 | 260.00 | 12.00 |
| MOR2370030 | 237.00 | 243.00 | 3.00 |
| MOR2370035 | 237.00 | 244.00 | 3.50 |
| MOR2370040 | 237.00 | 245.00 | 4.00 |
| MOR2370050 | 237.00 | 247.00 | 5.00 |
| MOR2370060 | 237.00 | 249.00 | 6.00 |
| MOR2370075 | 237.00 | 252.00 | 7.50 |
| MOR2375060 | 237.50 | 249.50 | 6.00 |
| MOR2380030 | 238.00 | 244.00 | 3.00 |
| MOR2380035 | 238.00 | 245.00 | 3.50 |
| MOR2380040 | 238.00 | 246.00 | 4.00 |
| MOR2380050 | 238.00 | 248.00 | 5.00 |
| MOR2380060 | 238.00 | 250.00 | 6.00 |
| MOR2380063 | 238.00 | 250.60 | 6.30 |
| MOR2380070 | 238.00 | 252.00 | 7.00 |
| MOR2380080 | 238.00 | 254.00 | 8.00 |
| MOR2380100 | 238.00 | 258.00 | 10.00 |
| MOR2390030 | 239.00 | 245.00 | 3.00 |
| MOR2390035 | 239.00 | 246.00 | 3.50 |
| MOR2390040 | 239.00 | 247.00 | 4.00 |
| MOR2390050 | 239.00 | 249.00 | 5.00 |
| MOR2390075 | 239.00 | 254.00 | 7.50 |
| MOR2391057 | 239.10 | 250.50 | 5.70 |
| MOR2391080 | 239.10 | 255.10 | 8.00 |
| MOR2391084 | 239.10 | 255.90 | 8.40 |
| MOR2392057 | 239.20 | 250.60 | 5.70 |
| MOR2393057 | 239.30 | 250.70 | 5.70 |
| MOR2393065 | 239.30 | 252.30 | 6.50 |
| MOR2395030 | 239.50 | 245.50 | 3.00 |
| MOR2395075 | 239.50 | 254.50 | 7.50 |
| MOR2400020 | 240.00 | 244.00 | 2.00 |
| MOR2400030 | 240.00 | 246.00 | 3.00 |
| MOR2400035 | 240.00 | 247.00 | 3.50 |
| MOR2400040 | 240.00 | 248.00 | 4.00 |
| MOR2400050 | 240.00 | 250.00 | 5.00 |
| MOR2400060 | 240.00 | 252.00 | 6.00 |
| MOR2400065 | 240.00 | 253.00 | 6.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2400070 | 240.00 | 254.00 | 7.00 |
| MOR2400075 | 240.00 | 255.00 | 7.50 |
| MOR2400080 | 240.00 | 256.00 | 8.00 |
| MOR2400100 | 240.00 | 260.00 | 10.00 |
| MOR2400110 | 240.00 | 262.00 | 11.00 |
| MOR2401039 | 240.10 | 247.90 | 3.90 |
| MOR2410030 | 241.00 | 247.00 | 3.00 |
| MOR2410035 | 241.00 | 248.00 | 3.50 |
| MOR2410040 | 241.00 | 249.00 | 4.00 |
| MOR2410050 | 241.00 | 251.00 | 5.00 |
| MOR2410070 | 241.00 | 255.00 | 7.00 |
| MOR2413127 | 241.30 | 266.70 | 12.70 |
| MOR2420030 | 242.00 | 248.00 | 3.00 |
| MOR2420035 | 242.00 | 249.00 | 3.50 |
| MOR2420040 | 242.00 | 250.00 | 4.00 |
| MOR2420050 | 242.00 | 252.00 | 5.00 |
| MOR2420060 | 242.00 | 254.00 | 6.00 |
| MOR2420080 | 242.00 | 258.00 | 8.00 |
| MOR2430030 | 243.00 | 249.00 | 3.00 |
| MOR2430033 | 243.00 | 249.60 | 3.30 |
| MOR2430035 | 243.00 | 250.00 | 3.50 |
| MOR2430040 | 243.00 | 251.00 | 4.00 |
| MOR2430050 | 243.00 | 253.00 | 5.00 |
| MOR2430060 | 243.00 | 255.00 | 6.00 |
| MOR2430070 | 243.00 | 257.00 | 7.00 |
| MOR2433053 | 243.30 | 253.90 | 5.30 |
| MOR2435060 | 243.50 | 255.50 | 6.00 |
| MOR2440030 | 244.00 | 250.00 | 3.00 |
| MOR2440035 | 244.00 | 251.00 | 3.50 |
| MOR2440040 | 244.00 | 252.00 | 4.00 |
| MOR2440050 | 244.00 | 254.00 | 5.00 |
| MOR2440060 | 244.00 | 256.00 | 6.00 |
| MOR2440070 | 244.00 | 258.00 | 7.00 |
| MOR2441084 | 244.10 | 260.90 | 8.40 |
| MOR2450030 | 245.00 | 251.00 | 3.00 |
| MOR2450035 | 245.00 | 252.00 | 3.50 |
| MOR2450040 | 245.00 | 253.00 | 4.00 |
| MOR2450045 | 245.00 | 254.00 | 4.50 |
| MOR2450050 | 245.00 | 255.00 | 5.00 |
| MOR2450060 | 245.00 | 257.00 | 6.00 |
| MOR2450075 | 245.00 | 260.00 | 7.50 |
| MOR2450100 | 245.00 | 265.00 | 10.00 |
| MOR2460020 | 246.00 | 250.00 | 2.00 |
| MOR2460030 | 246.00 | 252.00 | 3.00 |
| MOR2460035 | 246.00 | 253.00 | 3.50 |
| MOR2460040 | 246.00 | 254.00 | 4.00 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2460050 | 246.00 | 256.00 | 5.00 |
| MOR2460070 | 246.00 | 260.00 | 7.00 |
| MOR2460150 | 246.00 | 276.00 | 15.00 |
| MOR2470027 | 247.00 | 252.40 | 2.70 |
| MOR2470030 | 247.00 | 253.00 | 3.00 |
| MOR2470035 | 247.00 | 254.00 | 3.50 |
| MOR2470040 | 247.00 | 255.00 | 4.00 |
| MOR2470050 | 247.00 | 257.00 | 5.00 |
| MOR2470060 | 247.00 | 259.00 | 6.00 |
| MOR2470070 | 247.00 | 261.00 | 7.00 |
| MOR2470120 | 247.00 | 271.00 | 12.00 |
| MOR2470127 | 247.00 | 272.40 | 12.70 |
| MOR2480020 | 248.00 | 252.00 | 2.00 |
| MOR2480030 | 248.00 | 254.00 | 3.00 |
| MOR2480032 | 248.00 | 254.40 | 3.20 |
| MOR2480035 | 248.00 | 255.00 | 3.50 |
| MOR2480040 | 248.00 | 256.00 | 4.00 |
| MOR2480050 | 248.00 | 258.00 | 5.00 |
| MOR2480070 | 248.00 | 262.00 | 7.00 |
| MOR2480072 | 248.00 | 262.40 | 7.20 |
| MOR2480090 | 248.00 | 266.00 | 9.00 |
| MOR2480100 | 248.00 | 268.00 | 10.00 |
| MOR2480130 | 248.00 | 274.00 | 13.00 |
| MOR2490030 | 249.00 | 255.00 | 3.00 |
| MOR2490035 | 249.00 | 256.00 | 3.50 |
| MOR2490040 | 249.00 | 257.00 | 4.00 |
| MOR2490050 | 249.00 | 259.00 | 5.00 |
| MOR2490060 | 249.00 | 261.00 | 6.00 |
| MOR2490090 | 249.00 | 267.00 | 9.00 |
| MOR2490100 | 249.00 | 269.00 | 10.00 |
| MOR2490110 | 249.00 | 271.00 | 11.00 |
| MOR2491084 | 249.10 | 265.90 | 8.40 |
| MOR2491030 | 249.15 | 255.15 | 3.00 |
| MOR2492057 | 249.20 | 260.60 | 5.70 |
| MOR2493057 | 249.30 | 260.70 | 5.70 |
| MOR2495030 | 249.50 | 255.50 | 3.00 |
| MOR2500020 | 250.00 | 254.00 | 2.00 |
| MOR2500025 | 250.00 | 255.00 | 2.50 |
| MOR2500030 | 250.00 | 256.00 | 3.00 |
| MOR2500035 | 250.00 | 257.00 | 3.50 |
| MOR2500040 | 250.00 | 258.00 | 4.00 |
| MOR2500045 | 250.00 | 259.00 | 4.50 |
| MOR2500046 | 250.00 | 259.20 | 4.60 |
| MOR2500050 | 250.00 | 260.00 | 5.00 |
| MOR2500060 | 250.00 | 262.00 | 6.00 |
| MOR2500070 | 250.00 | 264.00 | 7.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2500080 | 250.00 | 266.00 | 8.00 |
| MOR2500090 | 250.00 | 268.00 | 9.00 |
| MOR2500100 | 250.00 | 270.00 | 10.00 |
| MOR2510030 | 251.00 | 257.00 | 3.00 |
| MOR2510035 | 251.00 | 258.00 | 3.50 |
| MOR2510040 | 251.00 | 259.00 | 4.00 |
| MOR2510050 | 251.00 | 261.00 | 5.00 |
| MOR2510070 | 251.00 | 265.00 | 7.00 |
| MOR2510100 | 251.00 | 271.00 | 10.00 |
| MOR2513070 | 251.30 | 265.30 | 7.00 |
| MOR2520035 | 252.00 | 259.00 | 3.50 |
| MOR2520040 | 252.00 | 260.00 | 4.00 |
| MOR2520050 | 252.00 | 262.00 | 5.00 |
| MOR2530035 | 253.00 | 260.00 | 3.50 |
| MOR2530040 | 253.00 | 261.00 | 4.00 |
| MOR2530050 | 253.00 | 263.00 | 5.00 |
| MOR2530070 | 253.00 | 267.00 | 7.00 |
| MOR2530080 | 253.00 | 269.00 | 8.00 |
| MOR2530130 | 253.00 | 279.00 | 13.00 |
| MOR2537070 | 253.77 | 267.77 | 7.00 |
| MOR2540030 | 254.00 | 260.00 | 3.00 |
| MOR2540035 | 254.00 | 261.00 | 3.50 |
| MOR2540040 | 254.00 | 262.00 | 4.00 |
| MOR2540050 | 254.00 | 264.00 | 5.00 |
| MOR2540080 | 254.00 | 270.00 | 8.00 |
| MOR2543057 | 254.30 | 265.70 | 5.70 |
| MOR2545030 | 254.50 | 260.50 | 3.00 |
| MOR2545084 | 254.50 | 271.30 | 8.40 |
| MOR2550020 | 255.00 | 259.00 | 2.00 |
| MOR2550030 | 255.00 | 261.00 | 3.00 |
| MOR2550035 | 255.00 | 262.00 | 3.50 |
| MOR2550040 | 255.00 | 263.00 | 4.00 |
| MOR2550050 | 255.00 | 265.00 | 5.00 |
| MOR2550057 | 255.00 | 266.40 | 5.70 |
| MOR2550060 | 255.00 | 267.00 | 6.00 |
| MOR2550070 | 255.00 | 269.00 | 7.00 |
| MOR2550080 | 255.00 | 271.00 | 8.00 |
| MOR2560035 | 256.00 | 263.00 | 3.50 |
| MOR2560040 | 256.00 | 264.00 | 4.00 |
| MOR2560050 | 256.00 | 266.00 | 5.00 |
| MOR2570030 | 257.00 | 263.00 | 3.00 |
| MOR2570035 | 257.00 | 264.00 | 3.50 |
| MOR2570040 | 257.00 | 265.00 | 4.00 |
| MOR2570050 | 257.00 | 267.00 | 5.00 |
| MOR2575030 | 257.50 | 263.50 | 3.00 |
| MOR2580035 | 258.00 | 265.00 | 3.50 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2580040 | 258.00 | 266.00 | 4.00 |
| MOR2580050 | 258.00 | 268.00 | 5.00 |
| MOR2580060 | 258.00 | 270.00 | 6.00 |
| MOR2580063 | 258.00 | 270.60 | 6.30 |
| MOR2580070 | 258.00 | 272.00 | 7.00 |
| MOR2580072 | 258.00 | 272.40 | 7.20 |
| MOR2580080 | 258.00 | 274.00 | 8.00 |
| MOR2585035 | 258.50 | 265.50 | 3.50 |
| MOR2590030 | 259.00 | 265.00 | 3.00 |
| MOR2590035 | 259.00 | 266.00 | 3.50 |
| MOR2590040 | 259.00 | 267.00 | 4.00 |
| MOR2590050 | 259.00 | 269.00 | 5.00 |
| MOR2590060 | 259.00 | 271.00 | 6.00 |
| MOR2591084 | 259.10 | 275.90 | 8.40 |
| MOR2592057 | 259.20 | 270.60 | 5.70 |
| MOR2593057 | 259.30 | 270.70 | 5.70 |
| MOR2595030 | 259.50 | 265.50 | 3.00 |
| MOR2595050 | 259.50 | 269.50 | 5.00 |
| MOR2597057 | 259.70 | 271.10 | 5.70 |
| MOR2600025 | 260.00 | 265.00 | 2.50 |
| MOR2600030 | 260.00 | 266.00 | 3.00 |
| MOR2600035 | 260.00 | 267.00 | 3.50 |
| MOR2600040 | 260.00 | 268.00 | 4.00 |
| MOR2600050 | 260.00 | 270.00 | 5.00 |
| MOR2600060 | 260.00 | 272.00 | 6.00 |
| MOR2600070 | 260.00 | 274.00 | 7.00 |
| MOR2600080 | 260.00 | 276.00 | 8.00 |
| MOR2600100 | 260.00 | 280.00 | 10.00 |
| MOR2610035 | 261.00 | 268.00 | 3.50 |
| MOR2610040 | 261.00 | 269.00 | 4.00 |
| MOR2610050 | 261.00 | 271.00 | 5.00 |
| MOR2615080 | 261.50 | 277.50 | 8.00 |
| MOR2616025 | 261.60 | 266.60 | 2.50 |
| MOR2620024 | 262.00 | 266.80 | 2.40 |
| MOR2620035 | 262.00 | 269.00 | 3.50 |
| MOR2620040 | 262.00 | 270.00 | 4.00 |
| MOR2620050 | 262.00 | 272.00 | 5.00 |
| MOR2620055 | 262.00 | 273.00 | 5.50 |
| MOR2620060 | 262.00 | 274.00 | 6.00 |
| MOR2620080 | 262.00 | 278.00 | 8.00 |
| MOR2620090 | 262.00 | 280.00 | 9.00 |
| MOR2625055 | 262.50 | 273.50 | 5.50 |
| MOR2630035 | 263.00 | 270.00 | 3.50 |
| MOR2630040 | 263.00 | 271.00 | 4.00 |
| MOR2630050 | 263.00 | 273.00 | 5.00 |
| MOR2630070 | 263.00 | 277.00 | 7.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2630100 | 263.00 | 283.00 | 10.00 |
| MOR2635070 | 263.50 | 277.50 | 7.00 |
| MOR2640030 | 264.00 | 270.00 | 3.00 |
| MOR2640035 | 264.00 | 271.00 | 3.50 |
| MOR2640040 | 264.00 | 272.00 | 4.00 |
| MOR2640050 | 264.00 | 274.00 | 5.00 |
| MOR2640070 | 264.00 | 278.00 | 7.00 |
| MOR2640082 | 264.00 | 280.40 | 8.20 |
| MOR2642057 | 264.20 | 275.60 | 5.70 |
| MOR2650020 | 265.00 | 269.00 | 2.00 |
| MOR2650030 | 265.00 | 271.00 | 3.00 |
| MOR2650035 | 265.00 | 272.00 | 3.50 |
| MOR2650040 | 265.00 | 273.00 | 4.00 |
| MOR2650050 | 265.00 | 275.00 | 5.00 |
| MOR2650060 | 265.00 | 277.00 | 6.00 |
| MOR2650065 | 265.00 | 278.00 | 6.50 |
| MOR2650070 | 265.00 | 279.00 | 7.00 |
| MOR2650080 | 265.00 | 281.00 | 8.00 |
| MOR2650100 | 265.00 | 285.00 | 10.00 |
| MOR2655025 | 265.50 | 270.50 | 2.50 |
| MOR2660035 | 266.00 | 273.00 | 3.50 |
| MOR2660040 | 266.00 | 274.00 | 4.00 |
| MOR2660050 | 266.00 | 276.00 | 5.00 |
| MOR2660060 | 266.00 | 278.00 | 6.00 |
| MOR2660070 | 266.00 | 280.00 | 7.00 |
| MOR2667063 | 266.70 | 279.40 | 6.35 |
| MOR2670027 | 267.00 | 272.40 | 2.70 |
| MOR2670035 | 267.00 | 274.00 | 3.50 |
| MOR2670040 | 267.00 | 275.00 | 4.00 |
| MOR2670045 | 267.00 | 276.00 | 4.50 |
| MOR2670050 | 267.00 | 277.00 | 5.00 |
| MOR2680025 | 268.00 | 273.00 | 2.50 |
| MOR2680030 | 268.00 | 274.00 | 3.00 |
| MOR2680035 | 268.00 | 275.00 | 3.50 |
| MOR2680040 | 268.00 | 276.00 | 4.00 |
| MOR2680045 | 268.00 | 277.00 | 4.50 |
| MOR2680050 | 268.00 | 278.00 | 5.00 |
| MOR2680060 | 268.00 | 280.00 | 6.00 |
| MOR2680080 | 268.00 | 284.00 | 8.00 |
| MOR2680127 | 268.00 | 293.40 | 12.70 |
| MOR2690035 | 269.00 | 276.00 | 3.50 |
| MOR2690040 | 269.00 | 277.00 | 4.00 |
| MOR2690050 | 269.00 | 279.00 | 5.00 |
| MOR2690060 | 269.00 | 281.00 | 6.00 |
| MOR2691084 | 269.10 | 285.90 | 8.40 |
| MOR2692057 | 269.20 | 280.60 | 5.70 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2693057 | 269.30 | 280.70 | 5.70 |
| MOR2695060 | 269.50 | 281.50 | 6.00 |
| MOR2697063 | 269.70 | 282.40 | 6.35 |
| MOR2700025 | 270.00 | 275.00 | 2.50 |
| MOR2700030 | 270.00 | 276.00 | 3.00 |
| MOR2700035 | 270.00 | 277.00 | 3.50 |
| MOR2700040 | 270.00 | 278.00 | 4.00 |
| MOR2700050 | 270.00 | 280.00 | 5.00 |
| MOR2700055 | 270.00 | 281.00 | 5.50 |
| MOR2700060 | 270.00 | 282.00 | 6.00 |
| MOR2700063 | 270.00 | 282.60 | 6.30 |
| MOR2700065 | 270.00 | 283.00 | 6.50 |
| MOR2700070 | 270.00 | 284.00 | 7.00 |
| MOR2700076 | 270.00 | 285.20 | 7.60 |
| MOR2700080 | 270.00 | 286.00 | 8.00 |
| MOR2700100 | 270.00 | 290.00 | 10.00 |
| MOR2700140 | 270.00 | 298.00 | 14.00 |
| MOR2710030 | 271.00 | 277.00 | 3.00 |
| MOR2710035 | 271.00 | 278.00 | 3.50 |
| MOR2710040 | 271.00 | 279.00 | 4.00 |
| MOR2710050 | 271.00 | 281.00 | 5.00 |
| MOR2720025 | 272.00 | 277.00 | 2.50 |
| MOR2720035 | 272.00 | 279.00 | 3.50 |
| MOR2720040 | 272.00 | 280.00 | 4.00 |
| MOR2720050 | 272.00 | 282.00 | 5.00 |
| MOR2720070 | 272.00 | 286.00 | 7.00 |
| MOR2720080 | 272.00 | 288.00 | 8.00 |
| MOR2730035 | 273.00 | 280.00 | 3.50 |
| MOR2730040 | 273.00 | 281.00 | 4.00 |
| MOR2730045 | 273.00 | 282.00 | 4.50 |
| MOR2730050 | 273.00 | 283.00 | 5.00 |
| MOR2730070 | 273.00 | 287.00 | 7.00 |
| MOR2730080 | 273.00 | 289.00 | 8.00 |
| MOR2730120 | 273.00 | 297.00 | 12.00 |
| MOR2740030 | 274.00 | 280.00 | 3.00 |
| MOR2740035 | 274.00 | 281.00 | 3.50 |
| MOR2740040 | 274.00 | 282.00 | 4.00 |
| MOR2740050 | 274.00 | 284.00 | 5.00 |
| MOR2740065 | 274.00 | 287.00 | 6.50 |
| MOR2740086 | 274.00 | 291.20 | 8.60 |
| MOR2740130 | 274.00 | 300.00 | 13.00 |
| MOR2742057 | 274.20 | 285.60 | 5.70 |
| MOR2743057 | 274.30 | 285.70 | 5.70 |
| MOR2745040 | 274.50 | 282.50 | 4.00 |
| MOR2750025 | 275.00 | 280.00 | 2.50 |
| MOR2750030 | 275.00 | 281.00 | 3.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2750035 | 275.00 | 282.00 | 3.50 |
| MOR2750040 | 275.00 | 283.00 | 4.00 |
| MOR2750045 | 275.00 | 284.00 | 4.50 |
| MOR2750050 | 275.00 | 285.00 | 5.00 |
| MOR2750076 | 275.00 | 290.20 | 7.60 |
| MOR2750080 | 275.00 | 291.00 | 8.00 |
| MOR2750140 | 275.00 | 303.00 | 14.00 |
| MOR2760035 | 276.00 | 283.00 | 3.50 |
| MOR2760040 | 276.00 | 284.00 | 4.00 |
| MOR2760050 | 276.00 | 286.00 | 5.00 |
| MOR2760070 | 276.00 | 290.00 | 7.00 |
| MOR2770033 | 277.00 | 283.60 | 3.30 |
| MOR2770035 | 277.00 | 284.00 | 3.50 |
| MOR2770040 | 277.00 | 285.00 | 4.00 |
| MOR2770050 | 277.00 | 287.00 | 5.00 |
| MOR2770065 | 277.00 | 290.00 | 6.50 |
| MOR2770090 | 277.00 | 295.00 | 9.00 |
| MOR2780032 | 278.00 | 284.40 | 3.20 |
| MOR2780035 | 278.00 | 285.00 | 3.50 |
| MOR2780040 | 278.00 | 286.00 | 4.00 |
| MOR2780050 | 278.00 | 288.00 | 5.00 |
| MOR2780060 | 278.00 | 290.00 | 6.00 |
| MOR2780070 | 278.00 | 292.00 | 7.00 |
| MOR2787074 | 278.70 | 293.50 | 7.40 |
| MOR2787074-1 | 278.77 | 293.57 | 7.40 |
| MOR2790030 | 279.00 | 285.00 | 3.00 |
| MOR2790035 | 279.00 | 286.00 | 3.50 |
| MOR2790040 | 279.00 | 287.00 | 4.00 |
| MOR2790050 | 279.00 | 289.00 | 5.00 |
| MOR2790070 | 279.00 | 293.00 | 7.00 |
| MOR2791084 | 279.10 | 295.90 | 8.40 |
| MOR2792057 | 279.20 | 290.60 | 5.70 |
| MOR2793057 | 279.30 | 290.70 | 5.70 |
| MOR2800025 | 280.00 | 285.00 | 2.50 |
| MOR2800030 | 280.00 | 286.00 | 3.00 |
| MOR2800035 | 280.00 | 287.00 | 3.50 |
| MOR2800040 | 280.00 | 288.00 | 4.00 |
| MOR2800045 | 280.00 | 289.00 | 4.50 |
| MOR2800050 | 280.00 | 290.00 | 5.00 |
| MOR2800060 | 280.00 | 292.00 | 6.00 |
| MOR2800063 | 280.00 | 292.60 | 6.30 |
| MOR2800070 | 280.00 | 294.00 | 7.00 |
| MOR2800080 | 280.00 | 296.00 | 8.00 |
| MOR2800090 | 280.00 | 298.00 | 9.00 |
| MOR2800100 | 280.00 | 300.00 | 10.00 |
| MOR2810035 | 281.00 | 288.00 | 3.50 |

O'RINGS



O'Rings - NBR 70A, NBR 90A, FPM 80A



| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2810040 | 281.00 | 289.00 | 4.00 |
| MOR2810050 | 281.00 | 291.00 | 5.00 |
| MOR2820025 | 282.00 | 287.00 | 2.50 |
| MOR2820035 | 282.00 | 289.00 | 3.50 |
| MOR2820040 | 282.00 | 290.00 | 4.00 |
| MOR2820050 | 282.00 | 292.00 | 5.00 |
| MOR2820057 | 282.00 | 293.40 | 5.70 |
| MOR2820060 | 282.00 | 294.00 | 6.00 |
| MOR2820140 | 282.00 | 310.00 | 14.00 |
| MOR2830035 | 283.00 | 290.00 | 3.50 |
| MOR2830040 | 283.00 | 291.00 | 4.00 |
| MOR2830050 | 283.00 | 293.00 | 5.00 |
| MOR2830070 | 283.00 | 297.00 | 7.00 |
| MOR2833057 | 283.30 | 294.70 | 5.70 |
| MOR2840035 | 284.00 | 291.00 | 3.50 |
| MOR2840040 | 284.00 | 292.00 | 4.00 |
| MOR2840050 | 284.00 | 294.00 | 5.00 |
| MOR2840060 | 284.00 | 296.00 | 6.00 |
| MOR2842057 | 284.20 | 295.60 | 5.70 |
| MOR2845040 | 284.50 | 292.50 | 4.00 |
| MOR2845084 | 284.50 | 301.30 | 8.40 |
| MOR2850030 | 285.00 | 291.00 | 3.00 |
| MOR2850035 | 285.00 | 292.00 | 3.50 |
| MOR2850040 | 285.00 | 293.00 | 4.00 |
| MOR2850050 | 285.00 | 295.00 | 5.00 |
| MOR2850060 | 285.00 | 297.00 | 6.00 |
| MOR2850070 | 285.00 | 299.00 | 7.00 |
| MOR2860024 | 286.00 | 290.80 | 2.40 |
| MOR2860035 | 286.00 | 293.00 | 3.50 |
| MOR2860040 | 286.00 | 294.00 | 4.00 |
| MOR2860050 | 286.00 | 296.00 | 5.00 |
| MOR2860060 | 286.00 | 298.00 | 6.00 |
| MOR2860070 | 286.00 | 300.00 | 7.00 |
| MOR2860080 | 286.00 | 302.00 | 8.00 |
| MOR2866080 | 286.60 | 302.70 | 8.05 |
| MOR2868078 | 286.82 | 302.42 | 7.80 |
| MOR2870035 | 287.00 | 294.00 | 3.50 |
| MOR2870040 | 287.00 | 295.00 | 4.00 |
| MOR2870050 | 287.00 | 297.00 | 5.00 |
| MOR2870100 | 287.00 | 307.00 | 10.00 |
| MOR2880030 | 288.00 | 294.00 | 3.00 |
| MOR2880035 | 288.00 | 295.00 | 3.50 |
| MOR2880040 | 288.00 | 296.00 | 4.00 |
| MOR2880050 | 288.00 | 298.00 | 5.00 |
| MOR2880060 | 288.00 | 300.00 | 6.00 |
| MOR2880080 | 288.00 | 304.00 | 8.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2890035 | 289.00 | 296.00 | 3.50 |
| MOR2890040 | 289.00 | 297.00 | 4.00 |
| MOR2890050 | 289.00 | 299.00 | 5.00 |
| MOR2892057 | 289.20 | 300.60 | 5.70 |
| MOR2893057 | 289.30 | 300.70 | 5.70 |
| MOR2895084 | 289.50 | 306.30 | 8.40 |
| MOR2900020 | 290.00 | 294.00 | 2.00 |
| MOR2900030 | 290.00 | 296.00 | 3.00 |
| MOR2900035 | 290.00 | 297.00 | 3.50 |
| MOR2900040 | 290.00 | 298.00 | 4.00 |
| MOR2900050 | 290.00 | 300.00 | 5.00 |
| MOR2900060 | 290.00 | 302.00 | 6.00 |
| MOR2900065 | 290.00 | 303.00 | 6.50 |
| MOR2900070 | 290.00 | 304.00 | 7.00 |
| MOR2900080 | 290.00 | 306.00 | 8.00 |
| MOR2900100 | 290.00 | 310.00 | 10.00 |
| MOR2910035 | 291.00 | 298.00 | 3.50 |
| MOR2910040 | 291.00 | 299.00 | 4.00 |
| MOR2910050 | 291.00 | 301.00 | 5.00 |
| MOR2910062 | 291.00 | 303.40 | 6.20 |
| MOR2910070 | 291.00 | 305.00 | 7.00 |
| MOR2920015 | 292.00 | 295.00 | 1.50 |
| MOR2920026 | 292.00 | 297.30 | 2.65 |
| MOR2920030 | 292.00 | 298.00 | 3.00 |
| MOR2920035 | 292.00 | 299.00 | 3.50 |
| MOR2920040 | 292.00 | 300.00 | 4.00 |
| MOR2920050 | 292.00 | 302.00 | 5.00 |
| MOR2920070 | 292.00 | 306.00 | 7.00 |
| MOR2920100 | 292.00 | 312.00 | 10.00 |
| MOR2930035 | 293.00 | 300.00 | 3.50 |
| MOR2930040 | 293.00 | 301.00 | 4.00 |
| MOR2930050 | 293.00 | 303.00 | 5.00 |
| MOR2940027 | 294.00 | 299.40 | 2.70 |
| MOR2940035 | 294.00 | 301.00 | 3.50 |
| MOR2940040 | 294.00 | 302.00 | 4.00 |
| MOR2940050 | 294.00 | 304.00 | 5.00 |
| MOR2940060 | 294.00 | 306.00 | 6.00 |
| MOR2942057 | 294.20 | 305.60 | 5.70 |
| MOR2945060 | 294.50 | 306.50 | 6.00 |
| MOR2950030 | 295.00 | 301.00 | 3.00 |
| MOR2950035 | 295.00 | 302.00 | 3.50 |
| MOR2950040 | 295.00 | 303.00 | 4.00 |
| MOR2950050 | 295.00 | 305.00 | 5.00 |
| MOR2950053 | 295.00 | 305.60 | 5.30 |
| MOR2950060 | 295.00 | 307.00 | 6.00 |
| MOR2950100 | 295.00 | 315.00 | 10.00 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR2950120 | 295.00 | 319.00 | 12.00 |
| MOR2958127 | 295.80 | 321.20 | 12.70 |
| MOR2960012 | 296.00 | 298.40 | 1.20 |
| MOR2960025 | 296.00 | 301.00 | 2.50 |
| MOR2960035 | 296.00 | 303.00 | 3.50 |
| MOR2960040 | 296.00 | 304.00 | 4.00 |
| MOR2960050 | 296.00 | 306.00 | 5.00 |
| MOR2960084 | 296.00 | 312.80 | 8.40 |
| MOR2970020 | 297.00 | 301.00 | 2.00 |
| MOR2970035 | 297.00 | 304.00 | 3.50 |
| MOR2970040 | 297.00 | 305.00 | 4.00 |
| MOR2970050 | 297.00 | 307.00 | 5.00 |
| MOR2970088 | 297.00 | 314.60 | 8.80 |
| MOR2978069 | 297.80 | 311.80 | 7.00 |
| MOR2980025 | 298.00 | 303.00 | 2.50 |
| MOR2980035 | 298.00 | 305.00 | 3.50 |
| MOR2980040 | 298.00 | 306.00 | 4.00 |
| MOR2980050 | 298.00 | 308.00 | 5.00 |
| MOR2980070 | 298.00 | 312.00 | 7.00 |
| MOR2980072 | 298.00 | 312.40 | 7.20 |
| MOR2980100 | 298.00 | 318.00 | 10.00 |
| MOR2990035 | 299.00 | 306.00 | 3.50 |
| MOR2990040 | 299.00 | 307.00 | 4.00 |
| MOR2990050 | 299.00 | 309.00 | 5.00 |
| MOR2992057 | 299.20 | 310.60 | 5.70 |
| MOR2993057 | 299.30 | 310.70 | 5.70 |
| MOR2995084 | 299.50 | 316.30 | 8.40 |
| MOR3000010 | 300.00 | 302.00 | 1.00 |
| MOR3000030 | 300.00 | 306.00 | 3.00 |
| MOR3000032 | 300.00 | 306.40 | 3.20 |
| MOR3000035 | 300.00 | 307.00 | 3.50 |
| MOR3000040 | 300.00 | 308.00 | 4.00 |
| MOR3000045 | 300.00 | 309.00 | 4.50 |
| MOR3000050 | 300.00 | 310.00 | 5.00 |
| MOR3000057 | 300.00 | 311.40 | 5.70 |
| MOR3000060 | 300.00 | 312.00 | 6.00 |
| MOR3000065 | 300.00 | 313.00 | 6.50 |
| MOR3000070 | 300.00 | 314.00 | 7.00 |
| MOR3000075 | 300.00 | 315.00 | 7.50 |
| MOR3000080 | 300.00 | 316.00 | 8.00 |
| MOR3000084 | 300.00 | 316.80 | 8.40 |
| MOR3000090 | 300.00 | 318.00 | 9.00 |
| MOR3000100 | 300.00 | 320.00 | 10.00 |
| MOR3000120 | 300.00 | 324.00 | 12.00 |
| MOR3000127 | 300.00 | 325.40 | 12.70 |
| MOR3010035 | 301.00 | 308.00 | 3.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR3010040 | 301.00 | 309.00 | 4.00 |
| MOR3010050 | 301.00 | 311.00 | 5.00 |
| MOR3010060 | 301.00 | 313.00 | 6.00 |
| MOR3020035 | 302.00 | 309.00 | 3.50 |
| MOR3020040 | 302.00 | 310.00 | 4.00 |
| MOR3020050 | 302.00 | 312.00 | 5.00 |
| MOR3020084 | 302.00 | 318.80 | 8.40 |
| MOR3030035 | 303.00 | 310.00 | 3.50 |
| MOR3030040 | 303.00 | 311.00 | 4.00 |
| MOR3030050 | 303.00 | 313.00 | 5.00 |
| MOR3030060 | 303.00 | 315.00 | 6.00 |
| MOR3040030 | 304.00 | 310.00 | 3.00 |
| MOR3040035 | 304.00 | 311.00 | 3.50 |
| MOR3040040 | 304.00 | 312.00 | 4.00 |
| MOR3040050 | 304.00 | 314.00 | 5.00 |
| MOR3040060 | 304.00 | 316.00 | 6.00 |
| MOR3040070 | 304.00 | 318.00 | 7.00 |
| MOR3040080 | 304.00 | 320.00 | 8.00 |
| MOR3040084 | 304.00 | 320.80 | 8.40 |
| MOR3041057 | 304.10 | 315.50 | 5.70 |
| MOR3042075 | 304.20 | 319.20 | 7.50 |
| MOR3043057 | 304.36 | 315.76 | 5.70 |
| MOR3050030 | 305.00 | 311.00 | 3.00 |
| MOR3050035 | 305.00 | 312.00 | 3.50 |
| MOR3050040 | 305.00 | 313.00 | 4.00 |
| MOR3050045 | 305.00 | 314.00 | 4.50 |
| MOR3050050 | 305.00 | 315.00 | 5.00 |
| MOR3050060 | 305.00 | 317.00 | 6.00 |
| MOR3050063 | 305.00 | 317.70 | 6.35 |
| MOR3050070 | 305.00 | 319.00 | 7.00 |
| MOR3050072 | 305.00 | 319.50 | 7.25 |
| MOR3050080 | 305.00 | 321.00 | 8.00 |
| MOR3050100 | 305.00 | 325.00 | 10.00 |
| MOR3050130 | 305.00 | 331.00 | 13.00 |
| MOR3060035 | 306.00 | 313.00 | 3.50 |
| MOR3060040 | 306.00 | 314.00 | 4.00 |
| MOR3060050 | 306.00 | 316.00 | 5.00 |
| MOR3070030 | 307.00 | 313.00 | 3.00 |
| MOR3070035 | 307.00 | 314.00 | 3.50 |
| MOR3070040 | 307.00 | 315.00 | 4.00 |
| MOR3070050 | 307.00 | 317.00 | 5.00 |
| MOR3070060 | 307.00 | 319.00 | 6.00 |
| MOR3070070 | 307.00 | 321.00 | 7.00 |
| MOR3080030 | 308.00 | 314.00 | 3.00 |
| MOR3080035 | 308.00 | 315.00 | 3.50 |
| MOR3080040 | 308.00 | 316.00 | 4.00 |

O'RINGS



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR3080050 | 308.00 | 318.00 | 5.00 |
| MOR3080060 | 308.00 | 320.00 | 6.00 |
| MOR3080080 | 308.00 | 324.00 | 8.00 |
| MOR3090035 | 309.00 | 316.00 | 3.50 |
| MOR3090040 | 309.00 | 317.00 | 4.00 |
| MOR3090050 | 309.00 | 319.00 | 5.00 |
| MOR3091084 | 309.10 | 325.90 | 8.40 |
| MOR3092057 | 309.20 | 320.60 | 5.70 |
| MOR3093057 | 309.30 | 320.70 | 5.70 |
| MOR3095045 | 309.50 | 318.50 | 4.50 |
| MOR3100025 | 310.00 | 315.00 | 2.50 |
| MOR3100030 | 310.00 | 316.00 | 3.00 |
| MOR3100035 | 310.00 | 317.00 | 3.50 |
| MOR3100040 | 310.00 | 318.00 | 4.00 |
| MOR3100045 | 310.00 | 319.00 | 4.50 |
| MOR3100050 | 310.00 | 320.00 | 5.00 |
| MOR3100060 | 310.00 | 322.00 | 6.00 |
| MOR3100065 | 310.00 | 323.00 | 6.50 |
| MOR3100066 | 310.00 | 323.20 | 6.60 |
| MOR3100070 | 310.00 | 324.00 | 7.00 |
| MOR3100080 | 310.00 | 326.00 | 8.00 |
| MOR3100084 | 310.00 | 326.80 | 8.40 |
| MOR3100090 | 310.00 | 328.00 | 9.00 |
| MOR3100100 | 310.00 | 330.00 | 10.00 |
| MOR3110035 | 311.00 | 318.00 | 3.50 |
| MOR3110040 | 311.00 | 319.00 | 4.00 |
| MOR3110050 | 311.00 | 321.00 | 5.00 |
| MOR3110060 | 311.00 | 323.00 | 6.00 |
| MOR3114083 | 311.40 | 328.00 | 8.30 |
| MOR3120035 | 312.00 | 319.00 | 3.50 |
| MOR3120040 | 312.00 | 320.00 | 4.00 |
| MOR3120050 | 312.00 | 322.00 | 5.00 |
| MOR3120080 | 312.00 | 328.00 | 8.00 |
| MOR3130035 | 313.00 | 320.00 | 3.50 |
| MOR3130040 | 313.00 | 321.00 | 4.00 |
| MOR3130050 | 313.00 | 323.00 | 5.00 |
| MOR3130060 | 313.00 | 325.00 | 6.00 |
| MOR3130070 | 313.00 | 327.00 | 7.00 |
| MOR3140030 | 314.00 | 320.00 | 3.00 |
| MOR3140035 | 314.00 | 321.00 | 3.50 |
| MOR3140040 | 314.00 | 322.00 | 4.00 |
| MOR3140050 | 314.00 | 324.00 | 5.00 |
| MOR3140075 | 314.00 | 329.00 | 7.50 |
| MOR3140084 | 314.00 | 330.80 | 8.40 |
| MOR3143057 | 314.30 | 325.70 | 5.70 |
| MOR3150030 | 315.00 | 321.00 | 3.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR3150035 | 315.00 | 322.00 | 3.50 |
| MOR3150040 | 315.00 | 323.00 | 4.00 |
| MOR3150045 | 315.00 | 324.00 | 4.50 |
| MOR3150050 | 315.00 | 325.00 | 5.00 |
| MOR3150060 | 315.00 | 327.00 | 6.00 |
| MOR3150070 | 315.00 | 329.00 | 7.00 |
| MOR3150100 | 315.00 | 335.00 | 10.00 |
| MOR3155070 | 315.50 | 329.50 | 7.00 |
| MOR3160035 | 316.00 | 323.00 | 3.50 |
| MOR3160040 | 316.00 | 324.00 | 4.00 |
| MOR3160050 | 316.00 | 326.00 | 5.00 |
| MOR3160070 | 316.00 | 330.00 | 7.00 |
| MOR3160090 | 316.00 | 334.00 | 9.00 |
| MOR3170035 | 317.00 | 324.00 | 3.50 |
| MOR3170040 | 317.00 | 325.00 | 4.00 |
| MOR3170050 | 317.00 | 327.00 | 5.00 |
| MOR3170070 | 317.00 | 331.00 | 7.00 |
| MOR3175063 | 317.50 | 330.20 | 6.35 |
| MOR3175127 | 317.50 | 342.90 | 12.70 |
| MOR3180035 | 318.00 | 325.00 | 3.50 |
| MOR3180040 | 318.00 | 326.00 | 4.00 |
| MOR3180050 | 318.00 | 328.00 | 5.00 |
| MOR3185050 | 318.50 | 328.50 | 5.00 |
| MOR3190035 | 319.00 | 326.00 | 3.50 |
| MOR3190040 | 319.00 | 327.00 | 4.00 |
| MOR3190050 | 319.00 | 329.00 | 5.00 |
| MOR3190084 | 319.00 | 335.80 | 8.40 |
| MOR3190100 | 319.00 | 339.00 | 10.00 |
| MOR3192057 | 319.20 | 330.60 | 5.70 |
| MOR3193057 | 319.30 | 330.70 | 5.70 |
| MOR3200030 | 320.00 | 326.00 | 3.00 |
| MOR3200035 | 320.00 | 327.00 | 3.50 |
| MOR3200040 | 320.00 | 328.00 | 4.00 |
| MOR3200050 | 320.00 | 330.00 | 5.00 |
| MOR3200055 | 320.00 | 331.00 | 5.50 |
| MOR3200060 | 320.00 | 332.00 | 6.00 |
| MOR3200070 | 320.00 | 334.00 | 7.00 |
| MOR3200080 | 320.00 | 336.00 | 8.00 |
| MOR3200100 | 320.00 | 340.00 | 10.00 |
| MOR3200120 | 320.00 | 344.00 | 12.00 |
| MOR3206033 | 320.60 | 327.30 | 3.35 |
| MOR3210035 | 321.00 | 328.00 | 3.50 |
| MOR3210040 | 321.00 | 329.00 | 4.00 |
| MOR3210050 | 321.00 | 331.00 | 5.00 |
| MOR3220035 | 322.00 | 329.00 | 3.50 |
| MOR3220040 | 322.00 | 330.00 | 4.00 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR3220050 | 322.00 | 332.00 | 5.00 |
| MOR3220090 | 322.00 | 340.00 | 9.00 |
| MOR3220120 | 322.00 | 346.00 | 12.00 |
| MOR3230035 | 323.00 | 330.00 | 3.50 |
| MOR3230040 | 323.00 | 331.00 | 4.00 |
| MOR3230050 | 323.00 | 333.00 | 5.00 |
| MOR3230070 | 323.00 | 337.00 | 7.00 |
| MOR3230120 | 323.00 | 347.00 | 12.00 |
| MOR3240035 | 324.00 | 331.00 | 3.50 |
| MOR3240040 | 324.00 | 332.00 | 4.00 |
| MOR3240050 | 324.00 | 334.00 | 5.00 |
| MOR3240060 | 324.00 | 336.00 | 6.00 |
| MOR3240080 | 324.00 | 340.00 | 8.00 |
| MOR3245075 | 324.50 | 339.50 | 7.50 |
| MOR3250030 | 325.00 | 331.00 | 3.00 |
| MOR3250035 | 325.00 | 332.00 | 3.50 |
| MOR3250040 | 325.00 | 333.00 | 4.00 |
| MOR3250050 | 325.00 | 335.00 | 5.00 |
| MOR3250053 | 325.00 | 335.60 | 5.30 |
| MOR3250060 | 325.00 | 337.00 | 6.00 |
| MOR3250070 | 325.00 | 339.00 | 7.00 |
| MOR3250080 | 325.00 | 341.00 | 8.00 |
| MOR3250100 | 325.00 | 345.00 | 10.00 |
| MOR3260035 | 326.00 | 333.00 | 3.50 |
| MOR3260040 | 326.00 | 334.00 | 4.00 |
| MOR3260050 | 326.00 | 336.00 | 5.00 |
| MOR3260057 | 326.00 | 337.40 | 5.70 |
| MOR3270035 | 327.00 | 334.00 | 3.50 |
| MOR3270040 | 327.00 | 335.00 | 4.00 |
| MOR3270050 | 327.00 | 337.00 | 5.00 |
| MOR3280025 | 328.00 | 333.00 | 2.50 |
| MOR3280035 | 328.00 | 335.00 | 3.50 |
| MOR3280040 | 328.00 | 336.00 | 4.00 |
| MOR3280050 | 328.00 | 338.00 | 5.00 |
| MOR3285065 | 328.50 | 341.50 | 6.50 |
| MOR3290035 | 329.00 | 336.00 | 3.50 |
| MOR3290040 | 329.00 | 337.00 | 4.00 |
| MOR3290050 | 329.00 | 339.00 | 5.00 |
| MOR3290070 | 329.00 | 343.00 | 7.00 |
| MOR3293057 | 329.30 | 340.70 | 5.70 |
| MOR3293084 | 329.30 | 346.10 | 8.40 |
| MOR3300020 | 330.00 | 334.00 | 2.00 |
| MOR3300030 | 330.00 | 336.00 | 3.00 |
| MOR3300035 | 330.00 | 337.00 | 3.50 |
| MOR3300040 | 330.00 | 338.00 | 4.00 |
| MOR3300045 | 330.00 | 339.00 | 4.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR3300050 | 330.00 | 340.00 | 5.00 |
| MOR3300060 | 330.00 | 342.00 | 6.00 |
| MOR3300063 | 330.00 | 342.70 | 6.35 |
| MOR3300065 | 330.00 | 343.00 | 6.50 |
| MOR3300070 | 330.00 | 344.00 | 7.00 |
| MOR3300080 | 330.00 | 346.00 | 8.00 |
| MOR3300084 | 330.00 | 346.80 | 8.40 |
| MOR3300090 | 330.00 | 348.00 | 9.00 |
| MOR3300100 | 330.00 | 350.00 | 10.00 |
| MOR3300130 | 330.00 | 356.00 | 13.00 |
| MOR3302063 | 330.20 | 342.90 | 6.35 |
| MOR3310030 | 331.00 | 337.00 | 3.00 |
| MOR3310035 | 331.00 | 338.00 | 3.50 |
| MOR3310040 | 331.00 | 339.00 | 4.00 |
| MOR3310050 | 331.00 | 341.00 | 5.00 |
| MOR3320035 | 332.00 | 339.00 | 3.50 |
| MOR3320040 | 332.00 | 340.00 | 4.00 |
| MOR3320050 | 332.00 | 342.00 | 5.00 |
| MOR3330035 | 333.00 | 340.00 | 3.50 |
| MOR3330040 | 333.00 | 341.00 | 4.00 |
| MOR3330050 | 333.00 | 343.00 | 5.00 |
| MOR3330060 | 333.00 | 345.00 | 6.00 |
| MOR3330070 | 333.00 | 347.00 | 7.00 |
| MOR3330080 | 333.00 | 349.00 | 8.00 |
| MOR3340035 | 334.00 | 341.00 | 3.50 |
| MOR3340040 | 334.00 | 342.00 | 4.00 |
| MOR3340050 | 334.00 | 344.00 | 5.00 |
| MOR3340084 | 334.00 | 350.80 | 8.40 |
| MOR3350030 | 335.00 | 341.00 | 3.00 |
| MOR3350035 | 335.00 | 342.00 | 3.50 |
| MOR3350040 | 335.00 | 343.00 | 4.00 |
| MOR3350045 | 335.00 | 344.00 | 4.50 |
| MOR3350050 | 335.00 | 345.00 | 5.00 |
| MOR3350060 | 335.00 | 347.00 | 6.00 |
| MOR3350070 | 335.00 | 349.00 | 7.00 |
| MOR3350084 | 335.00 | 351.80 | 8.40 |
| MOR3350100 | 335.00 | 355.00 | 10.00 |
| MOR3350120 | 335.00 | 359.00 | 12.00 |
| MOR3360035 | 336.00 | 343.00 | 3.50 |
| MOR3360040 | 336.00 | 344.00 | 4.00 |
| MOR3360050 | 336.00 | 346.00 | 5.00 |
| MOR3360074 | 336.00 | 350.80 | 7.40 |
| MOR3360080 | 336.00 | 352.00 | 8.00 |
| MOR3370035 | 337.00 | 344.00 | 3.50 |
| MOR3370040 | 337.00 | 345.00 | 4.00 |
| MOR3370050 | 337.00 | 347.00 | 5.00 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR3380035 | 338.00 | 345.00 | 3.50 |
| MOR3380040 | 338.00 | 346.00 | 4.00 |
| MOR3380050 | 338.00 | 348.00 | 5.00 |
| MOR3380060 | 338.00 | 350.00 | 6.00 |
| MOR3380070 | 338.00 | 352.00 | 7.00 |
| MOR3380090 | 338.00 | 356.00 | 9.00 |
| MOR3390035 | 339.00 | 346.00 | 3.50 |
| MOR3390040 | 339.00 | 347.00 | 4.00 |
| MOR3390050 | 339.00 | 349.00 | 5.00 |
| MOR3390084 | 339.00 | 355.80 | 8.40 |
| MOR3390150 | 339.00 | 369.00 | 15.00 |
| MOR3392057 | 339.20 | 350.60 | 5.70 |
| MOR3393057 | 339.30 | 350.70 | 5.70 |
| MOR3396030 | 339.60 | 345.60 | 3.00 |
| MOR3400030 | 340.00 | 346.00 | 3.00 |
| MOR3400035 | 340.00 | 347.00 | 3.50 |
| MOR3400036 | 340.00 | 347.20 | 3.60 |
| MOR3400040 | 340.00 | 348.00 | 4.00 |
| MOR3400045 | 340.00 | 349.00 | 4.50 |
| MOR3400050 | 340.00 | 350.00 | 5.00 |
| MOR3400060 | 340.00 | 352.00 | 6.00 |
| MOR3400064 | 340.00 | 352.80 | 6.40 |
| MOR3400070 | 340.00 | 354.00 | 7.00 |
| MOR3400072 | 340.00 | 354.40 | 7.20 |
| MOR3400080 | 340.00 | 356.00 | 8.00 |
| MOR3400086 | 340.00 | 357.20 | 8.60 |
| MOR3400100 | 340.00 | 360.00 | 10.00 |
| MOR3410035 | 341.00 | 348.00 | 3.50 |
| MOR3410040 | 341.00 | 349.00 | 4.00 |
| MOR3410050 | 341.00 | 351.00 | 5.00 |
| MOR3420030 | 342.00 | 348.00 | 3.00 |
| MOR3420032 | 342.00 | 348.40 | 3.20 |
| MOR3420035 | 342.00 | 349.00 | 3.50 |
| MOR3420040 | 342.00 | 350.00 | 4.00 |
| MOR3420050 | 342.00 | 352.00 | 5.00 |
| MOR3420070 | 342.00 | 356.00 | 7.00 |
| MOR3420075 | 342.00 | 357.00 | 7.50 |
| MOR3420080 | 342.00 | 358.00 | 8.00 |
| MOR3425074 | 342.50 | 357.30 | 7.40 |
| MOR3430035 | 343.00 | 350.00 | 3.50 |
| MOR3430040 | 343.00 | 351.00 | 4.00 |
| MOR3430050 | 343.00 | 353.00 | 5.00 |
| MOR3430070 | 343.00 | 357.00 | 7.00 |
| MOR3430100 | 343.00 | 363.00 | 10.00 |
| MOR3440025 | 344.00 | 349.00 | 2.50 |
| MOR3440035 | 344.00 | 351.00 | 3.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR3440040 | 344.00 | 352.00 | 4.00 |
| MOR3440050 | 344.00 | 354.00 | 5.00 |
| MOR3440057 | 344.00 | 355.40 | 5.70 |
| MOR3440084 | 344.00 | 360.80 | 8.40 |
| MOR3450030 | 345.00 | 351.00 | 3.00 |
| MOR3450035 | 345.00 | 352.00 | 3.50 |
| MOR3450040 | 345.00 | 353.00 | 4.00 |
| MOR3450050 | 345.00 | 355.00 | 5.00 |
| MOR3450056 | 345.00 | 356.20 | 5.60 |
| MOR3450060 | 345.00 | 357.00 | 6.00 |
| MOR3450070 | 345.00 | 359.00 | 7.00 |
| MOR3450080 | 345.00 | 361.00 | 8.00 |
| MOR3450100 | 345.00 | 365.00 | 10.00 |
| MOR3460035 | 346.00 | 353.00 | 3.50 |
| MOR3460040 | 346.00 | 354.00 | 4.00 |
| MOR3460050 | 346.00 | 356.00 | 5.00 |
| MOR3460060 | 346.00 | 358.00 | 6.00 |
| MOR3460080 | 346.00 | 362.00 | 8.00 |
| MOR3460095 | 346.00 | 365.00 | 9.50 |
| MOR3470035 | 347.00 | 354.00 | 3.50 |
| MOR3470040 | 347.00 | 355.00 | 4.00 |
| MOR3470050 | 347.00 | 357.00 | 5.00 |
| MOR3470070 | 347.00 | 361.00 | 7.00 |
| MOR3470090 | 347.00 | 365.00 | 9.00 |
| MOR3480030 | 348.00 | 354.00 | 3.00 |
| MOR3480035 | 348.00 | 355.00 | 3.50 |
| MOR3480040 | 348.00 | 356.00 | 4.00 |
| MOR3480050 | 348.00 | 358.00 | 5.00 |
| MOR3480060 | 348.00 | 360.00 | 6.00 |
| MOR3480120 | 348.00 | 372.00 | 12.00 |
| MOR3490035 | 349.00 | 356.00 | 3.50 |
| MOR3490040 | 349.00 | 357.00 | 4.00 |
| MOR3490050 | 349.00 | 359.00 | 5.00 |
| MOR3492057 | 349.20 | 360.60 | 5.70 |
| MOR3493057 | 349.30 | 360.70 | 5.70 |
| MOR3500025 | 350.00 | 355.00 | 2.50 |
| MOR3500030 | 350.00 | 356.00 | 3.00 |
| MOR3500035 | 350.00 | 357.00 | 3.50 |
| MOR3500040 | 350.00 | 358.00 | 4.00 |
| MOR3500050 | 350.00 | 360.00 | 5.00 |
| MOR3500060 | 350.00 | 362.00 | 6.00 |
| MOR3500080 | 350.00 | 366.00 | 8.00 |
| MOR3500090 | 350.00 | 368.00 | 9.00 |
| MOR3500100 | 350.00 | 370.00 | 10.00 |
| MOR3506063 | 350.60 | 363.30 | 6.35 |
| MOR3510035 | 351.00 | 358.00 | 3.50 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR3510040 | 351.00 | 359.00 | 4.00 |
| MOR3510050 | 351.00 | 361.00 | 5.00 |
| MOR3510070 | 351.00 | 365.00 | 7.00 |
| MOR3510100 | 351.00 | 371.00 | 10.00 |
| MOR3520030 | 352.00 | 358.00 | 3.00 |
| MOR3520035 | 352.00 | 359.00 | 3.50 |
| MOR3520040 | 352.00 | 360.00 | 4.00 |
| MOR3520050 | 352.00 | 362.00 | 5.00 |
| MOR3530035 | 353.00 | 360.00 | 3.50 |
| MOR3530040 | 353.00 | 361.00 | 4.00 |
| MOR3530050 | 353.00 | 363.00 | 5.00 |
| MOR3530056 | 353.00 | 364.30 | 5.65 |
| MOR3530100 | 353.00 | 373.00 | 10.00 |
| MOR3532057 | 353.20 | 364.60 | 5.70 |
| MOR3540030 | 354.00 | 360.00 | 3.00 |
| MOR3540035 | 354.00 | 361.00 | 3.50 |
| MOR3540038 | 354.00 | 361.60 | 3.80 |
| MOR3540040 | 354.00 | 362.00 | 4.00 |
| MOR3540050 | 354.00 | 364.00 | 5.00 |
| MOR3541084 | 354.10 | 370.90 | 8.40 |
| MOR3549073 | 354.97 | 369.57 | 7.30 |
| MOR3550030 | 355.00 | 361.00 | 3.00 |
| MOR3550035 | 355.00 | 362.00 | 3.50 |
| MOR3550040 | 355.00 | 363.00 | 4.00 |
| MOR3550045 | 355.00 | 364.00 | 4.50 |
| MOR3550050 | 355.00 | 365.00 | 5.00 |
| MOR3550060 | 355.00 | 367.00 | 6.00 |
| MOR3550070 | 355.00 | 369.00 | 7.00 |
| MOR3560035 | 356.00 | 363.00 | 3.50 |
| MOR3560040 | 356.00 | 364.00 | 4.00 |
| MOR3560050 | 356.00 | 366.00 | 5.00 |
| MOR3570035 | 357.00 | 364.00 | 3.50 |
| MOR3570040 | 357.00 | 365.00 | 4.00 |
| MOR3570050 | 357.00 | 367.00 | 5.00 |
| MOR3580035 | 358.00 | 365.00 | 3.50 |
| MOR3580040 | 358.00 | 366.00 | 4.00 |
| MOR3580050 | 358.00 | 368.00 | 5.00 |
| MOR3580060 | 358.00 | 370.00 | 6.00 |
| MOR3580065 | 358.00 | 371.00 | 6.50 |
| MOR3590035 | 359.00 | 366.00 | 3.50 |
| MOR3590040 | 359.00 | 367.00 | 4.00 |
| MOR3590050 | 359.00 | 369.00 | 5.00 |
| MOR3592057 | 359.20 | 370.60 | 5.70 |
| MOR3593057 | 359.30 | 370.70 | 5.70 |
| MOR3600030 | 360.00 | 366.00 | 3.00 |
| MOR3600035 | 360.00 | 367.00 | 3.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR3600040 | 360.00 | 368.00 | 4.00 |
| MOR3600050 | 360.00 | 370.00 | 5.00 |
| MOR3600056 | 360.00 | 371.20 | 5.60 |
| MOR3600060 | 360.00 | 372.00 | 6.00 |
| MOR3600065 | 360.00 | 373.00 | 6.50 |
| MOR3600070 | 360.00 | 374.00 | 7.00 |
| MOR3600075 | 360.00 | 375.00 | 7.50 |
| MOR3600080 | 360.00 | 376.00 | 8.00 |
| MOR3600090 | 360.00 | 378.00 | 9.00 |
| MOR3600100 | 360.00 | 380.00 | 10.00 |
| MOR3610035 | 361.00 | 368.00 | 3.50 |
| MOR3610040 | 361.00 | 369.00 | 4.00 |
| MOR3610050 | 361.00 | 371.00 | 5.00 |
| MOR3620030 | 362.00 | 368.00 | 3.00 |
| MOR3620035 | 362.00 | 369.00 | 3.50 |
| MOR3620040 | 362.00 | 370.00 | 4.00 |
| MOR3620050 | 362.00 | 372.00 | 5.00 |
| MOR3630035 | 363.00 | 370.00 | 3.50 |
| MOR3630040 | 363.00 | 371.00 | 4.00 |
| MOR3630080 | 363.00 | 379.00 | 8.00 |
| MOR3640035 | 364.00 | 371.00 | 3.50 |
| MOR3640040 | 364.00 | 372.00 | 4.00 |
| MOR3640050 | 364.00 | 374.00 | 5.00 |
| MOR3650020 | 365.00 | 369.00 | 2.00 |
| MOR3650035 | 365.00 | 372.00 | 3.50 |
| MOR3650040 | 365.00 | 373.00 | 4.00 |
| MOR3650050 | 365.00 | 375.00 | 5.00 |
| MOR3650060 | 365.00 | 377.00 | 6.00 |
| MOR3650070 | 365.00 | 379.00 | 7.00 |
| MOR3660025 | 366.00 | 371.00 | 2.50 |
| MOR3660035 | 366.00 | 373.00 | 3.50 |
| MOR3660040 | 366.00 | 374.00 | 4.00 |
| MOR3660050 | 366.00 | 376.00 | 5.00 |
| MOR3670030 | 367.00 | 373.00 | 3.00 |
| MOR3670035 | 367.00 | 374.00 | 3.50 |
| MOR3670040 | 367.00 | 375.00 | 4.00 |
| MOR3670050 | 367.00 | 377.00 | 5.00 |
| MOR3670070 | 367.00 | 381.00 | 7.00 |
| MOR3670080 | 367.00 | 383.00 | 8.00 |
| MOR3680035 | 368.00 | 375.00 | 3.50 |
| MOR3680040 | 368.00 | 376.00 | 4.00 |
| MOR3680050 | 368.00 | 378.00 | 5.00 |
| MOR3680060 | 368.00 | 380.00 | 6.00 |
| MOR3680070 | 368.00 | 382.00 | 7.00 |
| MOR3685063 | 368.50 | 381.20 | 6.35 |
| MOR3690035 | 369.00 | 376.00 | 3.50 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR3690040 | 369.00 | 377.00 | 4.00 |
| MOR3690050 | 369.00 | 379.00 | 5.00 |
| MOR3690090 | 369.00 | 387.00 | 9.00 |
| MOR3700025 | 370.00 | 375.00 | 2.50 |
| MOR3700030 | 370.00 | 376.00 | 3.00 |
| MOR3700035 | 370.00 | 377.00 | 3.50 |
| MOR3700040 | 370.00 | 378.00 | 4.00 |
| MOR3700050 | 370.00 | 380.00 | 5.00 |
| MOR3700055 | 370.00 | 381.00 | 5.50 |
| MOR3700057 | 370.00 | 381.40 | 5.70 |
| MOR3700060 | 370.00 | 382.00 | 6.00 |
| MOR3700070 | 370.00 | 384.00 | 7.00 |
| MOR3700080 | 370.00 | 386.00 | 8.00 |
| MOR3700084 | 370.00 | 386.80 | 8.40 |
| MOR3700100 | 370.00 | 390.00 | 10.00 |
| MOR3710035 | 371.00 | 378.00 | 3.50 |
| MOR3710040 | 371.00 | 379.00 | 4.00 |
| MOR3710050 | 371.00 | 381.00 | 5.00 |
| MOR3710080 | 371.00 | 387.00 | 8.00 |
| MOR3720035 | 372.00 | 379.00 | 3.50 |
| MOR3720040 | 372.00 | 380.00 | 4.00 |
| MOR3720050 | 372.00 | 382.00 | 5.00 |
| MOR3720060 | 372.00 | 384.00 | 6.00 |
| MOR3720080 | 372.00 | 388.00 | 8.00 |
| MOR3720120 | 372.00 | 396.00 | 12.00 |
| MOR3725020 | 372.50 | 376.50 | 2.00 |
| MOR3730035 | 373.00 | 380.00 | 3.50 |
| MOR3730040 | 373.00 | 381.00 | 4.00 |
| MOR3730050 | 373.00 | 383.00 | 5.00 |
| MOR3730070 | 373.00 | 387.00 | 7.00 |
| MOR3740035 | 374.00 | 381.00 | 3.50 |
| MOR3740040 | 374.00 | 382.00 | 4.00 |
| MOR3740050 | 374.00 | 384.00 | 5.00 |
| MOR3740080 | 374.00 | 390.00 | 8.00 |
| MOR3743057 | 374.30 | 385.70 | 5.70 |
| MOR3750025 | 375.00 | 380.00 | 2.50 |
| MOR3750030 | 375.00 | 381.00 | 3.00 |
| MOR3750035 | 375.00 | 382.00 | 3.50 |
| MOR3750035-1 | 375.00 | 382.10 | 3.55 |
| MOR3750040 | 375.00 | 383.00 | 4.00 |
| MOR3750050 | 375.00 | 385.00 | 5.00 |
| MOR3750060 | 375.00 | 387.00 | 6.00 |
| MOR3750070 | 375.00 | 389.00 | 7.00 |
| MOR3750084 | 375.00 | 391.80 | 8.40 |
| MOR3750090 | 375.00 | 393.00 | 9.00 |
| MOR3750100 | 375.00 | 395.00 | 10.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR3760035 | 376.00 | 383.00 | 3.50 |
| MOR3760040 | 376.00 | 384.00 | 4.00 |
| MOR3760050 | 376.00 | 386.00 | 5.00 |
| MOR3760060 | 376.00 | 388.00 | 6.00 |
| MOR3770035 | 377.00 | 384.00 | 3.50 |
| MOR3770040 | 377.00 | 385.00 | 4.00 |
| MOR3770050 | 377.00 | 387.00 | 5.00 |
| MOR3780030 | 378.00 | 384.00 | 3.00 |
| MOR3780035 | 378.00 | 385.00 | 3.50 |
| MOR3780040 | 378.00 | 386.00 | 4.00 |
| MOR3780050 | 378.00 | 388.00 | 5.00 |
| MOR3790035 | 379.00 | 386.00 | 3.50 |
| MOR3790040 | 379.00 | 387.00 | 4.00 |
| MOR3790050 | 379.00 | 389.00 | 5.00 |
| MOR3792057 | 379.20 | 390.60 | 5.70 |
| MOR3793057 | 379.30 | 390.70 | 5.70 |
| MOR3800030 | 380.00 | 386.00 | 3.00 |
| MOR3800035 | 380.00 | 387.00 | 3.50 |
| MOR3800040 | 380.00 | 388.00 | 4.00 |
| MOR3800050 | 380.00 | 390.00 | 5.00 |
| MOR3800060 | 380.00 | 392.00 | 6.00 |
| MOR3800062 | 380.00 | 392.40 | 6.20 |
| MOR3800065 | 380.00 | 393.00 | 6.50 |
| MOR3800070 | 380.00 | 394.00 | 7.00 |
| MOR3800080 | 380.00 | 396.00 | 8.00 |
| MOR3800090 | 380.00 | 398.00 | 9.00 |
| MOR3800100 | 380.00 | 400.00 | 10.00 |
| MOR3810035 | 381.00 | 388.00 | 3.50 |
| MOR3810040 | 381.00 | 389.00 | 4.00 |
| MOR3810050 | 381.00 | 391.00 | 5.00 |
| MOR3810063 | 381.00 | 393.70 | 6.35 |
| MOR3811084 | 381.10 | 397.90 | 8.40 |
| MOR3812082 | 381.20 | 397.60 | 8.20 |
| MOR3820030 | 382.00 | 388.00 | 3.00 |
| MOR3820035 | 382.00 | 389.00 | 3.50 |
| MOR3820040 | 382.00 | 390.00 | 4.00 |
| MOR3820050 | 382.00 | 392.00 | 5.00 |
| MOR3820070 | 382.00 | 396.00 | 7.00 |
| MOR3820100 | 382.00 | 402.00 | 10.00 |
| MOR3830035 | 383.00 | 390.00 | 3.50 |
| MOR3830040 | 383.00 | 391.00 | 4.00 |
| MOR3830050 | 383.00 | 393.00 | 5.00 |
| MOR3830080 | 383.00 | 399.00 | 8.00 |
| MOR3830084 | 383.00 | 399.80 | 8.40 |
| MOR3840035 | 384.00 | 391.00 | 3.50 |
| MOR3840040 | 384.00 | 392.00 | 4.00 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR3840050 | 384.00 | 394.00 | 5.00 |
| MOR3840084 | 384.00 | 400.80 | 8.40 |
| MOR3850030 | 385.00 | 391.00 | 3.00 |
| MOR3850035 | 385.00 | 392.00 | 3.50 |
| MOR3850040 | 385.00 | 393.00 | 4.00 |
| MOR3850050 | 385.00 | 395.00 | 5.00 |
| MOR3850060 | 385.00 | 397.00 | 6.00 |
| MOR3850070 | 385.00 | 399.00 | 7.00 |
| MOR3850075 | 385.00 | 400.00 | 7.50 |
| MOR3850080 | 385.00 | 401.00 | 8.00 |
| MOR3850140 | 385.00 | 413.00 | 14.00 |
| MOR3855065 | 385.50 | 398.50 | 6.50 |
| MOR3860035 | 386.00 | 393.00 | 3.50 |
| MOR3860040 | 386.00 | 394.00 | 4.00 |
| MOR3860050 | 386.00 | 396.00 | 5.00 |
| MOR3860060 | 386.00 | 398.00 | 6.00 |
| MOR3865050 | 386.50 | 396.50 | 5.00 |
| MOR3870030 | 387.00 | 393.00 | 3.00 |
| MOR3870035 | 387.00 | 394.00 | 3.50 |
| MOR3870040 | 387.00 | 395.00 | 4.00 |
| MOR3870050 | 387.00 | 397.00 | 5.00 |
| MOR3870064 | 387.00 | 399.80 | 6.40 |
| MOR3870070 | 387.00 | 401.00 | 7.00 |
| MOR3880035 | 388.00 | 395.00 | 3.50 |
| MOR3880040 | 388.00 | 396.00 | 4.00 |
| MOR3880050 | 388.00 | 398.00 | 5.00 |
| MOR3880060 | 388.00 | 400.00 | 6.00 |
| MOR3880100 | 388.00 | 408.00 | 10.00 |
| MOR3890035 | 389.00 | 396.00 | 3.50 |
| MOR3890040 | 389.00 | 397.00 | 4.00 |
| MOR3890050 | 389.00 | 399.00 | 5.00 |
| MOR3890057 | 389.00 | 400.40 | 5.70 |
| MOR3890060 | 389.00 | 401.00 | 6.00 |
| MOR3890080 | 389.00 | 405.00 | 8.00 |
| MOR3893057 | 389.30 | 400.70 | 5.70 |
| MOR3900030 | 390.00 | 396.00 | 3.00 |
| MOR3900035 | 390.00 | 397.00 | 3.50 |
| MOR3900040 | 390.00 | 398.00 | 4.00 |
| MOR3900050 | 390.00 | 400.00 | 5.00 |
| MOR3900060 | 390.00 | 402.00 | 6.00 |
| MOR3900065 | 390.00 | 403.10 | 6.55 |
| MOR3900070 | 390.00 | 404.00 | 7.00 |
| MOR3900072 | 390.00 | 404.40 | 7.20 |
| MOR3900080 | 390.00 | 406.00 | 8.00 |
| MOR3900084 | 390.00 | 406.80 | 8.40 |
| MOR3900090 | 390.00 | 408.00 | 9.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|--------------|-------------------------|--------|-------|
| | d | D | S |
| MOR3900100 | 390.00 | 410.00 | 10.00 |
| MOR3900150 | 390.00 | 420.00 | 15.00 |
| MOR3905035 | 390.50 | 397.50 | 3.50 |
| MOR3907067 | 390.75 | 404.15 | 6.70 |
| MOR3910035 | 391.00 | 398.00 | 3.50 |
| MOR3910040 | 391.00 | 399.00 | 4.00 |
| MOR3910050 | 391.00 | 401.00 | 5.00 |
| MOR3920035 | 392.00 | 399.00 | 3.50 |
| MOR3920040 | 392.00 | 400.00 | 4.00 |
| MOR3920050 | 392.00 | 402.00 | 5.00 |
| MOR3920060 | 392.00 | 404.00 | 6.00 |
| MOR3920070 | 392.00 | 406.00 | 7.00 |
| MOR3930030 | 393.00 | 399.00 | 3.00 |
| MOR3930035 | 393.00 | 400.00 | 3.50 |
| MOR3930040 | 393.00 | 401.00 | 4.00 |
| MOR3930050 | 393.00 | 403.00 | 5.00 |
| MOR3930070 | 393.00 | 407.00 | 7.00 |
| MOR3937063 | 393.70 | 406.40 | 6.35 |
| MOR3940035 | 394.00 | 401.00 | 3.50 |
| MOR3940040 | 394.00 | 402.00 | 4.00 |
| MOR3940048 | 394.00 | 403.60 | 4.80 |
| MOR3940050 | 394.00 | 404.00 | 5.00 |
| MOR3940060 | 394.00 | 406.00 | 6.00 |
| MOR3940080 | 394.00 | 410.00 | 8.00 |
| MOR3950030 | 395.00 | 401.00 | 3.00 |
| MOR3950035 | 395.00 | 402.00 | 3.50 |
| MOR3950040 | 395.00 | 403.00 | 4.00 |
| MOR3950050 | 395.00 | 405.00 | 5.00 |
| MOR3950060 | 395.00 | 407.00 | 6.00 |
| MOR3950080 | 395.00 | 411.00 | 8.00 |
| MOR3950100 | 395.00 | 415.00 | 10.00 |
| MOR3960035 | 396.00 | 403.00 | 3.50 |
| MOR3960035-1 | 396.00 | 403.10 | 3.55 |
| MOR3960040 | 396.00 | 404.00 | 4.00 |
| MOR3960050 | 396.00 | 406.00 | 5.00 |
| MOR3960120 | 396.00 | 420.00 | 12.00 |
| MOR3970035 | 397.00 | 404.00 | 3.50 |
| MOR3970040 | 397.00 | 405.00 | 4.00 |
| MOR3970050 | 397.00 | 407.00 | 5.00 |
| MOR3980035 | 398.00 | 405.00 | 3.50 |
| MOR3980040 | 398.00 | 406.00 | 4.00 |
| MOR3980050 | 398.00 | 408.00 | 5.00 |
| MOR3980060 | 398.00 | 410.00 | 6.00 |
| MOR3990035 | 399.00 | 406.00 | 3.50 |
| MOR3990040 | 399.00 | 407.00 | 4.00 |
| MOR3990041 | 399.00 | 407.20 | 4.10 |

O'RINGS



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR3990050 | 399.00 | 409.00 | 5.00 |
| MOR3992057 | 399.20 | 410.60 | 5.70 |
| MOR3993057 | 399.30 | 410.70 | 5.70 |
| MOR3995085 | 399.50 | 416.50 | 8.50 |
| MOR4000030 | 400.00 | 406.00 | 3.00 |
| MOR4000035 | 400.00 | 407.00 | 3.50 |
| MOR4000040 | 400.00 | 408.00 | 4.00 |
| MOR4000045 | 400.00 | 409.00 | 4.50 |
| MOR4000050 | 400.00 | 410.00 | 5.00 |
| MOR4000056 | 400.00 | 411.20 | 5.60 |
| MOR4000060 | 400.00 | 412.00 | 6.00 |
| MOR4000067 | 400.00 | 413.40 | 6.70 |
| MOR4000070 | 400.00 | 414.00 | 7.00 |
| MOR4000080 | 400.00 | 416.00 | 8.00 |
| MOR4000100 | 400.00 | 420.00 | 10.00 |
| MOR4000120 | 400.00 | 424.00 | 12.00 |
| MOR4005065 | 400.50 | 413.50 | 6.50 |
| MOR4010035 | 401.00 | 408.00 | 3.50 |
| MOR4010040 | 401.00 | 409.00 | 4.00 |
| MOR4020035 | 402.00 | 409.00 | 3.50 |
| MOR4020040 | 402.00 | 410.00 | 4.00 |
| MOR4020045 | 402.00 | 411.00 | 4.50 |
| MOR4020050 | 402.00 | 412.00 | 5.00 |
| MOR4020090 | 402.00 | 420.00 | 9.00 |
| MOR4030030 | 403.00 | 409.00 | 3.00 |
| MOR4030035 | 403.00 | 410.00 | 3.50 |
| MOR4030040 | 403.00 | 411.00 | 4.00 |
| MOR4030060 | 403.00 | 415.00 | 6.00 |
| MOR4030070 | 403.00 | 417.00 | 7.00 |
| MOR4040035 | 404.00 | 411.00 | 3.50 |
| MOR4040040 | 404.00 | 412.00 | 4.00 |
| MOR4040065 | 404.00 | 417.00 | 6.50 |
| MOR4040080 | 404.00 | 420.00 | 8.00 |
| MOR4043057 | 404.30 | 415.70 | 5.70 |
| MOR4050035 | 405.00 | 412.00 | 3.50 |
| MOR4050040 | 405.00 | 413.00 | 4.00 |
| MOR4050060 | 405.00 | 417.00 | 6.00 |
| MOR4050065 | 405.00 | 418.00 | 6.50 |
| MOR4050070 | 405.00 | 419.00 | 7.00 |
| MOR4050075 | 405.00 | 420.00 | 7.50 |
| MOR4060035 | 406.00 | 413.00 | 3.50 |
| MOR4060040 | 406.00 | 414.00 | 4.00 |
| MOR4060070 | 406.00 | 420.00 | 7.00 |
| MOR4060150 | 406.00 | 436.00 | 15.00 |
| MOR4064063 | 406.40 | 419.10 | 6.35 |
| MOR4070035 | 407.00 | 414.00 | 3.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR4070040 | 407.00 | 415.00 | 4.00 |
| MOR4070057 | 407.00 | 418.40 | 5.70 |
| MOR4070063 | 407.00 | 419.70 | 6.35 |
| MOR4080035 | 408.00 | 415.00 | 3.50 |
| MOR4080040 | 408.00 | 416.00 | 4.00 |
| MOR4080060 | 408.00 | 420.00 | 6.00 |
| MOR4080075 | 408.00 | 423.00 | 7.50 |
| MOR4083095 | 408.30 | 427.30 | 9.50 |
| MOR4090035 | 409.00 | 416.00 | 3.50 |
| MOR4090040 | 409.00 | 417.00 | 4.00 |
| MOR4100030 | 410.00 | 416.00 | 3.00 |
| MOR4100035 | 410.00 | 417.00 | 3.50 |
| MOR4100040 | 410.00 | 418.00 | 4.00 |
| MOR4100050 | 410.00 | 420.00 | 5.00 |
| MOR4100060 | 410.00 | 422.00 | 6.00 |
| MOR4100070 | 410.00 | 424.00 | 7.00 |
| MOR4100080 | 410.00 | 426.00 | 8.00 |
| MOR4100100 | 410.00 | 430.00 | 10.00 |
| MOR4100150 | 410.00 | 440.00 | 15.00 |
| MOR4110035 | 411.00 | 418.00 | 3.50 |
| MOR4110040 | 411.00 | 419.00 | 4.00 |
| MOR4120035 | 412.00 | 419.00 | 3.50 |
| MOR4120040 | 412.00 | 420.00 | 4.00 |
| MOR4120070 | 412.00 | 426.00 | 7.00 |
| MOR4120080 | 412.00 | 428.00 | 8.00 |
| MOR4120090 | 412.00 | 430.00 | 9.00 |
| MOR4120100 | 412.00 | 432.00 | 10.00 |
| MOR4127056 | 412.70 | 423.90 | 5.60 |
| MOR4130035 | 413.00 | 420.00 | 3.50 |
| MOR4130040 | 413.00 | 421.00 | 4.00 |
| MOR4130130 | 413.00 | 439.00 | 13.00 |
| MOR4140035 | 414.00 | 421.00 | 3.50 |
| MOR4140040 | 414.00 | 422.00 | 4.00 |
| MOR4140080 | 414.00 | 430.00 | 8.00 |
| MOR4140120 | 414.00 | 438.00 | 12.00 |
| MOR4140130 | 414.00 | 440.00 | 13.00 |
| MOR4141084 | 414.10 | 430.90 | 8.40 |
| MOR4143057 | 414.30 | 425.70 | 5.70 |
| MOR4150035 | 415.00 | 422.00 | 3.50 |
| MOR4150040 | 415.00 | 423.00 | 4.00 |
| MOR4150050 | 415.00 | 425.00 | 5.00 |
| MOR4150060 | 415.00 | 427.00 | 6.00 |
| MOR4150070 | 415.00 | 429.00 | 7.00 |
| MOR4150080 | 415.00 | 431.00 | 8.00 |
| MOR4160035 | 416.00 | 423.00 | 3.50 |
| MOR4160040 | 416.00 | 424.00 | 4.00 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR4170035 | 417.00 | 424.00 | 3.50 |
| MOR4170040 | 417.00 | 425.00 | 4.00 |
| MOR4170080 | 417.00 | 433.00 | 8.00 |
| MOR4180035 | 418.00 | 425.00 | 3.50 |
| MOR4180040 | 418.00 | 426.00 | 4.00 |
| MOR4180060 | 418.00 | 430.00 | 6.00 |
| MOR4180070 | 418.00 | 432.00 | 7.00 |
| MOR4190035 | 419.00 | 426.00 | 3.50 |
| MOR4190040 | 419.00 | 427.00 | 4.00 |
| MOR4190070 | 419.00 | 433.00 | 7.00 |
| MOR4190084 | 419.00 | 435.80 | 8.40 |
| MOR4192057 | 419.20 | 430.60 | 5.70 |
| MOR4193057 | 419.30 | 430.70 | 5.70 |
| MOR4200030 | 420.00 | 426.00 | 3.00 |
| MOR4200032 | 420.00 | 426.40 | 3.20 |
| MOR4200035 | 420.00 | 427.00 | 3.50 |
| MOR4200040 | 420.00 | 428.00 | 4.00 |
| MOR4200050 | 420.00 | 430.00 | 5.00 |
| MOR4200060 | 420.00 | 432.00 | 6.00 |
| MOR4200065 | 420.00 | 433.00 | 6.50 |
| MOR4200080 | 420.00 | 436.00 | 8.00 |
| MOR4200100 | 420.00 | 440.00 | 10.00 |
| MOR4210035 | 421.00 | 428.00 | 3.50 |
| MOR4210040 | 421.00 | 429.00 | 4.00 |
| MOR4215026 | 421.50 | 426.80 | 2.65 |
| MOR4220030 | 422.00 | 428.00 | 3.00 |
| MOR4220035 | 422.00 | 429.00 | 3.50 |
| MOR4220040 | 422.00 | 430.00 | 4.00 |
| MOR4220060 | 422.00 | 434.00 | 6.00 |
| MOR4220065 | 422.00 | 435.00 | 6.50 |
| MOR4222062 | 422.20 | 434.60 | 6.20 |
| MOR4222069 | 422.20 | 436.00 | 6.90 |
| MOR4230035 | 423.00 | 430.00 | 3.50 |
| MOR4230040 | 423.00 | 431.00 | 4.00 |
| MOR4230090 | 423.00 | 441.00 | 9.00 |
| MOR4240030 | 424.00 | 430.00 | 3.00 |
| MOR4240035 | 424.00 | 431.00 | 3.50 |
| MOR4240040 | 424.00 | 432.00 | 4.00 |
| MOR4240085 | 424.00 | 441.00 | 8.50 |
| MOR4243057 | 424.30 | 435.70 | 5.70 |
| MOR4250030 | 425.00 | 431.00 | 3.00 |
| MOR4250035 | 425.00 | 432.00 | 3.50 |
| MOR4250040 | 425.00 | 433.00 | 4.00 |
| MOR4250050 | 425.00 | 435.00 | 5.00 |
| MOR4250060 | 425.00 | 437.00 | 6.00 |
| MOR4250070 | 425.00 | 439.00 | 7.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR4250080 | 425.00 | 441.00 | 8.00 |
| MOR4260035 | 426.00 | 433.00 | 3.50 |
| MOR4260040 | 426.00 | 434.00 | 4.00 |
| MOR4260060 | 426.00 | 438.00 | 6.00 |
| MOR4260100 | 426.00 | 446.00 | 10.00 |
| MOR4270035 | 427.00 | 434.00 | 3.50 |
| MOR4270040 | 427.00 | 435.00 | 4.00 |
| MOR4270050 | 427.00 | 437.00 | 5.00 |
| MOR4270100 | 427.00 | 447.00 | 10.00 |
| MOR4280035 | 428.00 | 435.00 | 3.50 |
| MOR4280040 | 428.00 | 436.00 | 4.00 |
| MOR4290035 | 429.00 | 436.00 | 3.50 |
| MOR4290040 | 429.00 | 437.00 | 4.00 |
| MOR4290057 | 429.00 | 440.40 | 5.70 |
| MOR4290060 | 429.00 | 441.00 | 6.00 |
| MOR4300035 | 430.00 | 437.00 | 3.50 |
| MOR4300040 | 430.00 | 438.00 | 4.00 |
| MOR4300050 | 430.00 | 440.00 | 5.00 |
| MOR4300057 | 430.00 | 441.40 | 5.70 |
| MOR4300060 | 430.00 | 442.00 | 6.00 |
| MOR4300070 | 430.00 | 444.00 | 7.00 |
| MOR4300080 | 430.00 | 446.00 | 8.00 |
| MOR4300090 | 430.00 | 448.00 | 9.00 |
| MOR4300100 | 430.00 | 450.00 | 10.00 |
| MOR4300120 | 430.00 | 454.00 | 12.00 |
| MOR4310035 | 431.00 | 438.00 | 3.50 |
| MOR4310040 | 431.00 | 439.00 | 4.00 |
| MOR4310070 | 431.00 | 445.00 | 7.00 |
| MOR4310080 | 431.00 | 447.00 | 8.00 |
| MOR4310084 | 431.00 | 447.80 | 8.40 |
| MOR4315060 | 431.50 | 443.50 | 6.00 |
| MOR4320035 | 432.00 | 439.00 | 3.50 |
| MOR4320040 | 432.00 | 440.00 | 4.00 |
| MOR4320050 | 432.00 | 442.00 | 5.00 |
| MOR4320060 | 432.00 | 444.00 | 6.00 |
| MOR4330030 | 433.00 | 439.00 | 3.00 |
| MOR4330035 | 433.00 | 440.00 | 3.50 |
| MOR4330040 | 433.00 | 441.00 | 4.00 |
| MOR4340035 | 434.00 | 441.00 | 3.50 |
| MOR4340040 | 434.00 | 442.00 | 4.00 |
| MOR4340050 | 434.00 | 444.00 | 5.00 |
| MOR4350035 | 435.00 | 442.00 | 3.50 |
| MOR4350040 | 435.00 | 443.00 | 4.00 |
| MOR4350050 | 435.00 | 445.00 | 5.00 |
| MOR4350057 | 435.00 | 446.40 | 5.70 |
| MOR4350080 | 435.00 | 451.00 | 8.00 |

O'RINGS



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR4350100 | 435.00 | 455.00 | 10.00 |
| MOR4360035 | 436.00 | 443.00 | 3.50 |
| MOR4360040 | 436.00 | 444.00 | 4.00 |
| MOR4360050 | 436.00 | 446.00 | 5.00 |
| MOR4360070 | 436.00 | 450.00 | 7.00 |
| MOR4370035 | 437.00 | 444.00 | 3.50 |
| MOR4370040 | 437.00 | 445.00 | 4.00 |
| MOR4370070 | 437.00 | 451.00 | 7.00 |
| MOR4380035 | 438.00 | 445.00 | 3.50 |
| MOR4380040 | 438.00 | 446.00 | 4.00 |
| MOR4380075 | 438.00 | 453.00 | 7.50 |
| MOR4380120 | 438.00 | 462.00 | 12.00 |
| MOR4380127 | 438.00 | 463.40 | 12.70 |
| MOR4390030 | 439.00 | 445.00 | 3.00 |
| MOR4390035 | 439.00 | 446.00 | 3.50 |
| MOR4390040 | 439.00 | 447.00 | 4.00 |
| MOR4390060 | 439.00 | 451.00 | 6.00 |
| MOR4392057 | 439.20 | 450.60 | 5.70 |
| MOR4393057 | 439.30 | 450.70 | 5.70 |
| MOR4395040 | 439.50 | 447.50 | 4.00 |
| MOR4400020 | 440.00 | 444.00 | 2.00 |
| MOR4400030 | 440.00 | 446.00 | 3.00 |
| MOR4400035 | 440.00 | 447.00 | 3.50 |
| MOR4400040 | 440.00 | 448.00 | 4.00 |
| MOR4400045 | 440.00 | 449.00 | 4.50 |
| MOR4400050 | 440.00 | 450.00 | 5.00 |
| MOR4400056 | 440.00 | 451.20 | 5.60 |
| MOR4400060 | 440.00 | 452.00 | 6.00 |
| MOR4400070 | 440.00 | 454.00 | 7.00 |
| MOR4400080 | 440.00 | 456.00 | 8.00 |
| MOR4410080 | 441.00 | 457.00 | 8.00 |
| MOR4440030 | 444.00 | 450.00 | 3.00 |
| MOR4440080 | 444.00 | 460.00 | 8.00 |
| MOR4442057 | 444.20 | 455.60 | 5.70 |
| MOR4450050 | 445.00 | 455.00 | 5.00 |
| MOR4450060 | 445.00 | 457.00 | 6.00 |
| MOR4493057 | 449.30 | 460.70 | 5.70 |
| MOR4498062 | 449.80 | 462.20 | 6.20 |
| MOR4500030 | 450.00 | 456.00 | 3.00 |
| MOR4500050 | 450.00 | 460.00 | 5.00 |
| MOR4500070 | 450.00 | 464.00 | 7.00 |
| MOR4530064 | 453.00 | 465.80 | 6.40 |
| MOR4550050 | 455.00 | 465.00 | 5.00 |
| MOR4550057 | 455.00 | 466.40 | 5.70 |
| MOR4550062 | 455.00 | 467.40 | 6.20 |
| MOR4550084 | 455.00 | 471.80 | 8.40 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR4560040 | 456.00 | 464.00 | 4.00 |
| MOR4560070 | 456.00 | 470.00 | 7.00 |
| MOR4570040 | 457.00 | 465.00 | 4.00 |
| MOR4570063 | 457.00 | 469.70 | 6.35 |
| MOR4570084 | 457.00 | 473.80 | 8.40 |
| MOR4572070 | 457.20 | 471.20 | 7.00 |
| MOR4578070 | 457.80 | 471.80 | 7.00 |
| MOR4580040 | 458.00 | 466.00 | 4.00 |
| MOR4580090 | 458.00 | 476.00 | 9.00 |
| MOR4590040 | 459.00 | 467.00 | 4.00 |
| MOR4592057 | 459.20 | 470.60 | 5.70 |
| MOR4593057 | 459.30 | 470.70 | 5.70 |
| MOR4600030 | 460.00 | 466.00 | 3.00 |
| MOR4600040 | 460.00 | 468.00 | 4.00 |
| MOR4600050 | 460.00 | 470.00 | 5.00 |
| MOR4600053 | 460.00 | 470.60 | 5.30 |
| MOR4600060 | 460.00 | 472.00 | 6.00 |
| MOR4600063 | 460.00 | 472.70 | 6.35 |
| MOR4600070 | 460.00 | 474.00 | 7.00 |
| MOR4600074 | 460.00 | 474.80 | 7.40 |
| MOR4600080 | 460.00 | 476.00 | 8.00 |
| MOR4600084 | 460.00 | 476.80 | 8.40 |
| MOR4600085 | 460.00 | 477.00 | 8.50 |
| MOR4600120 | 460.00 | 484.00 | 12.00 |
| MOR4610040 | 461.00 | 469.00 | 4.00 |
| MOR4610070 | 461.00 | 475.00 | 7.00 |
| MOR4620040 | 462.00 | 470.00 | 4.00 |
| MOR4620070 | 462.00 | 476.00 | 7.00 |
| MOR4620100 | 462.00 | 482.00 | 10.00 |
| MOR4630040 | 463.00 | 471.00 | 4.00 |
| MOR4640040 | 464.00 | 472.00 | 4.00 |
| MOR4640060 | 464.00 | 476.00 | 6.00 |
| MOR4640080 | 464.00 | 480.00 | 8.00 |
| MOR4650030 | 465.00 | 471.00 | 3.00 |
| MOR4650040 | 465.00 | 473.00 | 4.00 |
| MOR4650045 | 465.00 | 474.00 | 4.50 |
| MOR4650050 | 465.00 | 475.00 | 5.00 |
| MOR4650053 | 465.00 | 475.60 | 5.30 |
| MOR4650070 | 465.00 | 479.00 | 7.00 |
| MOR4650090 | 465.00 | 483.00 | 9.00 |
| MOR4660040 | 466.00 | 474.00 | 4.00 |
| MOR4665065 | 466.50 | 479.50 | 6.50 |
| MOR4670040 | 467.00 | 475.00 | 4.00 |
| MOR4670057 | 467.00 | 478.40 | 5.70 |
| MOR4680040 | 468.00 | 476.00 | 4.00 |
| MOR4680060 | 468.00 | 480.00 | 6.00 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR4680070 | 468.00 | 482.00 | 7.00 |
| MOR4680100 | 468.00 | 488.00 | 10.00 |
| MOR4690040 | 469.00 | 477.00 | 4.00 |
| MOR4690063 | 469.00 | 481.70 | 6.35 |
| MOR4690070 | 469.00 | 483.00 | 7.00 |
| MOR4693057 | 469.30 | 480.70 | 5.70 |
| MOR4695064 | 469.50 | 482.30 | 6.40 |
| MOR4700025 | 470.00 | 475.00 | 2.50 |
| MOR4700030 | 470.00 | 476.00 | 3.00 |
| MOR4700040 | 470.00 | 478.00 | 4.00 |
| MOR4700050 | 470.00 | 480.00 | 5.00 |
| MOR4700060 | 470.00 | 482.00 | 6.00 |
| MOR4700070 | 470.00 | 484.00 | 7.00 |
| MOR4700080 | 470.00 | 486.00 | 8.00 |
| MOR4700100 | 470.00 | 490.00 | 10.00 |
| MOR4710040 | 471.00 | 479.00 | 4.00 |
| MOR4720040 | 472.00 | 480.00 | 4.00 |
| MOR4720060 | 472.00 | 484.00 | 6.00 |
| MOR4720100 | 472.00 | 492.00 | 10.00 |
| MOR4730040 | 473.00 | 481.00 | 4.00 |
| MOR4740040 | 474.00 | 482.00 | 4.00 |
| MOR4740120 | 474.00 | 498.00 | 12.00 |
| MOR4743057 | 474.30 | 485.70 | 5.70 |
| MOR4750030 | 475.00 | 481.00 | 3.00 |
| MOR4750040 | 475.00 | 483.00 | 4.00 |
| MOR4750050 | 475.00 | 485.00 | 5.00 |
| MOR4750060 | 475.00 | 487.00 | 6.00 |
| MOR4750070 | 475.00 | 489.00 | 7.00 |
| MOR4750075 | 475.00 | 490.00 | 7.50 |
| MOR4750080 | 475.00 | 491.00 | 8.00 |
| MOR4750100 | 475.00 | 495.00 | 10.00 |
| MOR4750150 | 475.00 | 505.00 | 15.00 |
| MOR4760040 | 476.00 | 484.00 | 4.00 |
| MOR4760070 | 476.00 | 490.00 | 7.00 |
| MOR4770040 | 477.00 | 485.00 | 4.00 |
| MOR4770080 | 477.00 | 493.00 | 8.00 |
| MOR4780040 | 478.00 | 486.00 | 4.00 |
| MOR4780050 | 478.00 | 488.00 | 5.00 |
| MOR4780060 | 478.00 | 490.00 | 6.00 |
| MOR4790040 | 479.00 | 487.00 | 4.00 |
| MOR4790100 | 479.00 | 499.00 | 10.00 |
| MOR4792057 | 479.20 | 490.60 | 5.70 |
| MOR4793057 | 479.30 | 490.70 | 5.70 |
| MOR4794047 | 479.42 | 488.92 | 4.75 |
| MOR4800040 | 480.00 | 488.00 | 4.00 |
| MOR4800050 | 480.00 | 490.00 | 5.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR4800060 | 480.00 | 492.00 | 6.00 |
| MOR4800070 | 480.00 | 494.00 | 7.00 |
| MOR4800075 | 480.00 | 495.00 | 7.50 |
| MOR4800080 | 480.00 | 496.00 | 8.00 |
| MOR4800100 | 480.00 | 500.00 | 10.00 |
| MOR4810035 | 481.00 | 488.10 | 3.55 |
| MOR4810040 | 481.00 | 489.00 | 4.00 |
| MOR4810070 | 481.00 | 495.00 | 7.00 |
| MOR4810084 | 481.00 | 497.80 | 8.40 |
| MOR4820040 | 482.00 | 490.00 | 4.00 |
| MOR4820050 | 482.00 | 492.00 | 5.00 |
| MOR4820070 | 482.00 | 496.00 | 7.00 |
| MOR4830040 | 483.00 | 491.00 | 4.00 |
| MOR4830060 | 483.00 | 495.00 | 6.00 |
| MOR4830084 | 483.00 | 499.80 | 8.40 |
| MOR4840040 | 484.00 | 492.00 | 4.00 |
| MOR4840084 | 484.00 | 500.80 | 8.40 |
| MOR4843057 | 484.30 | 495.70 | 5.70 |
| MOR4850030 | 485.00 | 491.00 | 3.00 |
| MOR4850040 | 485.00 | 493.00 | 4.00 |
| MOR4850050 | 485.00 | 495.00 | 5.00 |
| MOR4850100 | 485.00 | 505.00 | 10.00 |
| MOR4860040 | 486.00 | 494.00 | 4.00 |
| MOR4860060 | 486.00 | 498.00 | 6.00 |
| MOR4870040 | 487.00 | 495.00 | 4.00 |
| MOR4870070 | 487.00 | 501.00 | 7.00 |
| MOR4880040 | 488.00 | 496.00 | 4.00 |
| MOR4880060 | 488.00 | 500.00 | 6.00 |
| MOR4890040 | 489.00 | 497.00 | 4.00 |
| MOR4890060 | 489.00 | 501.00 | 6.00 |
| MOR4892057 | 489.20 | 500.60 | 5.70 |
| MOR4900040 | 490.00 | 498.00 | 4.00 |
| MOR4900050 | 490.00 | 500.00 | 5.00 |
| MOR4900067 | 490.00 | 503.40 | 6.70 |
| MOR4900070 | 490.00 | 504.00 | 7.00 |
| MOR4900080 | 490.00 | 506.00 | 8.00 |
| MOR4900084 | 490.00 | 506.80 | 8.40 |
| MOR4900090 | 490.00 | 508.00 | 9.00 |
| MOR4900100 | 490.00 | 510.00 | 10.00 |
| MOR4910040 | 491.00 | 499.00 | 4.00 |
| MOR4915040 | 491.50 | 499.50 | 4.00 |
| MOR4920040 | 492.00 | 500.00 | 4.00 |
| MOR4930040 | 493.00 | 501.00 | 4.00 |
| MOR4930100 | 493.00 | 513.00 | 10.00 |
| MOR4930127 | 493.00 | 518.40 | 12.70 |
| MOR4940040 | 494.00 | 502.00 | 4.00 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR4940045 | 494.00 | 503.00 | 4.50 |
| MOR4940080 | 494.00 | 510.00 | 8.00 |
| MOR4941084 | 494.10 | 510.90 | 8.40 |
| MOR4950030 | 495.00 | 501.00 | 3.00 |
| MOR4950040 | 495.00 | 503.00 | 4.00 |
| MOR4950050 | 495.00 | 505.00 | 5.00 |
| MOR4950070 | 495.00 | 509.00 | 7.00 |
| MOR4950084 | 495.00 | 511.80 | 8.40 |
| MOR4960040 | 496.00 | 504.00 | 4.00 |
| MOR4960100 | 496.00 | 516.00 | 10.00 |
| MOR4970040 | 497.00 | 505.00 | 4.00 |
| MOR4980040 | 498.00 | 506.00 | 4.00 |
| MOR4990040 | 499.00 | 507.00 | 4.00 |
| MOR4990120 | 499.00 | 523.00 | 12.00 |
| MOR4992057 | 499.20 | 510.60 | 5.70 |
| MOR4993050 | 499.30 | 509.30 | 5.00 |
| MOR4993057 | 499.30 | 510.70 | 5.70 |
| MOR5000030 | 500.00 | 506.00 | 3.00 |
| MOR5000040 | 500.00 | 508.00 | 4.00 |
| MOR5000050 | 500.00 | 510.00 | 5.00 |
| MOR5000060 | 500.00 | 512.00 | 6.00 |
| MOR5000070 | 500.00 | 514.00 | 7.00 |
| MOR5000080 | 500.00 | 516.00 | 8.00 |
| MOR5000084 | 500.00 | 516.80 | 8.40 |
| MOR5000090 | 500.00 | 518.00 | 9.00 |
| MOR5000100 | 500.00 | 520.00 | 10.00 |
| MOR5000120 | 500.00 | 524.00 | 12.00 |
| MOR5020080 | 502.00 | 518.00 | 8.00 |
| MOR5030084 | 503.00 | 519.80 | 8.40 |
| MOR5040050 | 504.00 | 514.00 | 5.00 |
| MOR5040060 | 504.00 | 516.00 | 6.00 |
| MOR5045080 | 504.50 | 520.50 | 8.00 |
| MOR5050030 | 505.00 | 511.00 | 3.00 |
| MOR5050040 | 505.00 | 513.00 | 4.00 |
| MOR5050060 | 505.00 | 517.00 | 6.00 |
| MOR5050070 | 505.00 | 519.00 | 7.00 |
| MOR5070030 | 507.00 | 513.00 | 3.00 |
| MOR5070070 | 507.00 | 521.00 | 7.00 |
| MOR5070085 | 507.00 | 524.00 | 8.50 |
| MOR5080040 | 508.00 | 516.00 | 4.00 |
| MOR5080060 | 508.00 | 520.00 | 6.00 |
| MOR5080096 | 508.00 | 527.20 | 9.60 |
| MOR5080100 | 508.00 | 528.00 | 10.00 |
| MOR5090035 | 509.00 | 516.00 | 3.50 |
| MOR5100030 | 510.00 | 516.00 | 3.00 |
| MOR5100035 | 510.00 | 517.00 | 3.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR5100040 | 510.00 | 518.00 | 4.00 |
| MOR5100050 | 510.00 | 520.00 | 5.00 |
| MOR5100057 | 510.00 | 521.40 | 5.70 |
| MOR5100060 | 510.00 | 522.00 | 6.00 |
| MOR5100070 | 510.00 | 524.00 | 7.00 |
| MOR5100090 | 510.00 | 528.00 | 9.00 |
| MOR5100100 | 510.00 | 530.00 | 10.00 |
| MOR5110088 | 511.00 | 528.60 | 8.80 |
| MOR5120100 | 512.00 | 532.00 | 10.00 |
| MOR5140084 | 514.00 | 530.80 | 8.40 |
| MOR5150070 | 515.00 | 529.00 | 7.00 |
| MOR5150080 | 515.00 | 531.00 | 8.00 |
| MOR5160060 | 516.00 | 528.00 | 6.00 |
| MOR5160062 | 516.00 | 528.40 | 6.20 |
| MOR5160080 | 516.00 | 532.00 | 8.00 |
| MOR5175070 | 517.50 | 531.50 | 7.00 |
| MOR5180080 | 518.00 | 534.00 | 8.00 |
| MOR5185030 | 518.50 | 524.50 | 3.00 |
| MOR5190057 | 519.00 | 530.40 | 5.70 |
| MOR5200040 | 520.00 | 528.00 | 4.00 |
| MOR5200050 | 520.00 | 530.00 | 5.00 |
| MOR5200070 | 520.00 | 534.00 | 7.00 |
| MOR5200080 | 520.00 | 536.00 | 8.00 |
| MOR5200100 | 520.00 | 540.00 | 10.00 |
| MOR5220080 | 522.00 | 538.00 | 8.00 |
| MOR5220084 | 522.00 | 538.80 | 8.40 |
| MOR5220087 | 522.00 | 539.40 | 8.70 |
| MOR5220100 | 522.00 | 542.00 | 10.00 |
| MOR5245100 | 524.50 | 544.50 | 10.00 |
| MOR5250030 | 525.00 | 531.00 | 3.00 |
| MOR5250040 | 525.00 | 533.00 | 4.00 |
| MOR5250050 | 525.00 | 535.00 | 5.00 |
| MOR5250060 | 525.00 | 537.00 | 6.00 |
| MOR5250120 | 525.00 | 549.00 | 12.00 |
| MOR5270070 | 527.00 | 541.00 | 7.00 |
| MOR5290030 | 529.00 | 535.00 | 3.00 |
| MOR5293057 | 529.30 | 540.70 | 5.70 |
| MOR5300030 | 530.00 | 536.00 | 3.00 |
| MOR5300040 | 530.00 | 538.00 | 4.00 |
| MOR5300050 | 530.00 | 540.00 | 5.00 |
| MOR5300060 | 530.00 | 542.00 | 6.00 |
| MOR5300070 | 530.00 | 544.00 | 7.00 |
| MOR5300090 | 530.00 | 548.00 | 9.00 |
| MOR5300100 | 530.00 | 550.00 | 10.00 |
| MOR5320070 | 532.00 | 546.00 | 7.00 |
| MOR5320084 | 532.00 | 548.80 | 8.40 |

O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR5320100 | 532.00 | 552.00 | 10.00 |
| MOR5340057 | 534.00 | 545.40 | 5.70 |
| MOR5350100 | 535.00 | 555.00 | 10.00 |
| MOR5370070 | 537.00 | 551.00 | 7.00 |
| MOR5370080 | 537.00 | 553.00 | 8.00 |
| MOR5380030 | 538.00 | 544.00 | 3.00 |
| MOR5380070 | 538.00 | 552.00 | 7.00 |
| MOR5380080 | 538.00 | 554.00 | 8.00 |
| MOR5380100 | 538.00 | 558.00 | 10.00 |
| MOR5392057 | 539.20 | 550.60 | 5.70 |
| MOR5400040 | 540.00 | 548.00 | 4.00 |
| MOR5400045 | 540.00 | 549.00 | 4.50 |
| MOR5400050 | 540.00 | 550.00 | 5.00 |
| MOR5400060 | 540.00 | 552.00 | 6.00 |
| MOR5400070 | 540.00 | 554.00 | 7.00 |
| MOR5400080 | 540.00 | 556.00 | 8.00 |
| MOR5400100 | 540.00 | 560.00 | 10.00 |
| MOR5420070 | 542.00 | 556.00 | 7.00 |
| MOR5420080 | 542.00 | 558.00 | 8.00 |
| MOR5440060 | 544.00 | 556.00 | 6.00 |
| MOR5450030 | 545.00 | 551.00 | 3.00 |
| MOR5450050 | 545.00 | 555.00 | 5.00 |
| MOR5450070 | 545.00 | 559.00 | 7.00 |
| MOR5450080 | 545.00 | 561.00 | 8.00 |
| MOR5450090 | 545.00 | 563.00 | 9.00 |
| MOR5460070 | 546.00 | 560.00 | 7.00 |
| MOR5490030 | 549.00 | 555.00 | 3.00 |
| MOR5490060 | 549.00 | 561.00 | 6.00 |
| MOR5500030 | 550.00 | 556.00 | 3.00 |
| MOR5500040 | 550.00 | 558.00 | 4.00 |
| MOR5500050 | 550.00 | 560.00 | 5.00 |
| MOR5500070 | 550.00 | 564.00 | 7.00 |
| MOR5500080 | 550.00 | 566.00 | 8.00 |
| MOR5500084 | 550.00 | 566.80 | 8.40 |
| MOR5500100 | 550.00 | 570.00 | 10.00 |
| MOR5520060 | 552.00 | 564.00 | 6.00 |
| MOR5520070 | 552.00 | 566.00 | 7.00 |
| MOR5530084 | 553.00 | 569.80 | 8.40 |
| MOR5540100 | 554.00 | 574.00 | 10.00 |
| MOR5550050 | 555.00 | 565.00 | 5.00 |
| MOR5550060 | 555.00 | 567.00 | 6.00 |
| MOR5550070 | 555.00 | 569.00 | 7.00 |
| MOR5550100 | 555.00 | 575.00 | 10.00 |
| MOR5580030 | 558.00 | 564.00 | 3.00 |
| MOR5580057 | 558.00 | 569.40 | 5.70 |
| MOR5580070 | 558.00 | 572.00 | 7.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR5600030 | 560.00 | 566.00 | 3.00 |
| MOR5600040 | 560.00 | 568.00 | 4.00 |
| MOR5600043 | 560.00 | 568.70 | 4.35 |
| MOR5600050 | 560.00 | 570.00 | 5.00 |
| MOR5600060 | 560.00 | 572.00 | 6.00 |
| MOR5600070 | 560.00 | 574.00 | 7.00 |
| MOR5600080 | 560.00 | 576.00 | 8.00 |
| MOR5600100 | 560.00 | 580.00 | 10.00 |
| MOR5615085 | 561.50 | 578.50 | 8.50 |
| MOR5620075 | 562.00 | 577.00 | 7.50 |
| MOR5630100 | 563.00 | 583.00 | 10.00 |
| MOR5650050 | 565.00 | 575.00 | 5.00 |
| MOR5650057 | 565.00 | 576.40 | 5.70 |
| MOR5650070 | 565.00 | 579.00 | 7.00 |
| MOR5650080 | 565.00 | 581.00 | 8.00 |
| MOR5660090 | 566.00 | 584.00 | 9.00 |
| MOR5680030 | 568.00 | 574.00 | 3.00 |
| MOR5680044 | 568.00 | 576.80 | 4.40 |
| MOR5680060 | 568.00 | 580.00 | 6.00 |
| MOR5680070 | 568.00 | 582.00 | 7.00 |
| MOR5680080 | 568.00 | 584.00 | 8.00 |
| MOR5690060 | 569.00 | 581.00 | 6.00 |
| MOR5700030 | 570.00 | 576.00 | 3.00 |
| MOR5700040 | 570.00 | 578.00 | 4.00 |
| MOR5700050 | 570.00 | 580.00 | 5.00 |
| MOR5700100 | 570.00 | 590.00 | 10.00 |
| MOR5710100 | 571.00 | 591.00 | 10.00 |
| MOR5715063 | 571.50 | 584.20 | 6.35 |
| MOR5740070 | 574.00 | 588.00 | 7.00 |
| MOR5750060 | 575.00 | 587.00 | 6.00 |
| MOR5750080 | 575.00 | 591.00 | 8.00 |
| MOR5760070 | 576.00 | 590.00 | 7.00 |
| MOR5790060 | 579.00 | 591.00 | 6.00 |
| MOR5800030 | 580.00 | 586.00 | 3.00 |
| MOR5800050 | 580.00 | 590.00 | 5.00 |
| MOR5800057 | 580.00 | 591.40 | 5.70 |
| MOR5800070 | 580.00 | 594.00 | 7.00 |
| MOR5800080 | 580.00 | 596.00 | 8.00 |
| MOR5800090 | 580.00 | 598.00 | 9.00 |
| MOR5800100 | 580.00 | 600.00 | 10.00 |
| MOR5820070 | 582.00 | 596.00 | 7.00 |
| MOR5820080 | 582.00 | 598.00 | 8.00 |
| MOR5820120 | 582.00 | 606.00 | 12.00 |
| MOR5830070 | 583.00 | 597.00 | 7.00 |
| MOR5840084 | 584.00 | 600.80 | 8.40 |
| MOR5850040 | 585.00 | 593.00 | 4.00 |



O'Rings - NBR 70A, NBR 90A, FPM 80A

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR5850050 | 585.00 | 595.00 | 5.00 |
| MOR5850070 | 585.00 | 599.00 | 7.00 |
| MOR5850080 | 585.00 | 601.00 | 8.00 |
| MOR5860060 | 586.00 | 598.00 | 6.00 |
| MOR5860100 | 586.00 | 606.00 | 10.00 |
| MOR5880060 | 588.00 | 600.00 | 6.00 |
| MOR5880063 | 588.00 | 600.70 | 6.35 |
| MOR5890100 | 589.00 | 609.00 | 10.00 |
| MOR5900030 | 590.00 | 596.00 | 3.00 |
| MOR5900050 | 590.00 | 600.00 | 5.00 |
| MOR5900085 | 590.00 | 607.00 | 8.50 |
| MOR5900090 | 590.00 | 608.00 | 9.00 |
| MOR5900120 | 590.00 | 614.00 | 12.00 |
| MOR5920086 | 592.00 | 609.20 | 8.60 |
| MOR5940057 | 594.00 | 605.40 | 5.70 |

| Ref.Number | Nominal Seal Dimensions | | |
|------------|-------------------------|--------|-------|
| | d | D | S |
| MOR5950060 | 595.00 | 607.00 | 6.00 |
| MOR5950080 | 595.00 | 611.00 | 8.00 |
| MOR5960070 | 596.00 | 610.00 | 7.00 |
| MOR5960090 | 596.00 | 614.00 | 9.00 |
| MOR5970045 | 597.00 | 606.00 | 4.50 |
| MOR5970070 | 597.00 | 611.00 | 7.00 |
| MOR5980055 | 598.00 | 609.00 | 5.50 |
| MOR5990073 | 599.00 | 613.60 | 7.30 |
| MOR6000030 | 600.00 | 606.00 | 3.00 |
| MOR6000050 | 600.00 | 610.00 | 5.00 |
| MOR6000065 | 600.00 | 613.00 | 6.50 |
| MOR6000070 | 600.00 | 614.00 | 7.00 |
| MOR6000080 | 600.00 | 616.00 | 8.00 |
| MOR6000100 | 600.00 | 620.00 | 10.00 |
| MOR6000120 | 600.00 | 624.00 | 12.00 |

O'RINGS



JIS B 2401 Metric O'Ring size chart

| JIS B 2401 | Thickness | | Inner Diameter | | JIS B 2401 | Thickness | | Inner Diameter | | JIS B 2401 | Thickness | | Inner Diameter | |
|------------|-----------|-------|----------------|-------|------------|-----------|-------|----------------|--------|------------|-----------|-------|----------------|--------|
| | W (mm) | | d (mm) | | | W (mm) | | d (mm) | | | W (mm) | | d (mm) | |
| P 3 | ↑ | | 2.80 | ±.140 | P 56 | ↑ | | 55.60 | ±.500 | P 270 | ↑ | | 269.50 | ±2.010 |
| P 4 | | | 3.80 | ±.140 | P 58 | ↑ | | 57.60 | ±.520 | P 275 | | | 274.50 | ±2.040 |
| P 5 | | | 4.80 | ±.150 | P 60 | | | 59.60 | ±.530 | P 280 | | | 279.50 | ±2.070 |
| P 6 | 1.90 | ±.080 | 5.80 | ±.150 | P 62 | | | 61.60 | ±.550 | P 285 | | | 284.50 | ±2.100 |
| P 7 | | | 6.80 | ±.160 | P 63 | | | 62.60 | ±.560 | P 290 | | | 289.50 | ±2.140 |
| P 8 | | | 7.80 | ±.160 | P 65 | | | 64.60 | ±.570 | P 295 | | | 294.50 | ±2.170 |
| P 9 | | | 8.80 | ±.170 | P 67 | | | 66.60 | ±.590 | P 300 | | | 299.50 | ±2.200 |
| P 10 | ↓ | | 9.80 | ±.170 | P 70 | | | 69.60 | ±.610 | P 315 | 8.40 | ±.150 | 314.50 | ±2.300 |
| P 10A | ↑ | | 9.80 | ±.170 | P 71 | | | 70.60 | ±.620 | P 320 | | | 319.50 | ±2.330 |
| P 11 | | | 10.80 | ±.180 | P 75 | | | 74.60 | ±.650 | P 335 | | | 334.50 | ±2.420 |
| P 11.2 | | | 11.00 | ±.180 | P 80 | | | 79.60 | ±.690 | P 340 | | | 339.50 | ±2.450 |
| P 12 | | | 11.80 | ±.190 | P 85 | | | 84.60 | ±.730 | P 355 | | | 354.50 | ±2.540 |
| P 12.5 | | | 12.30 | ±.190 | P 90 | | | 89.60 | ±.770 | P 360 | | | 359.50 | ±2.570 |
| P 14 | 2.40 | ±.090 | 13.80 | ±.190 | P 95 | 5.70 | ±.130 | 94.60 | ±.810 | P 375 | | | 374.50 | ±2.670 |
| P 15 | | | 14.80 | ±.200 | P 100 | | | 99.60 | ±.840 | P 385 | | | 384.50 | ±2.730 |
| P 16 | | | 15.80 | ±.200 | P 102 | | | 101.60 | ±.850 | P 400 | ↓ | | 399.50 | ±2.820 |
| P 18 | | | 17.80 | ±.210 | P 105 | | | 104.60 | ±.870 | G 25 | ↑ | | 24.40 | ±.250 |
| P 20 | | | 19.80 | ±.220 | P 110 | | | 109.60 | ±.910 | G 30 | | | 29.40 | ±.290 |
| P 21 | | | 20.80 | ±.230 | P 112 | | | 111.60 | ±.920 | G 35 | | | 34.40 | ±.330 |
| P 22 | ↓ | | 21.80 | ±.240 | P 115 | | | 114.60 | ±.940 | G 40 | | | 39.40 | ±.370 |
| P 22A | ↑ | | 21.70 | ±.240 | P 120 | | | 119.60 | ±.980 | G 45 | | | 44.40 | ±.410 |
| P 22.4 | | | 22.10 | ±.240 | P 125 | | | 124.60 | ±1.010 | G 50 | | | 49.40 | ±.450 |
| P 24 | | | 23.70 | ±.240 | P 130 | | | 129.60 | ±1.050 | G 55 | | | 54.40 | ±.490 |
| P 25 | | | 24.70 | ±.250 | P 132 | | | 131.60 | ±1.060 | G 60 | | | 50.40 | ±.530 |
| P 25.5 | | | 25.20 | ±.250 | P 135 | | | 134.60 | ±1.090 | G 65 | | | 64.40 | ±.570 |
| P 26 | | | 25.70 | ±.260 | P 140 | | | 139.60 | ±1.120 | G 70 | | | 69.40 | ±.610 |
| P 28 | | | 27.70 | ±.280 | P 145 | | | 144.60 | ±1.160 | G 75 | | | 74.40 | ±.650 |
| P 29 | | | 28.70 | ±.290 | P 150 | ↓ | | 149.60 | ±1.190 | G 80 | | | 79.40 | ±.690 |
| P 29.5 | | | 29.20 | ±.290 | P 150A | ↑ | | 149.50 | ±1.190 | G 85 | 3.10 | ±.100 | 84.40 | ±.730 |
| P 30 | | | 29.70 | ±.290 | P 155 | | | 154.50 | ±1.230 | G 90 | | | 89.40 | ±.770 |
| P 31 | | | 30.70 | ±.300 | P 160 | | | 159.50 | ±1.260 | G 95 | | | 94.40 | ±.810 |
| P 31.5 | | | 31.20 | ±.310 | P 165 | | | 164.50 | ±1.300 | G 100 | | | 99.40 | ±.850 |
| P 32 | | | 31.70 | ±.310 | P 170 | | | 169.50 | ±1.330 | G 105 | | | 104.40 | ±.870 |
| P 34 | 3.50 | ±.100 | 33.70 | ±.330 | P 175 | | | 174.50 | ±1.370 | G 110 | | | 109.40 | ±.910 |
| P 35 | | | 34.70 | ±.340 | P 180 | | | 179.50 | ±1.400 | G 115 | | | 114.40 | ±.940 |
| P 35.5 | | | 35.20 | ±.340 | P 185 | | | 184.50 | ±1.440 | G 120 | | | 119.40 | ±.980 |
| P 36 | | | 35.70 | ±.340 | P 190 | | | 189.50 | ±1.480 | G 125 | | | 124.40 | ±1.010 |
| P 38 | | | 37.70 | ±.370 | P 195 | | | 194.50 | ±1.510 | G 130 | | | 129.40 | ±1.050 |
| P 39 | | | 38.70 | ±.370 | P 200 | | | 199.50 | ±1.550 | G 135 | | | 134.40 | ±1.080 |
| P 40 | | | 39.70 | ±.370 | P 205 | | | 204.50 | ±1.580 | G 140 | | | 139.40 | ±1.120 |
| P 41 | | | 40.70 | ±.380 | P 209 | 8.40 | ±.150 | 208.50 | ±1.610 | G 145 | ↓ | | 144.40 | ±1.160 |
| P 42 | | | 41.70 | ±.390 | P 210 | | | 209.50 | ±1.620 | G 150 | ↑ | | 149.30 | ±1.190 |
| P 44 | | | 43.70 | ±.410 | P 215 | | | 214.50 | ±1.650 | G 155 | | | 154.30 | ±1.230 |
| P 45 | | | 44.70 | ±.410 | P 220 | | | 219.50 | ±1.550 | G 160 | | | 159.30 | ±1.260 |
| P 46 | | | 45.70 | ±.420 | P 225 | | | 224.50 | ±1.580 | G 165 | | | 164.30 | ±1.300 |
| P 48 | | | 47.70 | ±.440 | P 230 | | | 229.50 | ±1.610 | G 170 | | | 169.30 | ±1.330 |
| P 49 | | | 48.70 | ±.450 | P 235 | | | 234.50 | ±1.620 | G 175 | 5.70 | ±.130 | 174.30 | ±1.370 |
| P 50 | ↓ | | 49.70 | ±.450 | P 240 | | | 239.50 | ±1.650 | G 180 | | | 179.30 | ±1.400 |
| P 48A | ↑ | | 47.60 | ±.450 | P 245 | | | 244.50 | ±1.840 | G 185 | | | 184.30 | ±1.440 |
| P 50A | | | 49.60 | ±.450 | P 250 | | | 249.50 | ±1.880 | G 190 | | | 189.30 | ±1.470 |
| P 52 | 5.70 | ±.130 | 51.60 | ±.470 | P 255 | | | 254.50 | ±1.910 | G 195 | | | 194.30 | ±1.510 |
| P 53 | | | 52.60 | ±.480 | P 260 | | | 259.50 | ±1.940 | G 200 | | | 199.30 | ±1.550 |
| P 55 | ↓ | | 54.60 | ±.490 | P 265 | ↓ | | 264.50 | ±1.970 | G 205 | ↓ | | 204.30 | ±1.580 |



JIS B 2401 Metric O'Ring size chart

| JIS B 2401 | Thickness | | Inner Diameter | | JIS B 2401 | Thickness | | Inner Diameter | | JIS B 2401 | Thickness | | Inner Diameter | |
|---------------|-----------|-------|----------------|--------|---------------|-----------|-------|----------------|--------|---------------|-----------|-------|----------------|--------|
| | W (mm) | | d (mm) | | | W (mm) | | d (mm) | | | W (mm) | | d (mm) | |
| G 210 | ↑ | ↑ | 209.30 | ±1.610 | G 275 | ↑ | ↑ | 274.30 | ±2.040 | G 340 | ↑ | ↑ | 339.30 | ±2.420 |
| G 215 | ↑ | ↑ | 214.30 | ±1.640 | G 280 | ↑ | ↑ | 279.30 | ±2.070 | G 345 | ↑ | ↑ | 344.30 | ±2.480 |
| G 220 | ↑ | ↑ | 219.30 | ±1.680 | G 285 | ↑ | ↑ | 284.30 | ±2.100 | G 350 | ↑ | ↑ | 349.30 | ±2.510 |
| G 225 | ↑ | ↑ | 224.30 | ±1.710 | G 290 | ↑ | ↑ | 289.30 | ±2.140 | G 355 | ↑ | ↑ | 354.30 | ±2.540 |
| G 230 | ↑ | ↑ | 229.30 | ±1.730 | G 295 | ↑ | ↑ | 294.30 | ±2.170 | G 360 | ↑ | ↑ | 359.30 | ±2.570 |
| G 235 | ↑ | ↑ | 234.30 | ±1.770 | G 300 | ↑ | ↑ | 299.30 | ±2.200 | G 365 | ↑ | ↑ | 364.30 | ±2.600 |
| G 240 | 5.70 | ±.130 | 239.30 | ±1.810 | G 305 | 5.70 | ±.130 | 304.30 | ±2.200 | G 370 | 5.70 | ±.130 | 369.30 | ±2.630 |
| G 245 | ↓ | ↓ | 244.30 | ±1.840 | G 310 | ↓ | ↓ | 309.30 | ±2.240 | G 375 | ↓ | ↓ | 374.30 | ±2.670 |
| G 250 | ↓ | ↓ | 249.30 | ±1.880 | G 315 | ↓ | ↓ | 314.30 | ±2.270 | G 380 | ↓ | ↓ | 379.30 | ±2.700 |
| G 255 | ↓ | ↓ | 254.30 | ±1.910 | G 320 | ↓ | ↓ | 319.30 | ±2.300 | G 385 | ↓ | ↓ | 384.30 | ±2.730 |
| G 260 | ↓ | ↓ | 259.30 | ±1.940 | G 325 | ↓ | ↓ | 324.30 | ±2.330 | G 390 | ↓ | ↓ | 389.30 | ±2.760 |
| G 265 | ↓ | ↓ | 264.30 | ±1.970 | G 330 | ↓ | ↓ | 329.30 | ±2.360 | G 395 | ↓ | ↓ | 394.30 | ±2.790 |
| G 270 | ↓ | ↓ | 269.30 | ±2.010 | G 335 | ↓ | ↓ | 334.30 | ±2.390 | G 400 | ↓ | ↓ | 399.30 | ±2.820 |

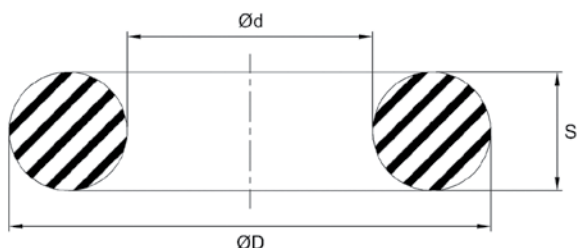
O'RINGS



O'Rings - JIS - Metric



| Standard Material | Temperature Range | Surface Speed |
|-------------------|--------------------------------------|-------------------|
| Nitrile | -10°F to +250°F (-23°C to +121°C) | <3.3 ft/s (1 m/s) |



O'Rings are toroidal-shaped elastomeric seals used in a variety of applications. Supplied in 90 Shore A hardness nitrile material and in a wide range of available dimensions.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|------|
| | d | D | S |
| MOR0028019/N90 | 2.80 | 6.60 | 1.90 |
| MOR0038019/N90 | 3.80 | 7.60 | 1.90 |
| MOR0048019/N90 | 4.80 | 8.60 | 1.90 |
| MOR0058019/N90 | 5.80 | 9.60 | 1.90 |
| MOR0068019/N90 | 6.80 | 10.60 | 1.90 |
| MOR0078019/N90 | 7.80 | 11.60 | 1.90 |
| MOR0088019/N90 | 8.80 | 12.60 | 1.90 |
| MOR0098019/N90 | 9.80 | 13.60 | 1.90 |
| MOR0098024/N90 | 9.80 | 14.60 | 2.40 |
| MOR0108024/N90 | 10.80 | 15.60 | 2.40 |
| MOR0110024/N90 | 11.00 | 15.80 | 2.40 |
| MOR0118024/N90 | 11.80 | 16.60 | 2.40 |
| MOR0123024/N90 | 12.30 | 17.10 | 2.40 |
| MOR0138024/N90 | 13.80 | 18.60 | 2.40 |
| MOR0148024/N90 | 14.80 | 19.60 | 2.40 |
| MOR0158024/N90 | 15.80 | 20.60 | 2.40 |
| MOR0168024/N90 | 16.80 | 21.60 | 2.40 |
| MOR0178024/N90 | 17.80 | 22.60 | 2.40 |
| MOR0188024/N90 | 18.80 | 23.60 | 2.40 |
| MOR0198024/N90 | 19.80 | 24.60 | 2.40 |
| MOR0208024/N90 | 20.80 | 25.60 | 2.40 |
| MOR0217035/N90 | 21.70 | 28.70 | 3.50 |
| MOR0218024/N90 | 21.80 | 26.60 | 2.40 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|-------|------|
| | d | D | S |
| MOR0221035/N90 | 22.10 | 29.10 | 3.50 |
| MOR0237035/N90 | 23.70 | 30.70 | 3.50 |
| MOR0244031/N90 | 24.40 | 30.60 | 3.10 |
| MOR0247035/N90 | 24.70 | 31.70 | 3.50 |
| MOR0252035/N90 | 25.20 | 32.20 | 3.50 |
| MOR0257035/N90 | 25.70 | 32.70 | 3.50 |
| MOR0277035/N90 | 27.70 | 34.70 | 3.50 |
| MOR0287035/N90 | 28.70 | 35.70 | 3.50 |
| MOR0292035/N90 | 29.20 | 36.20 | 3.50 |
| MOR0294031/N90 | 29.40 | 35.60 | 3.10 |
| MOR0297035/N90 | 29.70 | 36.70 | 3.50 |
| MOR0307035/N90 | 30.70 | 37.70 | 3.50 |
| MOR0312035/N90 | 31.20 | 38.20 | 3.50 |
| MOR0317035/N90 | 31.70 | 38.70 | 3.50 |
| MOR0337035/N90 | 33.70 | 40.70 | 3.50 |
| MOR0344031/N90 | 34.40 | 40.60 | 3.10 |
| MOR0347035/N90 | 34.70 | 41.70 | 3.50 |
| MOR0352035/N90 | 35.20 | 42.20 | 3.50 |
| MOR0357035/N90 | 35.70 | 42.70 | 3.50 |
| MOR0377035/N90 | 37.70 | 44.70 | 3.50 |
| MOR0387035/N90 | 38.70 | 45.70 | 3.50 |
| MOR0394031/N90 | 39.40 | 45.60 | 3.10 |
| MOR0397035/N90 | 39.70 | 46.70 | 3.50 |



O'Rings - JIS - NBR 90A



| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|------|
| | d | D | S |
| MOR0407035/N90 | 40.70 | 47.70 | 3.50 |
| MOR0414031/N90 | 41.40 | 47.60 | 3.10 |
| MOR0417035/N90 | 41.70 | 48.70 | 3.50 |
| MOR0437035/N90 | 43.70 | 50.70 | 3.50 |
| MOR0444031/N90 | 44.40 | 50.60 | 3.10 |
| MOR0447035/N90 | 44.70 | 51.70 | 3.50 |
| MOR0457035/N90 | 45.70 | 52.70 | 3.50 |
| MOR0476057/N90 | 47.60 | 59.00 | 5.70 |
| MOR0477035/N90 | 47.70 | 54.70 | 3.50 |
| MOR0487035/N90 | 48.70 | 55.70 | 3.50 |
| MOR0494031/N90 | 49.40 | 55.60 | 3.10 |
| MOR0496057/N90 | 49.60 | 61.00 | 5.70 |
| MOR0497035/N90 | 49.70 | 56.70 | 3.50 |
| MOR0516057/N90 | 51.60 | 63.00 | 5.70 |
| MOR0526057/N90 | 52.60 | 64.00 | 5.70 |
| MOR0544031/N90 | 54.40 | 60.60 | 3.10 |
| MOR0546057/N90 | 54.60 | 66.00 | 5.70 |
| MOR0556057/N90 | 55.60 | 67.00 | 5.70 |
| MOR0574031/N90 | 57.40 | 63.60 | 3.10 |
| MOR0576057/N90 | 57.60 | 69.00 | 5.70 |
| MOR0594031/N90 | 59.40 | 65.60 | 3.10 |
| MOR0596057/N90 | 59.60 | 71.00 | 5.70 |
| MOR0616057/N90 | 61.60 | 73.00 | 5.70 |
| MOR0626057/N90 | 62.60 | 74.00 | 5.70 |
| MOR0644031/N90 | 64.40 | 70.60 | 3.10 |
| MOR0646057/N90 | 64.60 | 76.00 | 5.70 |
| MOR0666057/N90 | 66.60 | 78.00 | 5.70 |
| MOR0676057/N90 | 67.60 | 79.00 | 5.70 |
| MOR0694031/N90 | 69.40 | 75.60 | 3.10 |
| MOR0696057/N90 | 69.60 | 81.00 | 5.70 |
| MOR0706057/N90 | 70.60 | 82.00 | 5.70 |
| MOR0744031/N90 | 74.40 | 80.60 | 3.10 |
| MOR0746057/N90 | 74.60 | 86.00 | 5.70 |
| MOR0794031/N90 | 79.40 | 85.60 | 3.10 |
| MOR0796057/N90 | 79.60 | 91.00 | 5.70 |
| MOR0844031/N90 | 84.40 | 90.60 | 3.10 |
| MOR0846057/N90 | 84.60 | 96.00 | 5.70 |
| MOR0894031/N90 | 89.40 | 95.60 | 3.10 |
| MOR0896057/N90 | 89.60 | 101.00 | 5.70 |
| MOR0944031/N90 | 94.40 | 100.60 | 3.10 |
| MOR0946057/N90 | 94.60 | 106.00 | 5.70 |
| MOR0994031/N90 | 99.40 | 105.60 | 3.10 |
| MOR0996057/N90 | 99.60 | 111.00 | 5.70 |
| MOR1016057/N90 | 101.60 | 113.00 | 5.70 |
| MOR1044031/N90 | 104.40 | 110.60 | 3.10 |
| MOR1046057/N90 | 104.60 | 116.00 | 5.70 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|------|
| | d | D | S |
| MOR1094031/N90 | 109.40 | 115.60 | 3.10 |
| MOR1096057/N90 | 109.60 | 121.00 | 5.70 |
| MOR1116057/N90 | 111.60 | 123.00 | 5.70 |
| MOR1144031/N90 | 114.40 | 120.60 | 3.10 |
| MOR1146057/N90 | 114.60 | 126.00 | 5.70 |
| MOR1194031/N90 | 119.40 | 125.60 | 3.10 |
| MOR1196057/N90 | 119.60 | 131.00 | 5.70 |
| MOR1244031/N90 | 124.40 | 130.60 | 3.10 |
| MOR1246057/N90 | 124.60 | 136.00 | 5.70 |
| MOR1294031/N90 | 129.40 | 135.60 | 3.10 |
| MOR1296057/N90 | 129.60 | 141.00 | 5.70 |
| MOR1316057/N90 | 131.60 | 143.00 | 5.70 |
| MOR1344031/N90 | 134.40 | 140.60 | 3.10 |
| MOR1346057/N90 | 134.60 | 146.00 | 5.70 |
| MOR1394031/N90 | 139.40 | 145.60 | 3.10 |
| MOR1396057/N90 | 139.60 | 151.00 | 5.70 |
| MOR1444031/N90 | 144.40 | 150.60 | 3.10 |
| MOR1446057/N90 | 144.60 | 156.00 | 5.70 |
| MOR1493057/N90 | 149.60 | 161.00 | 5.70 |
| MOR1494031/N90 | 149.40 | 155.60 | 3.10 |
| MOR1495084/N90 | 149.50 | 166.30 | 8.40 |
| MOR1543057/N90 | 154.30 | 165.70 | 5.70 |
| MOR1544031/N90 | 154.40 | 160.60 | 3.10 |
| MOR1545084/N90 | 154.50 | 171.30 | 8.40 |
| MOR1593057/N90 | 159.30 | 170.70 | 5.70 |
| MOR1594031/N90 | 159.40 | 165.60 | 3.10 |
| MOR1595084/N90 | 159.50 | 176.30 | 8.40 |
| MOR1643057/N90 | 164.30 | 175.70 | 5.70 |
| MOR1644031/N90 | 164.40 | 170.60 | 3.10 |
| MOR1645084/N90 | 164.50 | 181.30 | 8.40 |
| MOR1693057/N90 | 169.30 | 180.70 | 5.70 |
| MOR1694031/N90 | 169.40 | 175.60 | 3.10 |
| MOR1695084/N90 | 169.50 | 186.30 | 8.40 |
| MOR1743057/N90 | 174.30 | 185.70 | 5.70 |
| MOR1744031/N90 | 174.40 | 180.60 | 3.10 |
| MOR1745084/N90 | 174.50 | 191.30 | 8.40 |
| MOR1793057/N90 | 179.30 | 190.70 | 5.70 |
| MOR1794031/N90 | 179.40 | 185.60 | 3.10 |
| MOR1795084/N90 | 179.50 | 196.30 | 8.40 |
| MOR1843057/N90 | 184.30 | 195.70 | 5.70 |
| MOR1844031/N90 | 184.40 | 190.60 | 3.10 |
| MOR1845084/N90 | 184.50 | 201.30 | 8.40 |
| MOR1893057/N90 | 189.30 | 200.70 | 5.70 |
| MOR1894031/N90 | 189.40 | 195.60 | 3.10 |
| MOR1895084/N90 | 189.50 | 206.30 | 8.40 |
| MOR1943057/N90 | 194.30 | 205.70 | 5.70 |

O'Rings - JIS - NBR 90A

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|------|
| | d | D | S |
| MOR1944031/N90 | 194.40 | 200.60 | 3.10 |
| MOR1945084/N90 | 194.50 | 211.30 | 8.40 |
| MOR1993057/N90 | 199.30 | 210.70 | 5.70 |
| MOR1994031/N90 | 199.40 | 205.60 | 3.10 |
| MOR1995084/N90 | 199.50 | 216.30 | 8.40 |
| MOR2044031/N90 | 204.40 | 210.60 | 3.10 |
| MOR2045084/N90 | 204.50 | 221.30 | 8.40 |
| MOR2085084/N90 | 208.50 | 225.30 | 8.40 |
| MOR2093057/N90 | 209.30 | 220.70 | 5.70 |
| MOR2094031/N90 | 209.40 | 215.60 | 3.10 |
| MOR2095084/N90 | 209.50 | 226.30 | 8.40 |
| MOR2143057/N90 | 214.30 | 225.70 | 5.70 |
| MOR2144031/N90 | 214.40 | 220.60 | 3.10 |
| MOR2145084/N90 | 214.50 | 231.30 | 8.40 |
| MOR2193057/N90 | 219.30 | 230.70 | 5.70 |
| MOR2194031/N90 | 219.40 | 225.60 | 3.10 |
| MOR2195084/N90 | 219.50 | 236.30 | 8.40 |
| MOR2243057/N90 | 224.30 | 235.70 | 5.70 |
| MOR2244031/N90 | 224.40 | 230.60 | 3.10 |
| MOR2245084/N90 | 224.50 | 241.30 | 8.40 |
| MOR2293057/N90 | 229.30 | 240.70 | 5.70 |
| MOR2294031/N90 | 229.40 | 235.60 | 3.10 |
| MOR2295084/N90 | 229.50 | 246.30 | 8.40 |
| MOR2343057/N90 | 234.30 | 245.70 | 5.70 |
| MOR2344031/N90 | 234.40 | 240.60 | 3.10 |
| MOR2345084/N90 | 234.50 | 251.30 | 8.40 |
| MOR2393057/N90 | 239.30 | 250.70 | 5.70 |
| MOR2394031/N90 | 239.40 | 245.60 | 3.10 |
| MOR2395084/N90 | 239.50 | 256.30 | 8.40 |
| MOR2444031/N90 | 244.40 | 250.60 | 3.10 |
| MOR2445084/N90 | 244.50 | 261.30 | 8.40 |
| MOR2493057/N90 | 249.30 | 260.70 | 5.70 |
| MOR2494031/N90 | 249.40 | 255.60 | 3.10 |
| MOR2495084/N90 | 249.50 | 266.30 | 8.40 |
| MOR2543057/N90 | 254.30 | 265.70 | 5.70 |
| MOR2544031/N90 | 254.40 | 260.60 | 3.10 |
| MOR2545084/N90 | 254.50 | 271.30 | 8.40 |
| MOR2593057/N90 | 259.30 | 270.70 | 5.70 |
| MOR2594031/N90 | 259.40 | 265.60 | 3.10 |
| MOR2595084/N90 | 259.50 | 276.30 | 8.40 |
| MOR2644031/N90 | 264.40 | 270.60 | 3.10 |
| MOR2645084/N90 | 264.50 | 281.30 | 8.40 |
| MOR2693057/N90 | 269.30 | 280.70 | 5.70 |
| MOR2694031/N90 | 269.40 | 275.60 | 3.10 |
| MOR2695084/N90 | 269.50 | 286.30 | 8.40 |
| MOR2744031/N90 | 274.40 | 280.60 | 3.10 |

| Ref.Number | Nominal Seal Dimensions | | |
|----------------|-------------------------|--------|------|
| | d | D | S |
| MOR2745084/N90 | 274.50 | 291.30 | 8.40 |
| MOR2793057/N90 | 279.30 | 290.70 | 5.70 |
| MOR2794031/N90 | 279.40 | 285.60 | 3.10 |
| MOR2795084/N90 | 279.50 | 296.30 | 8.40 |
| MOR2843057/N90 | 284.30 | 295.70 | 5.70 |
| MOR2844031/N90 | 284.40 | 290.60 | 3.10 |
| MOR2845084/N90 | 284.50 | 301.30 | 8.40 |
| MOR2893057/N90 | 289.30 | 300.70 | 5.70 |
| MOR2894031/N90 | 289.40 | 295.60 | 3.10 |
| MOR2895084/N90 | 289.50 | 306.30 | 8.40 |
| MOR2944031/N90 | 294.40 | 300.60 | 3.10 |
| MOR2945084/N90 | 294.50 | 311.30 | 8.40 |
| MOR2993057/N90 | 299.30 | 310.70 | 5.70 |
| MOR2994031/N90 | 299.40 | 305.60 | 3.10 |
| MOR2995084/N90 | 299.50 | 316.30 | 8.40 |
| MOR3044031/N90 | 304.40 | 310.60 | 3.10 |
| MOR3094031/N90 | 309.40 | 315.60 | 3.10 |
| MOR3144031/N90 | 314.40 | 320.60 | 3.10 |
| MOR3145084/N90 | 314.50 | 331.30 | 8.40 |
| MOR3194031/N90 | 319.40 | 325.60 | 3.10 |
| MOR3195084/N90 | 319.50 | 336.30 | 8.40 |
| MOR3244031/N90 | 324.40 | 330.60 | 3.10 |
| MOR3294031/N90 | 329.40 | 335.60 | 3.10 |
| MOR3344031/N90 | 334.40 | 340.60 | 3.10 |
| MOR3345084/N90 | 334.50 | 351.30 | 8.40 |
| MOR3394031/N90 | 339.40 | 345.60 | 3.10 |
| MOR3395084/N90 | 339.50 | 356.30 | 8.40 |
| MOR3444031/N90 | 344.40 | 350.60 | 3.10 |
| MOR3494031/N90 | 349.40 | 355.60 | 3.10 |
| MOR3544031/N90 | 354.40 | 360.60 | 3.10 |
| MOR3545084/N90 | 354.50 | 371.30 | 8.40 |
| MOR3594031/N90 | 359.40 | 365.60 | 3.10 |
| MOR3595084/N90 | 359.50 | 376.30 | 8.40 |
| MOR3644031/N90 | 364.40 | 370.60 | 3.10 |
| MOR3694031/N90 | 369.40 | 375.60 | 3.10 |
| MOR3744031/N90 | 374.40 | 380.60 | 3.10 |
| MOR3745084/N90 | 374.50 | 391.30 | 8.40 |
| MOR3794031/N90 | 379.40 | 385.60 | 3.10 |
| MOR3844031/N90 | 384.40 | 390.60 | 3.10 |
| MOR3845084/N90 | 384.50 | 401.30 | 8.40 |
| MOR3894031/N90 | 389.40 | 395.60 | 3.10 |
| MOR3944031/N90 | 394.40 | 400.60 | 3.10 |
| MOR3994031/N90 | 399.40 | 405.60 | 3.10 |
| MOR3995084/N90 | 399.50 | 416.30 | 8.40 |
| MOR4044031/N90 | 404.40 | 410.60 | 3.10 |

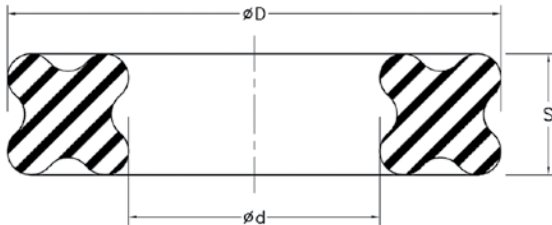
O'RINGS



Quad rings - Metric



| Standard Material | Temperature Range | Surface Speed |
|-------------------|--------------------------------------|-------------------|
| Nitrile | -30°F to +230°F (-45°C to +110°C) | <3.3 ft/s (1 m/s) |



Quad-Rings are double-acting, 4-lobed seals with a square cross-sectional seal profile. These seals are direct retrofit to O'Ring type grooves and are particularly useful in dynamic applications due to a lower rate of friction and wear.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | JF4 | Nominal Seal Dimensions | | | Ref.Number | JF4 | Nominal Seal Dimensions | | |
|-------------|-----|-------------------------|-------|------|-------------|-----|-------------------------|-------|------|
| | | d | D | S | | | d | D | S |
| QR0029017/N | 1 | 2.90 | 6.46 | 1.78 | QR0171026/N | 13 | 17.12 | 22.36 | 2.62 |
| QR0036017/N | 2 | 3.68 | 7.24 | 1.78 | QR0177026/N | 13A | 17.75 | 22.99 | 2.62 |
| QR0044017/N | 3 | 4.47 | 8.03 | 1.78 | QR0187026/N | 14 | 18.72 | 23.96 | 2.62 |
| QR0046017/N | 3A | 4.62 | 8.18 | 1.78 | QR0196026/N | 14A | 19.60 | 24.84 | 2.62 |
| QR0052017/N | 4 | 5.28 | 8.84 | 1.78 | QR0186035/N | 15 | 18.64 | 25.70 | 3.53 |
| QR0057017/N | 4A | 5.70 | 9.26 | 1.78 | QR0202035/N | 16 | 20.22 | 27.28 | 3.53 |
| QR0060017/N | 5 | 6.07 | 9.63 | 1.78 | QR0209035/N | 16A | 20.90 | 27.96 | 3.53 |
| QR0066017/N | 5A | 6.65 | 10.21 | 1.78 | QR0218035/N | 17 | 21.82 | 28.88 | 3.53 |
| QR0076017/N | 6 | 7.65 | 11.21 | 1.78 | QR0233035/N | 18 | 23.39 | 30.45 | 3.53 |
| QR0087017/N | 6A | 8.70 | 12.26 | 1.78 | QR0239035/N | 18A | 23.99 | 31.05 | 3.53 |
| QR0092017/N | 7 | 9.25 | 12.81 | 1.78 | QR0249035/N | 19 | 24.99 | 32.05 | 3.53 |
| QR0097017/N | 7A | 9.70 | 13.26 | 1.78 | QR0259035/N | 19A | 25.90 | 32.96 | 3.53 |
| QR0091026/N | 8 | 9.19 | 14.43 | 2.62 | QR0265035/N | 20 | 26.57 | 33.63 | 3.53 |
| QR0098026/N | 8A | 9.80 | 15.04 | 2.62 | QR0275035/N | 20A | 27.57 | 34.63 | 3.53 |
| QR0107026/N | 9 | 10.77 | 16.01 | 2.62 | QR0281035/N | 21 | 28.17 | 35.23 | 3.53 |
| QR0117026/N | 9A | 11.70 | 16.94 | 2.62 | QR0297035/N | 22 | 29.74 | 36.80 | 3.53 |
| QR0123026/N | 10 | 12.37 | 17.61 | 2.62 | QR0313035/N | 23 | 31.34 | 38.40 | 3.53 |
| QR0128026/N | 10A | 12.80 | 18.04 | 2.62 | QR0320035/N | 23A | 32.04 | 39.10 | 3.53 |
| QR0137026/N | 10B | 13.70 | 18.94 | 2.62 | QR0329035/N | 24 | 32.92 | 39.98 | 3.53 |
| QR0139026/N | 11 | 13.94 | 19.18 | 2.62 | QR0338035/N | 24A | 33.80 | 40.86 | 3.53 |
| QR0147026/N | 11A | 14.70 | 19.94 | 2.62 | QR0345035/N | 25 | 34.52 | 41.58 | 3.53 |
| QR0155026/N | 12 | 15.54 | 20.78 | 2.62 | QR0360035/N | 26 | 36.09 | 43.15 | 3.53 |



Quad rings - NBR 70A

| Ref.Number | JF4 | Nominal Seal Dimensions | | |
|-------------|-----|-------------------------|--------|------|
| | | d | D | S |
| QR0376035/N | 27 | 37.69 | 44.75 | 5.33 |
| QR0374053/N | 28 | 37.47 | 48.13 | 5.33 |
| QR0396053/N | 28A | 39.64 | 50.30 | 5.33 |
| QR0406053/N | 29 | 40.64 | 51.30 | 5.33 |
| QR0418053/N | 29A | 41.80 | 52.46 | 5.33 |
| QR0438053/N | 30 | 43.82 | 54.48 | 5.33 |
| QR0450053/N | 30A | 45.04 | 55.70 | 5.33 |
| QR0458053/N | 30B | 45.84 | 56.50 | 5.33 |
| QR0469053/N | 31 | 46.99 | 57.65 | 5.33 |
| QR0478053/N | 31A | 47.80 | 58.46 | 5.33 |
| QR0501053/N | 32 | 50.17 | 60.83 | 5.33 |
| QR0520053/N | 32A | 52.00 | 62.66 | 5.33 |
| QR0533053/N | 33 | 53.34 | 64.00 | 5.33 |
| QR0545053/N | 33A | 54.50 | 65.16 | 5.33 |
| QR0565053/N | 34 | 56.52 | 67.18 | 5.33 |
| QR0575053/N | 34A | 57.52 | 68.18 | 5.33 |
| QR0596053/N | 35 | 59.69 | 70.35 | 5.33 |
| QR0615053/N | 35A | 61.54 | 72.20 | 5.33 |
| QR0628053/N | 36 | 62.87 | 73.53 | 5.33 |
| QR0645053/N | 36A | 64.59 | 75.25 | 5.33 |
| QR0660053/N | 37 | 66.04 | 76.70 | 5.33 |
| QR0676053/N | 37A | 67.64 | 78.30 | 5.33 |
| QR0692053/N | 38 | 69.22 | 79.88 | 5.33 |
| QR0706053/N | 38A | 70.64 | 81.30 | 5.33 |
| QR0723053/N | 39 | 72.39 | 83.05 | 5.33 |
| QR0738053/N | 39A | 73.84 | 84.50 | 5.33 |
| QR0755053/N | 40 | 75.57 | 86.23 | 5.33 |
| QR0787053/N | 41 | 78.74 | 89.40 | 5.33 |
| QR0800053/N | 41A | 80.09 | 90.75 | 5.33 |
| QR0819053/N | 42 | 81.92 | 92.58 | 5.33 |
| QR0833053/N | 42A | 83.39 | 94.05 | 5.33 |
| QR0850053/N | 43 | 85.09 | 95.75 | 5.33 |
| QR0866053/N | 43A | 86.64 | 97.30 | 5.33 |
| QR0882053/N | 44 | 88.27 | 98.93 | 5.33 |
| QR0895053/N | 44A | 89.59 | 100.25 | 5.33 |
| QR0914053/N | 45 | 91.44 | 102.10 | 5.33 |
| QR0946053/N | 46 | 94.62 | 105.28 | 5.33 |
| QR0979053/N | 47 | 97.99 | 108.65 | 5.33 |
| QR1009053/N | 48 | 100.97 | 111.63 | 5.33 |
| QR1023053/N | 48A | 102.34 | 113.00 | 5.33 |
| QR1041053/N | 49 | 104.14 | 114.80 | 5.33 |
| QR1058053/N | 49A | 105.80 | 116.46 | 5.33 |
| QR1073053/N | 50 | 107.32 | 117.98 | 5.33 |
| QR1104053/N | 51 | 110.49 | 121.15 | 5.33 |
| QR1136069/N | 52 | 113.67 | 124.33 | 6.99 |
| QR1136069/N | 88 | 113.67 | 127.65 | 6.99 |

| Ref.Number | JF4 | Nominal Seal Dimensions | | |
|-------------|-----|-------------------------|--------|------|
| | | d | D | S |
| QR1158069/N | 52A | 115.84 | 129.82 | 6.99 |
| QR1168069/N | 53 | 116.84 | 130.82 | 6.99 |
| QR1200069/N | 54 | 120.02 | 134.00 | 6.99 |
| QR1231069/N | 55 | 123.19 | 137.17 | 6.99 |
| QR1263069/N | 56 | 126.37 | 140.35 | 6.99 |
| QR1295069/N | 57 | 129.54 | 143.52 | 6.99 |
| QR1327069/N | 58 | 132.72 | 146.70 | 6.99 |
| QR1358069/N | 59 | 135.89 | 149.87 | 6.99 |
| QR1390069/N | 60 | 139.07 | 153.05 | 6.99 |
| QR1422069/N | 61 | 142.24 | 156.22 | 6.99 |
| QR1454069/N | 62 | 145.42 | 159.40 | 6.99 |
| QR1485069/N | 63 | 148.59 | 162.57 | 6.99 |
| QR1517069/N | 64 | 151.77 | 165.75 | 6.99 |
| QR1550069/N | 64A | 155.02 | 169.00 | 6.99 |
| QR1581069/N | 65 | 158.12 | 172.10 | 6.99 |
| QR1610069/N | 65A | 161.02 | 175.00 | 6.99 |
| QR1644069/N | 66 | 164.47 | 178.45 | 6.99 |
| QR1670069/N | 66A | 167.02 | 181.00 | 6.99 |
| QR1708069/N | 67 | 170.82 | 184.80 | 6.99 |
| QR1735069/N | 67A | 173.52 | 187.50 | 6.99 |
| QR1771069/N | 68 | 177.17 | 191.15 | 6.99 |
| QR1805069/N | 68A | 180.52 | 194.50 | 6.99 |
| QR1835069/N | 69 | 183.52 | 197.50 | 6.99 |
| QR1860069/N | 69A | 186.02 | 200.00 | 6.99 |
| QR1898069/N | 70 | 189.87 | 203.85 | 6.99 |
| QR1920069/N | 70A | 192.02 | 206.00 | 6.99 |
| QR1962069/N | 71 | 196.22 | 210.20 | 6.99 |
| QR1990069/N | 71A | 199.02 | 213.00 | 6.99 |
| QR2025069/N | 72 | 202.57 | 216.55 | 6.99 |
| QR2068069/N | 72A | 206.80 | 220.78 | 6.99 |
| QR2110069/N | 72B | 211.02 | 225.00 | 6.99 |
| QR2152069/N | 73 | 215.27 | 229.25 | 6.99 |
| QR2190069/N | 73A | 219.02 | 233.00 | 6.99 |
| QR2235069/N | 73B | 223.50 | 237.48 | 6.99 |
| QR2279069/N | 74 | 227.97 | 241.95 | 6.99 |
| QR2310069/N | 74A | 231.02 | 245.00 | 6.99 |
| QR2350069/N | 74B | 235.00 | 248.98 | 6.99 |
| QR2406069/N | 75 | 240.67 | 254.65 | 6.99 |
| QR2430069/N | 75A | 243.02 | 257.00 | 6.99 |
| QR2480069/N | 75B | 248.00 | 261.98 | 6.99 |
| QR2533069/N | 76 | 253.37 | 267.35 | 6.99 |
| QR2590069/N | 76A | 259.00 | 272.98 | 6.99 |
| QR2660069/N | 77 | 266.07 | 280.05 | 6.99 |
| QR2731069/N | 77A | 273.10 | 287.08 | 6.99 |
| QR2787069/N | 78 | 278.77 | 292.75 | 6.99 |
| QR2840069/N | 78A | 284.00 | 297.98 | 6.99 |



Quad rings - NBR 70A

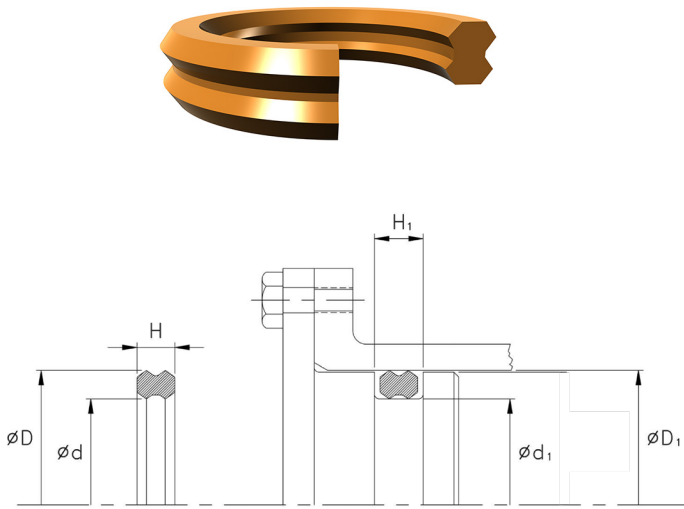
| Ref.Number | JF4 | Nominal Seal Dimensions | | |
|-------------|-----|-------------------------|--------|------|
| | | d | D | S |
| QR2875069/N | 78B | 287.50 | 301.48 | 6.99 |
| QR2914069/N | 79 | 291.47 | 305.45 | 6.99 |
| QR2980069/N | 79A | 298.00 | 311.98 | 6.99 |
| QR3041069/N | 80 | 304.17 | 318.15 | 6.99 |
| QR3100069/N | 80A | 310.00 | 323.98 | 6.99 |
| QR3168069/N | 81 | 316.87 | 330.85 | 6.99 |
| QR3235069/N | 81A | 323.50 | 337.48 | 6.99 |
| QR3295069/N | 82 | 329.57 | 343.55 | 6.99 |
| QR3365069/N | 82A | 336.50 | 350.48 | 6.99 |
| QR3422069/N | 83 | 342.27 | 356.25 | 6.99 |

| Ref.Number | JF4 | Nominal Seal Dimensions | | |
|-------------|-----|-------------------------|--------|------|
| | | d | D | S |
| QR3485069/N | 83A | 348.50 | 362.48 | 6.99 |
| QR3549069/N | 84 | 354.97 | 368.95 | 6.99 |
| QR3625069/N | 84A | 362.50 | 376.48 | 6.99 |
| QR3676069/N | 85 | 367.67 | 381.65 | 6.99 |
| QR3740069/N | 85A | 374.00 | 387.98 | 6.99 |
| QR3803069/N | 86 | 380.37 | 394.35 | 6.99 |
| QR3875069/N | 86A | 387.50 | 401.48 | 6.99 |
| QR3930069/N | 87 | 393.07 | 407.05 | 6.99 |
| QR4010069/N | 87A | 401.00 | 414.98 | 6.99 |

O'RINGS



Head seals - Metric



| Standard Material | Temperature Range | Pressure Range |
|-------------------|------------------------------------|---------------------------|
| Polyurethane | Low Extreme | |
| | -65°F (-54°C) | N/A |
| | Normal Operation | |
| | -40°F à +250°F (-40°C à +121°F) | ≤5000 psi (≤345 bar) |
| High Extreme | | |
| | +265°F (+129°C) | ≤10 000 psi (≤689 bar) |

This one-piece static seal easily retrofits an **O'Ring/Back-up ring** assembly on standard sealing arrangements. The compact design allows for easy installation, improved extrusion resistance and stability, and avoids costly errors due to pinching or improper seating during the assembly process.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| GAP DIMENSION "G" | | | |
|--|-------------------------|---------|-------------------------|
| In order to avoid extrusion, the maximum pressure allowed depends on the fitting gap : | | | |
| Gap | Pressure | Gap | Pressure |
| 1.20 mm | ≤725 psi (≤50 bar) | 0.25 mm | ≤4350 psi (≤300 bar) |
| 0.80 mm | ≤1450 psi (≤100 bar) | 0.17 mm | ≤5800 psi (≤400 bar) |
| 0.40 mm | ≤2900 psi (≤200 bar) | 0.10 mm | ≤7250 psi (≤500 bar) |
| NB. For the Gap calculation, it is necessary to consider the elastic deformation of metal elements under pressure loads. | | | |



Head seals - AU 92A

O'RINGS



| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|--------------|---------------|---------------|--------------------|--------------|------|--------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| HSM006004024 | 6.00 | +0.18/-0.000 | 4.60 | +0.00/-0.030 | 2.40 | +0.200 |
| HSM010007036 | 10.00 | +0.022/-0.000 | 7.60 | +0.000 | 3.60 | -0.000 |
| HSM011008026 | 11.00 | +0.027 | 8.60 | -0.036 | 2.60 | |
| HSM014009031 | 13.80 | -0.000 | 9.20 | | 3.10 | |
| HSM012009036 | 12.00 | | 9.60 | | 3.60 | |
| HSM017012031 | 16.60 | | 12.00 | +0.000 | 3.10 | |
| HSM015012036 | 15.00 | | 12.60 | -0.043 | 3.60 | |
| HSM016013036 | 16.00 | | 13.60 | | 3.60 | |
| HSM017014036 | 17.00 | | 14.00 | | 3.60 | |
| HSM018014058 | 18.00 | | 14.00 | | 5.80 | |
| HSM017014026 | 17.00 | | 14.60 | | 2.60 | |
| HSM018015026 | 17.50 | | 15.10 | | 2.60 | |
| HSM018015036 | 17.50 | | 15.10 | | 3.60 | |
| HSM013015036 | 13.10 | | 15.50 | | 3.60 | |
| HSM018015036 | 18.00 | | 15.60 | | 3.60 | |
| HSM019015044 | 19.00 | +0.033 | 15.60 | -0.000 | 4.40 | |
| HSM019015036 | 19.00 | -0.000 | 15.60 | | 3.60 | |
| HSM020016058 | 20.00 | | 16.00 | | 5.80 | |
| HSM019016026 | 19.00 | | 16.60 | | 2.60 | |
| HSM020016044 | 20.00 | | 16.60 | | 4.40 | |
| HSM020016036 | 20.00 | | 16.60 | | 3.60 | |
| HSM020017050 | 20.00 | | 17.20 | | 5.00 | |
| HSM020017036 | 20.00 | | 17.60 | | 3.60 | |
| HSM021017044 | 21.00 | | 17.60 | | 4.40 | |
| HSM022018044 | 21.50 | | 18.10 | +0.000 | 4.40 | -0.052 |
| HSM021018036 | 21.00 | | 18.60 | | 3.60 | |
| HSM022019026 | 21.50 | | 19.10 | | 2.60 | |
| HSM022019036 | 22.00 | | 19.60 | | 3.60 | |
| HSM023019044 | 23.00 | | 19.60 | | 4.40 | |
| HSM024020048 | 24.00 | | 20.00 | | 4.80 | |
| HSM023020036 | 23.00 | | 20.60 | | 3.60 | |
| HSM024021036 | 24.00 | | 21.60 | | 3.60 | |
| HSM026022044 | 26.00 | | 22.00 | | 4.40 | |
| HSM027022054 | 26.80 | | 22.00 | | 5.40 | |
| HSM028023053 | 28.00 | | 23.80 | | 5.30 | |
| HSM030025044 | 30.00 | | 25.10 | | 4.40 | |
| HSM030025054 | 30.00 | | 25.40 | | 5.40 | |
| HSM028025036 | 28.00 | | 25.60 | | 3.60 | |
| HSM031026050 | 31.00 | +0.039 | 26.40 | -0.000 | 5.00 | |
| HSM032027054 | 32.00 | -0.000 | 27.40 | | 5.40 | |
| HSM034028053 | 34.00 | | 28.40 | | 5.30 | |
| HSM035030050 | 35.00 | | 30.00 | | 5.00 | |
| HSM035030050 | 35.00 | | 30.40 | +0.000 | 5.00 | -0.062 |
| HSM034031036 | 34.00 | | 31.10 | | 3.60 | |
| HSM036032062 | 36.00 | | 32.00 | | 6.20 | |
| HSM038032053 | 38.00 | | 32.40 | | 5.30 | |

| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|--------------|---------------|--------|--------------------|--------|------|--------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| HSM040035054 | 40.00 | +0.039 | 35.20 | +0.000 | 5.40 | +0.200 |
| HSM040035054 | 40.00 | -0.000 | 35.40 | -0.062 | 5.40 | -0.000 |
| HSM045035097 | 45.00 | | 35.80 | | 9.70 | |
| HSM043037062 | 43.40 | | 37.80 | | 6.20 | |
| HSM043038068 | 42.80 | | 38.00 | | 6.80 | |
| HSM045040054 | 45.00 | | 40.00 | | 5.40 | |
| HSM050040097 | 50.00 | | 40.80 | | 9.70 | |
| HSM050043056 | 50.00 | | 43.80 | | 5.60 | |
| HSM050044062 | 50.00 | | 44.60 | | 6.20 | |
| HSM050045054 | 50.00 | | 45.40 | | 5.40 | |
| HSM050045039 | 50.00 | | 45.40 | | 3.90 | |
| HSM055049062 | 55.00 | +0.046 | 49.60 | -0.000 | 6.20 | |
| HSM055049053 | 55.00 | -0.000 | 49.90 | | 5.30 | |
| HSM055050067 | 55.00 | | 50.00 | | 6.70 | |
| HSM058050090 | 58.00 | | 50.00 | | 9.00 | |
| HSM060050097 | 60.00 | | 50.80 | +0.000 | 9.70 | -0.074 |
| HSM055051036 | 55.00 | | 51.00 | | 3.60 | |
| HSM057052041 | 57.00 | | 52.20 | | 4.10 | |
| HSM063053097 | 63.00 | | 53.80 | | 9.70 | |
| HSM060054058 | 60.00 | | 54.40 | | 5.80 | |
| HSM060054062 | 60.00 | | 54.60 | | 6.20 | |
| HSM063056064 | 63.00 | | 56.60 | | 6.40 | |
| HSM063057048 | 63.00 | | 57.40 | | 4.80 | |
| HSM063057062 | 63.00 | | 57.60 | | 6.20 | |
| HSM063058054 | 63.00 | | 58.40 | | 5.40 | |
| HSM065059050 | 65.00 | | 59.40 | | 5.00 | |
| HSM065059062 | 65.00 | | 59.60 | | 6.20 | |
| HSM065060050 | 65.00 | | 60.00 | | 5.00 | |
| HSM068062050 | 68.00 | | 62.00 | | 5.00 | |
| HSM070065039 | 69.60 | | 65.00 | | 3.90 | |
| HSM070065050 | 70.00 | | 65.00 | | 5.00 | |
| HSM075065097 | 75.00 | | 65.80 | | 9.70 | |
| HSM070066062 | 70.00 | | 66.40 | | 6.20 | |
| HSM072066050 | 72.00 | | 66.40 | | 5.00 | |
| HSM075069053 | 75.00 | | 69.40 | | 5.30 | |
| HSM075069062 | 75.00 | | 69.60 | | 6.20 | |
| HSM074070050 | 73.50 | | 70.00 | | 5.00 | |
| HSM075070038 | 74.60 | | 70.00 | | 3.80 | |
| HSM077070062 | 77.00 | | 70.80 | | 6.20 | |
| HSM080070090 | 80.00 | | 70.80 | | 9.00 | |
| HSM080070097 | 80.00 | | 70.80 | | 9.70 | |
| HSM077072048 | 76.60 | | 72.00 | | 4.80 | |
| HSM078073050 | 78.00 | | 73.00 | | 5.00 | |
| HSM080073064 | 80.00 | | 73.60 | | 6.40 | |
| HSM080073069 | 80.00 | | 73.80 | | 6.90 | |
| HSM080074053 | 80.00 | | 74.40 | | 5.30 | |

Head seals - AU 92A

| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|--------------|---------------|------------------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| HSM080075054 | 80.00 | +0.046 -0.000 | 75.50 | +0.000 -0.074 | 5.40 | +0.200 -0.000 |
| HSM080076036 | 80.00 | | 76.00 | | 3.60 | |
| HSM085079053 | 85.00 | +0.054 -0.000 | 79.40 | ▼ | 5.30 | |
| HSM085080039 | 85.10 | | 80.50 | +0.000 -0.087 | 3.90 | |
| HSM090081090 | 90.00 | | 81.40 | | 9.00 | |
| HSM090083065 | 90.00 | | 83.00 | | 6.50 | |
| HSM090084048 | 90.00 | | 84.40 | | 4.80 | |
| HSM093087053 | 93.00 | | 87.40 | | 5.30 | |
| HSM095089062 | 95.00 | | 89.40 | | 6.20 | |
| HSM100090097 | 100.00 | | 90.80 | | 9.70 | |
| HSM097091048 | 97.00 | | 91.40 | | 4.80 | |
| HSM100091090 | 100.00 | | 91.40 | | 9.00 | |
| HSM100091086 | 100.00 | | 91.60 | | 8.60 | |
| HSM100093069 | 100.00 | | 93.80 | | 6.90 | |
| HSM102095062 | 102.00 | | 95.80 | | 6.20 | |
| HSM105096090 | 105.00 | | 96.40 | | 9.00 | |
| HSM110100097 | 110.00 | | 100.80 | | 9.70 | |
| HSM110101090 | 110.00 | | 101.40 | | 9.00 | |
| HSM115106086 | 115.00 | | 106.60 | | 8.60 | |
| HSM114107062 | 114.00 | ▼ | 107.80 | | 6.20 | |
| HSM125115097 | 125.00 | +0.063 -0.000 | 115.80 | | 9.70 | |
| HSM125116090 | 125.00 | | 116.40 | | 9.00 | |
| HSM125116086 | 125.00 | | 116.60 | ▼ | 8.60 | |
| HSM140128123 | 140.00 | | 128.40 | +0.000 -0.100 | 12.30 | |
| HSM140130097 | 140.00 | ▼ | 130.80 | | 9.70 | ▼ |

| Ref.Number | Bore Diameter | | Housing Dimensions | | | |
|--------------|---------------|------------------|--------------------|------------------|-------|------------------|
| | D1 | Tol. | d1 | Tol. | H1 | Tol. |
| HSM140131086 | 140.00 | +0.063 -0.000 | 131.60 | +0.000 -0.100 | 8.60 | +0.200 -0.000 |
| HSM150138123 | 150.00 | | 138.40 | | 12.30 | |
| HSM150140097 | 150.00 | | 140.80 | | 9.70 | |
| HSM150141860 | 150.00 | | 141.60 | | 86.00 | |
| HSM160148123 | 160.00 | | 148.40 | | 12.30 | |
| HSM160150097 | 160.00 | | 150.80 | | 9.70 | |
| HSM165153123 | 165.00 | | 153.40 | | 12.30 | |
| HSM165155097 | 165.00 | | 155.80 | | 9.70 | |
| HSM165156086 | 165.00 | | 156.60 | | 8.60 | |
| HSM170158123 | 170.00 | | 158.40 | | 12.30 | |
| HSM170160097 | 170.00 | | 160.80 | | 9.70 | |
| HSM180168123 | 180.00 | | 168.40 | | 12.30 | |
| HSM180170097 | 180.00 | | 170.80 | | 9.70 | |
| HSM180171086 | 180.00 | ▼ | 171.60 | | 8.60 | |
| HSM190178123 | 190.00 | +0.072 -0.000 | 178.40 | ▼ | 12.30 | |
| HSM200188123 | 200.00 | | 188.40 | +0.000 -0.115 | 12.30 | |
| HSM200190097 | 200.00 | | 190.80 | | 9.70 | |
| HSM200191086 | 200.00 | | 191.60 | | 8.60 | |
| HSM225213109 | 225.00 | | 213.00 | | 10.90 | |
| HSM250238109 | 250.00 | | 238.00 | | 10.90 | |
| HSM250238123 | 250.00 | | 238.40 | | 12.30 | |
| HSM250240097 | 250.00 | | 240.80 | ▼ | 9.70 | |
| HSM270258123 | 270.00 | ▼ | 258.40 | +0.000 -0.130 | 12.30 | |
| HSM280268109 | 280.00 | +0.081 -0.000 | 268.00 | | 10.90 | ▼ |

O'RINGS



O'Ring Cord - Metric



| Standard Material | Temperature Range |
|--------------------|--------------------------------------|
| Nitrile | -30°F to +250°F (-34°C to +121°C) |
| Fluorocarbon | -15°F to +400°F (-26°C to +205°C) |
| Ethylene-propylene | -70°F to +300°F (-57°C to +149°C) |
| Silicone | -65°F to +450°F (-54°C to +232°C) |

Metric **O'Ring cord** is supplied as a continuously extruded profile. **O'Ring cord** can be used to manufacture custom **O'Rings** when no standard size is available. A wide variety of cross-sections and sizes are available

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| CROSS SECTION DIAMETER AVAILABLE | | | | | | | | | | | | | | | | |
|----------------------------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|--|
| 1.00 | 1.50 | 2.00 | 2.40 | 2.50 | 3.00 | 3.50 | 4.00 | 4.50 | 5.00 | 5.70 | 6.00 | 6.50 | 7.00 | 7.50 | 8.00 | |
| CROSS SECTION DIAMETER AVAILABLE | | | | | | | | | | | | | | | | |
| 8.40 | 8.50 | 9.00 | 10.00 | 11.00 | 12.00 | 13.00 | 14.00 | 15.00 | 16.00 | 18.00 | 20.00 | | | | | |
| Increments of 1 ft | | | | | | | | | | | | | | | | |

O'RINGS

Vulcanized O'Rings - Metric



| Standard Materials | Temperature Range |
|--------------------|--------------------------------------|
| Nitrile 70A | -30°F to +250°F (-34°C to +121°C) |
| Fluorocarbon 75A | -15°F to +400°F (-26°C to +205°C) |

With the use of standard cord stock, **vulcanized O'Rings** offer you a dimensionally custom-made solid ring using a hot-bonded process. The splice-and-jointed area of the ring offers full flexibility and allows for a reliable sealing performance.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| CROSS SECTION DIAMETER AVAILABLE | | | | | | | | | | | | | | | | | | |
|----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--|
| NITRILE 70A | | | | | | | | | | | | | | | | | | |
| 1.6 mm | 2.0 mm | 2.4 mm | 3.0 mm | 3.5 mm | 4.0 mm | 4.5 mm | 5.0 mm | 5.7 mm | 6.5 mm | 6.7 mm | 7.0 mm | 7.5 mm | 8.0 mm | 8.5 mm | 9.0 mm | 10.0 mm | 10.7 mm | |
| .063" | .079" | .094" | .118" | .139" | .156" | .177" | .196" | .224" | .236" | .256" | .276" | .295" | .315" | .334" | .354" | .394" | .472" | |
| FLUOROCARBON 75A | | | | | | | | | | | | | | | | | | |
| 1.6 mm | 2.0 mm | 2.4 mm | 3.0 mm | 3.5 mm | 4.0 mm | 4.5 mm | 5.0 mm | 5.7 mm | 6.5 mm | 6.7 mm | 7.0 mm | 7.5 mm | 8.0 mm | 8.5 mm | 9.0 mm | 10.0 mm | 10.7 mm | |
| .063" | .079" | .094" | .118" | .139" | .156" | .177" | .196" | .224" | .236" | .256" | .276" | .295" | .315" | .334" | .354" | .394" | .472" | |



COMPACT SERIES

| Ref. Number | Material | Total Qty | Sizes |
|-------------|------------------------|-----------|-------|
| ORK-C-N70M | EUROPEEN STD. - NBR 70 | 394 | 32 |
| ORK-C-N90M | EUROPEEN STD. - NBR 90 | 394 | 32 |
| ORK-C-V75M | EUROPEEN STD. - FPM 75 | 394 | 32 |
| ORK-C-JIS70 | JAPANESE STD. - NBR 70 | 396 | 30 |
| ORK-C-JIS90 | JAPANESE STD. - NBR 90 | 396 | 30 |



INDUSTRIAL SERIES

| Ref. Number | Material | Total Qty | Sizes |
|---------------|------------------------|-----------|-------|
| ORK-IND-N70M | EUROPEEN STD. - NBR 70 | 500 | 36 |
| ORK-IND-N90M | EUROPEEN STD. - NBR 90 | 500 | 36 |
| ORK-IND-V75M | EUROPEEN STD. - FPM 75 | 500 | 36 |
| ORK-IND-JIS70 | JAPANESE STD. - NBR 70 | 380 | 36 |
| ORK-IND-JIS90 | JAPANESE STD. - NBR 90 | 380 | 36 |



BOX SERIES

| Ref. Number | Material | Total Qty | Sizes |
|--------------|------------------------|-----------|-------|
| ORK-BOXC-N70 | EUROPEEN STD. - NBR 70 | 425 | 30 |
| ORK-BOXC-N90 | EUROPEEN STD. - NBR 90 | 425 | 30 |
| ORK-BOXC-V80 | EUROPEEN STD. - FPM 80 | 425 | 30 |
| ORK-BOXD-N70 | EUROPEEN STD. - NBR 70 | 285 | 24 |
| ORK-BOXD-N90 | EUROPEEN STD. - NBR 90 | 285 | 24 |
| ORK-BOXD-V80 | EUROPEEN STD. - FPM 80 | 285 | 24 |



OSK SERIES

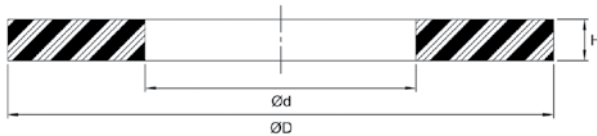
| Ref. Number | Material | Total Qty | Sizes |
|--------------|------------------------------|-----------|-------|
| ORK-100M-NBR | O'RING SPlicing KIT - NBR 70 | | |
| ORK-100M-FPM | O'RING SPlicing KIT - FPM 75 | | |



SD/T - Back-up rings - Metric



| Standard Material | Temperature Range |
|-------------------|--|
| V.PTFE | -320 °F to +450 °F (-196 °C to +232 °C) |



Back-up rings are auxiliary devices used in conjunction with standard seals such as O'Rings and U-Cup type seals. **SD/T** rings are manufactured out of PTFE material, supplied solid version.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|-------------------|-------------------------|-------|------|
| | d | D | H |
| BU003006012SD/T | 3.00 | 6.00 | 1.25 |
| BU004007012SD/T | 4.00 | 7.00 | 1.25 |
| BU005008012SD/T | 5.00 | 8.00 | 1.25 |
| BU006009012SD/T | 6.00 | 9.00 | 1.25 |
| BU007010012SD/T | 7.00 | 10.00 | 1.25 |
| BU008011012SD/T | 8.00 | 11.00 | 1.25 |
| BU009012012SD/T | 9.00 | 12.00 | 1.25 |
| BU010013012SD/T | 10.00 | 13.00 | 1.25 |
| BU010014012SD/T | 10.00 | 14.00 | 1.25 |
| BU011015012SD/T | 11.00 | 15.00 | 1.25 |
| BU011012012SD/T-1 | 11.20 | 15.20 | 1.25 |
| BU012016012SD/T | 12.00 | 16.00 | 1.25 |
| BU012016012SD/T-1 | 12.50 | 16.50 | 1.25 |
| BU013017012SD/T | 13.00 | 17.00 | 1.25 |
| BU014018012SD/T | 14.00 | 18.00 | 1.25 |
| BU015019012SD/T | 15.00 | 19.00 | 1.25 |
| BU016020012SD/T | 16.00 | 20.00 | 1.25 |
| BU017021012SD/T | 17.00 | 21.00 | 1.25 |
| BU018022012SD/T | 18.00 | 22.00 | 1.25 |
| BU019023012SD/T | 19.00 | 23.00 | 1.25 |
| BU020024012SD/T | 20.00 | 24.00 | 1.25 |
| BU021025012SD/T | 21.00 | 25.00 | 1.25 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------------|-------------------------|-------|------|
| | d | D | H |
| BU022026012SD/T | 22.00 | 26.00 | 1.25 |
| BU022028012SD/T | 22.00 | 28.00 | 1.25 |
| BU022028012SD/T-1 | 22.40 | 28.40 | 1.25 |
| BU024030012SD/T | 24.00 | 30.00 | 1.25 |
| BU025030012SD/T | 25.00 | 30.00 | 1.25 |
| BU025031012SD/T | 25.00 | 31.00 | 1.25 |
| BU025031012SD/T-1 | 25.50 | 31.50 | 1.25 |
| BU026032012SD/T | 26.00 | 32.00 | 1.25 |
| BU028034012SD/T | 28.00 | 34.00 | 1.25 |
| BU029035012SD/T | 29.00 | 35.00 | 1.25 |
| BU029035012SD/T-1 | 29.50 | 35.50 | 1.25 |
| BU030035012SD/T | 30.00 | 35.00 | 1.25 |
| BU030036012SD/T | 30.00 | 36.00 | 1.25 |
| BU031037012SD/T | 31.00 | 37.00 | 1.25 |
| BU031037012SD/T-1 | 31.50 | 37.50 | 1.25 |
| BU032038012SD/T | 32.00 | 38.00 | 1.25 |
| BU034040012SD/T | 34.00 | 40.00 | 1.25 |
| BU035040012SD/T | 35.00 | 40.00 | 1.25 |
| BU035041012SD/T | 35.00 | 41.00 | 1.25 |
| BU035041012SD/T-1 | 35.50 | 41.50 | 1.25 |
| BU036042012SD/T | 36.00 | 42.00 | 1.25 |
| BU038044012SD/T | 38.00 | 44.00 | 1.25 |

SD/T series - V.PTFE

| Ref.Number | Nominal Seal Dimensions | | |
|-----------------|-------------------------|--------|------|
| | d | D | H |
| BU039045012SD/T | 39.00 | 45.00 | 1.25 |
| BU040045012SD/T | 40.00 | 45.00 | 1.25 |
| BU040046012SD/T | 40.00 | 46.00 | 1.25 |
| BU041047012SD/T | 41.00 | 47.00 | 1.25 |
| BU042048012SD/T | 42.00 | 48.00 | 1.25 |
| BU043049012SD/T | 43.00 | 49.00 | 1.25 |
| BU044050012SD/T | 44.00 | 50.00 | 1.25 |
| BU045050012SD/T | 45.00 | 50.00 | 1.25 |
| BU045051012SD/T | 45.00 | 51.00 | 1.25 |
| BU046052012SD/T | 46.00 | 52.00 | 1.25 |
| BU048054012SD/T | 48.00 | 54.00 | 1.25 |
| BU049055012SD/T | 49.00 | 55.00 | 1.25 |
| BU050055012SD/T | 50.00 | 55.00 | 1.25 |
| BU050060012SD/T | 50.00 | 60.00 | 1.25 |
| BU055060012SD/T | 55.00 | 60.00 | 1.25 |
| BU057062012SD/T | 57.00 | 62.00 | 1.25 |
| BU058063012SD/T | 58.00 | 63.00 | 1.25 |
| BU060065012SD/T | 60.00 | 65.00 | 1.25 |
| BU062067012SD/T | 62.00 | 67.00 | 1.25 |
| BU065070012SD/T | 65.00 | 70.00 | 1.25 |
| BU070075012SD/T | 70.00 | 75.00 | 1.25 |
| BU075080012SD/T | 75.00 | 80.00 | 1.25 |
| BU080085012SD/T | 80.00 | 85.00 | 1.25 |
| BU085090012SD/T | 85.00 | 90.00 | 1.25 |
| BU090095012SD/T | 90.00 | 95.00 | 1.25 |
| BU095100012SD/T | 95.00 | 100.00 | 1.25 |
| BU100105012SD/T | 100.00 | 105.00 | 1.25 |
| BU105110012SD/T | 105.00 | 110.00 | 1.25 |
| BU106111012SD/T | 106.00 | 111.00 | 1.25 |
| BU108113012SD/T | 108.00 | 113.00 | 1.25 |
| BU110115012SD/T | 110.00 | 115.00 | 1.25 |
| BU115120012SD/T | 115.00 | 120.00 | 1.25 |
| BU116121012SD/T | 116.00 | 121.00 | 1.25 |
| BU120125012SD/T | 120.00 | 125.00 | 1.25 |
| BU125130012SD/T | 125.00 | 130.00 | 1.25 |
| BU126131012SD/T | 126.00 | 131.00 | 1.25 |
| BU128133012SD/T | 128.00 | 133.00 | 1.25 |
| BU130135012SD/T | 130.00 | 135.00 | 1.25 |
| BU135140012SD/T | 135.00 | 140.00 | 1.25 |
| BU136141012SD/T | 136.00 | 141.00 | 1.25 |
| BU140145012SD/T | 140.00 | 145.00 | 1.25 |
| BU145150012SD/T | 145.00 | 150.00 | 1.25 |
| BU146151012SD/T | 146.00 | 151.00 | 1.25 |
| BU048058019SD/T | 48.00 | 58.00 | 1.90 |
| BU050060019SD/T | 50.00 | 60.00 | 1.90 |
| BU052062019SD/T | 52.00 | 62.00 | 1.90 |

| Ref.Number | Nominal Seal Dimensions | | |
|-----------------|-------------------------|--------|------|
| | d | D | H |
| BU053063019SD/T | 53.00 | 63.00 | 1.90 |
| BU055065019SD/T | 55.00 | 65.00 | 1.90 |
| BU056066019SD/T | 56.00 | 66.00 | 1.90 |
| BU058068019SD/T | 58.00 | 68.00 | 1.90 |
| BU060070019SD/T | 60.00 | 70.00 | 1.90 |
| BU062072019SD/T | 62.00 | 72.00 | 1.90 |
| BU063073019SD/T | 63.00 | 73.00 | 1.90 |
| BU065075019SD/T | 65.00 | 75.00 | 1.90 |
| BU067077019SD/T | 67.00 | 77.00 | 1.90 |
| BU070080019SD/T | 70.00 | 80.00 | 1.90 |
| BU071081019SD/T | 71.00 | 81.00 | 1.90 |
| BU075085019SD/T | 75.00 | 85.00 | 1.90 |
| BU080090019SD/T | 80.00 | 90.00 | 1.90 |
| BU085095019SD/T | 85.00 | 95.00 | 1.90 |
| BU090100019SD/T | 90.00 | 100.00 | 1.90 |
| BU095105019SD/T | 95.00 | 105.00 | 1.90 |
| BU100110019SD/T | 100.00 | 110.00 | 1.90 |
| BU102112019SD/T | 102.00 | 112.00 | 1.90 |
| BU105115019SD/T | 105.00 | 115.00 | 1.90 |
| BU110120019SD/T | 110.00 | 120.00 | 1.90 |
| BU112122019SD/T | 112.00 | 122.00 | 1.90 |
| BU115125019SD/T | 115.00 | 125.00 | 1.90 |
| BU120130019SD/T | 120.00 | 130.00 | 1.90 |
| BU125135019SD/T | 125.00 | 135.00 | 1.90 |
| BU126136019SD/T | 126.00 | 136.00 | 1.90 |
| BU130140019SD/T | 130.00 | 140.00 | 1.90 |
| BU132142019SD/T | 132.00 | 142.00 | 1.90 |
| BU135145019SD/T | 135.00 | 145.00 | 1.90 |
| BU140150019SD/T | 140.00 | 150.00 | 1.90 |
| BU145155019SD/T | 145.00 | 155.00 | 1.90 |
| BU150160019SD/T | 150.00 | 160.00 | 1.90 |
| BU152162019SD/T | 152.00 | 162.00 | 1.90 |
| BU155165019SD/T | 155.00 | 165.00 | 1.90 |
| BU160170019SD/T | 160.00 | 170.00 | 1.90 |
| BU165175019SD/T | 165.00 | 175.00 | 1.90 |
| BU170180019SD/T | 170.00 | 180.00 | 1.90 |
| BU175185019SD/T | 175.00 | 185.00 | 1.90 |
| BU180190019SD/T | 180.00 | 190.00 | 1.90 |
| BU185195019SD/T | 185.00 | 195.00 | 1.90 |
| BU190200019SD/T | 190.00 | 200.00 | 1.90 |
| BU192202019SD/T | 192.00 | 202.00 | 1.90 |
| BU195205019SD/T | 195.00 | 205.00 | 1.90 |
| BU200210019SD/T | 200.00 | 210.00 | 1.90 |
| BU205215019SD/T | 205.00 | 215.00 | 1.90 |
| BU210220019SD/T | 210.00 | 220.00 | 1.90 |
| BU215225019SD/T | 215.00 | 225.00 | 1.90 |

O-RINGS



SD/T series - V.PTFE

O'RINGS



| Ref.Number | Nominal Seal Dimensions | | |
|-----------------|-------------------------|--------|------|
| | d | D | H |
| BU220230019SD/T | 220.00 | 230.00 | 1.90 |
| BU225235019SD/T | 225.00 | 235.00 | 1.90 |
| BU230240019SD/T | 230.00 | 240.00 | 1.90 |
| BU235245019SD/T | 235.00 | 245.00 | 1.90 |
| BU240250019SD/T | 240.00 | 250.00 | 1.90 |
| BU245255019SD/T | 245.00 | 255.00 | 1.90 |
| BU250260019SD/T | 250.00 | 260.00 | 1.90 |
| BU255265019SD/T | 255.00 | 265.00 | 1.90 |
| BU260270019SD/T | 260.00 | 270.00 | 1.90 |
| BU265275019SD/T | 265.00 | 275.00 | 1.90 |
| BU270280019SD/T | 270.00 | 280.00 | 1.90 |
| BU275285019SD/T | 275.00 | 285.00 | 1.90 |
| BU280290019SD/T | 280.00 | 290.00 | 1.90 |
| BU285295019SD/T | 285.00 | 295.00 | 1.90 |
| BU290300019SD/T | 290.00 | 300.00 | 1.90 |
| BU295305019SD/T | 295.00 | 305.00 | 1.90 |
| BU300310019SD/T | 300.00 | 310.00 | 1.90 |
| BU150165027SD/T | 150.00 | 165.00 | 2.75 |
| BU155170027SD/T | 155.00 | 170.00 | 2.75 |
| BU160175027SD/T | 160.00 | 175.00 | 2.75 |
| BU165180027SD/T | 165.00 | 180.00 | 2.75 |
| BU170185027SD/T | 170.00 | 185.00 | 2.75 |
| BU175190027SD/T | 175.00 | 190.00 | 2.75 |
| BU180195027SD/T | 180.00 | 195.00 | 2.75 |
| BU185200027SD/T | 185.00 | 200.00 | 2.75 |
| BU190205027SD/T | 190.00 | 205.00 | 2.75 |
| BU195210027SD/T | 195.00 | 210.00 | 2.75 |
| BU200215027SD/T | 200.00 | 215.00 | 2.75 |
| BU205220027SD/T | 205.00 | 220.00 | 2.75 |
| BU209224027SD/T | 209.00 | 224.00 | 2.75 |
| BU210225027SD/T | 210.00 | 225.00 | 2.75 |
| BU215230027SD/T | 215.00 | 230.00 | 2.75 |
| BU220235027SD/T | 220.00 | 235.00 | 2.75 |
| BU225240027SD/T | 225.00 | 240.00 | 2.75 |
| BU230245027SD/T | 230.00 | 245.00 | 2.75 |

| Ref.Number | Nominal Seal Dimensions | | |
|-----------------|-------------------------|--------|------|
| | d | D | H |
| BU235250027SD/T | 235.00 | 250.00 | 2.75 |
| BU240255027SD/T | 240.00 | 255.00 | 2.75 |
| BU245260027SD/T | 245.00 | 260.00 | 2.75 |
| BU250265027SD/T | 250.00 | 265.00 | 2.75 |
| BU255270027SD/T | 255.00 | 270.00 | 2.75 |
| BU260275027SD/T | 260.00 | 275.00 | 2.75 |
| BU265280027SD/T | 265.00 | 280.00 | 2.75 |
| BU270285027SD/T | 270.00 | 285.00 | 2.75 |
| BU275290027SD/T | 275.00 | 290.00 | 2.75 |
| BU280295027SD/T | 280.00 | 295.00 | 2.75 |
| BU285300027SD/T | 285.00 | 300.00 | 2.75 |
| BU290305027SD/T | 290.00 | 305.00 | 2.75 |
| BU295310027SD/T | 295.00 | 310.00 | 2.75 |
| BU300315027SD/T | 300.00 | 315.00 | 2.75 |
| BU305320027SD/T | 305.00 | 320.00 | 2.75 |
| BU310325027SD/T | 310.00 | 325.00 | 2.75 |
| BU315330027SD/T | 315.00 | 330.00 | 2.75 |
| BU320335027SD/T | 320.00 | 335.00 | 2.75 |
| BU325340027SD/T | 325.00 | 340.00 | 2.75 |
| BU330345027SD/T | 330.00 | 345.00 | 2.75 |
| BU335350027SD/T | 335.00 | 350.00 | 2.75 |
| BU340355027SD/T | 340.00 | 355.00 | 2.75 |
| BU345360027SD/T | 345.00 | 360.00 | 2.75 |
| BU350365027SD/T | 350.00 | 365.00 | 2.75 |
| BU355370027SD/T | 355.00 | 370.00 | 2.75 |
| BU360375027SD/T | 360.00 | 375.00 | 2.75 |
| BU365380027SD/T | 365.00 | 380.00 | 2.75 |
| BU370385027SD/T | 370.00 | 385.00 | 2.75 |
| BU375390027SD/T | 375.00 | 390.00 | 2.75 |
| BU380395027SD/T | 380.00 | 395.00 | 2.75 |
| BU385400027SD/T | 385.00 | 400.00 | 2.75 |
| BU390405027SD/T | 390.00 | 405.00 | 2.75 |
| BU395410027SD/T | 395.00 | 410.00 | 2.75 |
| BU400415027SD/T | 400.00 | 415.00 | 2.75 |



SD/U - Back-up rings - Metric



| Standard Material | Temperature Range |
|-------------------|-------------------------------------|
| Polyurethane | -40°F to +195°F (-40°C to +91°C) |



SD/U-style is the same as **SD/T** Back-up rings but in 90 durometer polyurethane material.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department.

| Ref.Number | Nominal Seal Dimensions | | |
|-----------------|-------------------------|-------|------|
| | d | D | H |
| BU010014013SD/U | 10.00 | 14.00 | 1.30 |
| BU011015013SD/U | 11.00 | 15.00 | 1.30 |
| BU012016013SD/U | 12.00 | 16.00 | 1.30 |
| BU013017013SD/U | 13.00 | 17.00 | 1.30 |
| BU014018013SD/U | 14.00 | 18.00 | 1.30 |
| BU015019013SD/U | 15.00 | 19.00 | 1.30 |
| BU016020013SD/U | 16.00 | 20.00 | 1.30 |
| BU017021013SD/U | 17.00 | 21.00 | 1.30 |
| BU018022013SD/U | 18.00 | 22.00 | 1.30 |
| BU020025013SD/U | 20.00 | 25.00 | 1.30 |
| BU022027013SD/U | 22.00 | 27.00 | 1.30 |
| BU023028013SD/U | 23.00 | 28.00 | 1.30 |
| BU025030013SD/U | 25.00 | 30.00 | 1.30 |
| BU027032013SD/U | 27.00 | 32.00 | 1.30 |
| BU030035013SD/U | 30.00 | 35.00 | 1.30 |
| BU032037013SD/U | 32.00 | 37.00 | 1.30 |
| BU033038013SD/U | 33.00 | 38.00 | 1.30 |
| BU035040013SD/U | 35.00 | 40.00 | 1.30 |
| BU037042013SD/U | 37.00 | 42.00 | 1.30 |
| BU040045013SD/U | 40.00 | 45.00 | 1.30 |
| BU043048013SD/U | 43.00 | 48.00 | 1.30 |
| BU045050013SD/U | 45.00 | 50.00 | 1.30 |

| Ref.Number | Nominal Seal Dimensions | | |
|-----------------|-------------------------|--------|------|
| | d | D | H |
| BU050055013SD/U | 50.00 | 55.00 | 1.30 |
| BU055060013SD/U | 55.00 | 60.00 | 1.30 |
| BU058063013SD/U | 58.00 | 63.00 | 1.30 |
| BU060065013SD/U | 60.00 | 65.00 | 1.30 |
| BU063068013SD/U | 63.00 | 68.00 | 1.30 |
| BU065070013SD/U | 65.00 | 70.00 | 1.30 |
| BU069074013SD/U | 69.00 | 74.00 | 1.30 |
| BU070075013SD/U | 70.00 | 75.00 | 1.30 |
| BU075080013SD/U | 75.00 | 80.00 | 1.30 |
| BU080085013SD/U | 80.00 | 85.00 | 1.30 |
| BU085090013SD/U | 85.00 | 90.00 | 1.30 |
| BU088093013SD/U | 88.00 | 93.00 | 1.30 |
| BU090095013SD/U | 90.00 | 95.00 | 1.30 |
| BU095100013SD/U | 95.00 | 100.00 | 1.30 |
| BU098103013SD/U | 98.00 | 103.00 | 1.30 |
| BU100105013SD/U | 100.00 | 105.00 | 1.30 |
| BU105110013SD/U | 105.00 | 110.00 | 1.30 |
| BU110115013SD/U | 110.00 | 115.00 | 1.30 |
| BU115120013SD/U | 115.00 | 120.00 | 1.30 |
| BU120125013SD/U | 120.00 | 125.00 | 1.30 |
| BU125130013SD/U | 125.00 | 130.00 | 1.30 |
| BU130135013SD/U | 130.00 | 135.00 | 1.30 |



SD/U series - AU

O'RINGS

| Ref.Number | Nominal Seal Dimensions | | |
|-----------------|-------------------------|--------|------|
| | d | D | H |
| BU130140013SD/U | 130.00 | 140.00 | 1.30 |
| BU135140013SD/U | 135.00 | 140.00 | 1.30 |
| BU140145013SD/U | 140.00 | 145.00 | 1.30 |
| BU145150013SD/U | 145.00 | 150.00 | 1.30 |
| BU150155013SD/U | 150.00 | 155.00 | 1.30 |
| BU155160013SD/U | 155.00 | 160.00 | 1.30 |
| BU160165013SD/U | 160.00 | 165.00 | 1.30 |
| BU165170013SD/U | 165.00 | 170.00 | 1.30 |
| BU170175013SD/U | 170.00 | 175.00 | 1.30 |
| BU175180013SD/U | 175.00 | 180.00 | 1.30 |
| BU185190013SD/U | 185.00 | 190.00 | 1.30 |
| BU040050017SD/U | 40.00 | 50.00 | 1.70 |
| BU045055017SD/U | 45.00 | 55.00 | 1.70 |
| BU050060017SD/U | 50.00 | 60.00 | 1.70 |
| BU053063017SD/U | 53.00 | 63.00 | 1.70 |
| BU055065017SD/U | 55.00 | 65.00 | 1.70 |
| BU060070017SD/U | 60.00 | 70.00 | 1.70 |
| BU065075017SD/U | 65.00 | 75.00 | 1.70 |
| BU070080017SD/U | 70.00 | 80.00 | 1.70 |
| BU075085017SD/U | 75.00 | 85.00 | 1.70 |
| BU078088017SD/U | 78.00 | 88.00 | 1.70 |
| BU080090017SD/U | 80.00 | 90.00 | 1.70 |
| BU085095017SD/U | 85.00 | 95.00 | 1.70 |
| BU090100017SD/U | 90.00 | 100.00 | 1.70 |
| BU095105017SD/U | 95.00 | 105.00 | 1.70 |
| BU100110017SD/U | 100.00 | 110.00 | 1.70 |
| BU105115017SD/U | 105.00 | 115.00 | 1.70 |
| BU110120017SD/U | 110.00 | 120.00 | 1.70 |
| BU115125017SD/U | 115.00 | 125.00 | 1.70 |
| BU120130017SD/U | 120.00 | 130.00 | 1.70 |
| BU125135017SD/U | 125.00 | 135.00 | 1.70 |

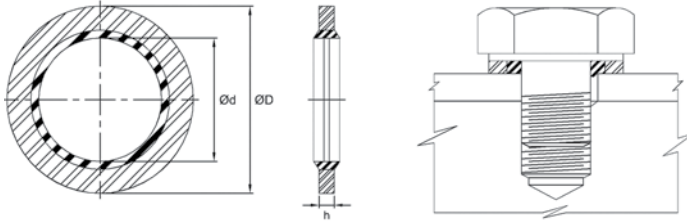
| Ref.Number | Nominal Seal Dimensions | | |
|-----------------|-------------------------|--------|------|
| | d | D | H |
| BU130140017SD/U | 130.00 | 140.00 | 1.70 |
| BU135145017SD/U | 135.00 | 145.00 | 1.70 |
| BU140150017SD/U | 140.00 | 150.00 | 1.70 |
| BU145155017SD/U | 145.00 | 155.00 | 1.70 |
| BU150160017SD/U | 150.00 | 160.00 | 1.70 |
| BU152162017SD/U | 152.00 | 162.00 | 1.70 |
| BU155165017SD/U | 155.00 | 165.00 | 1.70 |
| BU160170017SD/U | 160.00 | 170.00 | 1.70 |
| BU165175017SD/U | 165.00 | 175.00 | 1.70 |
| BU170180017SD/U | 170.00 | 180.00 | 1.70 |
| BU172182017SD/U | 172.00 | 182.00 | 1.70 |
| BU175185017SD/U | 175.00 | 185.00 | 1.70 |
| BU180190017SD/U | 180.00 | 190.00 | 1.70 |
| BU185195017SD/U | 185.00 | 195.00 | 1.70 |
| BU190200017SD/U | 190.00 | 200.00 | 1.70 |
| BU195205017SD/U | 195.00 | 205.00 | 1.70 |
| BU200210017SD/U | 200.00 | 210.00 | 1.70 |
| BU210220017SD/U | 210.00 | 220.00 | 1.70 |
| BU220230017SD/U | 220.00 | 230.00 | 1.70 |
| BU230240017SD/U | 230.00 | 240.00 | 1.70 |
| BU240250017SD/U | 240.00 | 250.00 | 1.70 |
| BU245255017SD/U | 245.00 | 255.00 | 1.70 |
| BU250260017SD/U | 250.00 | 260.00 | 1.70 |
| BU145160021SD/U | 145.00 | 160.00 | 2.10 |
| BU180195021SD/U | 180.00 | 195.00 | 2.10 |
| BU185200021SD/U | 185.00 | 200.00 | 2.10 |
| BU200215021SD/U | 200.00 | 215.00 | 2.10 |
| BU220235021SD/U | 220.00 | 235.00 | 2.10 |
| BU240255021SD/U | 240.00 | 255.00 | 2.10 |
| BU250265021SD/U | 250.00 | 265.00 | 2.10 |



Usit rings - Metric



| Standard Materials | Temperature Range |
|-------------------------------|--------------------------------------|
| Carbon Steel/ Nitrile | -65°F to +225°F (-54°C to +107°C) |
| Carbon Steel/ Fluorocarbon | -15 F to +400°F (-26°C to +205°C) |



Usit Rings are metal washers with a trapezoidal elastomeric element bonded to their inside diameter. Used primarily with threaded fasteners and flanged or hydraulic connectors, they are positively actuated via the torque applied to the hardware assembly.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

| Ref.Number | Nominal Seal Dimensions | | |
|---------------|-------------------------|-------|------|
| | d | D | h |
| BS003007010 | 3.60 | 7.50 | 1.00 |
| BS004007010 | 4.10 | 7.20 | 1.00 |
| BS004007010-1 | 4.50 | 7.00 | 1.00 |
| BS004009010 | 4.60 | 9.00 | 1.00 |
| BS005010010 | 5.60 | 10.00 | 1.00 |
| BS005009010 | 5.70 | 9.00 | 1.00 |
| BS005010010-1 | 5.70 | 10.00 | 1.00 |
| BS006009010 | 6.20 | 9.20 | 1.00 |
| BS006011010 | 6.60 | 11.00 | 1.00 |
| BS006010010 | 6.70 | 10.00 | 1.00 |
| BS006011010-1 | 6.70 | 11.00 | 1.00 |
| BS006011025 | 6.70 | 11.00 | 2.50 |
| BS006013013 | 6.85 | 13.27 | 1.30 |
| BS007011010 | 7.00 | 11.40 | 1.00 |
| BS007012010 | 7.10 | 12.00 | 1.00 |
| BS007010010 | 7.30 | 10.20 | 1.00 |
| BS008012012 | 8.30 | 12.70 | 1.25 |
| BS008013010 | 8.50 | 13.40 | 1.00 |
| BS008013010-1 | 8.60 | 13.00 | 1.00 |
| BS008013010-2 | 8.70 | 13.00 | 1.00 |
| BS008014010 | 8.70 | 14.00 | 1.00 |
| BS008016010 | 8.70 | 16.00 | 1.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|---------------|-------------------------|-------|------|
| | d | D | h |
| BS009013010 | 9.30 | 13.30 | 1.00 |
| BS010016020 | 10.35 | 16.00 | 2.00 |
| BS010014012 | 10.40 | 14.70 | 1.25 |
| BS010016015 | 10.70 | 16.00 | 1.50 |
| BS010017015 | 10.70 | 17.00 | 1.50 |
| BS010018015 | 10.70 | 18.00 | 1.50 |
| BS011016015 | 11.40 | 16.30 | 1.50 |
| BS011018015 | 11.80 | 18.10 | 1.50 |
| BS011018015-1 | 11.80 | 18.50 | 1.50 |
| BS011019015 | 11.80 | 19.10 | 1.50 |
| BS012018015 | 12.70 | 18.00 | 1.50 |
| BS012019015 | 12.70 | 19.00 | 1.50 |
| BS012020015 | 12.70 | 20.00 | 1.50 |
| BS013020015 | 13.70 | 20.00 | 1.50 |
| BS013022015 | 13.70 | 22.00 | 1.50 |
| BS013020015-1 | 13.80 | 20.10 | 1.50 |
| BS013018012 | 13.85 | 18.70 | 1.25 |
| BS014018015 | 14.00 | 18.70 | 1.50 |
| BS014021015 | 14.70 | 21.00 | 1.50 |
| BS014022015 | 14.70 | 22.00 | 1.50 |
| BS016022015 | 16.00 | 22.70 | 1.50 |
| BS016023015 | 16.70 | 23.00 | 1.50 |



Usit rings series - CARBON STEEL NBR & FPM

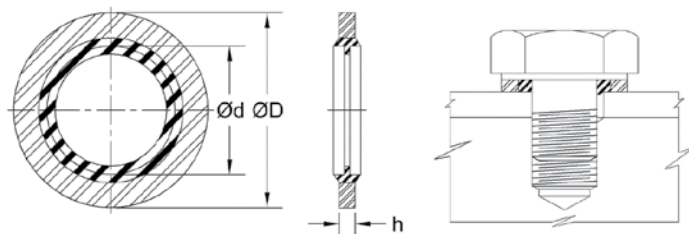
O'RINGS

| Ref.Number | Nominal Seal Dimensions | | |
|---------------|-------------------------|-------|------|
| | d | D | h |
| BS016024015 | 16.70 | 24.00 | 1.50 |
| BS017023021 | 17.20 | 23.90 | 2.10 |
| BS017022012 | 17.35 | 22.70 | 1.25 |
| BS017023015 | 17.40 | 23.70 | 1.50 |
| BS017024015 | 17.40 | 24.00 | 1.50 |
| BS018024015 | 18.00 | 24.70 | 1.50 |
| BS018026015 | 18.70 | 26.00 | 1.50 |
| BS018027020 | 18.70 | 27.00 | 2.00 |
| BS020028015 | 20.70 | 28.00 | 1.50 |
| BS020029020 | 20.70 | 29.00 | 2.00 |
| BS021028025 | 21.50 | 28.70 | 2.50 |
| BS021026012 | 21.65 | 26.70 | 1.25 |
| BS021030020 | 21.70 | 30.00 | 2.00 |
| BS022028015 | 22.50 | 28.00 | 1.50 |
| BS022030020 | 22.70 | 30.00 | 2.00 |
| BS022030030 | 22.70 | 30.00 | 3.00 |
| BS022031020 | 22.70 | 31.00 | 2.00 |
| BS023032020 | 23.70 | 32.00 | 2.00 |
| BS024032020 | 24.70 | 32.00 | 2.00 |
| BS024033020 | 24.70 | 33.00 | 2.00 |
| BS026035020 | 26.70 | 35.00 | 2.00 |
| BS027035020 | 27.00 | 35.30 | 2.00 |
| BS027036020 | 27.20 | 36.00 | 2.00 |
| BS027032012 | 27.30 | 32.60 | 1.25 |
| BS027032020 | 27.30 | 32.60 | 2.00 |
| BS027036020-1 | 27.70 | 36.00 | 2.00 |

| Ref.Number | Nominal Seal Dimensions | | |
|-------------|-------------------------|--------|------|
| | d | D | h |
| BS028036020 | 28.60 | 36.00 | 2.00 |
| BS028037020 | 28.70 | 37.00 | 2.00 |
| BS029037020 | 29.20 | 37.50 | 2.00 |
| BS030039020 | 30.70 | 39.00 | 2.00 |
| BS031039020 | 31.00 | 39.00 | 2.00 |
| BS033042020 | 33.70 | 42.00 | 2.00 |
| BS034039020 | 34.20 | 39.50 | 2.00 |
| BS034043020 | 34.30 | 43.00 | 2.00 |
| BS036046020 | 36.70 | 46.00 | 2.00 |
| BS037048025 | 37.00 | 48.00 | 2.50 |
| BS040051025 | 40.00 | 51.00 | 2.50 |
| BS042053030 | 42.70 | 53.00 | 3.00 |
| BS042049020 | 42.80 | 49.50 | 2.00 |
| BS043054025 | 43.00 | 54.00 | 2.50 |
| BS046057025 | 46.00 | 57.00 | 2.50 |
| BS048055020 | 48.70 | 55.50 | 2.00 |
| BS048059030 | 48.70 | 59.00 | 3.00 |
| BS049060025 | 49.00 | 60.00 | 2.50 |
| BS052060030 | 52.00 | 60.00 | 3.00 |
| BS053064030 | 53.30 | 64.50 | 3.00 |
| BS060068020 | 60.50 | 68.50 | 2.00 |
| BS060073030 | 60.70 | 73.00 | 3.00 |
| BS068079035 | 68.60 | 79.50 | 3.50 |
| BS076090033 | 76.08 | 90.30 | 3.38 |
| BS089101032 | 89.09 | 101.35 | 3.25 |
| BS127143050 | 127.00 | 143.67 | 5.00 |



Usit rings - Self centering - Metric



| Standard Materials | Temperature Range |
|----------------------------|--------------------------------------|
| Carbon Steel / Nitrile | -65°F to +225°F (-54°C to +107°C) |
| Carbon Steel/ Fluorocarbon | -15°F to +400°F (-26°C to +205°C) |

Usit Rings are metal washers with a trapezoidal elastomeric element bonded to their inside diameter. Used primarily with threaded fasteners and flanged or hydraulic connectors, they are positively actuated via the torque applied to the hardware assembly.

Alternate Materials: For applications that may require an alternate material, please contact our customer service department.

| Ref.Number | Nominal Seal Dimensions | | |
|---------------|-------------------------|-------|------|
| | d | D | h |
| BS004007010SC | 4.50 | 7.00 | 1.00 |
| BS006011010SC | 6.60 | 11.00 | 1.00 |
| BS008014010SC | 8.70 | 14.00 | 1.00 |
| BS010015020SC | 10.37 | 15.88 | 2.03 |
| BS010016015SC | 10.70 | 16.00 | 1.50 |
| BS010016020SC | 10.35 | 16.00 | 2.00 |
| BS012018015SC | 12.70 | 18.00 | 1.50 |
| BS012019015SC | 12.70 | 19.00 | 1.50 |
| BS013020020SC | 13.74 | 20.57 | 2.03 |
| BS014022015SC | 14.70 | 22.00 | 1.50 |
| BS016024015SC | 16.70 | 24.00 | 1.50 |
| BS016025020SC | 16.51 | 25.40 | 2.03 |
| BS017023020SC | 17.28 | 23.80 | 2.03 |
| BS018025023SC | 18.16 | 25.40 | 2.34 |
| BS018026015SC | 18.70 | 26.00 | 1.50 |
| BS020028015SC | 20.70 | 28.00 | 1.50 |

| Ref.Number | Nominal Seal Dimensions | | |
|---------------|-------------------------|--------|------|
| | d | D | h |
| BS021028023SC | 21.54 | 28.58 | 2.34 |
| BS022030020SC | 22.70 | 30.00 | 2.00 |
| BS023031023SC | 23.49 | 31.75 | 2.34 |
| BS024032020SC | 24.70 | 32.00 | 2.00 |
| BS027034023SC | 27.05 | 34.93 | 2.34 |
| BS030038023SC | 30.81 | 38.10 | 2.34 |
| BS033042032SC | 33.89 | 42.80 | 3.25 |
| BS042052032SC | 42.93 | 52.38 | 3.25 |
| BS043054025SC | 43.00 | 54.00 | 2.50 |
| BS048058032SC | 48.44 | 58.60 | 3.25 |
| BS054069032SC | 54.89 | 69.85 | 3.25 |
| BS060073032SC | 60.58 | 73.03 | 3.25 |
| BS066079032SC | 66.68 | 79.50 | 3.25 |
| BS076090032SC | 76.08 | 90.17 | 3.25 |
| BS089101032SC | 89.09 | 101.35 | 3.25 |



Usit Rings reference table

| Nominal Seal Dimensions | | | Thread size | | | Nominal Seal Dimensions | | | Thread size | | |
|-------------------------|-------|------|-------------|------------|---------|-------------------------|-------|------|-------------|------------|---------|
| d | D | h | Metric | Whitw. BSW | Gas BSP | d | D | H | Metric | Whitw. BSW | Gas BSP |
| 3.10 | 6.40 | 1.00 | | | | 18.70 | 26.00 | 1.50 | M 18 | | |
| 3.10 | 6.40 | 1.30 | | 6 BA | | 20.70 | 28.00 | 1.50 | M 20 | 3/4" | 1/2" |
| 3.10 | 7.30 | 1.15 | | | | 21.50 | 28.70 | 2.50 | | | 1/2" |
| 4.10 | 7.30 | 1.30 | M 4 | 4 BA | | 22.70 | 30.00 | 2.00 | M 22 | 7/8" | 1/2" |
| 4.50 | 7.00 | 1.00 | M 4 | | | 23.50 | 31.80 | 2.50 | | 7/8" | 5/8" |
| 5.21 | 8.38 | 1.22 | | 2 BA | | 24.70 | 32.00 | 2.00 | M 24 | | 5/8" |
| 5.70 | 9.00 | 1.00 | M 5 | | | 26.70 | 35.00 | 2.00 | M 26 | 1" | |
| 5.70 | 10.00 | 1.00 | M 5 | | | 27.00 | 35.00 | 2.50 | M 26 | 1" | 3/4" |
| 6.20 | 9.20 | 1.00 | M 5.5 | | | 27.20 | 36.00 | 2.00 | M 26 | 1" | 3/4" |
| 6.70 | 10.00 | 1.00 | M 6 | | | 28.70 | 37.00 | 2.00 | M 28 | | |
| 6.70 | 11.00 | 1.00 | M 6 | 1/4" | | 29.30 | 36.60 | 2.50 | M 28.5 | 1 1/8" | |
| 6.70 | 11.00 | 2.50 | M 6 | | | 31.00 | 39.00 | 2.00 | M 30 | | 7/8" |
| 6.98 | 13.20 | 1.30 | M 6 | 1/4" | | 32.60 | 41.40 | 3.40 | | 1 1/4" | |
| 7.00 | 13.40 | 1.30 | | 1/4" | | 33.90 | 42.90 | 3.40 | M 33 | 1 1/4" | 1" |
| 7.10 | 12.00 | 1.00 | | 1/4" | | 34.30 | 43.00 | 2.00 | | | 1" |
| 8.70 | 13.00 | 1.00 | M 8 | 5/16" | | 36.70 | 46.00 | 2.00 | M 36 | | |
| 8.70 | 14.00 | 1.00 | M 8 | | | 42.70 | 53.00 | 3.00 | M 42 | | 1/4" |
| 8.70 | 14.20 | 1.30 | M 8 | 5/16" | | 48.70 | 59.00 | 3.00 | M 48 | 1 7/8" | 1 1/2" |
| 8.70 | 16.00 | 1.00 | M 8 | 5/16" | | 51.70 | 63.50 | 3.40 | M 48 | 2" | |
| 9.30 | 13.10 | 1.00 | M 8.5 | | | 52.00 | 50.00 | 3.00 | | | |
| 10.35 | 16.00 | 2.00 | | | 1/8" | 53.30 | 64.50 | 3.00 | M 52 | 2" | |
| 10.70 | 16.00 | 1.50 | M 10 | 3/8" | 1/8" | 54.90 | 69.80 | 3.25 | | 2 1/8" | 1 3/4" |
| 10.70 | 18.00 | 1.50 | M 10 | 3/8" | 1/8" | 60.70 | 73.00 | 3.00 | M 56 | 2 1/4" | 2 |
| 12.70 | 18.00 | 1.50 | M 12 | | | 66.70 | 79.50 | 3.25 | | | 2 1/4" |
| 12.70 | 20.00 | 1.50 | M 12 | | | 68.60 | 79.50 | 3.50 | M 68 | | |
| 13.70 | 20.60 | 2.10 | M 12 | 1/2" | 1/4" | 76.10 | 90.30 | 3.40 | M 72 | 2 3/4" | 2 1/2" |
| 13.70 | 22.00 | 1.50 | M 13 | | 1/4" | | | | | | |
| 14.00 | 18.70 | 1.50 | M 13.5 | | | | | | | | |
| 14.70 | 22.00 | 1.50 | M 14 | 1/2" | 1/4" | | | | | | |
| 14.90 | 22.30 | 2.10 | M 14 | 9/16" | | | | | | | |
| 16.70 | 25.50 | 2.10 | M 16 | 5/8" | | | | | | | |
| 16.70 | 24.00 | 1.50 | M 16 | 5/8" | | | | | | | |
| 17.30 | 23.90 | 2.10 | | | 3/8" | | | | | | |
| 17.40 | 24.00 | 1.50 | | | 3/8" | | | | | | |
| 18.20 | 25.40 | 2.10 | | | | | | | | | |



OTHER PROFILES ARE ALSO AVAILABLE ON REQUEST

Though this product offering contains a wide selection of commonly used parts in the marketplace, it is possible that you haven't found the exact part you were looking for.

We have many other seal profiles available on request. please do not hesitate to contact us and we will do our best to help you locate the required part.



O'RINGS



O'RINGS



| | | |
|--------------------------------------|------|----|
| PARKER MATERIAL OVERVIEW | TECH | 2 |
| FREUDENBERG-NOK MATERIAL OVERVIEW | TECH | 10 |
| ISO METRIC TOLERANCE CHART | TECH | 12 |
| O'RING SIZE CHART - INCH | TECH | 20 |
| CONVERSION TABLE INCH/METRIC | TECH | 22 |



Parker material overview

Table 3-1. Typical Physical Properties: Thermoplastics — Elastomers

| Parker Material Code | Material Trade Name (Color) | Typical Applications and Description | Service Temperature Range °F (°C) | Tensile Strength at Break psi (MPa) | Ultimate Elongation | Shore Hardness | | 100% Modulus psi (MPa) | Compression Set | | Rebound | Abrasion Rating Best = 10 |
|--|------------------------------------|--|-----------------------------------|-------------------------------------|---------------------|----------------|----|------------------------|-----------------|-------------|---------|---------------------------|
| | | | | | | A | D | | Set | at °F (°C) | | |
| Thermoplastic Elastomers — TPU, Polyurethanes | | | | | | | | | | | | |
| P4300A90 | Polyurethane Resilon® 4300 (Tan) | Proprietary compound offering extended temperature range, high rebound. USP Class VI, NSF/ANSI 61 certified. | -65 to +275 (-54 to +135) | 8021 (55.3) | 638% | 90 | — | 1674 (11.5) | 30.9% | +212 (+100) | 61% | 10 |
| P4301A90 | Polyurethane Resilon® 4301 (oil) | For petroleum based fluids. | -35 to +275 (-37 to +135) | 7188 (49.6) | 548% | 92 | — | 1958 (13.5) | 22.3% | +158 (+70) | 41% | 8.1 |
| | (water) | For water based fluids. USP Class VI certified. | -35 to +225 (-37 to +107) | | | | | | | | | |
| P4304D60 | Polyurethane Resilon® 4304 (Brown) | Offers higher extrusion resistance for seals and anti-extrusion devices. | -65 to +275 (-54 to +135) | 6896 (47.5) | 571% | — | 56 | 2949 (20.3) | 40.9% | +158 (+70) | 56% | 9.8 |
| P4306A90 | Polyurethane Resilon® 4306 (Tan) | Formulated for low friction. | -65 to +275 (-54 to +135) | 6480 (44.7) | 626% | 91 | — | 1490 (10.3) | 30.3% | +158 (+70) | 62% | 9.0 |
| P4311A90 | Polyurethane Resilon® 4311 (Red) | Formulation resists internal heat generated through hysteresis, ideal for shock applications. | -65 to +275 (-54 to +135) | 7475 (51.5) | 628% | 92 | — | 1698 (11.7) | 35.9% | +212 (+100) | 63% | 8.2 |
| P4500A90 | Polyurethane (Green) | Offers good abrasion and extrusion resistance with excellent rebound. | -65 to +200 (-54 to +93) | 6585 (45.4) | 555% | 93 | — | 1831 (12.6) | 32.9% | +158 (+70) | 42% | 7.6 |
| P4615A90 | Polyurethane Molythane® (Black) | General purpose industrial polyurethane offering high abrasion resistance. USP Class VI certified. | -65 to +200 (-54 to +93) | 7368 (50.8) | 557% | 94 | — | 1828 (12.6) | 29.2% | +158 (+70) | 36.4% | 9.4 |
| P4617D65 | Polyurethane Molythane® (Black) | General purpose industrial polyurethane offering high extrusion resistance. | -65 to +225 (-54 to +107) | 5504 (37.9) | 475% | — | 66 | 3485 (24.0) | — | — | — | 6.7 |
| P4622A90 | Polyurethane Ultrathane® (Yellow) | Formulated with internal lubricants for lower friction to help reduce heat build up. | -65 to +225 (-54 to +107) | 6759 (46.6) | 507% | 95 | — | 1874 (12.9) | 31.8% | +158 (+70) | 32% | 7.6 |
| P4700A90 | Polyurethane (Green) | Enhanced properties over 4615 to improve sealing capabilities from lower compression set. | -65 to +200 (-54 to +93) | 5783 (39.9) | 568% | 92 | — | 1786 (12.3) | 22.8% | +158 (+70) | 41% | 6.3 |
| P5065A88 | Polyurethane (Dark Blue) | Formulated for an improved low temperature range and higher resilience than 4615. | -70 to +200 (-57 to +93) | 5033 (34.7) | 660% | 86 | — | 1073 (7.4) | 27.2% | +158 (+70) | 50% | 5.5 |
| Thermoplastic Elastomers — TPCE, Polymyte® | | | | | | | | | | | | |
| Z4651D60 | Polymyte® (Orange) | Used in applications requiring extended extrusion resistance and fluid compatibility. | -65 to +275 (-54 to +135) | 5807 (40.0) | 715% | — | 56 | 2466 (17.0) | 44.2% | +158 (+70) | — | 6.4 |
| Z4652D65 | Polymyte® (Orange) | Primarily used for back-up rings and other anti-extrusion devices. | -65 to +275 (-54 to +135) | 6171 (42.5) | 698% | — | 60 | 2607 (18.0) | 45.5% | +158 (+70) | — | 6.9 |



Parker material overview

Table 3-2. Typical Physical Properties: Thermoplastics — Engineered Resins

| Parker Material Code | Material | Color | Typical Applications and Description | Service Temperature Range °F (°C) | Tensile Strength at Break psi (MPa) | Flexural Strength psi (MPa) |
|--------------------------|---|----------------|--|-----------------------------------|-------------------------------------|-----------------------------|
| Nylons | | | | | | |
| W4650 | MolyGard® | Gray | Heat stabilized, internally lubed 30% glass-reinforced nylon for standard tolerance wear rings. | -65 to +275 (-54 to +135) | 17500 (121) | 22600 (156) |
| W4655 | Nylon 6,6 | Gray | Wear resistant nylon with molybdenum disulfide for lower friction, suited for back-up rings. | -65 to +275 (-54 to +135) | 13000 (89.6) | 16000 (110) |
| W4733 | WearGard™ | Green | High compressive strength, 35% glass-reinforced nylon for tight tolerance wear rings. | -65 to +275 (-54 to +135) | 18300 (126) | 25500 (176) |
| UltraCOMP™ (PEEK) | | | | | | |
| W4685 | UltraCOMP™ HTP | Tan | A homogenous engineered thermo- plastic used for extreme conditions in many markets. | -65 to +500 (-54 to +260) | 14000 (96.5) | 23600 (163) |
| W4686 | UltraCOMP™ GF | Tan | 30% glass filled engineered thermoplastic with enhanced compressive strength. | -65 to +500 (-54 to +260) | 22600 (156) | 30700 (212) |
| W4737 | UltraCOMP™ CF | Black | 30% carbon fiber blend, provides enhanced tensile and compressive strength. | -65 to +500 (-54 to +260) | 32400 (224) | 43200 (298) |
| W4738 | UltraCOMP™ CGT | Gray | Thermoplastic material blended with carbon, graphite and PTFE for reduced friction. | -65 to +500 (-54 to +260) | 20400 (141) | 33400 (230) |
| Composite Resins | | | | | | |
| 0810 | Standard Polyester Based With PTFE | Pink | Polyester-based fabric-reinforced resin to handle severe sideloads and swell from moisture. Internally lubricated for dry running service. | -40 to +200 (-40 to +93) | 11000 (75.8) | — |
| 0811 | Graphite Filled Polyester Based | Gray | Polyester-based fabric-reinforced resin filled with graphite to handle severe sideloads and swell from moisture. Low friction, non-lubricated service. | -40 to +200 (-40 to +93) | 11000 (75.8) | — |
| 0812 | MoS ₂ Filled Polyester Based | Gray | High Temperature Polyester-based fabric-reinforced resin filled with Molybdenum Disulfide. Low friction, non-lubricated service | -40 to +400 (-40 to +204) | 11000 (75.8) | — |
| 0813 | PTFE Filled Polyester Based | Yellow/ Tan | High Temperature vinyl ester-based fabric-reinforced resin filled with PTFE. Internally lubricated for dry running. | -40 to +400 (-40 to +204) | 11000 (75.8) | — |



Parker material overview

Table 3-2. Typical Physical Properties: Thermoplastics — Engineered Resins (cont'd)

| Parker Material Code | Rockwell Hardness | | Notched IZOD Impact Strength Ft-Lbs/In. | Tensile Modulus Kpsi (MPa) | Shear Strength psi (MPa) | Flexural Modulus Kpsi (MPa) | Compressive Strength psi (MPa) | Permissible Compressive Load psi (MPa) | Water Absorption (24 Hour) % |
|--------------------------|-------------------|-----|---|----------------------------|--------------------------|-----------------------------|--------------------------------|--|------------------------------|
| | M | R | | | | | | | |
| Nylons | | | | | | | | | |
| W4650 | 77 | 114 | 1.37 | 952 (6560) | 9390 (64.7) | 860 (5930) | 21000 (145) | 21700 (150) | 0.50 to 0.70 |
| W4655 | — | 119 | 1.69 | 536 (3700) | 9,500 (65.5) | 406 (2800) | 12000 (82.7) | — | 0.50 to 1.40 |
| W4733 | 87 | 117 | 1.15 | 899 (6200) | 9820 (67.7) | 1,100 (7580) | 21500 (148) | 21700 (150) | 0.50 to 0.70 |
| UltraCOMP™ (PEEK) | | | | | | | | | |
| W4685 | — | 126 | 2 | 507 (3500) | 7687 (53.0) | 579 (3990) | 17100 (118) | — | 0.50 |
| W4686 | — | 124 | 2 | 1653 (11400) | 14068 (97.0) | 1334 (9200) | 31100 (214) | — | 0.11 |
| W4737 | — | 124 | 2 | 3234 (22300) | 12328 (85.0) | 2697 (18600) | 34800 (240) | — | 0.06 |
| W4738 | — | 100 | 2 | 1464 (10100) | — | 1189 (8200) | 21700 (150) | — | 0.06 |
| Composite Resins | | | | | | | | | |
| 0810 | 100 | — | — | 500 (3450) | — | — | 50000 (345) | — | 0.10 |
| 0811 | 100 | — | — | 500 (3450) | — | — | 50000 (345) | — | 0.10 |
| 0812 | 100 | — | — | 500 (3450) | — | — | 50000 (345) | — | 0.10 |
| 0813 | 100 | — | — | 500 (3450) | — | — | 50000 (345) | — | 0.10 |

Table 3-3. Typical Physical Properties — Thermoset Elastomers

| Parker Material Code | Material | Color | Typical Applications and Description | Service Temperature Range °F (°C) | Tensile Strength at Break psi (MPa) | Ultimate Elongation | Shore A Hardness | 100% Modulus psi (MPa) | Compression Set | | Abrasion Rating (1) Worst to (10) Best |
|----------------------|----------|-------|---|-----------------------------------|-------------------------------------|---------------------|------------------|------------------------|-----------------|-------------|--|
| | | | | | | | | | Set | at °F (°C) | |
| Nitrile (NBR) | | | | | | | | | | | |
| N4008A80 | Nitrile | Black | Premium, low ACN nitrile for use when low temperature sealability is required. | -70 to +275 (-57 to +135) | 2111 (14.6) | 157% | 75 | 1250 (8.6) | 18.5% | +212 (+100) | 1.8 |
| N4115A75 | Nitrile | Black | General purpose nitrile with medium ACN content for use where a softer seal is required. | -40 to +225 (-40 to +107) | 2430 (16.8) | 282% | 75 | 946 (6.5) | 23.6% | +212 (+100) | 1.9 |
| N4121A90 | Nitrile | Black | High modulus for outstanding extrusion resistance plus good compression set. | -40 to +250 (-40 to +121) | 2306 (15.9) | 263% | 91 | 1315 (9.1) | 24.0% | +212 (+100) | 2.2 |
| N4180A80 | Nitrile | Black | General purpose nitrile with good chemical compatibility, seal ability and compression set. | -40 to +250 (-40 to +121) | 2114 (14.6) | 287% | 80 | 1174 (8.1) | 14.4% | +212 (+100) | 1.9 |



Table 3-3. Typical Physical Properties — Thermoset Elastomers

| Parker Material Code | Material | Color | Typical Applications and Description | Service Temperature Range °F (°C) | Tensile Strength at Break psi (MPa) | Ultimate Elongation | Shore A Hardness | 100% Modulus psi (MPa) | Compression Set | | Abrasion Rating (1) Worst to (10) Best |
|---------------------------------------|--------------------|-------|--|-----------------------------------|-------------------------------------|---------------------|------------------|------------------------|-----------------|-------------|--|
| | | | | | | | | | Set | at °F (°C) | |
| N4182A75 | Nitrile | Black | General purpose nitrile for use when low temperature sealability is required. | -65 to +225 (-54 to +135) | 2164 (14.9) | 199% | 76 | 1088 (7.5) | 16.9% | +212 (+100) | 1.8 |
| Carboxylated Nitroxile® (XNBR) | | | | | | | | | | | |
| N4257A85 | Nitroxile® | Black | XNBR with internal lubricant to reduce friction. Ideal for pneumatic applications. | 0 to +250 (-18 to +121) | 3147 (21.7) | 227% | 84 | 1554 (10.7) | 20.0% | +212 (+100) | 2.7 |
| N4263A90 | Nitroxile® | Black | Extra tough XNBR with increased hardness, modulus and tensile strength. | -20 to +275 (-29 to +135) | 3401 (23.4) | 117% | 91 | 3208 (22.1) | 28.3% | +212 (+100) | 3 |
| N4274A85 | Nitroxile® | Black | Premier XNBR in the industry formulated with proprietary internal lubricant. | -10 to +250 (-23 to +121) | 3232 (22.3) | 221% | 84 | 1654 (11.4) | 21.8% | +212 (+100) | 2.9 |
| N4283A75 | Nitroxile® | Black | XNBR with internal lubricant to reduce friction. Ideal for pneumatic applications. | 0 to +250 (-18 to +121) | 2344 (16.2) | 197% | 71 | 805 (5.6) | 23.3% | +212 (+100) | 2.7 |
| Hydrogenated Nitrile (HNBR) | | | | | | | | | | | |
| N4007A95 | HNBR | Black | Excellent extrusion resistance and explosive decompression to meet Norsok M-710 | -20 to +320 (-29 to +160) | 4639 (32.0) | 185% | 93 | 2413 (16.6) | 14.9% | +212 (+100) | 5.0 |
| N4031A85 (KA183) | HNBR | Black | Equivalent to Parker Hannifin O-ring Division compound KA183A85, offers low temperature improvement. | -40 to +320 (-40 to +160) | 2551 (17.6) | 139% | 88 | 1947 (13.4) | 18.0% | +212 (+100) | 1.4 |
| N4032A80 (KB162) | HNBR | Black | Equivalent to Parker Hannifin O-ring Division compound KB162A80 offering improved chemical compatibility. | -25 to +320 (-32 to +160) | 3931 (27.1) | 170% | 86 | 2562 (17.7) | 6.0% | +302 (+150) | 3.3 |
| N4033A90 (KB163) | HNBR | Black | Equivalent to Parker Hannifin O-ring Division compound KB163A90 offering improved chemical compatibility | -25 to +320 (-32 to +160) | 3751 (25.9) | 129% | 89 | 3204 (22.1) | 14.4% | +302 (+150) | 3.2 |
| Ethylene Propylene (EPR) | | | | | | | | | | | |
| E4207A90 | Ethylene Propylene | Black | General purpose 90A EPR, has excellent dimensional stability in water-based fluids and steam. | -65 to +300 (-54 to +149) | 2101 (14.5) | 130% | 86 | 1452 (10.0) | 13.0% | +257 (+125) | 2.0 |
| E4259A80 | Ethylene Propylene | Black | General purpose 80A EPR, has excellent dimensional stability in water-based fluids and steam. | -65 to +300 (-54 to +149) | 2346 (16.2) | 177% | 80 | 998 (6.9) | 12.8% | +257 (+125) | 1.8 |
| E4270A90 | Ethylene Propylene | Black | Formulated for geothermal environments and steam up to +600°F. | -65 to +400 (-54 to +204) | 2904 (20.0) | 131% | 87 | 1998 (13.8) | 27.1% | +302 (+150) | 3.0 |
| Fluorocarbon Elastomers (FPM) | | | | | | | | | | | |
| V1238A95 | Fluoro-elastomer | Black | Resistant to explosive decompression and extrusion. Shows no visual physical damage after prolonged exposure to 100% CO ₂ concentrations. | -20 to +400 (-29 to +204) | 3030 (20.9) | 95% | 93 | 3079 (21.2) | 12.5% | +302 (+150) | 1.0 |
| V1289A75 | Fluoro-elastomer | Black | Fluorocarbon material formulated for improved low temperature applications. | -20 to +300 (-29 to +149) | 1791 (12.3) | 124% | 75 | 1307 (9.0) | 18.7% | +302 (+150) | 1.0 |

Parker material overview

Table 3-3. Typical Physical Properties — Thermoset Elastomers

| Parker Material Code | Material | Color | Typical Applications and Description | Service Temperature Range °F (°C) | Tensile Strength at Break psi (MPa) | Ultimate Elongation | Shore A Hardness | 100% Modulus psi (MPa) | Compression Set | | Abrasion Rating (1) Worst to (10) Best |
|--------------------------------------|------------------|-------|--|-----------------------------------|-------------------------------------|---------------------|------------------|------------------------|-----------------|-------------|--|
| | | | | | | | | | Set | at °F (°C) | |
| Fluorocarbon Elastomers (FPM) | | | | | | | | | | | |
| V4205A75 | Fluoro-elastomer | Black | 70 Shore A general purpose fluorocarbon resistant to chemical attack and heat. | -20 to +400 (-29 to +204) | 2169 (15.0) | 177% | 75 | 803 (5.5) | 6.7% | +302 (+150) | 1.8 |
| V4208A90 | Fluoro-elastomer | Black | 90 Shore A general purpose fluorocarbon resistant to chemical attack and heat. | -5 to +400 (-21 to +204) | 2284 (15.7) | 142% | 87 | 1549 (10.7) | 11.2% | +302 (+150) | 1.6 |
| V4266A95 | Fluoro-elastomer | Black | Features extended wear and extrusion resistance over general purpose fluorocarbons. | -5 to +400 (-21 to +204) | 2408 (16.6) | 93% | 92 | 2462 (17.0) | 15.3% | +302 (+150) | 2.2 |
| V4281A85 | Fluoro-elastomer | Black | 85 Shore A general purpose fluorocarbon resistant to chemical attack and heat for low temperature sealing. | -30 to +400 (-34 to +204) | 2500 (17.2) | 128% | 86 | 2005 (13.8) | 13.2% | +302 (+150) | 1.6 |

The following table lists material codes that apply to the rubber energizer used with PTFE fluid power seals. List the corresponding material code in the appropriate location in the part number. Parker has a full range of rubber compounds to suit various temperature, pressure and chemical compatibility requirements. If your application requires an alternate rubber compound, not listed, please consult a Parker application engineer.

Table 3-5. Typical Application Ranges and Recommendations — Rubber Energizers for PTFE Fluid Power Seals

| Material Code | Material Description | Shore A Hardness | Temperature Range | Recommended Use | Not Recommend For Use |
|---------------|----------------------------------|------------------|-----------------------------------|---|--|
| A | Nitrile (NBR) | 70 | -30°F to +250°F (-34°C to +121°C) | <ul style="list-style-type: none"> Petroleum oils and fluids Diesel fuel and fuel oils Cold water Silicone oil and grease Mineral oil and grease | <ul style="list-style-type: none"> Aromatic hydrocarbons Chlorinated hydrocarbons Polar solvents (MEK, ketone, acetone) Phosphate ester fluids Strong acids Automotive brake fluid |
| B | Low Temperature Nitrile (NBR) | 75 | -65°F to +225°F (-55°C to +107°C) | <ul style="list-style-type: none"> Vegetable oil HFA, HFB and HFC fluids | |
| C | Clean Grade Nitrile (NBR) | 70 | -30°F to +250°F (-34°C to +121°C) | <ul style="list-style-type: none"> Potable water Food service | |
| D | Hydrogenated Nitrile (HNBR) | 70 | -23°F to +300°F (-32°C to +149°C) | <ul style="list-style-type: none"> Diesel fuel and fuel oils Dilute acids and bases | |
| F | Fluorocarbon (FKM) | 70 | -15°F to +400°F (-26°C to +205°C) | <ul style="list-style-type: none"> Petroleum oils and fluids Cold water Silicone greases and oils Aliphatic hydrocarbons Aromatic hydrocarbons Fuels Fuels with methanol content | <ul style="list-style-type: none"> Glycol based brake fluids Ammonia gas, amines, alkalis Superheated steam Low molecular organic acids |
| H | Silicone HT (VMQ) | 70 | -65°F to +450°F (-55°C to +232°C) | <ul style="list-style-type: none"> Engine and transmission oil Animal and vegetable oil and grease | <ul style="list-style-type: none"> Superheated steam Acids and Alkalis Aromatic mineral oil Hydrocarbon-based fuels Aromatic hydrocarbons |
| I | Silicone HT (VMQ) Food Grade | | | <ul style="list-style-type: none"> Brake fluid Fire-resistant hydraulic fluid Ozone, aging and weather resistant | |
| K | Ethylene Propylene Rubber (EPDM) | 70 | -70°F to +250°F (-57°C to +121°C) | <ul style="list-style-type: none"> Hot water Glycol based brake fluids Many organic and inorganic acids | <ul style="list-style-type: none"> Petroleum oils and fluids Mineral oil products |
| L | Ethylene Propylene Rubber (EPDM) | 80 | -70°F to +250°F (-57°C to +121°C) | <ul style="list-style-type: none"> Cleaning agents Soda and potassium alkalis Phosphate ester based fluids Many polar solvents | |



Parker material overview

The following table is a list of back up ring materials for use with PTFE fluid power seals. List the corresponding back up ring material code in the appropriate location in the part number.

Table 3-6. Typical Application Ranges and Recommendations — Back-up Rings for PTFE Fluid Power Seals

| Material Code | Material Description | Pressure Rating * | Temperature Range | Recommended Use |
|---------------|-------------------------------------|----------------------|------------------------------------|---|
| A | Nylon, Molybdenum Di-Sulfide Filled | 7,500 psi (517 bar) | -65°F to +275°F (-54°C to +135°C) | <ul style="list-style-type: none"> Petroleum oils and fluids Diesel fuel and fuel oils Phosphate ester fluids Silicone oil and grease Mineral oil and grease |
| B | Nylon Glass Filled | 7,500 psi (517 bar) | -65°F to +275°F (-54°C to +135°C) | <ul style="list-style-type: none"> Reduced water absorption Improved thermal stability |
| C | Acetal | 6,000 psi (414 bar) | -40°F to +250°F (-40°C to +121°C) | <ul style="list-style-type: none"> HFA, HFB and HFC fluids Water Petroleum oils and fluids Diesel fuel and fuel oils Mineral oil and grease |
| D | PTFE PPS Filled | 5000 psi (345 bar) | -100°F to +450°F (-73°C to +232°C) | <ul style="list-style-type: none"> Extended temperature, pressure and media resistance |
| E | PEEK Virgin | 10,000 psi (690 bar) | -65°F to +500°F (-54°C to +260°C) | <ul style="list-style-type: none"> Extended temperature, pressure and media resistance |

Table 3-7. Standard (■) vs. Optional (□) Materials for PTFE Fluid Power Seal Profiles

| PTFE Material Code | PTFE Fluid Power Seal Profile | | | | | | | | | | | | | | |
|--------------------|-------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | S5 | R5 | CT | CQ | OE | CP | OA | OD | ON | CR | OC | AD | OQ | OR | OG |
| 0100 | | | | | | □ | | | | □ | | □ | | | |
| 0102 | | | | | | □ | ■ | □ | | □ | ■ | | | | □ |
| 0120 | □ | □ | | | □ | □ | | □ | □ | □ | | | □ | □ | □ |
| 0203 | ■ | ■ | | □ | □ | | | | □ | | | | | | |
| 0204 | | | □ | | | | □ | | | | □ | | □ | □ | |
| 0205 | | | | | | | | | | | | | ■ | ■ | |
| 0301 | | | | | □ | | | | □ | | | | □ | □ | |
| 0307 | | | □ | | □ | | | □ | □ | | | | □ | □ | □ |
| 0401 | □ | □ | ■ | ■ | ■ | ■ | | ■ | ■ | ■ | □ | ■ | | | ■ |
| 0502 | | | | | | | | | | | | □ | □ | □ | |
| 0601 | | | | | □ | | | | □ | | | | | | |



Parker material overview

Chemical Compatibility

It is essential to select seal compounds that are compatible with the environment in which they are used. Even if the proper seal material is chosen based on system temperature and pressure, exposure to certain fluids can drastically reduce seal performance by altering a compound's typical physical properties.

Parker has tested thousands of fluids and is continuously testing many new, popular chemicals to ensure seal material compatibility. For detailed reports regarding compatibility of common seal materials and popular test fluids, please contact your local Parker Engineered Materials Group representative.

Temperature Limits

When selecting a seal material, temperature is a key factor. Heat affects the seal material in several ways:

- Softens the material which accelerates wear
- Accelerates any chemical reaction between the fluid and the seal
- Damages the bond structure of the material
- Increases compression set
- Higher temperatures for extended periods of time may harden thermoset (rubber) materials

Lower end temperature may be as important as the upper end temperature. This is especially true in mobile hydraulics. As the temperature lowers, the following takes place:

- The seal hardens and is less responsive.
- The coefficient of thermal expansion and contraction is approximately ten times that of metals. Therefore the seal lips could start to pull away from the surface of the bore. This loss of lip compression against the colder sealing surfaces can be off set by seal design and proper material selection.
- The opposite is also true. As a bearing or wear ring heats up, binding can occur if there is not a gap designed into the wear ring.

Storage and Handling

In 1998, the Society of Automotive Engineers (SAE) issued an Aerospace Recommended Practice (ARP) for the storage of elastomer seals and seal assemblies prior to installation. ARP 5316 has been considered by many as the industry standard; however, Parker has taken a conservative approach to ensure to our customers the highest quality. Both the ARP 5316 and Parker standards for shelf life are shown below in Table 3-8.

| Chemical Name | Polymer | ARP 5316 | Parker |
|--------------------------|-----------------|-----------|-----------|
| Aflas® | FEPM | Unlimited | 7 Years |
| Ethylene Propylene | EP, EPR, EPDM | Unlimited | 7 Years |
| Fluorocarbon | FKM | Unlimited | 7 Years |
| Nitrile | NBR, HNBR, XNBR | 15 Years | 7 Years |
| Polyurethane | AU or EU | — | 10 Years |
| Polymyte® | TPCE | — | 10 Years |
| Polytetra-fluoroethylene | PTFE | — | Unlimited |

The values above assume that proper guidelines for storage conditions are followed. If plastic and rubber products are stored improperly, their physical properties may change. Prior to use, all parts should be checked for hardness, surface cracking or peeling. If any of these conditions are observed, the parts should be discarded. Some compounds can exhibit a build-up of powdery film on their surface over time. This natural occurrence is referred to as bloom and does not in any way negatively impact the function of the seal. Guidelines for proper seal storage are shown in Table 3-9, page 3-21.



Table 3-9. Seal Storage and Handling Guidelines

| Seal Storage and Handling Guidelines | |
|---|--|
| Records | Records should be kept to ensure that stock is rotated such that the first seals in are the first out (FIFO). |
| Temperature | Seals must be stored away from heat sources such as direct sunlight and heating appliances. Maximum storage temperature is +100°F (+38°C). Low temperatures do not typically cause permanent damage to seals, but can result in brittleness, making them susceptible to damage if not handled carefully. Ideally, seals should not be stored at temperatures less than +50°F (+10°C) and should be warmed to room temperature before installation. |
| Ultra Violet | Seal must be protected from direct sunlight and any artificial light that generates ultra violet radiation. |
| Humidity | Care should be taken to ensure seals are always stored in an environment with a relative humidity of less than 65%. Polyurethane seals in particular are very susceptible to damage from exposure to moisture and should be stored in air-tight containers. |
| Oxygen and Ozone | Ozone-generating equipment and oxygen exposure can be detrimental to seal compounds. Seals should be stored in air-tight containers. Any electrical equipment that generates a spark should not be used near seal storage. |
| Contamination | Keeping seals free from contamination will assist promote service life. Good housekeeping practices should be maintained. |
| Distortion | Large seals should be stored flat when possible and not suspended, which may cause distortion over time. Do not store seals on hooks, nails or pegboard. |



Freudenberg-NOK material overview

| Compound | Polyurethane 92 AU 9250 | Polyurethane 94 AU 30000 | Polyurethane 80 AU 20994 | Polyurethane 80 AU 941 | Polyurethane 90 AU 2097 | Polyurethane 90 HU 2090 | Polyurethane 92 AU 21100 | Polyurethane 93 AU 2093 |
|----------------------------|-------------------------|--------------------------|--------------------------|------------------------|-------------------------|-------------------------|--------------------------|-------------------------|
| Color | Natural | Blue | Blue-Violet | Beige | Yellow | Yellow | Black | Black |
| Hardness | 92 Shore A | 94 Shore A | 80 Shore A | 80 Shore A | 90 Shore A | 90 Shore A | 90 Shore | 93 Shore A |
| Tensile Strength | 9427 psi 650 bar | 8992 psi 620 bar | 7397 psi 510 bar | 7397 psi 510 bar | 6102 psi 421 bar | 5500 psi 370 bar | 9427 psi 650 bar | 7500 psi 517 bar |
| Elongation at break | 530 % | 550 % | 600 % | 600 % | 500 % | 155 % | 155 % | 155 % |
| Compression Set | Set | 25 % | 20 % | 15 % | 15 % | 43 % | 27 % | 25 % |
| | °F | 158 °F | 212 °F | 158 °F | 158 °F | 212 °F | 158 °F | 212 °F |
| | °C | 70 °C | 100 °C | 70 °C | 70 °C | 100 °C | 70 °C | 100 °C |
| Temperature range | | | | | | | | |
| | | | | | | | | |

| Compound | Polyurethane 93 AU V167 | Polyurethane 94 AU 925 | Polyurethane/POM 94 U641 80 NP | Polyurethane/POM 94 AU U801 80 NP | Polyurethane 95 AU 2501 | Polyurethane 95 AU V149 | Polyurethane 95 AU V157 93 AU V167 | Polyurethane/POM 95 AU UH05 80 NP |
|----------------------------|-------------------------|------------------------|--------------------------------|-----------------------------------|-------------------------|-------------------------|------------------------------------|-----------------------------------|
| Color | Red | Blue | Blue | Yellowish white | Black | Dark - Blue | Green | Violet |
| Hardness | 93 Shore A | 94 Shore A | 94 Shore A | 94 Shore A | 95 Shore A | 95 Shore A | 95 Shore A | 95 Shore A |
| Tensile Strength | 7250 psi 500 bar | 9282 psi 640 bar | 6264 psi 32 bar | 6264 psi 32 bar | 7524 psi 519 bar | 6671 psi 460 bar | 9268 psi 639 bar | 6816 psi 670 bar |
| Elongation at break | 360 % | 530 % | 420 % | 480 % | 450 % | 155 % | 442 % | 440 % |
| Compression Set | Set | 20 % | 30 % | N/A | 30 % | 41 % | 39 % | 25 % |
| | °F | 158 °F | 212 °F | 176 °F | N/A | 158 °F | 212 °F | 158 °F |
| | °C | 70 °C | 100 °C | 80 °C | N/A | 70 °C | 100 °C | 70 °C |
| Temperature range | | | | | | | | |
| | | | | | | | | |

Freudenberg-NOK material overview

| Compound | Polyurethane 98 AU 928 | FKM 85 FKM K664 | HYTREL HAT 2022 | NBR 72 NBR 708 | NBR 80 NBR 878 | NBR 80 NBR 99079 | NBR 80 NBR 186349 | NBR 80 A980 | |
|----------------------------|---------------------------|---------------------|---------------------|-------------------|---------------------|---------------------|-------------------------|---------------------|-------------|
| Color | Blue | Black | Orange | Black | Black | Black | Red-Brown | Black | |
| Hardness | 98 Shore A | 85 Shore A | 55 Shore D | 72 Shore A | 80 Shore A | 80 Shore A | 80 Shore A | 80 Shore A | |
| Tensile Strength | 8267 psi 570 bar | 1465 psi 101 bar | 5200 psi 359 bar | 914 psi 63 bar | 2248 psi 155 bar | 2814 psi 194 bar | 1929 psi 133 bar | 1972 psi 140 bar | |
| Elongation at break | 456 % | 110 % | 450 % | 270 % | 160 % | 328 % | 206 % | 150 % | |
| Compression Set | Set | 35 % | — | 0.2 % | 25 % | 20 % | 16 % | — | |
| | °F | 212 °F | — | 158 °F | 212 °F | 212 °F | 212 °F | — | |
| | °C | 100 °C | — | 70 °C | 100 °C | 100 °C | 100 °C | — | |
| Temperature range | °F | +230 -22 | +392 -14 | +300 -60 | +212 -31 | +212 -22 | +212 -13 | +212 -4 | +80 -55 |
| | °C | +110 -30 | +200 -10 | +149 -51 | +100 -35 | +100 -30 | +100 -25 | +100 -20 | +176 -67 |

| Compound | NBR 85 NBR B203 85 NBR 247 | NBR 85 NBR B247 | NBR 88 NBR 101 | NBR 90 NBR 109 | REINFORCED NYLON VN9800 | THERMO- PLASTIQUE RESIN VN9400 | |
|----------------------------|----------------------------------|---------------------|---------------------|---------------------|-------------------------------|---|-------------|
| Color | Red | Blue | Black | Black | Blue | Black | |
| Hardness | 85 Shore A | 85 Shore A | 88 Shore A | 90 Shore A | — | — | |
| Tensile Strength | 2320 psi 500 bar | 3176 psi 219 bar | 1958 psi 135 bar | 1827 psi 126 bar | 19500 psi 1344 bar | 6671 psi 460 bar | |
| Elongation at break | 140 % | 160 % | 215 % | 155 % | — | — | |
| Compression Set | Set | — | 25 % | 43 % | 25 % | — | |
| | °F | — | 158 °F | 212 °F | 212 °F | — | |
| | °C | — | 70 °C | 100 °C | 100 °C | — | |
| Temperature range | °F | +212 -22 | +230 -22 | +230 -22 | +212 -13 | +275 -65 | +275 -65 |
| | °C | +100 -30 | +100 -30 | +100 -30 | +100 -25 | +135 -53 | +135 -53 |

FREUDENBERG-NOK

ISO Metric tolerance chart

| UNITS IN MM | | TOLERANCES FOR INSIDE DIMENSIONS (HOLES) (UNITS IN 0.001 MM) | | | | | | | | | | | |
|-------------|-----|--|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|
| OVER | TO | A11 | B8 | B11 | C11 | D9 | D10 | D11 | E8 | E9 | F6 | F7 | F8 |
| 0 | 1 | — — | — — | — — | +120 +60 | +45 +20 | +60 +20 | +80 +20 | +28 +14 | +39 +14 | +12 +6 | +16 +6 | +20 +6 |
| 1 | 3 | +330 +270 | +154 +140 | +200 +140 | | | | | | | | | |
| 3 | 6 | +345 +270 | +158 +140 | +215 +140 | +145 +70 | +60 +30 | +78 +30 | +105 +30 | +38 +20 | +50 +20 | +18 +10 | +22 +10 | +28 +10 |
| 6 | 10 | +370 +280 | +172 +150 | +240 +150 | +170 +80 | +76 +40 | +98 +40 | +130 +40 | +47 +25 | +61 +25 | +22 +13 | +28 +13 | +35 +13 |
| 10 | 14 | +400 +290 | +177 +150 | +260 +150 | +205 +95 | +93 +50 | +120 +50 | +160 +50 | +59 +32 | +75 +32 | +27 +16 | +34 +16 | +43 +16 |
| 14 | 18 | | | | | | | | | | | | |
| 18 | 24 | +430 +300 | +193 +160 | +290 +160 | +240 +110 | +117 +65 | +149 +65 | +195 +65 | +73 +40 | +92 +40 | +33 +20 | +41 +20 | +53 +20 |
| 24 | 30 | | | | | | | | | | | | |
| 30 | 40 | +470 +310 | +209 +170 | +330 +170 | +280 +120 | +142 +80 | +180 +80 | +240 +80 | +89 +50 | +112 +50 | +41 +25 | +50 +25 | +64 +25 |
| 40 | 50 | +480 +320 | +219 +180 | +340 +180 | +290 +130 | | | | | | | | |
| 50 | 65 | +530 +340 | +236 +190 | +380 +190 | +330 +140 | +174 +100 | +220 +100 | +290 +100 | +106 +60 | +134 +60 | +49 +30 | +60 +30 | +76 +30 |
| 65 | 80 | +550 +360 | +246 +200 | +390 +200 | +340 +150 | | | | | | | | |
| 80 | 100 | +600 +380 | +274 +220 | +440 +220 | +390 +170 | +207 +120 | +260 +120 | +340 +120 | +126 +72 | +159 +72 | +58 +36 | +71 +36 | +90 +36 |
| 100 | 120 | +630 +410 | +294 +240 | +460 +240 | +400 +180 | | | | | | | | |
| 120 | 140 | +710 +460 | +323 +260 | +510 +260 | +450 +200 | +245 +145 | +305 +145 | +395 +145 | +148 +85 | +185 +85 | +68 +43 | +83 +43 | +106 +43 |
| 140 | 160 | +770 +520 | +343 +280 | +530 +280 | +460 +210 | | | | | | | | |
| 160 | 180 | +830 +580 | +373 +310 | +560 +310 | +480 +230 | | | | | | | | |
| 180 | 200 | +950 +660 | +412 +340 | +630 +340 | +530 +240 | | | | | | | | |
| 200 | 225 | +1030 +740 | +452 +380 | +670 +380 | +550 +260 | +285 +170 | +355 +170 | +460 +170 | +172 +100 | +215 +100 | +79 +50 | +96 +50 | +122 +50 |
| 225 | 250 | +1110 +820 | +492 +420 | +710 +420 | +570 +280 | | | | | | | | |
| 250 | 280 | +1240 +920 | +561 +480 | +800 +480 | +620 +300 | | | | | | | | |
| 280 | 315 | +1370 +1050 | +621 +540 | +860 +540 | +650 +330 | +320 +190 | +400 +190 | +510 +190 | +191 +110 | +240 +110 | +88 +56 | +108 +56 | +137 +56 |
| 315 | 355 | +1560 +1200 | +689 +600 | +960 +600 | +720 +360 | | | | | | | | |
| 355 | 400 | +1710 +1350 | +769 +680 | +1040 +680 | +760 +400 | +350 +210 | +440 +210 | +570 +210 | +214 +125 | +265 +125 | +98 +62 | +119 +62 | +151 +62 |
| 400 | 450 | +1900 +1500 | +857 +760 | +1160 +760 | +840 +440 | | | | | | | | |
| 450 | 500 | +2050 +1650 | +937 +840 | +1240 +840 | +880 +480 | +385 +230 | +480 +230 | +630 +230 | +232 +135 | +290 +135 | +108 +68 | +131 +68 | +165 +68 |

NOMINAL SIZE RANGE

ISO Metric tolerance chart

| UNITS IN MM | | TOLERANCES FOR INSIDE DIMENSIONS (HOLES) (UNITS IN 0.001 MM) | | | | | | | | | | | |
|-------------|-----|--|-----|-----|-----|-----|-----|------|------|------|------|------|-----|
| OVER | TO | G6 | G7 | H5 | H6 | H7 | H8 | H9 | H10 | H11 | H12 | H13 | J6 |
| 0 | 1 | +8 | +12 | +4 | +6 | +10 | +14 | +25 | +40 | +60 | +100 | +140 | +2 |
| 1 | 3 | +2 | +2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -4 |
| 3 | 6 | +12 | +16 | +5 | +8 | +12 | +18 | +30 | +48 | +75 | +120 | +180 | +5 |
| | | +4 | +4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -3 |
| 6 | 10 | +14 | +20 | +6 | +9 | +15 | +22 | +36 | +58 | +90 | +150 | +220 | +5 |
| | | +5 | +5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -4 |
| 10 | 14 | +17 | +24 | +8 | +11 | +18 | +27 | +43 | +70 | +110 | +180 | +270 | +6 |
| 14 | 18 | +6 | +6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -5 |
| 18 | 24 | +20 | +28 | +9 | +13 | +21 | +33 | +52 | +84 | +130 | +210 | +330 | +8 |
| 24 | 30 | +7 | +7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -5 |
| 30 | 40 | +25 | +34 | +11 | +16 | +25 | +39 | +62 | +100 | +160 | +250 | +390 | +10 |
| 40 | 50 | +9 | +9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -6 |
| 50 | 65 | +29 | +40 | +13 | +19 | +30 | +46 | +74 | +120 | +190 | +300 | +460 | +13 |
| 65 | 80 | +10 | +10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -6 |
| 80 | 100 | +34 | +47 | +15 | +22 | +35 | +54 | +87 | +140 | +220 | +350 | +540 | +16 |
| 100 | 120 | +12 | +12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -6 |
| 120 | 140 | | | | | | | | | | | | |
| 140 | 160 | +39 | +54 | +18 | +25 | +40 | +63 | +100 | +160 | +250 | +400 | +630 | +18 |
| 160 | 180 | +14 | +14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -7 |
| 180 | 200 | | | | | | | | | | | | |
| 200 | 225 | +44 | +61 | +20 | +29 | +46 | +72 | +115 | +185 | +290 | +460 | +720 | +22 |
| 225 | 250 | +15 | +15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -7 |
| 250 | 280 | +49 | +69 | +23 | +32 | +52 | +81 | +130 | +210 | +320 | +520 | +810 | +25 |
| 280 | 315 | +17 | +17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -7 |
| 315 | 355 | +54 | +75 | +25 | +36 | +57 | +89 | +140 | +230 | +360 | +570 | +890 | +29 |
| 355 | 400 | +18 | +18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -7 |
| 400 | 450 | +60 | +83 | +27 | +40 | +63 | +97 | +155 | +250 | +400 | +630 | +970 | +33 |
| 450 | 500 | +20 | +20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |

NOMINAL SIZE RANGE

ISO Metric tolerance chart

| UNITS IN MM | | TOLERANCES FOR INSIDE DIMENSIONS (HOLES) (UNITS IN 0.001 MM) | | | | | | | | | | | |
|-------------|-----|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| OVER | TO | J7 | J8 | K6 | K7 | K8 | M6 | M7 | M8 | N6 | N7 | N8 | R7 |
| 0 | 1 | +4 | +6 | 0 | 0 | 0 | -2 | -2 | -2 | -4 | -4 | -4 | -10 |
| 1 | 3 | -6 | -8 | -6 | -10 | -14 | -8 | -12 | -16 | -10 | -14 | -18 | -20 |
| 3 | 6 | +6 | +10 | +2 | +3 | +5 | -1 | 0 | +2 | -5 | -4 | -2 | -11 |
| | | -6 | -8 | -6 | -9 | -13 | -9 | -12 | -16 | -13 | -16 | -20 | -23 |
| 6 | 10 | +8 | +12 | +2 | +5 | +6 | -3 | 0 | +1 | -7 | -4 | -3 | -13 |
| | | -7 | -10 | -7 | -10 | -16 | -12 | -15 | -21 | -16 | -19 | -25 | -28 |
| 10 | 14 | +10 | +15 | +2 | +6 | +8 | -4 | 0 | +2 | -9 | -5 | -3 | -16 |
| 14 | 18 | -8 | -12 | -9 | -12 | -19 | -15 | -18 | -25 | -20 | -23 | -30 | -34 |
| 18 | 24 | +12 | +20 | +2 | +6 | +10 | -4 | 0 | +4 | -11 | -7 | -3 | -20 |
| 24 | 30 | -9 | -13 | -11 | -15 | -23 | -17 | -21 | -29 | -24 | -28 | -36 | -41 |
| 30 | 40 | +14 | +24 | +3 | +7 | +12 | -4 | 0 | +5 | -12 | -8 | -3 | -25 |
| 40 | 50 | -11 | -15 | -13 | -18 | -27 | -20 | -25 | -34 | -28 | -33 | -42 | -50 |
| 50 | 65 | +18 | +28 | +4 | +9 | +14 | -5 | 0 | +5 | -14 | -9 | -4 | -30 |
| 65 | 80 | -12 | -18 | -15 | -21 | -32 | -24 | -30 | -41 | -33 | -39 | -50 | -60 |
| | | | | | | | | | | | | | -32 |
| | | | | | | | | | | | | | -62 |
| 80 | 100 | +22 | +34 | +4 | +10 | +16 | -6 | 0 | +6 | -16 | -10 | -4 | -38 |
| 100 | 120 | -13 | -20 | -18 | -25 | -38 | -28 | -35 | -48 | -38 | -45 | -58 | -73 |
| | | | | | | | | | | | | | -41 |
| | | | | | | | | | | | | | -76 |
| 120 | 140 | | | | | | | | | | | | -48 |
| | | | | | | | | | | | | | -88 |
| 140 | 160 | +26 | +41 | +4 | +12 | +20 | -8 | 0 | +8 | -20 | -12 | -4 | -50 |
| 160 | 180 | -14 | -22 | -21 | -28 | -43 | -33 | -40 | -55 | -45 | -52 | -67 | -90 |
| | | | | | | | | | | | | | -53 |
| | | | | | | | | | | | | | -93 |
| 180 | 200 | | | | | | | | | | | | -60 |
| | | | | | | | | | | | | | -106 |
| 200 | 225 | +30 | +47 | +5 | +13 | +22 | -8 | 0 | +9 | -22 | -14 | -5 | -63 |
| 225 | 250 | -16 | -25 | -24 | -33 | -50 | -37 | -46 | -63 | -51 | -60 | -77 | -109 |
| | | | | | | | | | | | | | -67 |
| | | | | | | | | | | | | | -113 |
| 250 | 280 | +36 | +55 | +5 | +16 | +25 | -9 | 0 | +9 | -25 | -14 | -5 | -74 |
| 280 | 315 | -16 | -26 | -27 | -36 | -56 | -41 | -52 | -72 | -57 | -66 | -86 | -126 |
| | | | | | | | | | | | | | -78 |
| | | | | | | | | | | | | | -130 |
| 315 | 355 | +39 | +60 | +7 | +17 | +28 | -10 | 0 | +11 | -26 | -16 | -5 | -87 |
| 355 | 400 | -18 | -29 | -29 | -40 | -61 | -46 | -57 | -78 | -62 | -73 | -94 | -144 |
| | | | | | | | | | | | | | -93 |
| | | | | | | | | | | | | | -150 |
| 400 | 450 | +43 | +66 | +8 | +18 | +29 | -10 | 0 | +11 | -27 | -17 | -6 | -103 |
| 450 | 500 | -20 | -31 | -32 | -45 | -68 | -50 | -63 | -86 | -67 | -80 | -103 | -166 |
| | | | | | | | | | | | | | -109 |
| | | | | | | | | | | | | | -172 |

NOMINAL SIZE RANGE

ISO Metric tolerance chart

| UNITS IN MM | | TOLERANCES FOR INSIDE DIMENSIONS (HOLES) (Units in 0.001mm) | | | | | | | | | | | | | |
|---------------------------|-----|--|----------------|----------------|----------------|----------------|----------------|----------------|--------------|--------------|----------------|----------------|----------------|----------------|----------------|
| OVER | TO | JS6 | JS7 | JS8 | JS9 | JS10 | JS11 | JS12 | JS13 | JS14 | JS15 | JS16 | JS17 | JS18 | |
| NOMINAL SIZE RANGE | 0 | 1 | +3 -3 | +5 -5 | +7 -7 | +12.5 -12.5 | +20 -20 | +30 -30 | +50 -50 | +70 -70 | +125 -125 | +200 -200 | +300 -300 | — — | — — |
| | 1 | 3 | | | | | | | | | | | | | |
| | 3 | 6 | +4 -4 | +6 -6 | +9 -9 | +15 -15 | +24 -24 | +37.5 -37.5 | +60 -60 | +90 -90 | +150 -150 | +240 -240 | +375 -375 | — — | — — |
| | 6 | 10 | +4.5 -4.5 | +7.5 -7.5 | +11 -11 | +18 -18 | +29 -29 | +45 -45 | +75 -75 | +110 -110 | +180 -180 | +290 -290 | +450 -450 | +750 -750 | — — |
| | 10 | 14 | +5.5 -5.5 | +9 -9 | +13.5 -13.5 | +21.5 -21.5 | +35 -35 | +55 -55 | +90 -90 | +135 -135 | +215 -215 | +350 -350 | +550 -550 | +900 -900 | +1350 -1350 |
| | 14 | 18 | | | | | | | | | | | | | |
| | 18 | 24 | +6.5 -6.5 | +10.5 -10.5 | +16.5 -16.5 | +26 -26 | +42 -42 | +65 -65 | +105 -105 | +165 -165 | +260 -260 | +420 -420 | +650 -650 | +1050 -1050 | +1650 -1650 |
| | 24 | 30 | | | | | | | | | | | | | |
| | 30 | 40 | +8 -8 | +12.5 -12.5 | +19.5 -19.5 | +31 -31 | +50 -50 | +80 -80 | +125 -125 | +195 -195 | +310 -310 | +500 -500 | +800 -800 | +1250 -1250 | +1950 -1950 |
| | 40 | 50 | | | | | | | | | | | | | |
| | 50 | 65 | +9.5 -9.5 | +15 -15 | +23 -23 | +37 -37 | +60 -60 | +95 -95 | +150 -150 | +230 -230 | +370 -370 | +600 -600 | +950 -950 | +1500 -1500 | +2300 -2300 |
| | 65 | 80 | | | | | | | | | | | | | |
| | 80 | 100 | +11 -11 | +17.5 -17.5 | +27 -27 | +43.5 -43.5 | +70 -70 | +110 -110 | +175 -175 | +270 -270 | +435 -435 | +700 -700 | +1100 -1100 | +1750 -1750 | +2700 -2700 |
| | 100 | 120 | | | | | | | | | | | | | |
| | 120 | 140 | | | | | | | | | | | | | |
| | 140 | 160 | +12.5 -12.5 | +20 -20 | +31.5 -31.5 | +50 -50 | +80 -80 | +125 -125 | +200 -200 | +315 -315 | +500 -500 | +800 -800 | +1250 -1250 | +2000 -2000 | +3150 -3150 |
| | 160 | 180 | | | | | | | | | | | | | |
| | 180 | 200 | | | | | | | | | | | | | |
| | 200 | 225 | +14.5 -14.5 | +23 -23 | +36 -36 | +57.5 -57.5 | +92.5 -92.5 | +145 -145 | +230 -230 | +360 -360 | +575 -575 | +925 -925 | +1450 -1450 | +2300 -2300 | +3600 -3600 |
| | 225 | 250 | | | | | | | | | | | | | |
| 250 | 280 | +16 -16 | +26 -26 | +40.5 -40.5 | +65 -65 | +105 -105 | +160 -160 | +260 -260 | +405 -405 | +650 -650 | +1050 -1050 | +1600 -1600 | +2600 -2600 | +4050 -4050 | |
| 280 | 315 | | | | | | | | | | | | | | |
| 315 | 355 | +18 -18 | +28.5 -28.5 | +44.5 -44.5 | +70 -70 | +115 -115 | +180 -180 | +285 -285 | +445 -445 | +700 -700 | +1150 -1150 | +1800 -1800 | +2850 -2850 | +4450 -4450 | |
| 355 | 400 | | | | | | | | | | | | | | |
| 400 | 450 | +20 -20 | +31.5 -31.5 | +48.5 -48.5 | +77.5 -77.5 | +125 -125 | +200 -200 | +315 -315 | +485 -485 | +775 -775 | +1250 -1250 | +2000 -2000 | +3150 -3150 | +4850 -4850 | |
| 450 | 500 | | | | | | | | | | | | | | |

ISO Metric tolerance chart

| UNITS IN MM | | TOLERANCES FOR OUTSIDE DIMENSIONS (SHAFTS) (Units in 0.001mm) | | | | | | | | | | | | |
|-------------|-----|---|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|------------|-------------|
| OVER | TO | a11 | b8 | b11 | c11 | d9 | d10 | d11 | e7 | e8 | e9 | f6 | f7 | f8 |
| 0 | 1 | — | — | — | -60 | -20 | -20 | -20 | -14 | -14 | -14 | -6 | -6 | -6 |
| 1 | 3 | -270 -330 | -140 -154 | -140 -200 | -120 | -45 | -60 | -80 | -24 | -28 | -39 | -12 | -16 | -20 |
| 3 | 6 | -270 -345 | -140 -158 | -140 -215 | -70 -145 | -30 -60 | -30 -78 | -30 -105 | -20 -32 | -20 -38 | -20 -50 | -10 -18 | -10 -22 | -10 -28 |
| 6 | 10 | -280 -370 | -150 -172 | -150 -240 | -80 -170 | -40 -76 | -40 -98 | -40 -130 | -25 -40 | -25 -47 | -25 -61 | -13 -22 | -13 -28 | -13 -35 |
| 10 | 14 | -290 -400 | -150 -177 | -150 -260 | -95 -205 | -50 -93 | -50 -120 | -50 -160 | -32 -50 | -32 -59 | -32 -75 | -16 -27 | -16 -34 | -16 -43 |
| 14 | 18 | | | | | | | | | | | | | |
| 18 | 24 | -300 -430 | -160 -193 | -160 -290 | -110 -240 | -65 -117 | -65 -149 | -65 -195 | -40 -61 | -40 -73 | -40 -92 | -20 -33 | -20 -41 | -20 -53 |
| 24 | 30 | | | | | | | | | | | | | |
| 30 | 40 | -310 -470 | -170 -209 | -170 -330 | -120 -280 | -80 | -80 | -80 | -50 | -50 | -50 | -25 | -25 | -25 |
| 40 | 50 | -320 -480 | -180 -219 | -180 -340 | -130 -290 | -142 | -180 | -240 | -75 | -89 | -112 | -41 | -50 | -64 |
| 50 | 65 | -340 -530 | -190 -236 | -190 -380 | -140 -330 | -100 | -100 | -100 | -60 | -60 | -60 | -30 | -30 | -30 |
| 65 | 80 | -360 -550 | -200 -246 | -200 -390 | -150 -340 | -174 | -220 | -290 | -90 | -106 | -134 | -49 | -60 | -76 |
| 80 | 100 | -380 -600 | -220 -274 | -220 -440 | -170 -390 | -120 | -120 | -120 | -72 | -72 | -72 | -36 | -36 | -36 |
| 100 | 120 | -410 -630 | -240 -294 | -240 -460 | -180 -400 | -207 | -260 | -340 | -107 | -126 | -159 | -58 | -71 | -90 |
| 120 | 140 | -460 -710 | -260 -323 | -260 -510 | -200 -450 | | | | | | | | | |
| 140 | 160 | -520 -770 | -280 -343 | -280 -530 | -210 -460 | -145 -245 | -145 -305 | -145 -395 | -85 -125 | -85 -148 | -85 -185 | -43 -68 | -43 -83 | -43 -106 |
| 160 | 180 | -580 -830 | -310 -373 | -310 -560 | -230 -480 | | | | | | | | | |
| 180 | 200 | -660 -950 | -340 -412 | -340 -630 | -240 -530 | | | | | | | | | |
| 200 | 225 | -740 -1030 | -380 -452 | -380 -670 | -260 -550 | -170 -285 | -170 -355 | -170 -460 | -100 -146 | -100 -172 | -100 -215 | -50 -79 | -50 -96 | -50 -122 |
| 225 | 250 | -820 -1110 | -420 -492 | -420 -710 | -280 -570 | | | | | | | | | |
| 250 | 280 | -920 -1240 | -480 -561 | -480 -800 | -300 -620 | -190 | -190 | -190 | -110 | -110 | -110 | -56 | -56 | -56 |
| 280 | 315 | -1050 -1370 | -540 -621 | -540 -860 | -330 -650 | -320 | -400 | -510 | -162 | -191 | -240 | -88 | -108 | -137 |
| 315 | 355 | -1200 -1560 | -600 -689 | -600 -960 | -360 -720 | -210 | -210 | -210 | -125 | -125 | -125 | -62 | -62 | -62 |
| 355 | 400 | -1350 -1710 | -680 -769 | -680 -1040 | -400 -760 | -350 | -440 | -570 | -182 | -214 | -265 | -98 | -119 | -151 |
| 400 | 450 | -1500 -1900 | -760 -857 | -760 -1160 | -440 -840 | -230 | -230 | -230 | -135 | -135 | -135 | -68 | -68 | -68 |
| 450 | 500 | -1650 -2050 | -840 -937 | -840 -1240 | -480 -880 | -385 | -480 | -630 | -198 | -232 | -290 | -108 | -131 | -165 |

NOMINAL SIZE RANGE

ISO Metric tolerance chart

| UNITS IN MM | | TOLERANCES FOR OUTSIDE DIMENSIONS (SHAFTS) (Units in 0.001mm) | | | | | | | | | | | | |
|-------------|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|-----|
| OVER | TO | f9 | g5 | g6 | g7 | h4 | h5 | h6 | h7 | h8 | h9 | h10 | h11 | j5 |
| 0 | 1 | -6 | -2 | -2 | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | +2 |
| 1 | 3 | -31 | -6 | -8 | -12 | -3 | -4 | -6 | -10 | -14 | -25 | -40 | -60 | -2 |
| 3 | 6 | -10 | -4 | -4 | -4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | +3 |
| | | -40 | -9 | -12 | -16 | -4 | -5 | -8 | -12 | -18 | -30 | -48 | -75 | -2 |
| 6 | 10 | -13 | -5 | -5 | -5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | +4 |
| | | -49 | -11 | -14 | -20 | -4 | -6 | -9 | -15 | -22 | -36 | -58 | -90 | -2 |
| 10 | 14 | -16 | -6 | -6 | -6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | +5 |
| 14 | 18 | -59 | -14 | -17 | -24 | -5 | -8 | -11 | -18 | -27 | -43 | -70 | -110 | -3 |
| 18 | 24 | -20 | -7 | -7 | -7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | +5 |
| 24 | 30 | -72 | -16 | -20 | -28 | -6 | -9 | -13 | -21 | -33 | -52 | -84 | -130 | -4 |
| 30 | 40 | -25 | -9 | -9 | -9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | +6 |
| 40 | 50 | -87 | -20 | -25 | -34 | -7 | -11 | -16 | -25 | -39 | -62 | -100 | -160 | -5 |
| 50 | 65 | -30 | -10 | -10 | -10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | +6 |
| 65 | 80 | -104 | -23 | -29 | -40 | -8 | -13 | -19 | -30 | -46 | -74 | -120 | -190 | -7 |
| 80 | 100 | -36 | -12 | -12 | -12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | +6 |
| 100 | 120 | -123 | -27 | -34 | -47 | -10 | -15 | -22 | -35 | -54 | -87 | -140 | -220 | -9 |
| 120 | 140 | | | | | | | | | | | | | |
| 140 | 160 | -43 | -14 | -14 | -14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | +7 |
| 160 | 180 | -143 | -32 | -39 | -54 | -12 | -18 | -25 | -40 | -63 | -100 | -160 | -250 | -11 |
| 180 | 200 | | | | | | | | | | | | | |
| 200 | 225 | -50 | -15 | -15 | -15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | +7 |
| 225 | 250 | -165 | -35 | -44 | -61 | -14 | -20 | -29 | -46 | -72 | -115 | -185 | -290 | -13 |
| 250 | 280 | -56 | -17 | -17 | -17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | +7 |
| 280 | 315 | -186 | -40 | -49 | -69 | -16 | -23 | -32 | -52 | -81 | -130 | -210 | -320 | -16 |
| 315 | 355 | -62 | -18 | -18 | -18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | +7 |
| 355 | 400 | -202 | -43 | -54 | -75 | -18 | -25 | -36 | -57 | -89 | -140 | -230 | -360 | -18 |
| 400 | 450 | -68 | -20 | -20 | -20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | +7 |
| 450 | 500 | -223 | -47 | -60 | -83 | -20 | -27 | -40 | -63 | -97 | -155 | -250 | -400 | -20 |

NOMINAL SIZE RANGE

ISO Metric tolerance chart

| UNITS IN MM | | TOLERANCES FOR OUTSIDE DIMENSIONS (SHAFTS) (Units in 0.001mm) | | | | | | | | | | | | |
|-------------|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| OVER | TO | j6 | j7 | k5 | k6 | k7 | k8 | m5 | m6 | m7 | n5 | n6 | n7 | r6 |
| 0 | 1 | +4 | +6 | +4 | +6 | +10 | +14 | +6 | +8 | +12 | +8 | +10 | +14 | +16 |
| 1 | 3 | -2 | -4 | 0 | 0 | 0 | 0 | +2 | +2 | +2 | +4 | +4 | +4 | +10 |
| 3 | 6 | +6 | +8 | +6 | +9 | +13 | +18 | +9 | +12 | +16 | +13 | +16 | +20 | +23 |
| | | -2 | -4 | +1 | +1 | +1 | 0 | +4 | +4 | +4 | +8 | +8 | +8 | +15 |
| 6 | 10 | +7 | +10 | +7 | +10 | +16 | +22 | +12 | +15 | +21 | +16 | +19 | +25 | +28 |
| | | -2 | -5 | +1 | +1 | +1 | 0 | +6 | +6 | +6 | +10 | +10 | +10 | +19 |
| 10 | 14 | +8 | +12 | +9 | +12 | +19 | +27 | +15 | +18 | +25 | +20 | +23 | +30 | +34 |
| 14 | 18 | -3 | -6 | +1 | +1 | +1 | 0 | +7 | +7 | +7 | +12 | +12 | +12 | +23 |
| 18 | 24 | +9 | +13 | +11 | +15 | +23 | +33 | +17 | +21 | +29 | +24 | +28 | +36 | +41 |
| 24 | 30 | -4 | -8 | +2 | +2 | +2 | 0 | +8 | +8 | +8 | +15 | +15 | +15 | +28 |
| 30 | 40 | +11 | +15 | +13 | +18 | +27 | +39 | +20 | +25 | +34 | +28 | +33 | +42 | +50 |
| 40 | 50 | -5 | -10 | +2 | +2 | +2 | 0 | +9 | +9 | +9 | +17 | +17 | +17 | +34 |
| 50 | 65 | +12 | +18 | +15 | +21 | +32 | +46 | +24 | +30 | +41 | +33 | +39 | +50 | +60 |
| 65 | 80 | -7 | -12 | +2 | +2 | +2 | 0 | +11 | +11 | +11 | +20 | +20 | +20 | +41 |
| | | | | | | | | | | | | | | +62 |
| | | | | | | | | | | | | | | +43 |
| 80 | 100 | +13 | +20 | +18 | +25 | +38 | +54 | +28 | +35 | +48 | +38 | +45 | +58 | +73 |
| 100 | 120 | -9 | -15 | +3 | +3 | +3 | 0 | +13 | +13 | +13 | +23 | +23 | +23 | +51 |
| | | | | | | | | | | | | | | +76 |
| | | | | | | | | | | | | | | +54 |
| 120 | 140 | | | | | | | | | | | | | +88 |
| | | | | | | | | | | | | | | +63 |
| 140 | 160 | +14 | +22 | +21 | +28 | +43 | +63 | +33 | +40 | +55 | +45 | +52 | +67 | +90 |
| | | -11 | -18 | +3 | +3 | +3 | 0 | +15 | +15 | +15 | +27 | +27 | +27 | +65 |
| 160 | 180 | | | | | | | | | | | | | +93 |
| | | | | | | | | | | | | | | +68 |
| 180 | 200 | | | | | | | | | | | | | +106 |
| | | | | | | | | | | | | | | +77 |
| 200 | 225 | +16 | +25 | +24 | +33 | +50 | +72 | +37 | +46 | +63 | +51 | +60 | +77 | +109 |
| | | -13 | -21 | +4 | +4 | +4 | 0 | +17 | +17 | +17 | +31 | +31 | +31 | +80 |
| 225 | 250 | | | | | | | | | | | | | +113 |
| | | | | | | | | | | | | | | +84 |
| 250 | 280 | +16 | +26 | +27 | +36 | +56 | +81 | +43 | +52 | +72 | +57 | +66 | +86 | +126 |
| | | -16 | -26 | +4 | +4 | +4 | 0 | +20 | +20 | +20 | +34 | +34 | +34 | +94 |
| 280 | 315 | | | | | | | | | | | | | +130 |
| | | | | | | | | | | | | | | +98 |
| 315 | 355 | +18 | +29 | +29 | +40 | +61 | +89 | +46 | +57 | +78 | +62 | +73 | +94 | +144 |
| | | -18 | -28 | +4 | +4 | +4 | 0 | +21 | +21 | +21 | +37 | +37 | +37 | +108 |
| 355 | 400 | | | | | | | | | | | | | +150 |
| | | | | | | | | | | | | | | +114 |
| 400 | 450 | +20 | +31 | +32 | +45 | +68 | +97 | +50 | +63 | +86 | +67 | +80 | +103 | +166 |
| | | -20 | -32 | +5 | +5 | +5 | 0 | +23 | +23 | +23 | +40 | +40 | +40 | +126 |
| 450 | 500 | | | | | | | | | | | | | +172 |
| | | | | | | | | | | | | | | +132 |

NOMINAL SIZE RANGE

ISO Metric tolerance chart

| UNITS IN MM | | TOLERANCES FOR OUTSIDE DIMENSIONS (SHAFTS) (Units in 0.001mm) | | | | | | | | | | | | | |
|--------------------|-----|---|----------------|----------------|----------------|----------------|----------------|----------------|--------------|--------------|----------------|----------------|----------------|----------------|----------------|
| OVER | TO | js6 | js7 | js8 | js9 | js10 | js11 | js12 | js13 | js14 | js15 | js16 | js17 | js18 | |
| NOMINAL SIZE RANGE | 0 | 1 | +3 -3 | +5 -5 | +7 -7 | +12.5 -12.5 | +20 -20 | +30 -30 | +50 -50 | +70 -70 | +125 -125 | +200 -200 | +300 -300 | — — | — — |
| | 1 | 3 | | | | | | | | | | | | | |
| | 3 | 6 | +4 -4 | +6 -6 | +9 -9 | +15 -15 | +24 -24 | +37.5 -37.5 | +60 -60 | +90 -90 | +150 -150 | +240 -240 | +375 -375 | — — | — — |
| | 6 | 10 | +4.5 -4.5 | +7.5 -7.5 | +11 -11 | +18 -18 | +29 -29 | +45 -45 | +75 -75 | +110 -110 | +180 -180 | +290 -290 | +450 -450 | +750 -750 | — — |
| | 10 | 14 | +5.5 -5.5 | +9 -9 | +13.5 -13.5 | +21.5 -21.5 | +35 -35 | +55 -55 | +90 -90 | +135 -135 | +215 -215 | +350 -350 | +550 -550 | +900 -900 | +1350 -1350 |
| | 14 | 18 | | | | | | | | | | | | | |
| | 18 | 24 | +6.5 -6.5 | +10.5 -10.5 | +16.5 -16.5 | +26 -26 | +42 -42 | +65 -65 | +105 -105 | +165 -165 | +260 -260 | +420 -420 | +650 -650 | +1050 -1050 | +1650 -1650 |
| | 24 | 30 | | | | | | | | | | | | | |
| | 30 | 40 | +8 -8 | +12.5 -12.5 | +19.5 -19.5 | +31 -31 | +50 -50 | +80 -80 | +125 -125 | +195 -195 | +310 -310 | +500 -500 | +800 -800 | +1250 -1250 | +1950 -1950 |
| | 40 | 50 | | | | | | | | | | | | | |
| | 50 | 65 | +9.5 -9.5 | +15 -15 | +23 -23 | +37 -37 | +60 -60 | +95 -95 | +150 -150 | +230 -230 | +370 -370 | +600 -600 | +950 -950 | +1500 -1500 | +2300 -2300 |
| | 65 | 80 | | | | | | | | | | | | | |
| | 80 | 100 | +11 -11 | +17.5 -17.5 | +27 -27 | +43.5 -43.5 | +70 -70 | +110 -110 | +175 -175 | +270 -270 | +435 -435 | +700 -700 | +1100 -1100 | +1750 -1750 | +2700 -2700 |
| | 100 | 120 | | | | | | | | | | | | | |
| | 120 | 140 | | | | | | | | | | | | | |
| | 140 | 160 | +12.5 -12.5 | +20 -20 | +31.5 -31.5 | +50 -50 | +80 -80 | +125 -125 | +200 -200 | +315 -315 | +500 -500 | +800 -800 | +1250 -1250 | +2000 -2000 | +3150 -3150 |
| | 160 | 180 | | | | | | | | | | | | | |
| | 180 | 200 | | | | | | | | | | | | | |
| | 200 | 225 | +14.5 -14.5 | +23 -23 | +36 -36 | +57.5 -57.5 | +92.5 -92.5 | +145 -145 | +230 -230 | +360 -360 | +575 -575 | +925 -925 | +1450 -1450 | +2300 -2300 | +3600 -3600 |
| | 225 | 250 | | | | | | | | | | | | | |
| 250 | 280 | +16 -16 | +26 -26 | +40.5 -40.5 | +65 -65 | +105 -105 | +160 -160 | +260 -260 | +405 -405 | +650 -650 | +1050 -1050 | +1600 -1600 | +2600 -2600 | +4050 -4050 | |
| 280 | 315 | | | | | | | | | | | | | | |
| 315 | 355 | +18 -18 | +28.5 -28.5 | +44.5 -44.5 | +70 -70 | +115 -115 | +180 -180 | +285 -285 | +445 -445 | +700 -700 | +1150 -1150 | +1800 -1800 | +2850 -2850 | +4450 -4450 | |
| 355 | 400 | | | | | | | | | | | | | | |
| 400 | 450 | +20 -20 | +31.5 -31.5 | +48.5 -48.5 | +77.5 -77.5 | +125 -125 | +200 -200 | +315 -315 | +485 -485 | +775 -775 | +1250 -1250 | +2000 -2000 | +3150 -3150 | +4850 -4850 | |
| 450 | 500 | | | | | | | | | | | | | | |

Conversion Table Inch/Metric

| Inches | | | Inches | | | Inches | | | Inches | | |
|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|
| Fractions | Decimals | Millimeters | Fractions | Decimals | Millimeters | Fractions | Decimals | Millimeters | Fractions | Decimals | Millimeters |
| — | 0.0004 | 0.010 | 25/64 | 0.3910 | 9.922 | 55/64 | 0.8590 | 21.828 | 1 - 19/32 | 1.5940 | 40.481 |
| — | 0.0040 | 0.100 | — | 0.3937 | 10.000 | — | 0.8661 | 22.000 | — | 1.6142 | 41.000 |
| — | 0.0100 | 0.250 | 13/32 | 0.4062 | 10.319 | 7/8 | 0.8750 | 22.225 | 1 - 5/8 | 1.6250 | 41.275 |
| 1/64 | 0.0156 | 0.397 | — | 0.4130 | 10.500 | 57/64 | 0.8906 | 22.622 | — | 1.6535 | 42.000 |
| — | 0.0197 | 0.500 | 27/64 | 0.4220 | 10.716 | — | 0.9055 | 23.000 | 1 - 21/32 | 1.6562 | 42.069 |
| — | 0.0295 | 0.750 | — | 0.4331 | 11.000 | 29/32 | 0.9062 | 23.019 | 1 - 11/16 | 1.6875 | 42.863 |
| 1/32 | 0.0313 | 0.794 | 7/16 | 0.4375 | 11.113 | 59/64 | 0.9220 | 23.416 | — | 1.6929 | 43.000 |
| — | 0.0394 | 1.000 | 29/64 | 0.4530 | 11.509 | 15/16 | 0.9375 | 23.813 | 1 - 23/32 | 1.7190 | 43.656 |
| 3/64 | 0.0469 | 1.191 | 15/32 | 0.4690 | 11.906 | — | 0.9449 | 24.000 | — | 1.7323 | 44.000 |
| — | 0.0590 | 1.500 | — | 0.4724 | 12.000 | 61/64 | 0.9530 | 24.209 | 1 - 3/4 | 1.7500 | 44.450 |
| 1/16 | 0.0620 | 1.588 | 31/64 | 0.4840 | 12.303 | 31/32 | 0.9690 | 24.606 | — | 1.7717 | 45.000 |
| 5/64 | 0.0781 | 1.984 | — | 0.4920 | 12.500 | — | 0.9843 | 25.000 | 1 - 25/32 | 1.7810 | 45.244 |
| — | 0.0787 | 2.000 | 1/2 | 0.5000 | 12.700 | 63/64 | 0.9844 | 25.003 | — | 1.8110 | 46.000 |
| 3/32 | 0.0940 | 2.381 | — | 0.5118 | 13.000 | — | 1.0000 | 25.400 | 1 - 13/16 | 1.8125 | 46.038 |
| — | 0.0984 | 2.500 | 33/64 | 0.5156 | 13.097 | — | 1.0236 | 26.000 | 1 - 27/32 | 1.8440 | 46.831 |
| 7/64 | 0.1090 | 2.778 | 17/32 | 0.5310 | 13.494 | 1 - 1/32 | 1.0312 | 26.194 | — | 1.8504 | 47.000 |
| — | 0.1181 | 3.000 | 35/64 | 0.5470 | 13.891 | 1 - 1/16 | 1.0620 | 26.988 | 1 - 7/8 | 1.8750 | 47.625 |
| 1/8 | 0.1250 | 3.175 | — | 0.5512 | 14.000 | — | 1.0630 | 27.000 | — | 1.8898 | 48.000 |
| — | 0.1378 | 3.500 | 9/16 | 0.5630 | 14.288 | 1 - 3/32 | 1.0940 | 27.781 | 1 - 29/32 | 1.9062 | 48.419 |
| 9/64 | 0.1410 | 3.572 | — | 0.5710 | 14.500 | — | 1.1024 | 28.000 | — | 1.9291 | 49.000 |
| 5/32 | 0.1560 | 3.969 | 37/64 | 0.5780 | 14.684 | 1 - 1/8 | 1.1250 | 28.575 | 1 - 15/16 | 1.9375 | 49.213 |
| — | 0.1575 | 4.000 | — | 0.5906 | 15.000 | — | 1.1417 | 29.000 | — | 1.9685 | 50.000 |
| 1/64 | 0.1720 | 4.366 | 19/32 | 0.5940 | 15.081 | 1 - 5/32 | 1.1560 | 29.369 | 1 - 31/32 | 1.9690 | 50.006 |
| — | 0.1770 | 4.500 | 39/64 | 0.6090 | 15.478 | — | 1.1811 | 30.000 | 2 | 2.0000 | 50.800 |
| 3/16 | 0.1875 | 4.763 | 5/8 | 0.6250 | 15.875 | 1 - 3/16 | 1.1875 | 30.163 | — | 2.0079 | 51.000 |
| — | 0.1969 | 5.000 | — | 0.6299 | 16.000 | 1 - 7/32 | 1.2190 | 30.956 | 2 - 1/32 | 2.0313 | 51.594 |
| 13/64 | 0.2030 | 5.159 | 41/64 | 0.6406 | 16.272 | — | 1.2205 | 31.000 | — | 2.0472 | 52.000 |
| — | 0.2165 | 5.500 | — | 0.6496 | 16.500 | 1 - 1/4 | 1.2500 | 31.750 | 2 - 1/16 | 2.0620 | 52.388 |
| 7/32 | 0.2190 | 5.556 | 21/32 | 0.6580 | 16.669 | — | 1.2598 | 32.000 | — | 2.0866 | 53.000 |
| 15/64 | 0.2340 | 5.953 | — | 0.6693 | 17.000 | 1 - 9/32 | 1.2810 | 32.544 | 2 - 3/32 | 2.0940 | 53.181 |
| — | 0.2362 | 6.000 | 23/64 | 0.6720 | 17.066 | — | 1.2992 | 33.000 | 2 - 1/8 | 2.1250 | 53.975 |
| 1/4 | 0.2500 | 6.350 | 11/16 | 0.6875 | 17.463 | 1 - 5/16 | 1.3120 | 33.338 | — | 2.1260 | 54.000 |
| — | 0.2259 | 6.500 | 45/64 | 0.7030 | 17.859 | — | 1.3386 | 34.000 | 2 - 5/32 | 2.1560 | 54.769 |
| 17/64 | 0.2656 | 6.747 | — | 0.7087 | 18.000 | 1 - 11/32 | 1.3440 | 34.131 | — | 2.1650 | 55.000 |
| — | 0.2756 | 7.000 | 23/32 | 0.7190 | 18.256 | 1 - 3/8 | 1.3750 | 34.925 | 2 - 3/16 | 2.1875 | 55.563 |
| 9/32 | 0.2810 | 7.144 | — | 0.7283 | 18.500 | — | 1.3779 | 35.000 | — | 2.2047 | 56.000 |
| — | 0.2953 | 7.500 | 47/64 | 0.7340 | 18.653 | 1 - 13/32 | 1.4060 | 35.719 | 2 - 7/32 | 2.2190 | 56.356 |
| 19/64 | 0.2970 | 7.541 | — | 0.7480 | 19.000 | — | 1.4173 | 36.000 | — | 2.2440 | 57.000 |
| 5/16 | 0.3120 | 7.938 | 3/4 | 0.7500 | 19.050 | 1 - 7/16 | 1.4380 | 36.513 | 2 - 1/4 | 2.2500 | 57.150 |
| — | 0.3150 | 8.000 | 49/64 | 0.7656 | 19.447 | — | 1.4597 | 37.000 | 2 - 9/32 | 2.2810 | 57.944 |
| 21/64 | 0.3280 | 8.334 | 25/32 | 0.7810 | 19.844 | 1 - 15/32 | 1.4690 | 37.306 | — | 2.2835 | 58.000 |
| — | 0.3350 | 8.500 | — | 0.7874 | 20.000 | — | 1.4961 | 38.000 | 2 - 5/16 | 2.3120 | 58.738 |
| 11/32 | 0.3432 | 8.731 | 51/64 | 0.7970 | 20.241 | 1 - 1/2 | 1.5000 | 38.100 | — | 2.3228 | 59.000 |
| — | 0.3543 | 9.000 | 13/16 | 0.8125 | 20.638 | 1 - 17/32 | 1.5310 | 38.894 | 2 - 11/32 | 2.3440 | 59.531 |
| 23/64 | 0.3590 | 9.128 | — | 0.8268 | 21.000 | — | 1.5354 | 39.000 | — | 2.3622 | 60.000 |
| — | 0.3740 | 9.500 | 53/64 | 0.8280 | 21.034 | 1 - 9/16 | 1.5620 | 39.688 | 2 - 3/8 | 2.3750 | 60.325 |
| 3/8 | 0.3750 | 9.525 | 27/32 | 0.8440 | 21.431 | — | 1.5748 | 40.000 | — | 2.4016 | 61.000 |

Conversion Table Inch/Metric

| Inches | | Millimeters | Inches | | Millimeters | Inches | | Millimeters | Inches | | Millimeters |
|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|
| Fractions | Decimals | | Fractions | Decimals | | Fractions | Decimals | | Fractions | Decimals | |
| 2 - 13/32 | 2.4060 | 61.119 | — | 3.1102 | 79.000 | 3 - 13/16 | 3.8125 | 96.838 | 6 - 1/4 | 6.2500 | 158.750 |
| 2 - 7/16 | 2.4380 | 61.913 | 3 - 1/8 | 3.1250 | 79.581 | — | 3.8189 | 97.000 | — | 6.2992 | 160.000 |
| — | 2.4409 | 62.000 | — | 3.1496 | 80.000 | 3 - 27/32 | 3.8440 | 97.631 | 6 - 1/2 | 6.5000 | 165.100 |
| 2 - 15/32 | 2.4690 | 62.706 | 3 - 5/32 | 3.1560 | 80.169 | — | 3.8583 | 98.000 | — | 6.6929 | 170.000 |
| — | 2.4803 | 63.000 | 3 - 3/16 | 3.1875 | 80.963 | 3 - 7/8 | 3.8750 | 98.425 | 6 - 3/4 | 6.7500 | 171.450 |
| 2 - 1/2 | 2.5000 | 63.500 | — | 3.1890 | 81.000 | — | 3.8976 | 99.000 | 7 | 7.0000 | 177.800 |
| — | 2.5197 | 64.000 | 3 - 7/32 | 3.2190 | 81.756 | 3 - 29/32 | 3.9062 | 99.219 | — | 7.0866 | 180.000 |
| 2 - 17/32 | 2.5310 | 64.294 | — | 3.2283 | 82.000 | — | 3.9370 | 100.000 | — | 7.4803 | 190.000 |
| — | 2.5590 | 65.000 | 3 - 1/4 | 3.2500 | 82.550 | 3 - 15/16 | 3.9375 | 100.013 | 7 - 1/2 | 7.5000 | 190.500 |
| 2 - 9/16 | 2.5620 | 65.088 | — | 3.2677 | 83.000 | 3 - 31/32 | 3.9690 | 100.806 | — | 7.8740 | 200.000 |
| 2 - 19/32 | 2.5940 | 65.881 | 3 - 9/32 | 3.2810 | 83.344 | — | 3.9764 | 101.000 | 8 | 8.0000 | 203.200 |
| — | 2.5984 | 66.000 | — | 3.3071 | 84.000 | 4 | 4.0000 | 101.600 | — | 8.2677 | 210.000 |
| 2 - 5/8 | 2.6520 | 66.675 | 3 - 5/16 | 3.3120 | 84.138 | 4 - 1/16 | 4.0620 | 103.188 | 8 - 1/2 | 8.5000 | 215.900 |
| — | 2.6380 | 67.000 | 3 - 11/32 | 3.3440 | 84.931 | 4 - 1/8 | 4.1250 | 104.775 | — | 8.6614 | 220.000 |
| 2 - 21/32 | 2.6560 | 67.469 | — | 3.3464 | 85.000 | — | 4.1338 | 105.000 | 9 | 9.0000 | 228.600 |
| — | 2.6772 | 68.000 | 3 - 3/8 | 3.3750 | 85.725 | 4 - 3/16 | 4.1875 | 106.363 | — | 9.0551 | 230.000 |
| 2 - 11/16 | 2.6875 | 68.263 | — | 3.3858 | 86.000 | 4 - 1/4 | 4.2500 | 107.950 | — | 9.4488 | 240.000 |
| — | 2.7165 | 69.000 | 3 - 13/32 | 3.4060 | 86.519 | 4 - 5/16 | 4.3120 | 109.538 | 9 - 1/2 | 9.5000 | 241.300 |
| 2 - 23/32 | 2.7190 | 69.056 | — | 3.4252 | 87.000 | — | 4.3307 | 110.000 | — | 9.8425 | 250.000 |
| 2 - 3/4 | 2.7500 | 69.850 | 3 - 7/16 | 3.4380 | 87.313 | 4 - 3/8 | 4.3750 | 111.125 | 10 | 10.0000 | 254.001 |
| — | 2.7559 | 70.000 | — | 3.4648 | 88.000 | 4 - 7/16 | 4.4380 | 112.713 | — | 10.2362 | 260.000 |
| 2 - 25/32 | 2.7810 | 70.644 | 3 - 15/32 | 3.4690 | 88.108 | 4 - 1/2 | 4.5000 | 114.300 | — | 10.6299 | 270.000 |
| — | 2.7953 | 71.000 | 3 - 1/2 | 3.5000 | 88.900 | — | 4.5275 | 115.000 | 11 | 11.0000 | 279.401 |
| 2 - 13/16 | 2.8125 | 71.438 | — | 3.5039 | 89.000 | 4 - 9/16 | 4.5620 | 115.888 | — | 11.0236 | 280.000 |
| — | 2.8346 | 72.000 | 3 - 17/32 | 3.5310 | 89.694 | 4 - 5/8 | 4.6250 | 117.475 | — | 11.4173 | 290.000 |
| 2 - 27/32 | 2.8440 | 72.231 | — | 3.5433 | 90.000 | 4 - 11/16 | 4.6875 | 119.063 | — | 11.8110 | 300.000 |
| — | 2.8740 | 73.000 | 3 - 9/16 | 3.5620 | 90.488 | — | 4.7244 | 120.000 | 12 | 12.0000 | 304.801 |
| 2 - 7/8 | 2.8750 | 73.025 | — | 3.5827 | 91.000 | 4 - 3/4 | 4.7500 | 120.650 | 13 | 13.0000 | 330.201 |
| 2 - 29/32 | 2.9062 | 73.819 | 3 - 19/32 | 3.5940 | 91.281 | 4 - 13/16 | 4.8125 | 122.238 | — | 13.7795 | 350.000 |
| — | 2.9134 | 74.000 | — | 3.6220 | 92.000 | 4 - 7/8 | 4.8750 | 123.825 | 14 | 14.0000 | 355.601 |
| 2 - 15/16 | 2.9375 | 74.613 | 3 - 5/8 | 3.6250 | 92.075 | — | 4.9212 | 125.000 | 15 | 15.0000 | 381.001 |
| — | 2.9527 | 75.000 | 3 - 21/32 | 3.6560 | 92.869 | 4 - 15/16 | 4.9375 | 125.413 | — | 15.7480 | 400.000 |
| 2 - 31/32 | 2.9690 | 75.406 | — | 3.6614 | 93.000 | 5 | 5.0000 | 127.000 | 16 | 16.0000 | 406.401 |
| — | 2.9921 | 76.000 | 3 - 11/16 | 3.6875 | 93.663 | — | 5.1181 | 130.000 | 17 | 17.0000 | 431.801 |
| 3 | 3.0000 | 76.200 | — | 3.7008 | 94.000 | 5 - 1/4 | 5.2500 | 133.350 | — | 17.7165 | 450.000 |
| 3 - 1/32 | 3.0312 | 76.994 | 3 - 23/32 | 3.7190 | 94.456 | 5 - 1/2 | 5.5000 | 139.700 | 18 | 18.0000 | 457.201 |
| — | 3.0315 | 77.000 | — | 3.7401 | 95.000 | — | 5.5118 | 140.000 | 19 | 19.0000 | 482.601 |
| 3 - 1/16 | 3.0620 | 77.788 | 3 - 3/4 | 3.7500 | 95.250 | 5 - 3/4 | 5.7500 | 146.050 | — | | 500.000 |
| — | 3.0709 | 78.000 | — | 3.7795 | 96.000 | — | 5.9055 | 150.000 | 20 | | 508.001 |
| 3 - 3/32 | 3.0940 | 78.581 | 3 - 25/32 | 3.7810 | 96.044 | 6 | 6.0000 | 152.400 | | | |

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