

# 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.**

## **WARRANTY**

**It is expressly agreed that there are no warranties, expressed or implied, made by the seller on products, furnished, except the manufacturer's warranty against defective material or workmanship as follows: We guarantee our products to be free from defects in workmanship and materials. Our liability for breach of any and all warranties is limited to refunding our invoice price of the product, or at our own option, replacement of the material free of charge, including transportation charges but not cost of installation. The sale of products under any other warranty or guarantee, expressed or implied, is not authorized by the company.**

**This edition supersedes all earlier editions.**

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# Groupe **Sealing Solutions**

Nous avons publié notre catalogue de joints et de pièces connexes volume 6, basé sur les commentaires recueillis auprès de notre clientèle. Cette édition contient plusieurs nouveaux produits et dimensions additionnelles dans chacune des sections. Nous offrons à notre distinguée clientèle un choix hors-pair à partir du niveau d'inventaire national de joints d'étanchéité le plus élevé en Amérique du Nord.

Notre clientèle est desservie à partir de sept locations nationales avec un niveau d'inventaire disponible en temps réel ainsi que des méthodes d'expédition intégrées. Vous trouverez le produit exact selon vos besoins, livré au moment et à l'endroit où vous en avez besoin.

Le niveau de service, la qualité, et la satisfaction du client sont des priorités auxquelles nous sommes dédiés, et auxquelles vous vous attendez de recevoir, selon les critères suivants :

- Choix de produits élargi
- Références techniques complètes
- Dimensions d'usinage pour tous les produits
- Schémas d'utilisation et de sélection de profils
- Soutien technique et de conception à valeur ajoutée


Vous avez besoin d'un profil de joint spécial ou de prototypes pour un nouveau projet? Nous offrons:

- Atelier d'usinage complet pour livraison rapide. Les matériaux suivants sont tenus en inventaire: PTFE, polyuréthane, nylon, acétal, Dyna-Max, NBR et autres élastomères pouvant être usinés
- Centre de vulcanisation de joints toriques pour livraison immédiate
- Emballage spécialisé pour pièces, trousse ou identification personnalisée du client

Demandez notre catalogue de bagues d'étanchéité ou de trousse pré-assemblées.












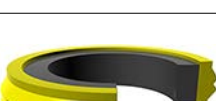




N'hésitez pas de contacter nos spécialistes du service à la clientèle à la succursale la plus près de chez vous. Il seront heureux de répondre à toutes vos questions.

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





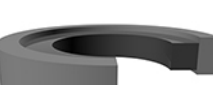







	Product Image	Series	Profile	Material	Temperature Range	Surface Speed	Pressure Range	H/P	Page
<b>INCH SIZE ROD WIPERS</b>		<b>J</b>		Polyurethane/ Steel	-65°F /+200°F -54°C /+93°C	< 1.6 ft/s (0.5 m/s)	N/A	H	<b>A 22</b>
		<b>J/N</b>		Nitrile/Steel	-40°F /+250°F -40°C /+121°C	< 1.6 ft/s (0.5 m/s)	N/A	H/P	<b>A 26</b>
		<b>J/DL</b>		Polyurethane/ Steel	-40°F /+230°F -40°C /+110°C	< 1.6 ft/s (0.5 m/s)	N/A	H	<b>A 28</b>
<b>INCH SIZE ROD SEALS</b>		<b>UR</b>		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>B 2</b>
		<b>E5</b>		Carboxylated Nitrile	-10°F /+250°F -23°C /+121°C	< 3.3 ft/s (1 m/s)	≤250 psi (≤17 bar)	P	<b>B 8</b>
		<b>BS</b>		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>B 9</b>
		<b>BS/3L</b>		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>B 11</b>
		<b>BS/SL</b>		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>B 12</b>
		<b>RE</b>		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>B 13</b>
		<b>BT</b>		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>B 15</b>

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





















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













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





































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






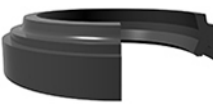

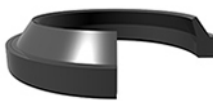

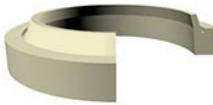









	Product Image	Series	Profile	Material	Temperature Range	Surface Speed	Pressure Range	H/P	Page
INCH SIZE PISTON SEALS		<b>CAT-TYPE-3</b>		Nylon/Nitrile	-40°F /+ 250°F -40°C /+ 121°C	<3.3 ft/s (1 m/s)	≤7000 psi (≤ 483 bar)	H	<b>D 46</b>
		<b>HDP 330</b>		Nylon/Nitrile	-22°F /+ 212°F -30°C /+ 100°C	<3 ft/s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

	Product Image	Series	Profile	Material	Temperature Range	Surface Speed	Pressure Range	H/P	Page
INCH SIZE VEE PACKINGS		<b>“HYDROLOCK” VEE SET</b>		Hytrel/Nylon	-40°F /+250°F -40°C /+121°C	< 1.6 ft/s (0.5 m/s)	≤6000 psi (≤ 414 bar)	H	<b>E 9</b>
		<b>“GUIDELOCKS”</b>		Nylon	-40°F /+250°F -40°C /+121°C	< 1.6 ft/s (0.5 m/s)	N/A	H	<b>E 11</b>
		<b>VEE COIL</b>		Neo-Fabric	-40°F /+230°F -40°C /+110°C	< 1.6 ft/s (0.5 m/s)	≤5000 psi (≤ 345 bar)	H	<b>E 13</b>
INCH SIZE GUIDING ELEMENTS		<b>W1, W2, W3 W4, WR</b>		GF.Nylon	-65°F /+275°F -54°C /+135°C	N/A	N/A	H/P	<b>F 2</b>
		<b>CAT - PISTON GUIDING ELEMENT</b>		GF.Nylon	-65°F /+275°F -54°C /+135°C	N/A	N/A	H/P	<b>F 12</b>
		<b>CAT - ROD GUIDING ELEMENT</b>		GF.Nylon	-65°F /+275°F -54°C /+135°C	N/A	N/A	H/P	<b>F 16</b>
		<b>WS</b>		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	<b>F 18</b>
		<b>“DU” BEARING</b>		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	<b>F 22</b>
		<b>SBB</b>		Carbon Chromium Steel (w/o Seals)	-58°F /+302°F -50°C /+150°C	N/A	N/A	H	<b>F 26</b>
		<b>SBB-2RS</b>		Carbon Chromium Steel (with Seals)	-22°F /+266°F -30°C /+130°C	N/A	N/A	H	<b>F 27</b>

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

	Product Image	Series	Profile	Material	Temperature Range	Surface Speed	Pressure Range	H/P	Page
INCH SIZE O'RINGS		<b>8-XXX</b>		All compounds		N/A	N/A	H/P	<b>G 29</b>
		<b>CONTOURED BACK-UP RINGS</b>		Nitrile	-40°F / +250°F (-40°C / +121°C)	N/A	N/A	H/P	<b>G 30</b>
		<b>BACK-UP RINGS POLYURETHANE</b>		Polyurethane/ U	-65°F / +200°F (-54°C / +93°C)	< 1.6 ft/s (0.5 m/s)	N/A	H/P	<b>G 35</b>
		<b>BACK-UP RINGS PTFE SOLID</b>		PTFE	-320°F / +450°F (-196°C / +232°C)	< 1.6 ft/s (0.5 m/s)	N/A	H/P	<b>G 40</b>
		<b>BACK-UP RINGS PTFE SPLIT</b>		PTFE	-320°F / +450°F (-196°C / +232°C)	< 1.6 ft/s (0.5 m/s)	N/A	H/P	<b>G 45</b>
		<b>8700</b>		Polymyte V.PTFE	-65°F / +275°F (-54°C / +135°C) -320°F / +450°F (-196°C / +232°C)	N/A	N/A	H	<b>G 50</b>
		<b>ED - DIN CONNECTOR RINGS</b>		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	<b>G 52</b>
		<b>HEAD SEAL</b>		Polyurethane	-40°F / +250°F (-40°C / +121°C)	N/A	≤ 5000 psi (≤ 345 bar)	H	<b>G 53</b>
		<b>CAT O'RING KITS</b>						H	<b>G 55</b>
		<b>CAT HOSE COUPLING SEALS</b>						H	<b>G 57</b>


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

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



















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






























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

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

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

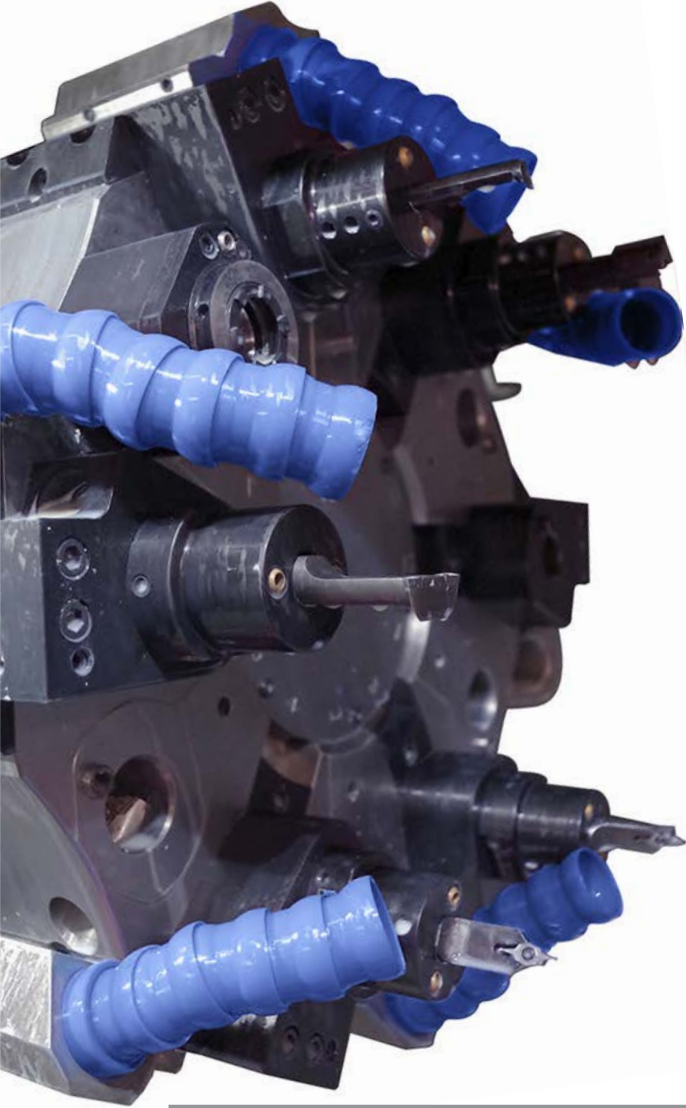
	Product Image	Series	Profile	Material	Temperature Range	Surface Speed	Pressure Range	H/P	Page	
<b>METRIC SIZE V PACKINGS</b>		<b>V1</b>		Neo-Fabric/ Polyamide/ Nitrile	-22°F /+230°F (-30°C /+110°C)	<1.6 ft/s (0.5 m/s)	≤3626 psi (≤250 bar)	H	<b>M 2</b>	
		<b>V3</b>		Neo-Fabric/ Polyamide/ Nitrile	-22°F /+230°F (-30°C /+110°C)	<1.6 ft/s (0.5 m/s)	5800 psi (400 bar)	H	<b>M 4</b>	
<b>METRIC SIZE GUIDING ELEMENTS</b>		<b>GB</b>		BR.PTFE	-50°F /+400°F (-46°C /+204°C)	<13 ft/s (4 m/s)	N/A	H/P	<b>N 3</b>	
		<b>GB/N</b>		GF.Nylon	-40°F /+250°F (-40°C /+121°C)	<3 ft/s (0.9 m/s)	N/A	H	<b>N 5</b>	
		<b>CAT - PISTON GUIDING ELEMENT</b>		Nylon	-40°F /+250°F -40°C /+121°C	N/A	N/A	H/P	<b>N 11</b>	
		<b>CAT - ROD GUIDING ELEMENT</b>		GF.Nylon	-65°F /+275°F -54°C /+135°C	N/A	N/A	H/P	<b>N 12</b>	
		<b>GC</b>		Phenolic	-10°F /+250°F (-23°C /+121°C)	<3 ft/s (0.9 m/s)	≤250 psi (≤17 bar) * Compressive strength	H	<b>N 13</b>	
		<b>WS</b>		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	<b>N 31</b>	
	<b>“DU” REFERENCE TABLE</b>									<b>N 33</b>
		<b>“DU” BEARINGS</b>		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	<b>N 33</b>	

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

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

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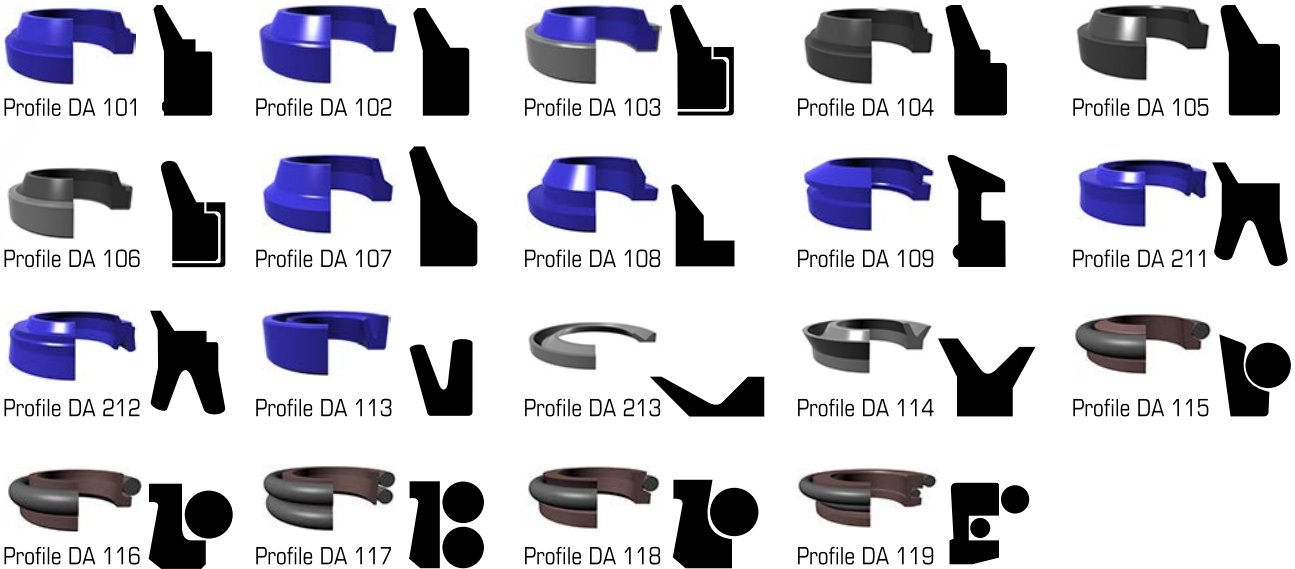
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### Rod Wipers



### Rod Seals





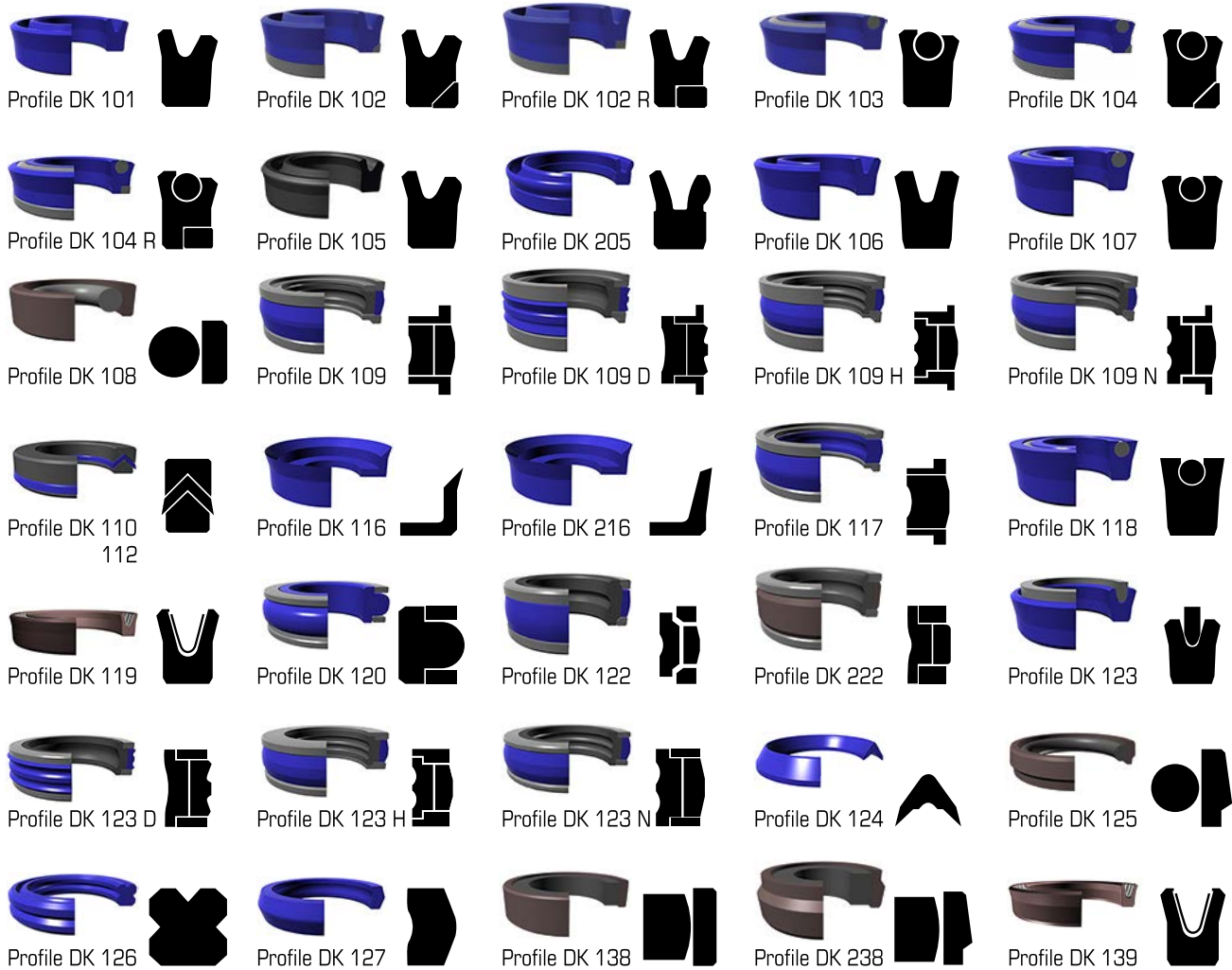
# XPRESS

## 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



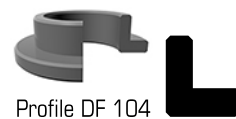
Profile DF 101



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



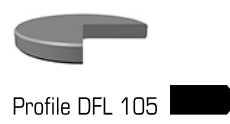
Profile DFL 102



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
<b>Color</b>				blue	blue	red	red	blue	red
<b>Specific Gravity</b>		g/cm <sup>3</sup>	53 479	1.17	1.18	1.20	1.21	1.19	-
<b>Hardness</b>		shore A	53 505	94	94	94	93	94	-
		shore D	53 505	46	43	-	47	45	-
<b>Extension Modulus</b>	100% elongation	N/mm <sup>2</sup>	53 455	-	-	16	13.5	15	15
<b>Tensile strength</b>		N/mm <sup>2</sup>	53 455	62	64	60	50	62	50
<b>Elongation</b>		%	53 455	550	470	430	397	420	350
<b>Tear Strength</b>		KN/m	53 515	-	95	-	-	-	-
		KN/m	ISO 31-1	-	-	150	110	107	110
<b>Resilience</b>		%	53 512	-	-	35	-	-	-
<b>Abrasion</b>		mm <sup>3</sup>	53 516	-	-	17	-	-	-
<b>E-Modulus Strength</b>		N/mm <sup>2</sup>	53 517	-	-	-	-	-	-
<b>Compression Set</b>	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	-	-	-	-	-	-
<b>Temperature, minimum</b>		°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
<b>Temperature, maximum</b>		°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
<b>Temperature, max. water/steam</b>		°C		-	-	+80°C	-	-	-
		°F		-	-	-112°F	-	-	-
<b>Temperature, max. hot air</b>		°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 compound 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 pre-cut 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.



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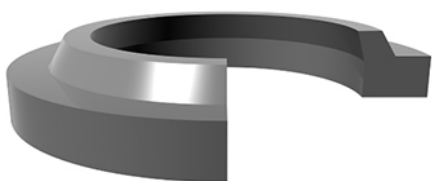
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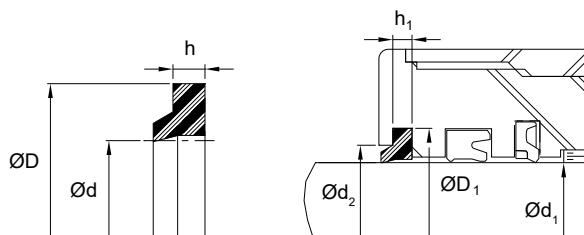


	AN	A	2
	D	A	5
	H	A	8
	K	A	10
	D & K WIPER CORD	A	12
	EX1	A	13
	EX2 EX5	A	16
	BW/S	A	19
	J	A	22
	J/N	A	26
	J/DL	A	28

# 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	<b>0.500</b>	+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	<b>0.562</b>		0.562	0.829	0.104	0.710		0.823		0.107	
AN-03	<b>0.625</b>		0.625	0.891	0.104	0.772		0.885		0.107	
AN-04	<b>0.687</b>		0.687	0.954	0.104	0.834		0.948		0.107	
AN-05	<b>0.750</b>		0.750	1.016	0.104	0.897		1.010		0.107	
AN-06	<b>0.812</b>		0.812	1.090	0.104	0.960		1.084		0.107	
AN-07	<b>0.875</b>		0.875	1.153	0.104	1.023		1.147		0.107	
AN-08	<b>0.937</b>		0.937	1.215	0.104	1.085		1.209		0.107	
AN-09	<b>1.000</b>		1.000	1.278	0.104	1.148		1.272		0.107	
AN-10	<b>1.062</b>		1.062	1.340	0.104	1.210		1.334		0.107	
AN-11	<b>1.125</b>		1.125	1.403	0.104	1.273		1.397		0.107	
AN-12	<b>1.187</b>		1.187	1.465	0.104	1.335		1.459		0.107	
AN-13	<b>1.250</b>		1.250	1.528	0.104	1.398		1.522		0.107	
AN-14	<b>1.312</b>		1.312	1.622	0.104	1.480		1.614		0.107	
AN-15	<b>1.375</b>		1.375	1.685	0.104	1.542		1.677		0.107	
AN-16	<b>1.437</b>		1.437	1.747	0.104	1.605		1.739		0.107	
AN-17	<b>1.500</b>		1.500	1.810	0.104	1.668		1.802		0.107	
AN-M	<b>1.562</b>		1.562	1.872	0.104	1.730		1.864		0.107	
AN-18	<b>1.625</b>		1.625	1.935	0.104	1.793		1.927		0.107	
AN-19	<b>1.750</b>		1.750	2.060	0.104	1.918		2.052		0.107	
AN-A	<b>1.812</b>		1.812	2.123	0.104	1.981		2.115		0.107	
AN-20	<b>1.875</b>	▼	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	▼

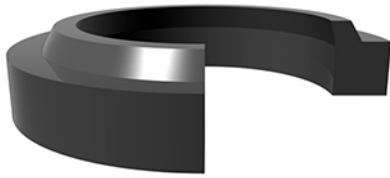


# AN series - AU 90A

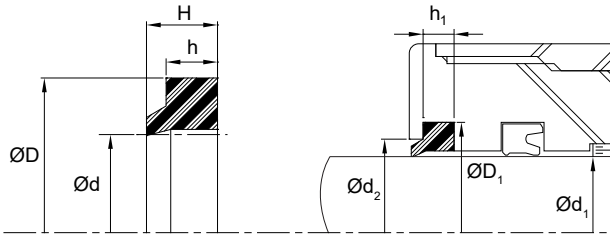
Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions					
	d1	Tol.	d	D	h	d2	Tol.	D1	Tol.	h1	Tol.
AN-DD	<b>8.125</b>	+0.000 -0.003	8.125	8.629	0.151	8.397	+0.005 -0.000	8.614	+0.005 -0.000	0.154	+0.003 -0.003
AN-61.5	<b>8.250</b>		8.250	8.754	0.151	8.522		8.739		0.154	
AN-62	<b>8.500</b>		8.500	9.004	0.151	8.772		8.989		0.154	
AN-63	<b>9.000</b>		9.000	9.504	0.151	9.272		9.489		0.154	
AN-E	<b>9.250</b>		9.250	9.754	0.151	9.522		9.739		0.154	
AN-64	<b>9.500</b>		9.500	10.004	0.151	9.772		9.989		0.154	
AN-65	<b>10.000</b>		10.000	10.504	0.151	10.272		10.489		0.154	
AN-66	<b>10.500</b>		10.500	11.004	0.151	10.772		10.989		0.154	
AN-F	<b>10.750</b>		10.750	11.254	0.151	11.022		11.239		0.154	
AN-67	<b>11.000</b>		11.000	11.504	0.151	11.272		11.489		0.154	
AN-FF	<b>11.250</b>		11.250	11.759	0.166	11.522		11.739		0.169	
AN-68	<b>11.500</b>		11.500	12.009	0.166	11.772		11.989		0.169	
AN-69	<b>12.000</b>		12.000	12.509	0.166	12.272		12.489		0.169	
AN-G	<b>12.750</b>		12.750	13.259	0.166	13.022		13.239		0.169	
AN-K	<b>13.750</b>	▼	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	<b>0.187</b>	+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	<b>0.250</b>		0.250	0.500	0.125	0.410		0.497		0.124	
D-00312	<b>0.312</b>		0.312	0.562	0.125	0.475		0.560		0.124	
D-00375	<b>0.375</b>		0.375	0.625	0.125	0.535		0.622		0.124	
D-00437	<b>0.437</b>		0.437	0.687	0.125	0.600		0.685		0.124	
D-00500	<b>0.500</b>		0.500	0.750	0.125	0.660		0.747		0.124	
D-00562	<b>0.562</b>		0.562	0.812	0.125	0.725		0.810		0.124	
D-00625	<b>0.625</b>		0.625	0.875	0.125	0.785		0.872		0.124	
D-00687	<b>0.687</b>		0.687	0.937	0.125	0.850		0.935		0.124	
D-00750	<b>0.750</b>	+0.000 -0.003	0.750	1.125	0.187	0.995		1.122		0.187	
D-00812	<b>0.812</b>		0.812	1.187	0.187	1.060		1.185		0.187	
D-00875	<b>0.875</b>		0.875	1.250	0.187	1.120		1.247		0.187	
D-01000	<b>1.000</b>		1.000	1.375	0.187	1.245		1.372		0.187	
D-01062	<b>1.062</b>		1.062	1.437	0.187	1.310		1.435		0.187	
D-01125	<b>1.125</b>		1.125	1.500	0.187	1.370		1.497		0.187	
D-01187	<b>1.187</b>		1.187	1.562	0.187	1.435		1.560		0.187	
D-01250	<b>1.250</b>		1.250	1.625	0.187	1.495		1.622		0.187	
D-01312	<b>1.312</b>		1.312	1.687	0.187	1.560		1.685		0.187	
D-01375	<b>1.375</b>		1.375	1.750	0.187	1.620		1.747		0.187	
D-01437	<b>1.437</b>		1.437	1.812	0.187	1.685		1.810		0.187	
D-01500	<b>1.500</b>		1.500	1.875	0.187	1.745		1.872		0.187	
D-01562	<b>1.562</b>		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

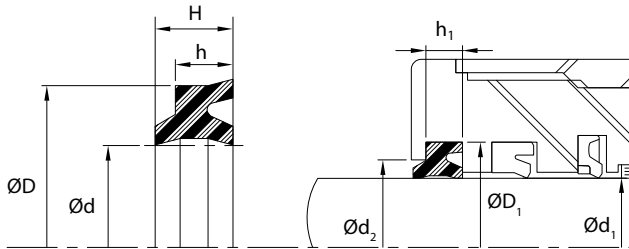
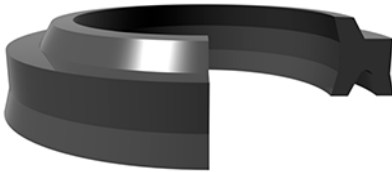


Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions					
	d1	Tol.	d	D	h	d2	Tol.	D1	Tol.	h1	Tol.
D-06250-1	6.250	+0.000 -0.004	6.250	6.750	0.250	6.577	+0.010 -0.000	6.747	+0.006 -0.000	0.249	+0.004 -0.000
D-06500	6.500		6.500	7.250	0.375	6.993		7.247		0.374	
D-06500-1	6.500		6.500	7.500	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.

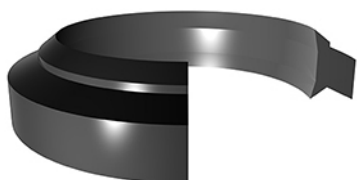
Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions					
	d1	Tol.	d	D	h	d2	Tol.	D1	Tol.	h1	Tol.
H-00250	0.250	+0.000 -0.001	0.250	0.562	0.194	0.370	+0.002 -0.000	0.552	+0.002 -0.000	0.203	+0.005 -0.000
H-00312	0.312		0.312	0.625	0.194	0.432		0.615		0.203	
H-00375	0.375		0.375	0.687	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

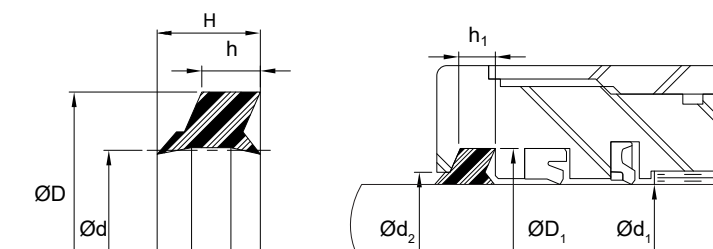


Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions					
	d1	Tol.	d	D	h	d2	Tol.	D1	Tol.	h1	Tol.
H-00750	<b>0.750</b>	+0.000 -0.001	0.750	1.062	0.194	0.870	+0.002 -0.000	1.052	+0.002 -0.000	0.203	+0.005 -0.000
H-00875	<b>0.875</b>		0.875	1.250	0.212	1.010		1.240		0.218	
H-00937	<b>0.937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

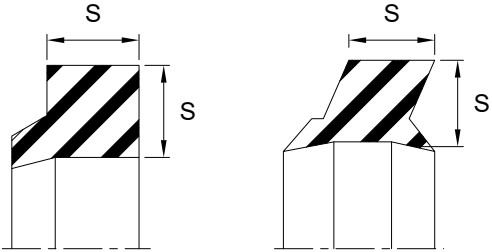
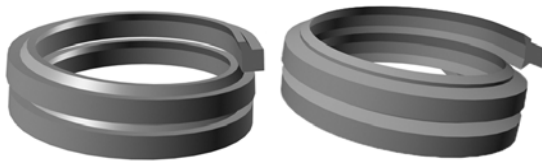
Ref. Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions					
	d1	Tol.	d	D	h	d2	Tol.	D1	Tol.	h1	Tol.
K-00500	0.500	+0.000 -0.002	0.500	0.750	0.150	0.625	+0.000 -0.005	0.760	+0.005 -0.000	0.155	+0.005 -0.000
K-00625	0.625		0.625	0.875	0.150	0.750		0.885		0.155	
K-00687	0.687		0.687	0.937	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	▼

Revision 1

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.

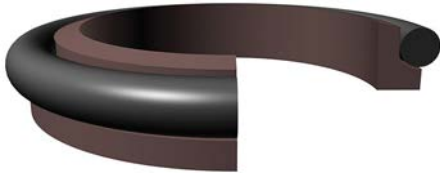
**Alternate Materials:** For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

Ref. Number	Rod Diameter	Nominal Seal Dimensions		Housing Dimensions					
	Tol.	S	Tol.	d1	Tol.	D1	Tol.	h1	Tol.
WC-00156K		0.156	+ .010/- .010						
WC-00187D		0.187	+ .013/- .013						
WC-00187K		0.187	+ .013/- .013						
WC-00250K		0.250	+ .016/- .016						

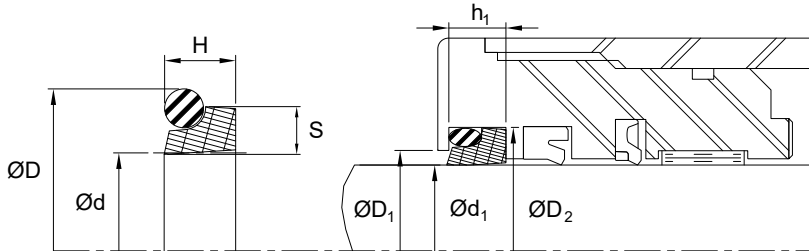
INCREMENT OF 1 FT.



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

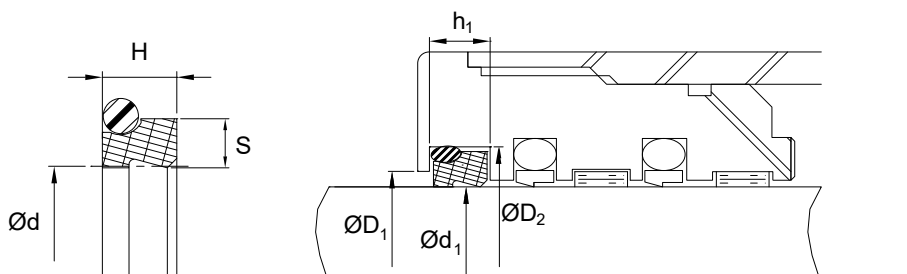


EX2



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	▼

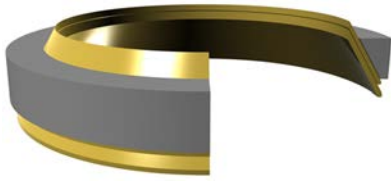


# EX2 - EX5 series - BR.PTFE/NBR

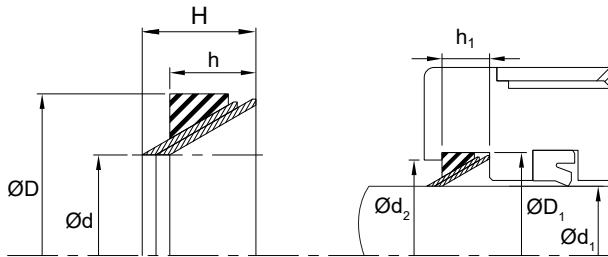
Ref.Number	Rod Diameter		Inspection Dimensions				Housing Dimensions					
	d1	Tol.	d	S	H	EXP	D1	Tol.	D2	Tol.	h1	Tol.
EX5-05000	5.000	+0.000 -0.004	5.000	0.213	0.303	-251	5.080	+0.010 -0.000	5.480	+0.004 -0.000	0.319	+0.008 -0.000
EX2-05125	5.125		5.125	0.116	0.176	-160	5.185		5.395		0.196	
EX2-05250	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

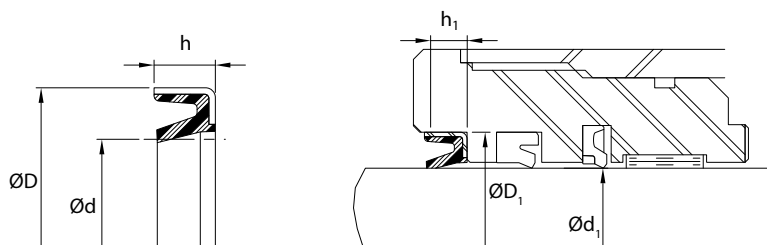
Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions					
	d1	Tol.	d	D	h	d2	Tol.	D1	Tol.	h1	Tol.
BW-06000S/8	6.000	+0.001 -0.002	6.000			6.660	+0.000 -0.010	6.750	+0.003 -0.003	0.375	+0.003 -0.001
BW-06250S/8	6.250		6.250			6.910		7.000		0.375	
BW-06500S/8	6.500		6.500			7.160		7.250		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	+0.001	0.125	+0.015
J17502250125	1.750	-0.003	1.750	2.250	0.125	2.250	-0.001	0.125	-0.000
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



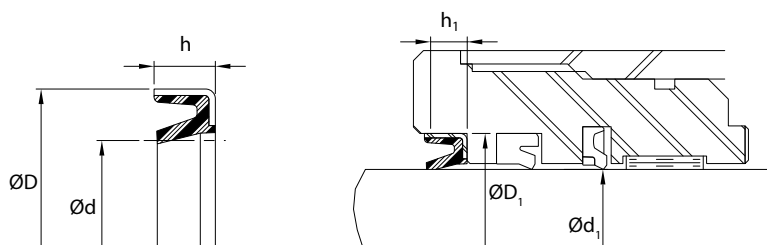
Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	h	D1	Tol.	h1	Tol.
J55006125312	5.500	+0.000 -0.004	5.500	6.125	0.312	6.125	+0.001 -0.001	0.312	+0.015 -0.000
J55006125375	5.500		5.500	6.125	0.375	6.125		0.375	
J55006250312	5.500		5.500	6.250	0.312	6.250		0.312	
J55006500500	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	<b>0.187</b>	+0.003 -0.003	0.187	0.500	0.125	0.500	+0.001 -0.001	0.125	+0.015 -0.000
J03750625125/N	<b>0.375</b>		0.375	0.625	0.125	0.625		0.125	
J03750687156/N	<b>0.375</b>		0.375	0.687	0.156	0.687		0.156	
J05000687094/N	<b>0.500</b>		0.500	0.687	0.094	0.687		0.094	
J05000750125/N	<b>0.500</b>		0.500	0.750	0.125	0.750		0.125	
J05001125250/N	<b>0.500</b>		0.500	1.125	0.250	1.125		0.250	
J06250875125/N	<b>0.625</b>		0.625	0.875	0.125	0.875		0.125	
J06250937187/N	<b>0.625</b>		0.625	0.937	0.187	0.937		0.187	
J06251000125/N	<b>0.625</b>		0.625	1.000	0.125	1.000		0.125	
J06870937125/N	<b>0.687</b>		0.687	0.937	0.125	0.937		0.125	
J06871000187/N	<b>0.687</b>		0.687	1.000	0.187	1.000		0.187	
J07501000125/N	<b>0.750</b>		0.750	1.000	0.125	1.000		0.125	
J07501062187/N	<b>0.750</b>		0.750	1.062	0.187	1.062		0.187	
J07501125187/N	<b>0.750</b>		0.750	1.125	0.187	1.125		0.187	
J07501250250/N	<b>0.750</b>		0.750	1.250	0.250	1.250		0.250	
J08751125125/N	<b>0.875</b>		0.875	1.125	0.125	1.125		0.125	
J08751250187/N	<b>0.875</b>		0.875	1.250	0.187	1.250		0.187	
J10001250125/N	<b>1.000</b>		1.000	1.250	0.125	1.250		0.125	
J10001312125/N	<b>1.000</b>		1.000	1.312	0.125	1.312		0.125	
J10001375187/N	<b>1.000</b>		1.000	1.375	0.187	1.375		0.187	
J10001437250/N	<b>1.000</b>		1.000	1.437	0.250	1.437		0.250	
J10001500187/N	<b>1.000</b>	▼	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	▼



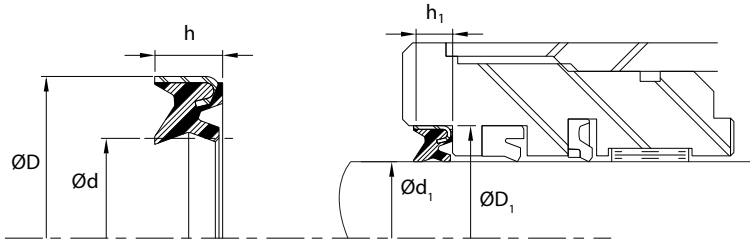
# J/N series - NBR/STEEL

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





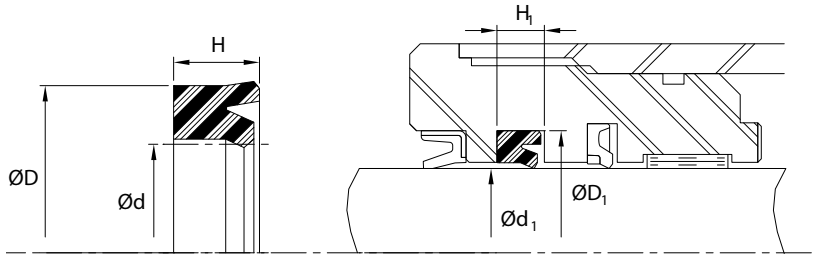


	UR	B	2
	E5	B	8
	BS	B	9
	BS/3L	B	11
	BS/SL	B	12
	RE	B	13
	BT	B	16
	BR	B	19
	HBV	B	20
	HBV-CAT	B	21
	CAT SEAL RING	B	22
	CAT STEP SEAL	B	24
	RSS	B	25
	R2B	B	31
	TR	B	33
	V6	B	36

# 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	<b>0.375</b>	+0.000 -0.002	0.375	0.625	0.125	0.625	+0.004 -0.000	0.138	+0.015 -0.000
UR12500500	<b>0.500</b>		0.500	0.750	0.125	0.750		0.138	
UR18700562-312	<b>0.562</b>		0.562	0.937	0.312	0.937	+0.005 -0.000	0.343	
UR12500625	<b>0.625</b>		0.625	0.875	0.125	0.875		0.138	
UR12500625-187	<b>0.625</b>		0.625	0.875	0.187	0.875		0.206	
UR12500625-250	<b>0.625</b>		0.625	0.875	0.250	0.875		0.275	
UR18700625	<b>0.625</b>		0.625	1.000	0.187	1.000		0.206	
UR18700625-250	<b>0.625</b>		0.625	1.000	0.250	1.000		0.275	
UR18700625-312	<b>0.625</b>		0.625	1.000	0.312	1.000		0.343	
UR18700687	<b>0.687</b>		0.687	1.062	0.187	1.062		0.206	
UR18700687-250	<b>0.687</b>		0.687	1.062	0.250	1.062		0.275	
UR18700687-312	<b>0.687</b>	▼	0.687	1.062	0.312	1.062		0.343	
UR09400750-187	<b>0.750</b>	+0.000 -0.003	0.750	0.937	0.187	0.937		0.206	
UR12500750	<b>0.750</b>		0.750	1.000	0.125	1.000		0.138	
UR12500750-156	<b>0.750</b>		0.750	1.000	0.156	1.000		0.172	
UR12500750-187	<b>0.750</b>		0.750	1.000	0.187	1.000		0.206	
UR12500750-250	<b>0.750</b>		0.750	1.000	0.250	1.000		0.275	
UR18700750	<b>0.750</b>		0.750	1.125	0.187	1.125		0.206	
UR18700750-250	<b>0.750</b>		0.750	1.125	0.250	1.125		0.275	
UR18700750-312	<b>0.750</b>		0.750	1.125	0.312	1.125		0.343	
UR12500812	<b>0.812</b>		0.812	1.062	0.125	1.062		0.138	
UR18700812-250	<b>0.812</b>	▼	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	<b>0.812</b>	+0.000 -0.003	0.812	1.187	0.312	1.187	+0.005 -0.000	0.343	+0.015 -0.000
UR12500875	<b>0.875</b>		0.875	1.125	0.125	1.125		0.138	
UR12500875-187	<b>0.875</b>		0.875	1.125	0.187	1.125		0.206	
UR12500875-250	<b>0.875</b>		0.875	1.125	0.250	1.125		0.275	
UR18700875	<b>0.875</b>		0.875	1.250	0.187	1.250		0.206	
UR18700875-250	<b>0.875</b>		0.875	1.250	0.250	1.250		0.275	
UR18700875-312	<b>0.875</b>		0.875	1.250	0.312	1.250		0.343	
UR12500937-187	<b>0.937</b>		0.937	1.187	0.187	1.187		0.206	
UR25000937-375	<b>0.937</b>		0.937	1.000	0.375	1.000		0.413	
UR12501000	<b>1.000</b>		1.000	1.250	0.125	1.250		0.138	
UR12501000-156	<b>1.000</b>		1.000	1.250	0.156	1.250		0.172	
UR12501000-187	<b>1.000</b>		1.000	1.250	0.187	1.250		0.206	
UR12501000-250	<b>1.000</b>		1.000	1.250	0.250	1.250		0.275	
UR18701000	<b>1.000</b>		1.000	1.375	0.187	1.375		0.206	
UR18701000-250	<b>1.000</b>		1.000	1.375	0.250	1.375		0.275	
UR18701000-312	<b>1.000</b>		1.000	1.375	0.312	1.375	▼	0.343	
UR25001000	<b>1.000</b>		1.000	1.500	0.250	1.500	+0.007 -0.000	0.275	
UR25001000-312	<b>1.000</b>		1.000	1.500	0.312	1.500		0.343	
UR25001000-375	<b>1.000</b>		1.000	1.500	0.375	1.500		0.413	
UR29701031-375	<b>1.031</b>		1.031	1.625	0.375	1.625		0.413	
UR18701062-312	<b>1.062</b>		1.062	1.437	0.312	1.437		0.343	
UR18701125-250	<b>1.125</b>		1.125	1.500	0.250	1.500		0.275	
UR18701125-312	<b>1.125</b>		1.125	1.500	0.312	1.500		0.343	
UR18701125-375	<b>1.125</b>		1.125	1.500	0.312	1.500		0.343	
UR25001125	<b>1.125</b>		1.125	1.625	0.250	1.625		0.275	
UR25001125-375	<b>1.125</b>		1.125	1.625	0.375	1.625		0.413	
UR31201125	<b>1.125</b>		1.125	1.750	0.312	1.750		0.343	
UR18701187-250	<b>1.187</b>		1.187	1.562	0.250	1.562		0.275	
UR12501250-250	<b>1.250</b>		1.250	1.500	0.250	1.500		0.275	
UR18701250-250	<b>1.250</b>		1.250	1.625	0.250	1.625		0.275	
UR18701250-312	<b>1.250</b>		1.250	1.625	0.312	1.625		0.343	
UR18701250-375	<b>1.250</b>		1.250	1.625	0.375	1.625		0.413	
UR25001250	<b>1.250</b>		1.250	1.750	0.250	1.750		0.275	
UR25001250-187	<b>1.250</b>		1.250	1.750	0.187	1.750		0.206	
UR25001250-312	<b>1.250</b>		1.250	1.750	0.312	1.750		0.343	
UR25001250-375	<b>1.250</b>		1.250	1.750	0.375	1.750		0.413	
UR31201250-437	<b>1.250</b>		1.250	1.875	0.437	1.875		0.481	
UR25001312-375	<b>1.312</b>		1.312	1.812	0.375	1.812		0.413	
UR12501375-250	<b>1.375</b>		1.375	1.625	0.250	1.625		0.275	
UR18701375-312	<b>1.375</b>		1.375	1.750	0.312	1.750		0.343	
UR18701375-375	<b>1.375</b>		1.375	1.750	0.375	1.750		0.413	
UR25001375-312	<b>1.375</b>		1.375	1.875	0.312	1.875		0.343	
UR25001375-375	<b>1.375</b>		1.375	1.875	0.375	1.875		0.413	
UR31201375-375	<b>1.375</b>		1.375	2.000	0.375	2.000		0.413	
UR18701500-250	<b>1.500</b>		1.500	1.875	0.250	1.875		0.275	
UR18701500-312	<b>1.500</b>	▼	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

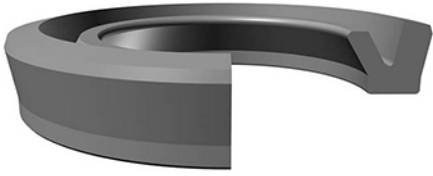
**ROD SEALS**



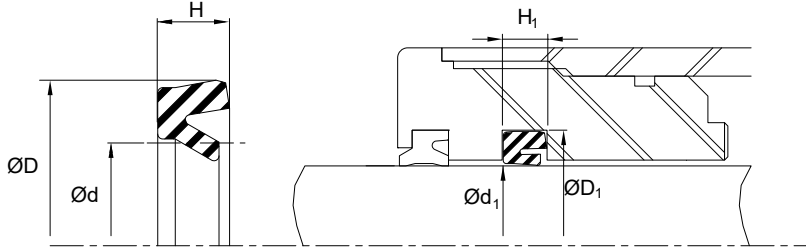
Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	H	D1	Tol.	H1	Tol.
UR37506750-590	<b>6.750</b>	+0.000/-0.004	6.750	7.500	0.590	7.500	+0.011 -0.000	0.649	+0.015 -0.000
UR25007000-562	<b>7.000</b>	+0.000 -0.005	7.000	7.500	0.562	7.500		0.618	
UR37507000-500	<b>7.000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

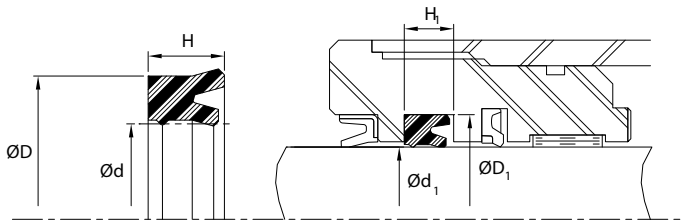
Ref. Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	H	D1	Tol.	H1	Tol.
E50400125	<b>0.125</b>	+0.000 -0.001	0.125	0.375	0.125	0.375	+0.002 -0.000	0.156	+0.010 -0.010
E50300187	<b>0.187</b>		0.187	0.375	0.093	0.375		0.125	
E50400250	<b>0.250</b>		0.250	0.500	0.125	0.500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

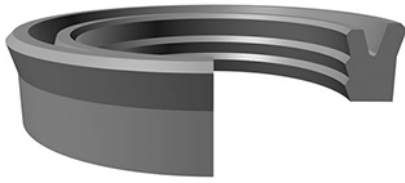
# BS series - AU 92A

ROD SEALS

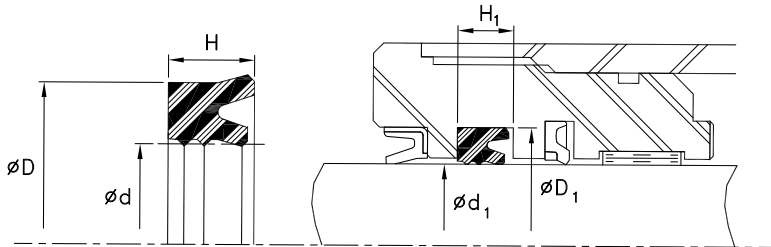


Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	H	D1	Tol.	H1	Tol.
BS18701750-375	1.750	+0.000 -0.002	1.750	2.125	0.375	2.125	+0.008 -0.000	0.413	+0.015 -0.000
BS25001750-312	1.750		1.750	2.250	0.312	2.250		0.343	
BS25001750-375	1.750		1.750	2.250	0.375	2.250		0.413	
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.

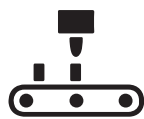
**Alternate Materials:** For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

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



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Truck Bus



Construction



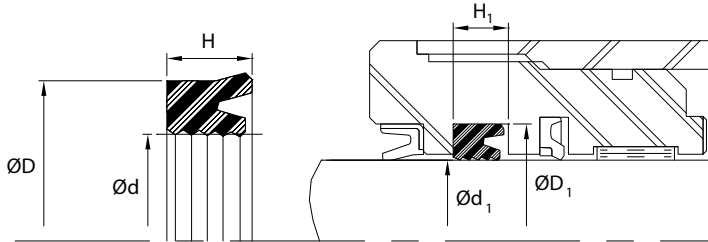
Aerospace

# 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.

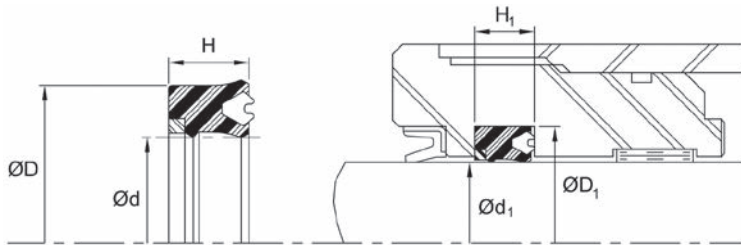
Ref. Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	H	D1	Tol.	H1	Tol.
BS12500625-156-SL	0.625	+0.000 -0.001	0.625	0.875	0.156	0.875	+0.002 -0.000	0.219	+0.010 -0.010
BS15601000-187-SL	1.000	▼	1.000	1.312	0.187	1.312		0.250	
BS15601375-187-SL	1.375	▼	1.375	1.687	0.187	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	-0.001	1.250	1.625	0.250	1.625	+0.003	0.275	+0.010
RE18701250-312	1.250	-0.003	1.250	1.625	0.312	1.625	-0.003	0.344	-0.000
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

**ROD SEALS**



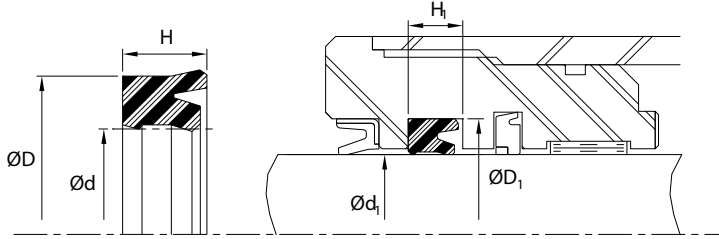
Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	H	D1	Tol.	H1	Tol.
RE37506500-500	6.500	-0.001 -0.006	6.500	7.250	0.500	7.250	+0.005 -0.005	0.550	+0.010 -0.000
RE25006750-562	6.750		6.750	7.250	0.562	7.250		0.619	
RE25007000-500	7.000		7.000	7.500	0.500	7.500	+0.006 -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	▼

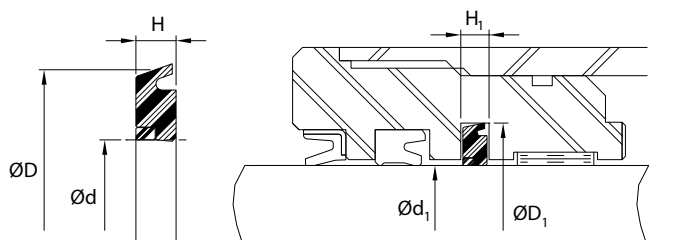
# BT series - AU 90A

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	

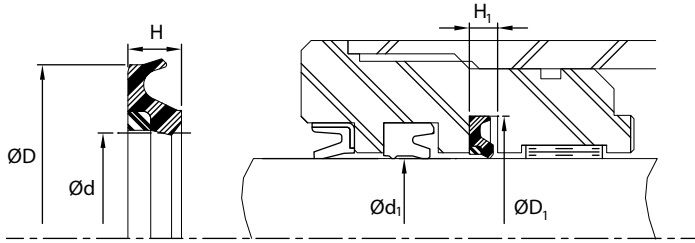
\* No anti-extrusion ring

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	

# 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/- .001	1.250	1.812	0.125	1.819	+0.005 -.005	0.140	+0.005 -.005
HBY-01500*	1.500	+0.000 -.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 -.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/- .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

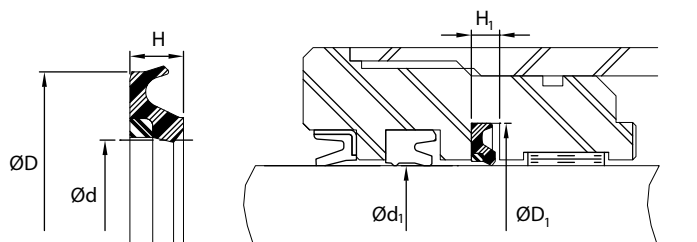


Fluid Power

# 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

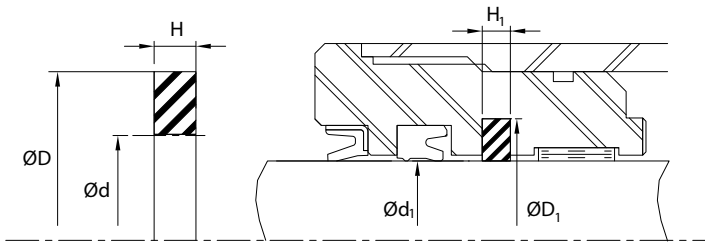
All manufacturer's names, part numbers and descriptions are use for reference purpose only. We do not imply that any part shown is the product of these manufacturers.



# 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	▼

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# CAT Seal Ring series - cat x-ref - AU



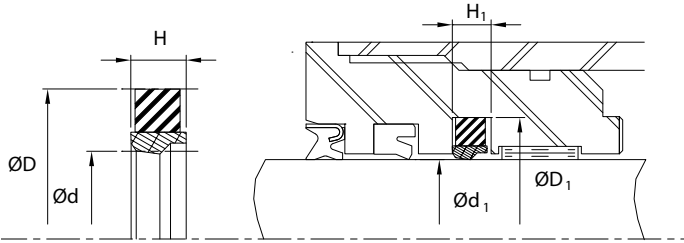
Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	H	D1	Tol.	H1	Tol.
RCAT-3G5055	4.375	+0.000 -0.005	4.375			5.225	+0.000 -0.005	0.250	+0.003 -0.003
RCAT-8J0388	4.500		4.500			O/R		O/R	
RCAT-3G8507	4.500		4.500			5.475		0.250	
RCAT-7J9257	4.750		4.750			5.725		0.250	
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	▼

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# 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	▼

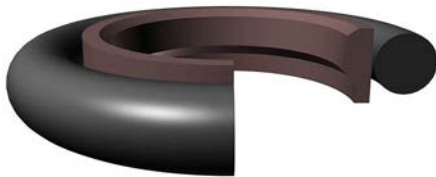


# CAT Step Seal series - cat x-ref - AU

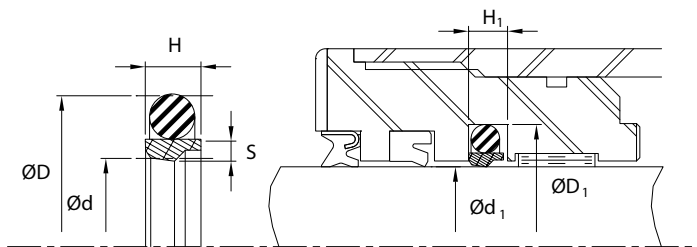
Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	H	D1	Tol.	H1	Tol.
RCAT-9X3572	5.500	+0.000 -0.005	5.500			6.116	+0.005 -0.005	0.250	+0.005 -0.005
RCAT-9X3575	5.750		5.750			6.725		0.250	
RCAT-9X3614	6.000		6.000			6.619		0.250	
RCAT-9X7322	6.500		6.500			7.502		0.250	
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	▼

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## 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	0.312	+0.003/-0.000	0.600	+0.004 -0.004
RSS-00312/2	0.312		0.312	0.100	0.153	-206	0.312	+0.004/-0.000	0.733	

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

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

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

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

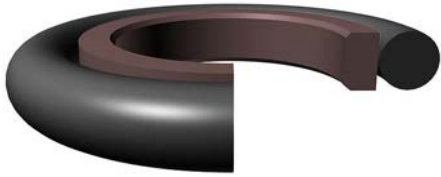
# RSS series - BR.PTFE/NBR

**ROD SEALS**

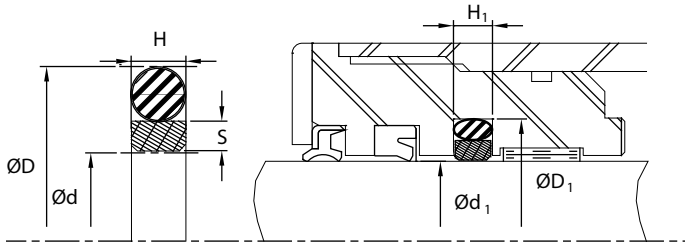


Ref.Number	Rod Diameter		Nominal Seal Dimensions				Housing Dimensions			
	d1	Tol.	d	S	H	EXP	D1	Tol.	H1	Tol.
RSS-07000/3	7.000	+0.000 -0.005	7.000	0.136	0.232	-366	7.000	+0.005 -0.000	7.594	+0.004 -0.004
RSS-07000/4	7.000		7.000	0.187	0.299	-442	7.000	+0.006 -0.000	7.807	
RSS-07000/2	7.000		7.000	0.100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

# 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	<b>0.312</b>	+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	<b>0.375</b>		0.375	0.041	0.079	-013	0.568		0.090	
R2B-00437/0	<b>0.437</b>		0.437	0.041	0.079	-014	0.630		0.090	
R2B-00500/0	<b>0.500</b>		0.500	0.041	0.079	-015	0.693		0.090	
R2B-00562/0	<b>0.562</b>		0.562	0.041	0.079	-016	0.755		0.090	
R2B-00625/1	<b>0.625</b>		0.625	0.065	0.116	-116	0.912		0.130	
R2B-00687/1	<b>0.687</b>		0.687	0.065	0.116	-117	0.974		0.130	
R2B-00750/1	<b>0.750</b>		0.750	0.065	0.116	-118	1.037		0.130	
R2B-00812/1	<b>0.812</b>		0.812	0.065	0.116	-119	1.099		0.130	
R2B-00875/1	<b>0.875</b>		0.875	0.065	0.116	-120	1.162		0.130	
R2B-00937/1	<b>0.937</b>		0.937	0.065	0.116	-121	1.224		0.130	
R2B-01000/1	<b>1.000</b>		1.000	0.065	0.116	-122	1.287		0.130	
R2B-01062/1	<b>1.062</b>		1.062	0.065	0.116	-123	1.349		0.130	
R2B-01125/1	<b>1.125</b>		1.125	0.065	0.116	-124	1.412		0.130	
R2B-01187/1	<b>1.187</b>		1.187	0.065	0.116	-125	1.474		0.130	
R2B-01250/1	<b>1.250</b>		1.250	0.065	0.116	-126	1.537		0.130	
R2B-01312/1	<b>1.312</b>		1.312	0.065	0.116	-127	1.599		0.130	
R2B-01375/1	<b>1.375</b>		1.375	0.065	0.116	-128	1.662		0.130	
R2B-01437/1	<b>1.437</b>	▼	1.437	0.065	0.116	-129	1.724		0.130	
R2B-01500/1	<b>1.500</b>	+0.000 -0.002	1.500	0.065	0.116	-130	1.787		0.130	
R2B-01562/1	<b>1.562</b>	▼	1.562	0.065	0.116	-131	1.849		0.130	
R2B-01625/2	<b>1.625</b>	▼	1.625	0.104	0.156	-224	2.046	+0.003/-0.000	0.169	▼



# R2B series - BR.PTFE/NBR

ROD SEALS



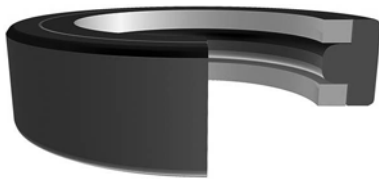
Ref.Number	Rod Diameter		Nominal Seal Dimensions				Housing Dimensions			
	d1	Tol.	d	S	H	EXP	D1	Tol.	H1	Tol.
R2B-01687/2	1.687	+0.000 -0.002	1.687	0.104	0.156	-225	2.108	+0.003 -0.000	0.169	+0.004 -0.004
R2B-01750/2	1.750		1.750	0.104	0.156	-225	2.171		0.169	
R2B-01812/2	1.812		1.812	0.104	0.156	-226	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	▼



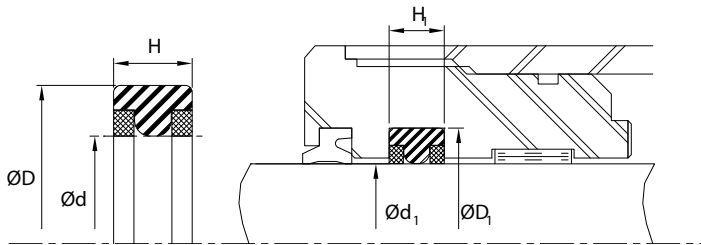
# R2B series - BR.PTFE/NBR

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	<b>6.247</b>	+0.000 -0.002	6.250	6.750		6.721	+0.002 -0.000	0.375	+0.005 -0.000
TR-439	<b>6.497</b>		6.500	7.000		6.971		0.375	
TR-440	<b>6.747</b>		6.750	7.250		7.221		0.375	
TR-441	<b>6.997</b>		7.000	7.500		7.471		0.375	
TR-442	<b>7.247</b>		7.250	7.750		7.721		0.375	
TR-443	<b>7.497</b>		7.500	8.000		7.971		0.375	
TR-445	<b>7.997</b>		8.000	8.500		8.471		0.375	
TR-447	<b>8.997</b>		9.000	9.500		9.471		0.375	
TR-448	<b>9.497</b>		9.500	10.000		9.971		0.375	
TR-449	<b>9.997</b>		10.000	10.500		10.471		0.375	
TR-451	<b>10.997</b>	▼	11.000	11.500		11.471	▼	0.375	▼

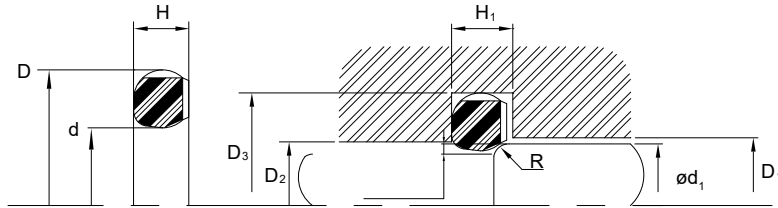
**ROD SEALS**



# 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

## Markets segments we are servicing



Aerospace



Agriculture



Appliances



Automotive  
OEM



Automotive  
Tier



Building  
Engineering

## 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**

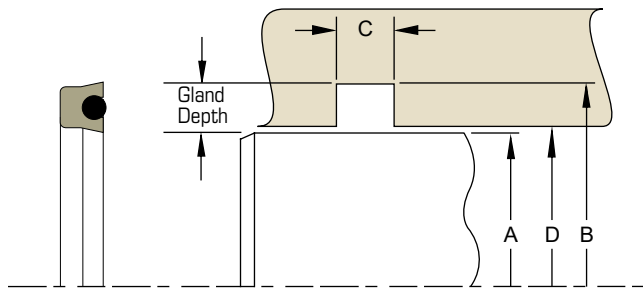




	STANDARD POLYPAK®	C	2
	DEEP POLYPAK®	C	13
	TYPE B POLYPAK®	C	20
	SPRING LOADED POLYPAK®	C	29
	MODULAR BACKUP	C	31
	ZA	C	34
	DZ	C	35
	US	C	37
	AN6226	C	43
	8400	C	45
	HU	C	48

# Standard PolyPak<sup>®</sup> - Rod design table

## Rod Gland Dimensions - SPP Profile. Standard PolyPak<sup>®</sup>



**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

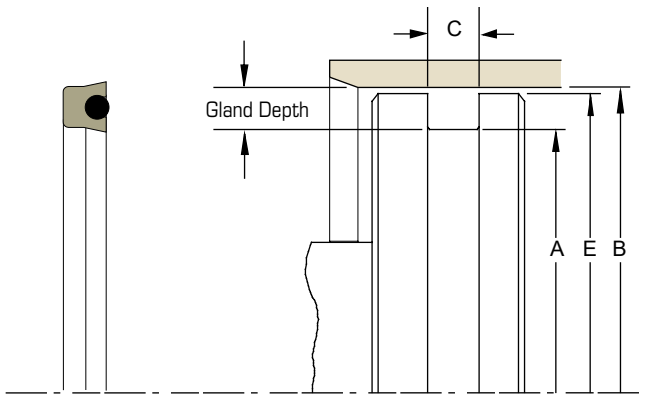
\* If used with wear rings, refer to wear ring throat diameter, see Section 9 of Parker Catalog EPS 5370





# Standard PolyPak<sup>®</sup> - Piston design table

## Piston Gland Dimensions - SPP Profile. Standard PolyPak<sup>®</sup>



SYMMETRICAL SEALS

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

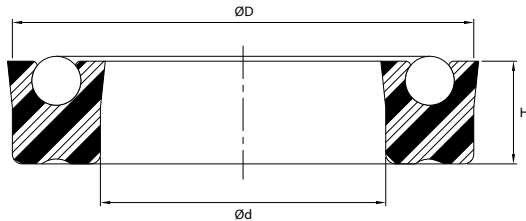
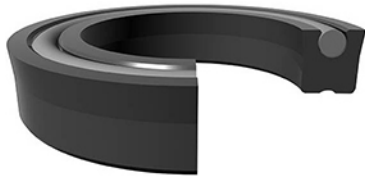
B Bore Diameter		Seal		A Groove Diameter		C Groove Width	E Piston Diameter*	
Range	Tol.	Cross Section	Axial Width	Calculation	Tol.	+0.015/ -.000	Calculation	Tol.
0.312 - 1.499	+0.002/-0.000	1/8 (.125)	1/8 (.125)	Dia. B - .250	+0.000/-0.002	0.138	Dia. B - .001	+0.000/-0.001
1.500 - 2.999	+0.002/-0.000	3/16 (.187)	3/16 (.187)	Dia. B - .375	+0.000/-0.002	0.206	Dia. B - .001	+0.000/-0.002
3.000 - 5.499	+0.003/-0.000	1/4 (.250)	1/4 (.250)	Dia. B - .500	+0.000/-0.003	0.275	Dia. B - .002	+0.000/-0.002
6.000 - 9.999	+0.003/-0.000	5/16 (.312)	5/16 (.312)	Dia. B - .625	+0.000/-0.004	0.343	Dia. B - .002	+0.000/-0.002
10.000 - 19.999	+0.004/-0.000	3/8 (.375)	3/8 (.375)	Dia. B - .750	+0.000/-0.005	0.413	Dia. B - .002	+0.000/-0.002
20.000 - 29.999	+0.005/-0.000	1/2 (.500)	1/2 (.500)	Dia. B - 1.000	+0.000/-0.007	0.550	Dia. B - .002	+0.000/-0.003
30.000 - 39.999	+0.006/-0.000	5/8 (.625)	5/8 (.625)	Dia. B - 1.250	+0.000/-0.009	0.688	Dia. B - .002	+0.000/-0.003
40.000 - 49.999	+0.007/-0.000	3/4 (.750)	3/4 (.750)	Dia. B - 1.500	+0.000/-0.010	0.825	Dia. B - .002	+0.000/-0.004
50.000 +	+0.009/-0.000	1 (1.000)	1 (1.000)	Dia. B - 2.000	+0.000/-0.012	1.100	Dia. B - .002	+0.000/-0.005

**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.	+0.015/ -.000	Calculation	Tol.
0.312 - 2.749	+0.002/-0.000	1/8 (.125)	1/8 (.125)	Dia. B - .250	+0.000/-0.002	0.138	Dia. B - .001	+0.000/-0.001
2.750 - 4.499	+0.002/-0.000	3/16 (.187)	3/16 (.187)	Dia. B - .375	+0.000/-0.002	0.206	Dia. B - .001	+0.000/-0.002
4.500 - 5.999	+0.003/-0.000	1/4 (.250)	1/4 (.250)	Dia. B - .500	+0.000/-0.003	0.275	Dia. B - .001	+0.000/-0.002
6.000 - 9.999	+0.003/-0.000	5/16 (.312)	5/16 (.312)	Dia. B - .625	+0.000/-0.004	0.343	Dia. B - .002	+0.000/-0.002
10.000 - 19.999	+0.004/-0.000	3/8 (.375)	3/8 (.375)	Dia. B - .750	+0.000/-0.005	0.413	Dia. B - .002	+0.000/-0.002
20.000 - 29.999	+0.005/-0.000	1/2 (.500)	1/2 (.500)	Dia. B - 1.000	+0.000/-0.007	0.550	Dia. B - .002	+0.000/-0.003
30.000 - 39.999	+0.006/-0.000	5/8 (.625)	5/8 (.625)	Dia. B - 1.250	+0.000/-0.009	0.688	Dia. B - .002	+0.000/-0.003
40.000 - 49.999	+0.007/-0.000	3/4 (.750)	3/4 (.750)	Dia. B - 1.500	+0.000/-0.010	0.825	Dia. B - .002	+0.000/-0.004
50.000 +	+0.009/-0.000	1 (1.000)	1 (1.000)	Dia. B - 2.000	+0.000/-0.012	1.100	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

# Standard PolyPak<sup>®</sup> - 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<sup>®</sup>** is squeeze seal with a symmetrical profile for use in either rod or piston applications. The **Standard PolyPak<sup>®</sup>** 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<sup>®</sup>** 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
<b>1/8" Cross Section - 0.125"</b>			
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
<b>1/8" Cross Section - 0.125"</b>			
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
<b>1/8" Cross Section - 0.125"</b>			
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
<b>5/32" Cross Section - 0.156"</b>			
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
<b>11/64" Cross Section - 0.171"</b>			
17100562	0.562	0.906	0.172
<b>3/16" Cross Section - 0.187"</b>			
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
<b>3/16" Cross Section - 0.187"</b>			
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<sup>®</sup> series - AU/NBR

**SYMMETRICAL SEALS**



Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>7/32" Cross Section - 0.218"</b>			
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
<b>1/4" Cross Section - 0.250"</b>			
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
<b>1/4" Cross Section - 0.250"</b>			
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
<b>1/4" Cross Section - 0.250"</b>			
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
<b>9/32" Cross Section - 0.281"</b>			
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
<b>5/16" Cross Section - 0.312"</b>			
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
<b>5/16" Cross Section - 0.312"</b>			
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<sup>®</sup> series - AU/NBR

SYMMETRICAL SEALS



Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>5/16" Cross Section - 0.312"</b>			
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
<b>11/32" Cross Section - 0.343"</b>			
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
<b>3/8" Cross Section - 0.375"</b>			
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
<b>3/8" Cross Section - 0.375"</b>			
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
<b>3/8" Cross Section - 0.375"</b>			
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
<b>3/8" Cross Section - 0.375"</b>			
37531750	31.750	32.500	0.375
37538500	38.500	39.250	0.375
<b>13/32" Cross Section - 0.406"</b>			
40601750	1.750	2.563	0.406
40607187	7.187	8.000	0.406
40613187	13.187	14.000	0.406
<b>7/16" Cross Section - 0.437"</b>			
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
<b>1/2" Cross Section - 0.500"</b>			
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

# Standard PolyPak® series - AU/NBR

**SYMMETRICAL SEALS**



Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>1/2" Cross Section - 0.500"</b>			
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
<b>1/2" Cross Section - 0.500"</b>			
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
<b>9/16" Cross Section - 0.562"</b>			
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
<b>5/8" Cross Section - 0.625"</b>			
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



# Standard PolyPak® series - AU/NBR

**SYMMETRICAL SEALS**



Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>5/8" Cross Section - 0.625"</b>			
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
<b>3/4" Cross Section - 0.750"</b>			
75003000	3.000	4.500	0.750
75003125	3.125	4.625	0.750

Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>3/4" Cross Section - 0.750"</b>			
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
<b>7/8" Cross Section - 0.875"</b>			
87508500	8.500	10.250	0.875
87520000	20.000	21.750	0.875
<b>1" Cross Section - 1.000"</b>			
100004000	4.000	6.000	1.000
100007000	7.000	9.000	1.000

# Standard PolyPak<sup>®</sup> series - AU/NBR

**SYMMETRICAL SEALS**



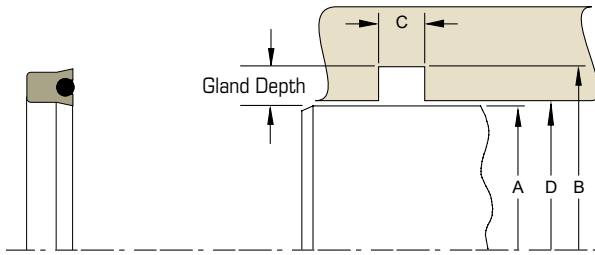
Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>1" Cross Section - 1.000"</b>			
100007500	7.500	9.500	1.000
100008000	8.000	10.000	1.000
100010000	10.000	12.000	1.000
100012000	12.000	14.000	1.000
100012500	12.500	14.500	1.000
100014000	14.000	16.000	1.000

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



# Deep PolyPak<sup>®</sup> - Rod design table

## Rod Gland Dimensions - DPP Profile. Deep PolyPak<sup>®</sup>



**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)**

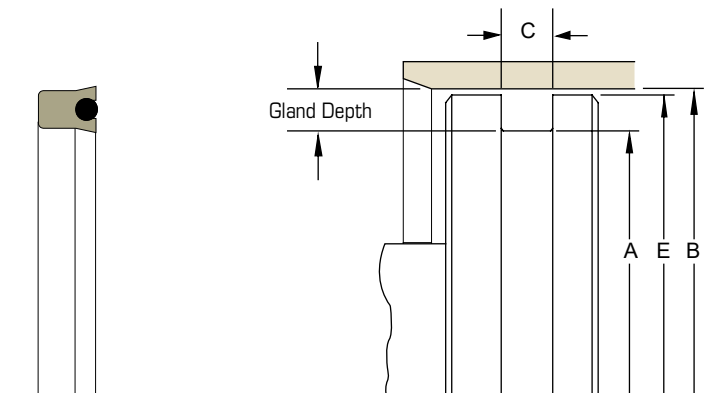
A Rod Diameter		Seal		B Groove Diameter		C Groove Width	D Throat Diameter*	
Range	Tol.	Cross Section	Axial Width	Calculation	Tol.	+0.015/ -.000	Calculation	Tol.
0.062 - 0.999	+0.000/-0.001	1/8 (.125)	3/16 (.187)	Dia. A + .250	+0.002/-0.000	0.206	Dia. A + .001	+0.002/-0.000
1.000 - 1.749	+0.000/-0.001	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<sup>®</sup> - Piston design table

## Piston Gland Dimensions - DPP Profile. Deep PolyPak<sup>®</sup>



**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

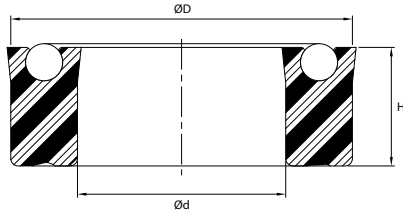
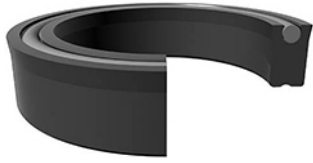
**Table 6-13. DPP Profile - Piston Gland Calculation. Polymyte (60D)**

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
<b>1/8" Cross Section - 0.125"</b>			
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
<b>3/16" Cross Section - 0.187"</b>			
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<sup>®</sup> series - AU/NBR

**SYMMETRICAL SEALS**



Ref. Number	Nominal Seal Dimensions		
	d	D	H
<b>3/16" Cross Section - 0.187"</b>			
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
<b>7/32" Cross Section - 0.218"</b>			
21802000-375	2.000	2.437	0.375
<b>1/4" Cross Section - 0.250"</b>			
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
<b>1/4" Cross Section - 0.250"</b>			
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
<b>1/4" Cross Section - 0.250"</b>			
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
<b>9/32" Cross Section - 0.281"</b>			
28103687-375	3.687	4.250	0.375
28103875-500	3.875	4.438	0.500
<b>5/16" Cross Section - 0.312"</b>			
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
<b>5/16" Cross Section - 0.312"</b>			
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
<b>3/8" Cross Section - 0.375"</b>			
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<sup>®</sup> series - AU/NBR

**SYMMETRICAL SEALS**



Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>3/8" Cross Section - 0.375"</b>			
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
<b>7/16" Cross Section - 0.437"</b>			
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
<b>1/2" Cross Section - 0.500"</b>			
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**

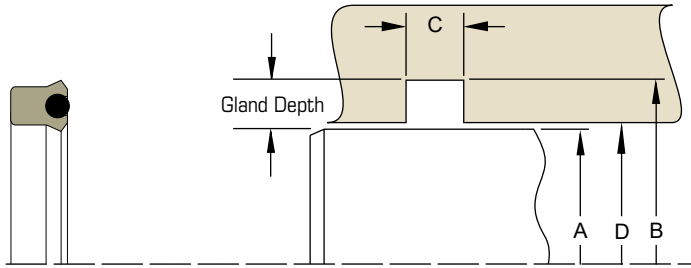


Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>1/2" Cross Section - 0.500"</b>			
50014000-750	14.000	15.000	0.750
50015000-750	15.000	16.000	0.750
50015500-750	15.500	16.500	0.750
50016000-750	16.000	17.000	0.750
50016500-750	16.500	17.500	0.750
50017000-750	17.000	18.000	0.750
50018000-750	18.000	19.000	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
<b>9/16" Cross Section - 0.562"</b>			
56201875-875	1.875	3.000	0.875
56202875-875	2.875	4.000	0.875
<b>5/8" Cross Section - 0.625"</b>			
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
<b>3/4" Cross Section - 0.750"</b>			
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
<b>7/8" Cross Section - 0.875"</b>			
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
<b>15/16" Cross Section - 0.937"</b>			
93709625-1500	9.625	11.500	1.500
<b>1" Cross Section - 1.000"</b>			
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<sup>®</sup> - Rod design table

## Rod Gland Dimensions - BPP Profile. PolyPak<sup>®</sup> 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)**

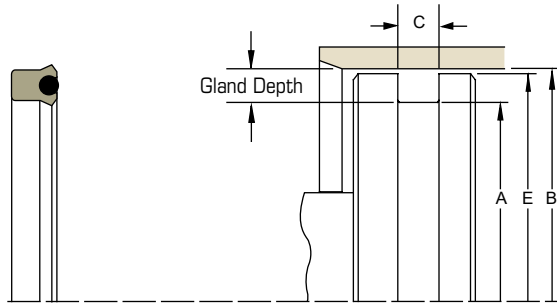
A Rod Diameter		Seal		B Groove Diameter		C Groove Width	D Throat Diameter*	
Range	Tol.	Cross Section	Axial Width	Calculation	Tol.	+ .015/ -.000	Calculation	Tol.
0.062 - 0.624	+ .000/- .001	1/8 (.125)	3/16 (.187)	Dia. A + .250	+ .002/- .000	0.206	Dia. A + .001	+ .002/- .000
1.000 - 1.749	+ .000/- .001	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<sup>®</sup> - Piston design table

## Piston Gland Dimensions - BPP Profile. PolyPak<sup>®</sup> Type B



**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	+ .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 - 5.999	+ .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/- .003
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 6-18. BPP Profile - Piston Gland Calculation. Polymyte (60D)**

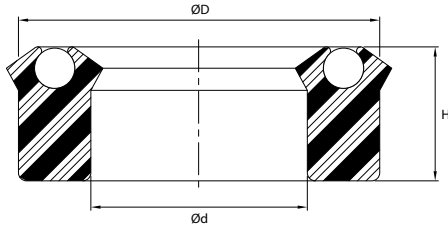
B Bore Diameter		Seal		A Groove Diameter		C Groove Width	E Piston Diameter*	
Range	Tol.	Cross Section	Axial Width	Calculation	Tol.	+ .015/ -.000	Calculation	Tol.
0.312 - 2.749	+ .002/- .000	1/8 (.125)	1/4 (.250)	Dia. B - .250	+ .000/- .002	0.275	Dia. B - .001	+ .000/- .001
2.750 - 4.499	+ .002/- .000	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

SYMMETRICAL SEALS



# 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
<b>1/8" Cross Section - 0.125"</b>			
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
<b>1/8" Cross Section - 0.125"</b>			
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
<b>1/8" Cross Section - 0.125"</b>			
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
<b>5/32" Cross Section - 0.156"</b>			
15601500-312B	1.500	1.812	0.312
<b>3/16" Cross Section - 0.187"</b>			
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
<b>3/16" Cross Section - 0.187"</b>			
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<sup>®</sup> series - AU/NBR

**SYMMETRICAL SEALS**



Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>3/16" Cross Section - 0.187"</b>			
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
<b>1/4" Cross Section - 0.250"</b>			
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
<b>1/4" Cross Section - 0.250"</b>			
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
<b>1/4" Cross Section - 0.250"</b>			
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
<b>9/32" Cross Section - 0.281"</b>			
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
<b>9/32" Cross Section - 0.281"</b>			
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
<b>5/16" Cross Section - 0.312"</b>			
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<sup>®</sup> series - AU/NBR

**SYMMETRICAL SEALS**



Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>5/16" Cross Section - 0.312"</b>			
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
<b>3/8" Cross Section - 0.375"</b>			
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
<b>3/8" Cross Section - 0.375"</b>			
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
<b>3/8" Cross Section - 0.375"</b>			
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
<b>7/16" Cross Section - 0.437"</b>			
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
<b>1/2" Cross Section - 0.500"</b>			
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<sup>®</sup> series - AU/NBR

**SYMMETRICAL SEALS**



Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>1/2" Cross Section - 0.500"</b>			
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
<b>9/16" Cross Section - 0.562"</b>			
56202375-875B	2.375	3.500	0.875
56212562-875B	12.562	13.687	0.875
<b>5/8" Cross Section - 0.625"</b>			
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
<b>3/4" Cross Section - 0.750"</b>			
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<sup>®</sup> series - AU/NBR

Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>3/4" Cross Section - 0.750"</b>			
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
<b>7/8" Cross Section - 0.875"</b>			
87519937-1375B	19.937	21.687	1.375

Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>1" Cross Section - 1.000"</b>			
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

## Spring Loaded PolyPak<sup>®</sup> - Symmetrical seals - Inch

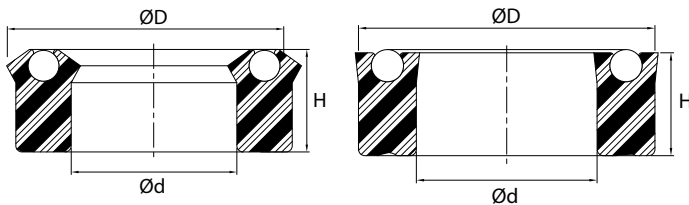


"Type B" Style



"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<sup>®</sup>** 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<sup>®</sup> Spring Loaded series - AU/SS

**SYMMETRICAL SEALS**



Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>1/8" Cross Section - 0.125"</b>			
12501250S250B	1.250	1.500	0.250
<b>3/16" Cross Section - 0.187"</b>			
18701125S312B	1.125	1.500	0.312
<b>1/4" Cross Section - 0.250"</b>			
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
<b>5/16" Cross Section - 0.312"</b>			
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

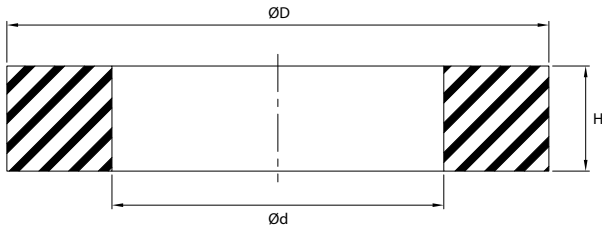
Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>5/16" Cross Section - 0.312"</b>			
31202125S500B	2.125	2.750	0.500
<b>3/8" Cross Section - 0.375"</b>			
37502500S625	2.500	3.250	0.625
37502500S625B	2.500	3.250	0.625
37502750S625	2.750	3.500	0.625
37502750S625B	2.750	3.500	0.625
37503250S625	3.250	4.000	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)



**SYMMETRICAL SEALS**



**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
<b>1/8" Cross Section - 0.125"</b>			
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
<b>3/16" Cross Section - 0.187"</b>			
18700500MB	0.500	0.875	0.187

Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>3/16" Cross Section - 0.187"</b>			
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
<b>7/32" Cross Section - 0.218"</b>			
21800750MB	0.750	1.187	0.218
<b>1/4" Cross Section - 0.250"</b>			
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
<b>9/32" Cross Section - 0.281"</b>			
28102250MB	2.250	2.812	0.281
28108000MB	8.000	8.562	0.281

Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>5/16" Cross Section - 0.312"</b>			
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
<b>11/32" Cross Section - 0.343"</b>			
34301312MB	1.312	2.000	0.343
<b>3/8" Cross Section - 0.375"</b>			
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**



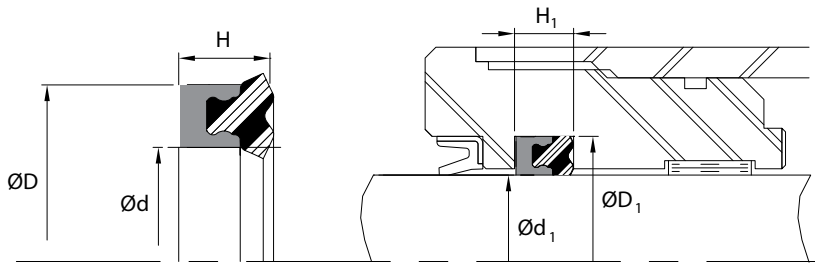
Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>3/8" Cross Section - 0.375"</b>			
37503375MB	3.375	4.125	0.375
37503500MB	3.500	4.250	0.375
37503750MB	3.750	4.500	0.375
37504000MB	4.000	4.750	0.375
37504125MB	4.125	4.875	0.375
37504250MB	4.250	5.000	0.375
37504375MB	4.375	5.125	0.375
37504500MB	4.500	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
<b>7/16" Cross Section - 0.437"</b>			
43701000MB	1.000	1.875	0.437
43702125MB	2.125	3.000	0.437
43705000MB	5.000	5.875	0.437
<b>1/2" Cross Section - 0.500"</b>			
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
<b>1/2" Cross Section - 0.500"</b>			
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
<b>5/8" Cross Section - 0.625"</b>			
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
<b>3/4" Cross Section - 0.750"</b>			
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
87536000MB	36.000	37.750	0.875

# 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	+0.000 -0.002	1.500	2.000	0.375	2.000	+0.003 -0.000	0.413	+0.010 -0.000
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	+0.005/-0.000	0.688	
ZA25003500-375	3.500		3.500	4.000	0.375	4.000	+0.003 -0.000	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	+0.005/-0.000	0.688	
ZA25004500-562	4.500		4.500	5.000	0.562	5.000	+0.003/-0.000	0.619	
ZA37504500-625	4.500		4.500	5.250	0.625	5.250	+0.005/-0.000	0.688	
ZA25004625-562	4.625		4.625	5.125	0.562	5.125	+0.003/-0.000	0.619	
ZA37504750-625	4.750		4.750	5.500	0.625	5.500	+0.005/-0.000	0.688	
ZA25005000-562	5.000		5.000	5.500	0.562	5.500	+0.003/-0.000	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	+0.005 -0.000	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	+0.003/-0.000	0.619	
ZA37507000-625	7.000		7.000	7.750	0.625	7.750	+0.005/-0.000	0.688	
ZA25008000-562	8.000		8.000	8.500	0.562	8.500	+0.003/-0.000	0.619	
ZA37512000-625	12.000	↓	12.000	12.750	0.625	12.750	+0.005/-0.000	0.688	↓

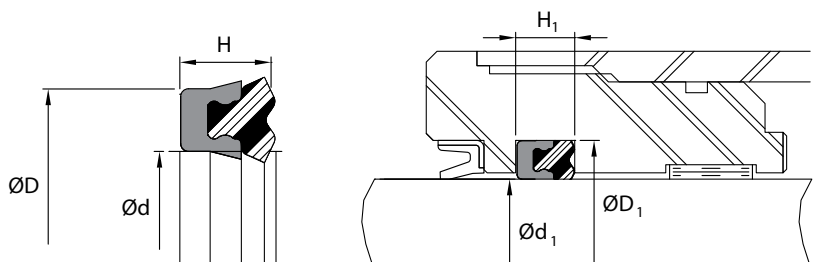




# DZ - Symmetrical seals - Inch



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	▼



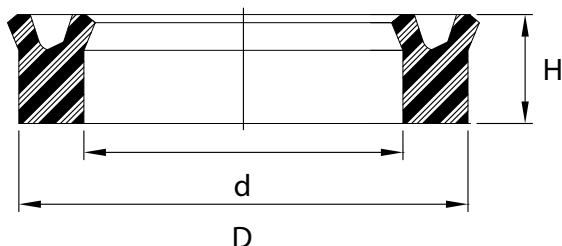
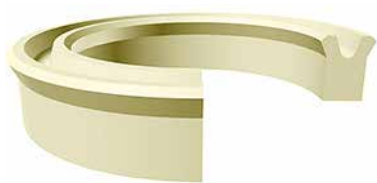
# DZ series - AU/NBR



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)

**SYMMETRICAL SEALS**



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
<b>1/8" Cross Section - 0.125"</b>			
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
<b>1/8" Cross Section - 0.125"</b>			
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
<b>1/8" Cross Section - 0.125"</b>			
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
<b>5/32" Cross Section - 0.156"</b>			
US15600187-187	0.187	0.500	0.187
<b>3/16" Cross Section - 0.187"</b>			
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
<b>3/16" Cross Section - 0.187"</b>			
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



Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>3/16" Cross Section - 0.187"</b>			
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
<b>7/32" Cross Section - 0.218"</b>			
US21803000-375	3.000	3.437	0.375
<b>1/4" Cross Section - 0.250"</b>			
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
<b>1/4" Cross Section - 0.250"</b>			
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
<b>1/4" Cross Section - 0.250"</b>			
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
<b>5/16" Cross Section - 0.312"</b>			
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
<b>5/16" Cross Section - 0.312"</b>			
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
<b>5/16" Cross Section - 0.312"</b>			
US31205625-625	5.625	6.250	0.625
US31205875-375	5.875	6.500	0.375
US31205875-562	5.875	6.500	0.562
<b>11/32" Cross Section - 0.343"</b>			
US34302000-500	2.000	2.687	0.500
<b>3/8" Cross Section - 0.375"</b>			
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
<b>3/8" Cross Section - 0.375"</b>			
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



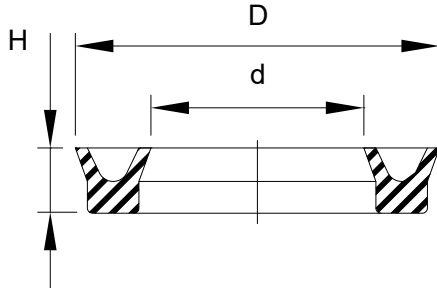
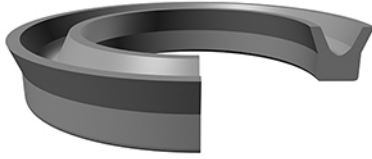
Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>3/8" Cross Section - 0.375"</b>			
US37507750-625	7.750	8.500	0.625
US37508000-500	8.000	8.750	0.500
US37508250-500	8.250	9.000	0.500
US37509000-625	9.000	9.750	0.625
US37509750-500	9.750	10.500	0.500
US37514250-500	14.250	15.000	0.500
US37514250-625	14.250	15.000	0.625
<b>1/2" Cross Section - 0.500"</b>			
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
<b>1/2" Cross Section - 0.500"</b>			
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
<b>5/8" Cross Section - 0.625"</b>			
US62503750	3.750	5.000	0.625
<b>3/4" Cross Section - 0.750"</b>			
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

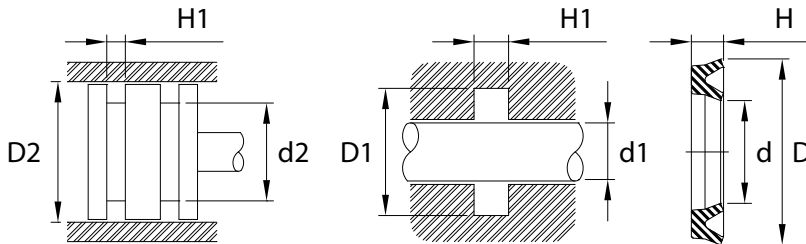


Ref.Number	Nominal Seal Dimensions			Housing Dimensions							
				Rod Diameter/Piston Groove			Gland Diameter/Cylinder Bore			Largeur de rainure	
	d	D	h	ROD	GROOVE	Gland	Cyl.Bore	H1	Tol.		
				DIM	d1 - Tol.					d2 - Tol.	DIM
AN6226-14	0.625	1.125	0.250	0.625	+0.000 -0.002	+0.000 -0.003	1.125	+0.003 -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.
<b>1/16" Cross Section - 0.062"</b>											
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
<b>3/32" Cross Section - 0.093"</b>											
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	↓
<b>1/8" Cross Section - 0.125"</b>											
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

SYMMETRICAL SEALS



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.
<b>1/8" Cross Section - 0.125"</b>											
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	↓
<b>5/32" Cross Section - 0.156"</b>											
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	↓
<b>3/16" Cross Section - 0.187"</b>											
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	↓
<b>7/32" Cross Section - 0.218"</b>											
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

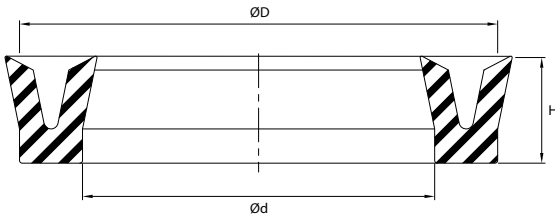
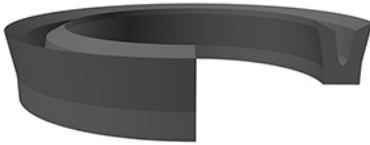


Ref. Number	Nominal Seal Dimensions			Housing Dimensions							
				Rod Diameter/Piston Groove			Gland Diameter/Cylinder Bore			Groove width	
	d	D	h	DIM	Rod	Groove	DIM	Gland	Cyl. Bore	H1	Tol.
					d1 - Tol.	d2 - Tol.		D1 - Tol.	D2 - Tol.		
<b>7/32" Cross Section - 0.218"</b>											
840703000	3.000	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	
<b>1/4" Cross Section - 0.250"</b>											
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	↓
<b>9/32" Cross Section - 0.281"</b>											
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	↓
<b>5/16" Cross Section - 0.312"</b>											
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	+0.004 -0.000	+0.003 -0.000	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	↓
<b>11/32" Cross Section - 0.343"</b>											
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
<b>3/8" Cross Section - 0.375"</b>											
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		+0.004/-0.000	0.406	
<b>13/32" Cross Section - 0.406"</b>											
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.
<b>7/16" Cross Section - 0.437"</b>											
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
<b>1/2" Cross Section - 0.500"</b>											
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
<b>1/16" Cross Section - 0.062"</b>			
HU06200250-070	0.250	0.375	0.070
<b>4/57" Cross Section - 0.070"</b>			
HU07000234-093	0.234	0.375	0.093
<b>3/32" Cross Section - 0.093"</b>			
HU09300187	0.187	0.375	0.093

Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>3/32" Cross Section - 0.093"</b>			
HU09300312	0.312	0.500	0.093
<b>1/8" Cross Section - 0.125"</b>			
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
<b>1/8" Cross Section - 0.125"</b>			
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
<b>5/32" Cross Section - 0.156"</b>			
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
<b>3/16" Cross Section - 0.187"</b>			
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
<b>3/16" Cross Section - 0.187"</b>			
HU18702750	2.750	3.125	0.187
HU18702750-375	2.750	3.125	0.375
HU18704125-375	4.125	4.500	0.375
<b>7/32" Cross Section - 0.218"</b>			
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
<b>1/4" Cross Section - 0.250"</b>			
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
<b>9/32" Cross Section - 0.281"</b>			
HU28100687-250	0.687	1.250	0.250

# HU series - NBR 80

SYMMETRICAL SEALS



Ref.Number	Nominal Seal Dimensions		
	d	D	H
<b>9/32" Cross Section - 0.281"</b>			
HU28105937-281	5.937	6.500	0.281
<b>5/16" Cross Section - 0.312"</b>			
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
<b>11/32" Cross Section - 0.343"</b>			
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
<b>3/8" Cross Section - 0.375"</b>			
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
<b>3/8" Cross Section - 0.375"</b>			
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
<b>13/32" Cross Section - 0.406"</b>			
HU40604187-500	4.187	5.000	0.500
HU40607187-500	7.187	8.000	0.500
<b>7/16" Cross Section - 0.437"</b>			
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
<b>1/2" Cross Section - 0.500"</b>			
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
<b>17/32" Cross Section - 0.531"</b>			
HU53120937-750	20.937	22.000	0.750
<b>9/16" Cross Section - 0.562"</b>			
HU56201750	1.750	2.875	0.562
<b>5/8" Cross Section - 0.625"</b>			
HU62501750-600	1.750	3.000	0.600
<b>1" Cross Section - 1.000"</b>			
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





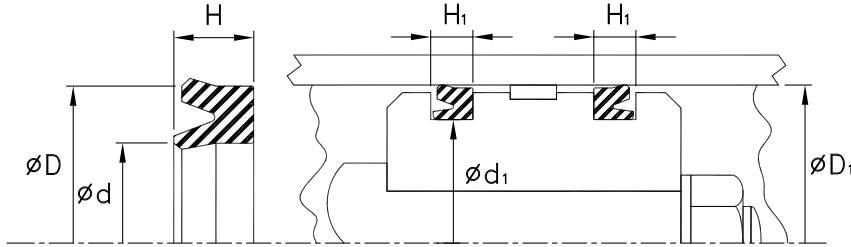
	UP	D	2
	E4	D	6
	CB	D	7
	CF	D	9
	CH	D	12
	TP, TP-1, TP-2	D	15
	PSP	D	19
	PSP-A-AT	D	21
	BP	D	23
	PIP SEAL	D	25
	PIP RING	D	29
	TFES	D	31
	160G	D	33
	169B	D	34
	169G	D	36
	169U	D	37

	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)



PISTON SEALS

**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

PISTON SEALS



Ref.Number	Bore Diameter		Nominal Seal Dimensions			Housing Dimensions			
	D1	Tol.	D	d	H	d1	Tol.	H1	Tol.
UP37504250-500	5.000	+0.004 -0.000	5.000	4.250	0.500	4.250	+0.000 -0.009	0.531	+0.015 -0.000
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 -0.010	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 -0.000	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	▼

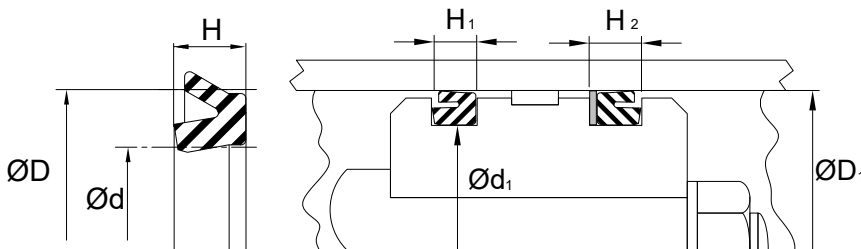
# UP series - AU 92A

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.



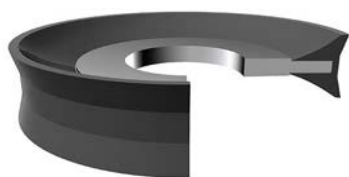


# E4 series - XNBR 83A

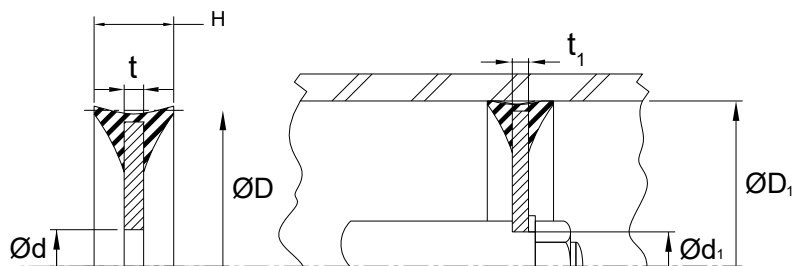


Ref.Number	Bore Diameter		Nominal Seal Dimensions			Housing Dimensions					
	D1	Tol.	D	d	H	d1	Tol.	H1	Tol.	H2	Tol.
E40400375	0.625	+0.003 -0.000	0.625	0.375	0.125	0.375	+0.000 -0.001	0.156	+0.010 -0.010	0.218	+0.010 -0.010
E40400500	0.750		0.750	0.500	0.125	0.500		0.156		0.218	
E40400625	0.875		0.875	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	0.125
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	0.250
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	0.250
CB-281200	12.000		12.000	1.250	1.000	0.250

### Markets segments we are servicing



Industrie  
Chimique



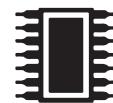
Marine  
Commerciale



Construction



Distribution

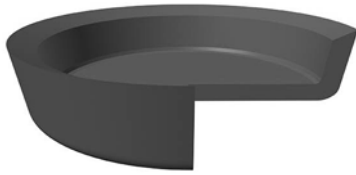


Électronique



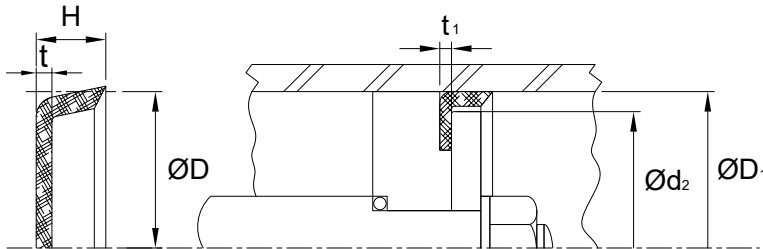
Énergie

# 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

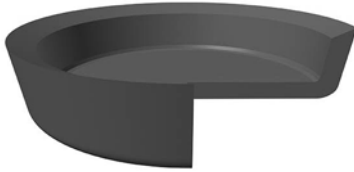


Ref.Number	Bore Diameter		Nominal Seal Dimensions				Housing Dimensions			
	D1	Tol.	D	d	H	t	d1	Tol.	t1	Tol.
CF039370500	3.937	+0.004 -0.000	3.937		0.500	0.156	3.437	+0.016 -0.016	0.146	+0.003 -0.000
CF040000500	4.000		4.000		0.500	0.125	3.625		0.116	
CF040000500-1	4.000		4.000		0.500	0.187	3.500		0.178	
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

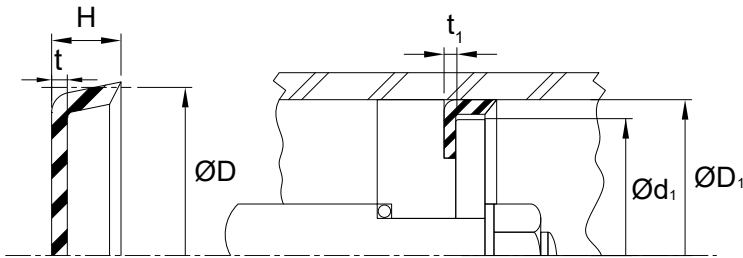
Ref.Number	Bore Diameter		Nominal Seal Dimensions				Housing Dimensions			
	D1	Tol.	D	d	H	t	d1	Tol.	t1	Tol.
CF100001000	10.000	+0.005 -0.000	10.000		1.000	0.187	9.500	+0.016 -0.016	0.178	+0.003 -0.000
CF102501000	10.250		10.250		1.000	0.187	9.750		0.178	
CF105001250	10.500	↓	10.500		1.250	0.250	9.875		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	+0.004 -0.000	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	▼

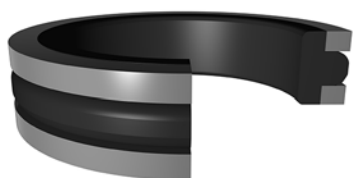


# CH series - NBR 80/90A



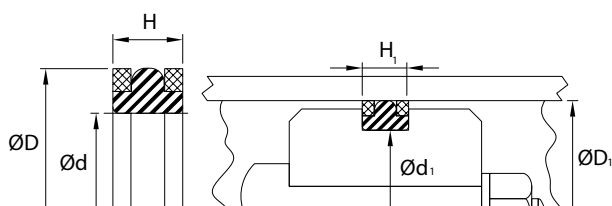
Ref.Number	Bore Diameter		Nominal Seal Dimensions				Housing Dimensions			
	D1	Tol.	D	d	H	t	d1	Tol.	t1	Tol.
CH140000812	14.000	+0.006 -0.000	14.000		0.812	0.187	13.500	+0.016 -0.016	0.178	+0.003 -0.000
CH150001000	15.000		15.000		1.000	0.187	14.500		0.178	
CH160000750	16.000		16.000		0.750	0.187	15.500		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 **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	1.062	0.812		0.818	+0.002	0.185	+0.005
TP-212	1.125	-0.000	1.125	0.875		0.881	-0.000	0.185	-0.000
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
TP-220	1.625		1.625	1.375		1.381		0.185	-0.001
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
TP-326	2.000		2.000	1.625		1.627		0.280	-0.000
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
TP-328	2.250		2.250	1.875		1.877		0.280	-0.000
TP-328-1	2.250		2.250	1.875		1.877		0.334	+0.010
TP-328-2	2.250		2.250	1.875		1.877		0.424	-0.000
TP-329	2.375		2.375	2.000		2.002		0.280	+0.005
TP-330	2.500		2.500	2.125		2.127		0.280	-0.000
TP-330-1	2.500		2.500	2.125		2.127		0.334	+0.010
TP-330-2	2.500		2.500	2.125		2.127		0.424	-0.000
TP-331	2.625		2.625	2.250		2.252	↓	0.280	+0.005
TP-332	2.750		2.750	2.375		2.377	+0.003	0.280	-0.001
TP-333	2.875		2.875	2.500		2.502	-0.001	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	3.000	2.625		2.627		0.280	+0.005/-0.000
TP-334-1	3.000	-0.000	3.000	2.625		2.627		0.334	+0.010
TP-334-2	3.000		3.000	2.625		2.627		0.424	-0.000
TP-335	3.125		3.125	2.750		2.752		0.280	+0.005
TP-336	3.250		3.250	2.875		2.877		0.280	-0.000
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
TP-338-2	3.500		3.500	3.125		3.128		0.424	-0.000
TP-339	3.625		3.625	3.250		3.253		0.280	+0.005
TP-340	3.750		3.750	3.375		3.378		0.280	-0.001
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
TP-344	4.250		4.250	3.875		3.878		0.280	-0.001
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	+0.010 -.000
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	

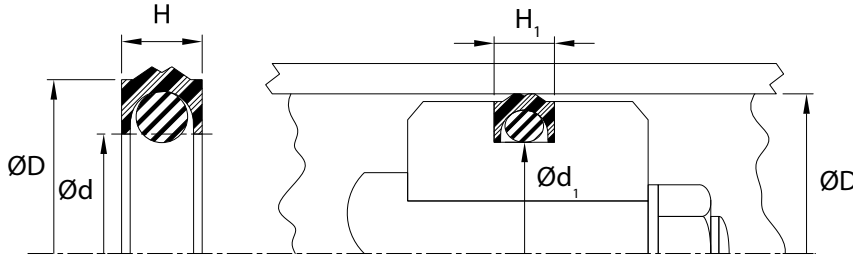
PISTON SEALS



# 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	<b>0.562</b>	+0.003 -0.000	0.562	0.312	0.160	0.320	+0.000 -0.002	0.187	+0.005 -0.000
PSP-204	<b>0.625</b>		0.625	0.375	0.160	0.383		0.187	
PSP-205	<b>0.687</b>		0.687	0.437	0.160	0.445		0.187	
PSP-206	<b>0.750</b>		0.750	0.500	0.160	0.508		0.187	
PSP-207	<b>0.812</b>		0.812	0.562	0.160	0.570		0.187	
PSP-208	<b>0.875</b>		0.875	0.625	0.160	0.633		0.187	
PSP-209	<b>0.937</b>		0.937	0.687	0.160	0.695		0.187	
PSP-210	<b>1.000</b>		1.000	0.750	0.160	0.758		0.187	
PSP-211	<b>1.062</b>		1.062	0.812	0.160	0.820		0.187	
PSP-212	<b>1.125</b>		1.125	0.875	0.160	0.883		0.187	
PSP-213	<b>1.187</b>		1.187	0.937	0.160	0.945		0.187	
PSP-214	<b>1.250</b>		1.250	1.000	0.160	1.008		0.187	
PSP-215	<b>1.312</b>		1.312	1.062	0.160	1.070		0.187	
PSP-216	<b>1.375</b>		1.375	1.125	0.160	1.133		0.187	
PSP-217	<b>1.437</b>		1.437	1.187	0.160	1.195		0.187	
PSP-218	<b>1.500</b>		1.500	1.250	0.160	1.258		0.187	
PSP-219	<b>1.562</b>		1.562	1.312	0.160	1.320		0.187	
PSP-220	<b>1.625</b>		1.625	1.375	0.160	1.383		0.187	
PSP-221	<b>1.687</b>		1.687	1.437	0.160	1.445		0.187	
PSP-222	<b>1.750</b>		1.750	1.500	0.160	1.508		0.187	
PSP-325	<b>1.875</b>		1.875	1.500	0.235	1.505		0.281	
PSP-326	<b>2.000</b>	▼	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



Camion et autobus

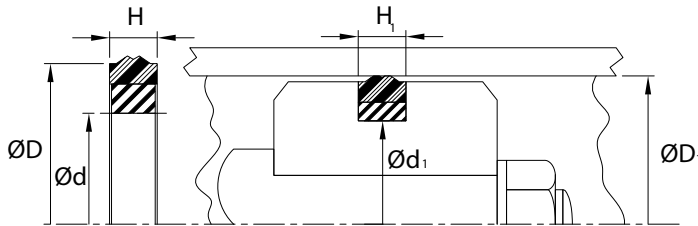


Accumulateurs

# 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



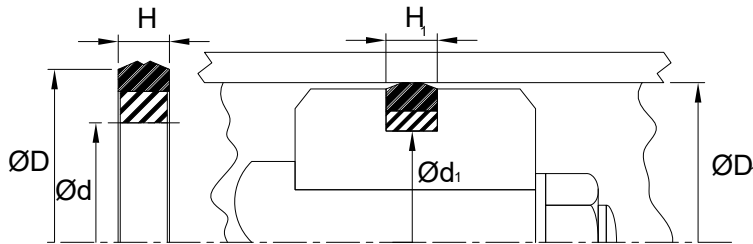
Ref.Number	Bore Diameter		Nominal Seal Dimensions			Housing Dimensions			
	D1	Tol.	D	d	H	d1	Tol.	H1	Tol.
PSP-326AT	2.000	+0.003 -0.000	2.000	1.625	0.375	1.630	+0.000/-0.002	0.410	+0.005 -0.000
PSP-327A	2.125		2.125	1.750	0.260	1.755	+0.000 -0.004	0.281	
PSP-328A	2.250		2.250	1.875	0.260	1.880		0.281	
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



Outils  
électriques



Transmission  
d'énergie



Pâtes et papier



Industrie  
ferroviaire



Produits  
récréatifs

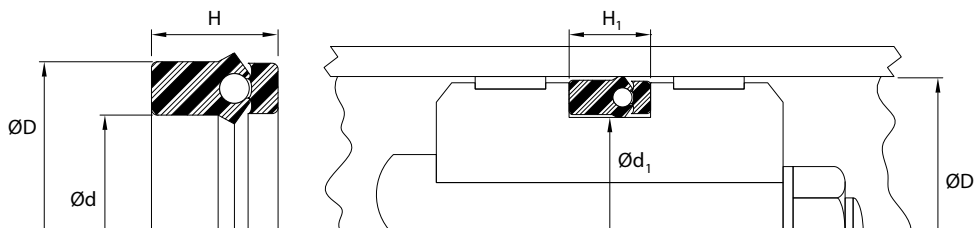


Composantes  
camions et autobus

# 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	+0.003 -.000	0.687	0.437		0.437	+0.000 -.002	0.340	+0.015 -.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	+0.000/-0.003	0.550	
18701125P312B	1.500		1.500	1.125		1.125	+0.000 -.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	↓

PISTON SEALS



# 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



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	

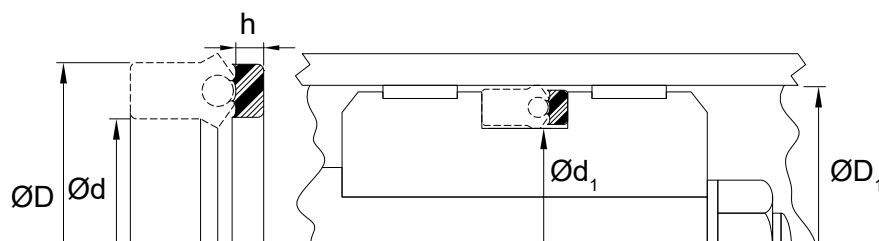
# Pip Seal series - AU/NBR

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



Transformation  
des métaux



Accumulateurs



Industrie  
minière



Énergie



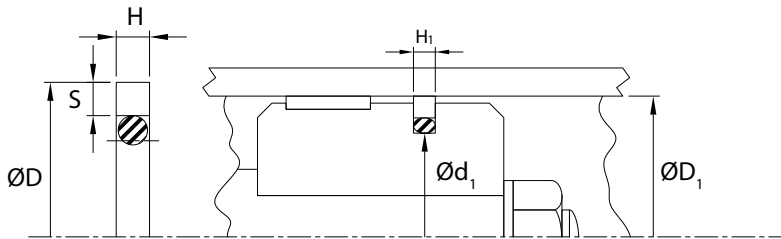
Génie  
du bâtiment



# 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	<b>0.500</b>	+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	<b>0.625</b>		0.625	0.065 - 0.075	0.065 - 0.075	-011	0.366		0.083	
TFES-00750	<b>0.750</b>		0.750	0.065 - 0.075	0.065 - 0.075	-013	0.491		0.083	
TFES-01000	<b>1.000</b>		1.000	0.065 - 0.075	0.065 - 0.075	-017	0.741		0.083	
TFES-01125	<b>1.125</b>		1.125	0.065 - 0.075	0.065 - 0.075	-019	0.866		0.083	
TFES-01250	<b>1.250</b>		1.250	0.065 - 0.075	0.065 - 0.075	-022	0.991		0.083	
TFES-01375	<b>1.375</b>		1.375	0.065 - 0.075	0.065 - 0.075	-023	1.116		0.083	
TFES-01500	<b>1.500</b>		1.500	0.065 - 0.075	0.065 - 0.075	-025	1.241		0.083	
TFES-01625	<b>1.625</b>		1.625	0.104 - 0.114	0.104 - 0.114	-123	1.235		0.122	
TFES-01750	<b>1.750</b>		1.750	0.104 - 0.114	0.104 - 0.114	-125	1.360		0.122	
TFES-01875	<b>1.875</b>		1.875	0.104 - 0.114	0.104 - 0.114	-127	1.483		0.122	
TFES-02000	<b>2.000</b>		2.000	0.105 - 0.125	0.105 - 0.125	-129	1.606		0.130	
TFES-02125	<b>2.125</b>		2.125	0.105 - 0.125	0.105 - 0.125	-132	1.733		0.130	
TFES-02250	<b>2.250</b>		2.250	0.105 - 0.125	0.105 - 0.125	-133	1.856		0.130	
TFES-02375	<b>2.375</b>		2.375	0.105 - 0.125	0.105 - 0.125	-135	1.981		0.130	
TFES-02500	<b>2.500</b>		2.500	0.105 - 0.125	0.105 - 0.125	-137	2.106		0.130	
TFES-02750	<b>2.750</b>	▼	2.750	0.105 - 0.125	0.105 - 0.125	-141	2.356		0.130	
TFES-03000	<b>3.000</b>	+0.004 -0.000	3.000	0.105 - 0.125	0.105 - 0.125	-145	2.606		0.130	
TFES-03125	<b>3.125</b>		3.125	0.105 - 0.125	0.105 - 0.125	-148	2.733		0.130	
TFES-03250	<b>3.250</b>		3.250	0.105 - 0.125	0.105 - 0.125	-149	2.856		0.130	
TFES-03375	<b>3.375</b>		3.375	0.105 - 0.125	0.105 - 0.125	-150	2.983		0.130	
TFES-03500	<b>3.500</b>	▼	3.500	0.105 - 0.125	0.105 - 0.125	-151	3.106	▼	0.130	▼



# TFES series - GF.PTFE/NBR

## PISTON SEALS

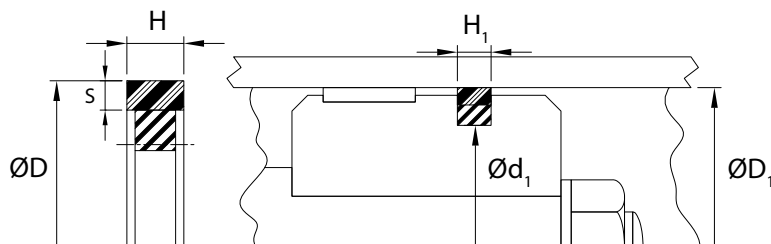


Ref. Number	Bore Diameter		Nominal Seal Dimensions				Housing Dimensions			
	D1	Tol.	D	S	H	EXP	d1	Tol.	H1	Tol.
TFES-03625	3.625	+0.004 -0.000	3.625	0.105 - 0.125	0.105 - 0.125	-151	3.233	+0.002 -0.002	0.130	+0.002 -0.002
TFES-03750	3.750		3.750	0.105 - 0.125	0.105 - 0.125	-152	3.356		0.130	
TFES-04000	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	▼

PISTON SEALS



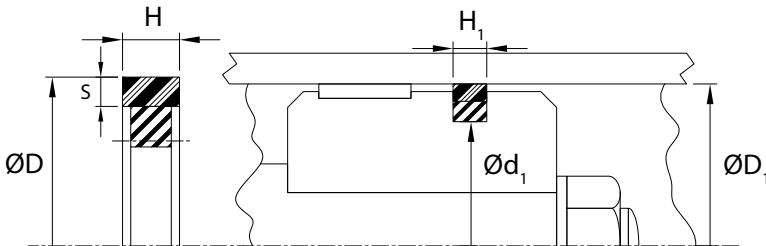
# 160G series - GF.PTFE/NBR

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



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



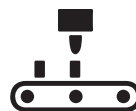
Manipulation  
des fluides



Énergie  
fluide



Industrie  
alimentaire



Industrie  
du moulage

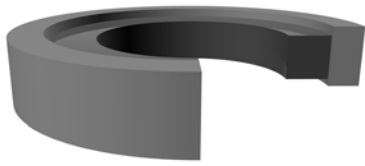


Santé et sécurité

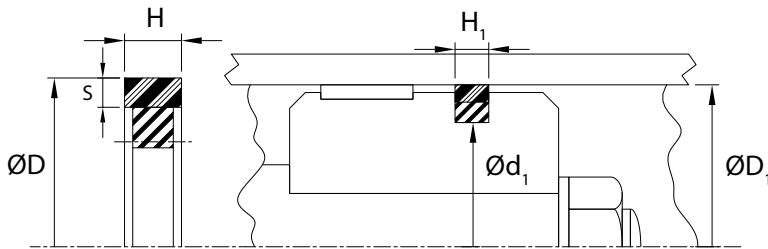


Après-vente  
automobile

# 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)



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	▼



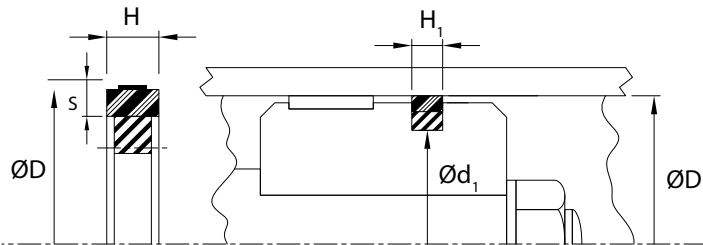
# 169G series - GF.PTFE/NBR

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

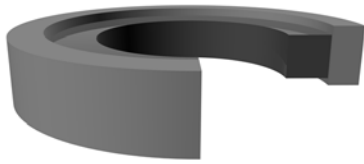


Ref. Number	Bore Diameter		Nominal Seal Dimensions				Housing Dimensions			
	D1	Tol.	D	S	H	EXP	d1	Tol.	H1	Tol.
169U01750125	1.750	+0.003 -0.000	1.750	0.067 - 0.073	0.116 - 0.121	-127	1.443	+0.000 -0.004	0.125	+0.002 -0.000
169U02000125	2.000		2.000	0.067 - 0.073	0.116 - 0.121	-131	1.693		0.125	
169U02250125	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	▼

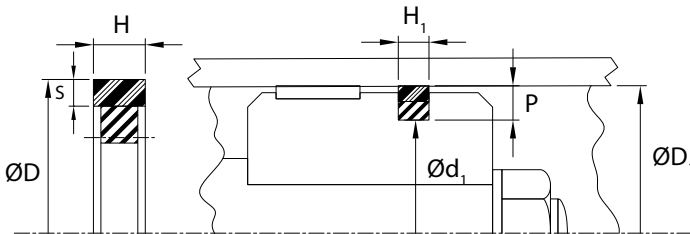




# CAT TYPE-1 - Piston seals - Inch



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.

**PISTON SEALS**



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		5.595		0.379	
RCAT-5J4997	7.000	+0.005 -0.000	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	+0.006/-0.000	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.

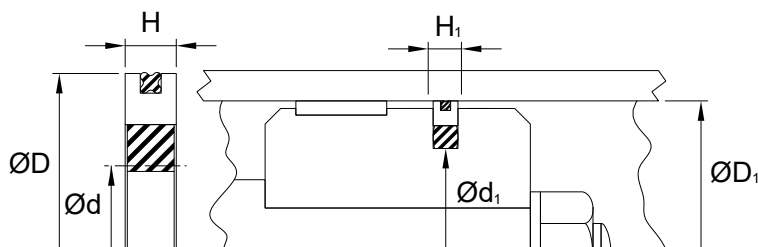
# PISTON SEALS



# 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	▼

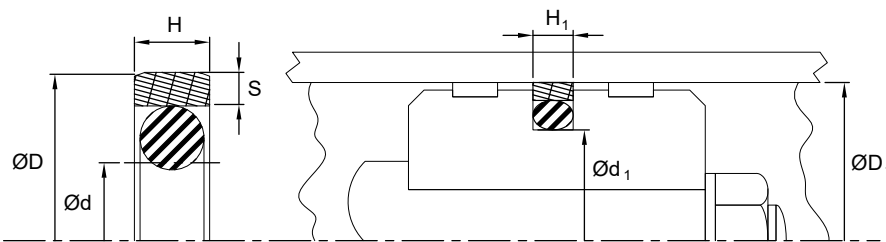
# AQ series - BR.PTFE/NBR

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



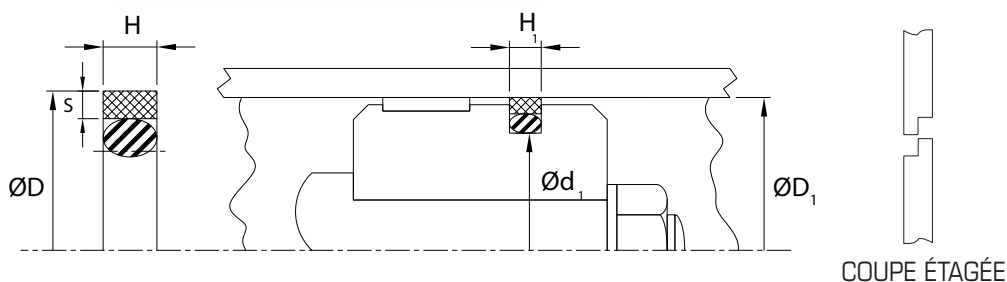
Ref.Number	Bore Diameter		Nominal Seal Dimensions				Housing Dimensions			
	D1	Tol.	D	S	H	EXP	d1	Tol.	H1	Tol.
PS2472-44	2.750	+0.003/-0.000	2.750	0.100	0.150	-228	2.317	+0.000 -0.004	0.168	+0.000 -0.002
PS2472-48	3.000	+0.004 -0.000	3.000	0.100	0.150	-230	2.567		0.168	
PS2473-48	3.000		3.000	0.140	0.225	-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.

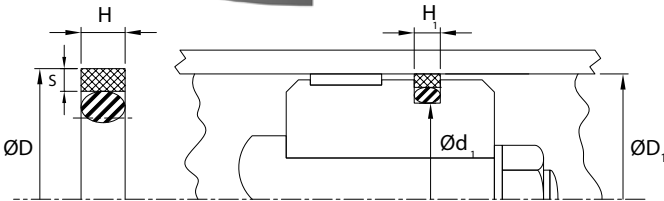
Ref.Number	Bore Diameter		Nominal Seal Dimensions				Housing Dimensions			
	D1	Tol.	D	d	S	H	d1	Tol.	H1	Tol.
C91402000281NS	2.000	+0.003 -0.000	2.000	0.105	0.281	1.462	+0.000 -0.005	0.281	+0.005 -0.000	
C914020003120S	2.000		2.000	0.125	0.312	1.408		0.312		
C91402500281NS	2.500		2.500	0.105	0.281	1.962		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	▼	



# 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	+0.005 -0.000	11.000	0.187	0.375	10.124		0.375		
C91412000375	12.000		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)



STEP CUT

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)

**PISTON SEALS**



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	▼

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# 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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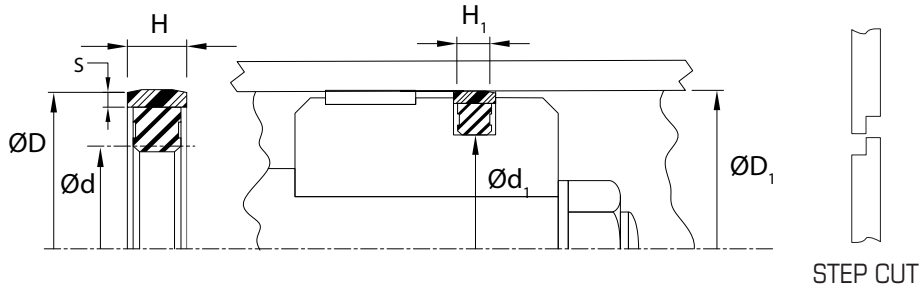
PISTON SEALS



# 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)



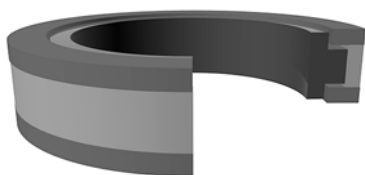
The **HDP 330** piston seal is a two-part seal set consisting of a stepped-cut thermoset sliding ring with an elastomeric loader ring. The special polyamide ring withstands the most extreme pressures and also allows for rougher cylinder bores, which can reduce production costs. Its stepped-cut design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

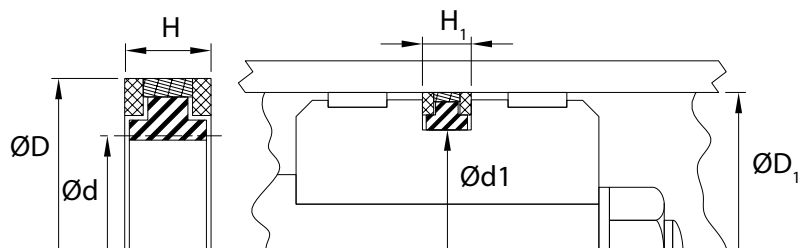
Ref. Number	Bore Diameter		Nominal Seal Dimensions				Housing Dimensions			
	D1	Tol.	D	d	S	H	d1	Tol.	H1	Tol.
HDP02000-281	2.000	+0.003 -0.000	2.000			0.272	1.462	+0.000 -0.005	0.281	+0.005 -0.000
HDP02000-312	2.000		2.000			0.301	1.408		0.312	
HDP02500-281	2.500		2.500			0.272	1.962		0.281	
HDP02500-312	2.500	▼	2.500			0.301	1.908		0.312	
HDP03000-281	3.000	+0.004 -0.000	3.000			0.272	2.442		0.281	
HDP03000-312	3.000		3.000			0.301	2.408		0.312	
HDP03250-281	3.250		3.250			0.272	2.692		0.281	
HDP03500-281	3.500		3.500			0.272	2.942		0.281	
HDP03500-312	3.500		3.500			0.301	2.908		0.312	
HDP04000-281	4.000		4.000			0.272	3.442		0.281	
HDP04000-312	4.000		4.000			0.301	3.408		0.312	
HDP04500-281	4.500		4.500			0.272	3.942		0.281	
HDP04500-312	4.500		4.500			0.301	3.908		0.312	
HDP05000-281	5.000		5.000			0.272	4.442		0.281	
HDP05000-375	5.000		5.000			0.362	4.240		0.375	
HDP05500-375	5.500		5.500			0.362	4.740		0.375	
HDP06000-375	6.000		6.000			0.362	5.240		0.375	
HDP06500-375	6.500	▼	6.500			0.362	5.740		0.375	
HDP07000-375	7.000	+0.005 -0.000	7.000			0.362	6.240		0.375	
HDP07500-375	7.500		7.500			0.362	6.740		0.375	
HDP08000-375	8.000	▼	8.000			0.362	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	▼

PISTON SEALS



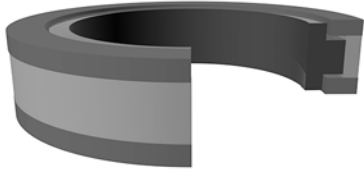
# CTS series - GF/M.PTFE/NYLON/NBR

## PISTON SEALS

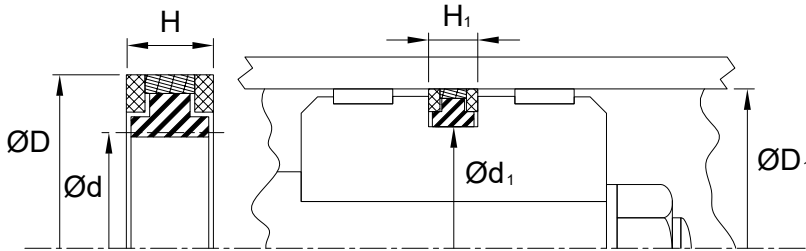


Ref.Number	Bore Diameter		Nominal Seal Dimensions			Housing Dimensions			
	D1	Tol.	D	d	H	d1	Tol.	H1	Tol.
CTS-05500-3	5.500	+0.004 -0.000	5.500	4.720	0.620	4.720	+0.005/-0.000	0.640	+0.010 -0.000
CTS-05750	5.750		5.750	5.022	0.730	5.024	+0.000 -0.004	0.750	
CTS-06000	6.000		6.000	5.274	0.730	5.274		0.750	
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.

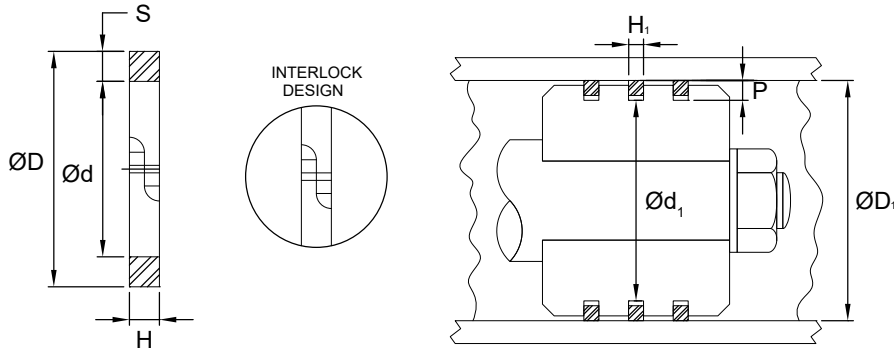


# P1000 - Piston rings - Inch



Standard Material
Cast or ductile iron

**PISTON SEALS**

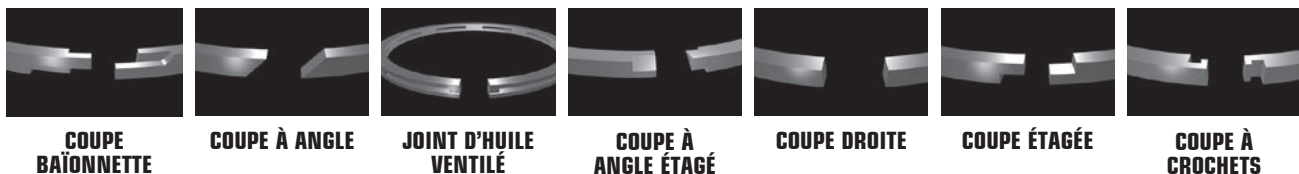


These metallic piston rings are low wear, highly extrusion resistant seals used in hydraulic applications. They are bi-directional in use, and can pass open ports without clipping the joint tips.

**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



Revision 1



# P1000 series - CAST IRON



Ref. Number	Bore Diameter		Nominal Seal Dimensions	
	D1	Tol.	S	H
P1001	1.500	+0.003 -0.000	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 -0.000	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 -0.000	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	0.152 - 0.167	0.372 - 0.373
P1024-16	4.750	-0.000	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	0.219 - 0.234	0.310 - 0.311
P1032-04	6.750	-0.000	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	0.219 - 0.234	0.185 - 0.187
P1032-08	6.750	-0.000	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

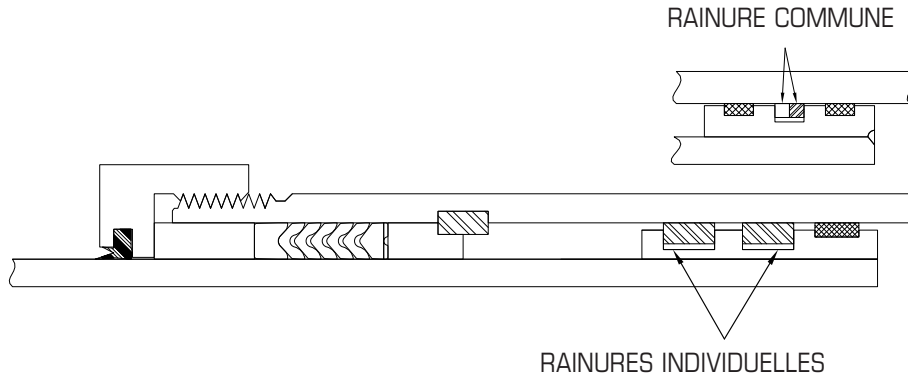
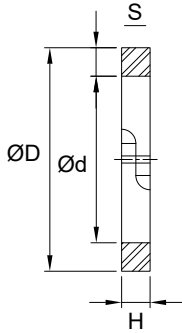
**PISTON SEALS**



# 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.

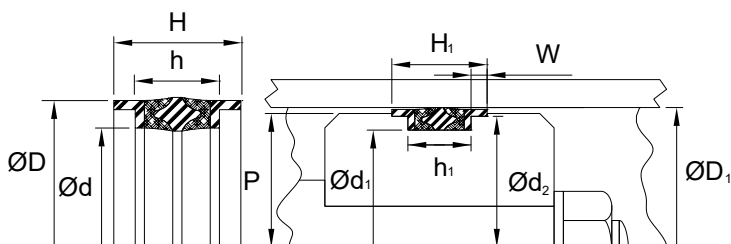
**Alternate Materials:** For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

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

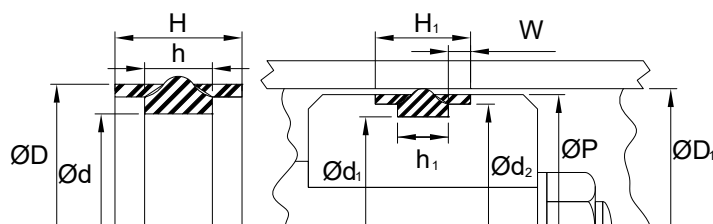


Ref.Number	Bore Diameter		Nominal Seal Dimensions				Housing Dimensions					
	D1	Tol.	D	d	h	H	d1	Tol.	d2 + 005/- 005	P + 000/- 005	h1 + 015/- 005	W + 000/- 005
P3C-02750-1	2.750	+0.003 -0.000	2.750	2.000	1.187	1.687	2.000	+0.000 -0.006	2.485	2.687	1.207	0.250
P3C-02875	2.875		2.875	2.125	1.187	1.687	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	+ .003 - .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	+ .004 - .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	+ .005/- .000	7.000	6.250	1.000	2.000	6.250	6.712	6.937	1.005	0.500

PISTON SEALS



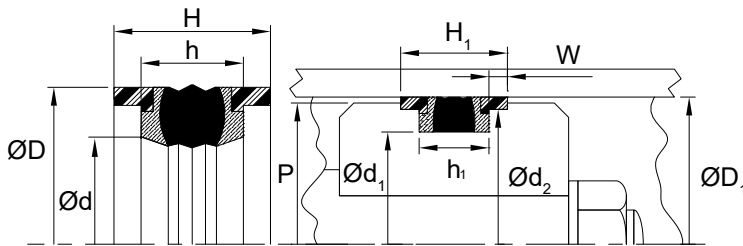
# P3D series - NBR/POM

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



# 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)

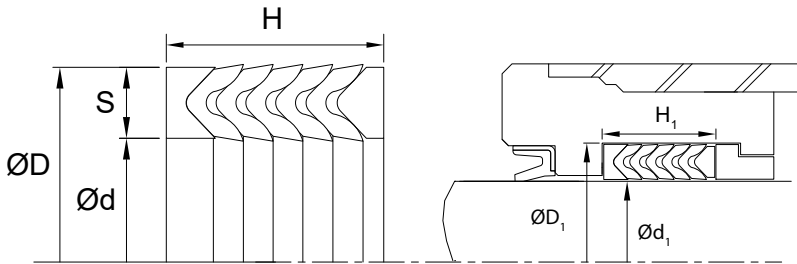
**BV**  
**BUNA VEE**  
 -40°F to +250°F  
 (-40°C to +121°C)

**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

VEE PACKINGS



# Standard vee sets series



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

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

# Standard vee sets series

VEE PACKINGS



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

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

# Standard vee sets series



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

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

# Standard vee sets series

**VEE PACKINGS**



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

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



# Standard vee sets series



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

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

# Standard vee sets series



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

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

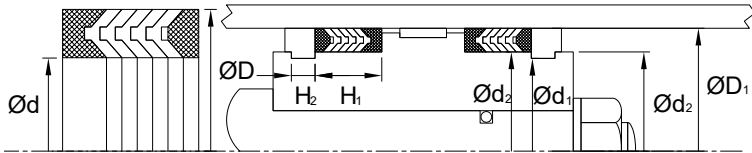


# «Hydrolock» vee sets - Inch



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



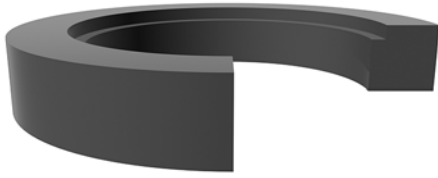
# « Hydrolock » vee sets series - NYLON/HYTREL

Ref.Number	Bore Diameter		Nominal Seal Dimensions			Housing Dimensions					
	D1	Tol.	D	d	Bearing	d1	d2	1740	1741	1742	H2
						+000 -003	+005 -005	H1 - TOL : +005/-000			+005 -000
1742-550-100-FB	5.500	+004 -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	+004 -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	+005 -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

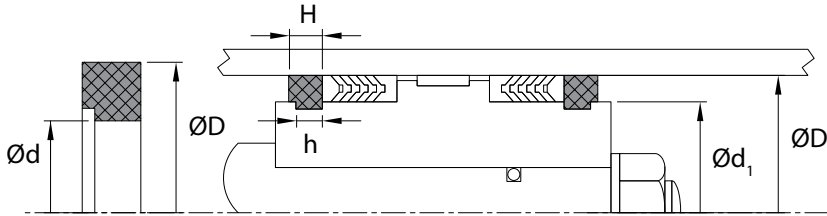
VEE PACKINGS



# « 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	<b>2.000</b>	1.250	0.255	0.312
550-225	<b>2.250</b>	1.500	0.255	0.335
550-250	<b>2.500</b>	1.750	0.255	0.335
550-300	<b>3.000</b>	2.250	0.255	0.340
550-350	<b>3.500</b>	2.750	0.255	0.340
550-400	<b>4.000</b>	3.250	0.380	0.485
550-450	<b>4.500</b>	3.750	0.380	0.485
550-500	<b>5.000</b>	4.125	0.380	0.485
550-550	<b>5.500</b>	4.625	0.380	0.485
550-600	<b>6.000</b>	5.125	0.380	0.485

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

## Markets segments we are servicing



Machine-outil



Manutention de matériel



Transformation des métaux



Industrie minière



Pharmaceutique



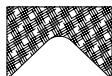
Production d'énergie



# 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	<b>0.250</b>	2.000
VC00250M-02	<b>0.250</b>	2.000
VC00250V-02	<b>0.250</b>	2.000
VC00250F-04	<b>0.250</b>	4.000
VC00250M-04	<b>0.250</b>	4.000
VC00250V-04	<b>0.250</b>	4.000
VC00312F-02	<b>0.312</b>	2.000
VC00312M-02	<b>0.312</b>	2.000
VC00312V-02	<b>0.312</b>	2.000
VC00312F-05	<b>0.312</b>	5.000
VC00312M-05	<b>0.312</b>	5.000
VC00312V-05	<b>0.312</b>	5.000
VC00375F-03	<b>0.375</b>	3.000
VC00375M-03	<b>0.375</b>	3.000
VC00375V-03	<b>0.375</b>	3.000
VC00375F-06	<b>0.375</b>	6.000
VC00375M-06	<b>0.375</b>	6.000
VC00375V-06	<b>0.375</b>	6.000
VC00437F-04	<b>0.437</b>	4.000
VC00437M-04	<b>0.437</b>	4.000
VC00437V-04	<b>0.437</b>	4.000
VC00437F-09	<b>0.437</b>	9.000
VC00437M-09	<b>0.437</b>	9.000

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



# Vee Coil series - NEOFAB

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

Ref.Number	Nominal Packing Dimensions	
	Section	Mandrel
VC00875M-24	<b>0.875</b>	24.000
VC00875V-24	<b>0.875</b>	24.000
VC01000F-13	<b>1.000</b>	13.000
VC01000M-13	<b>1.000</b>	13.000
VC01000V-13	<b>1.000</b>	13.000
VC01000F-18	<b>1.000</b>	18.000
VC01000M-18	<b>1.000</b>	18.000
VC01000V-18	<b>1.000</b>	18.000
VC01000F-24	<b>1.000</b>	24.000
VC01000M-24	<b>1.000</b>	24.000
VC01000V-24	<b>1.000</b>	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**





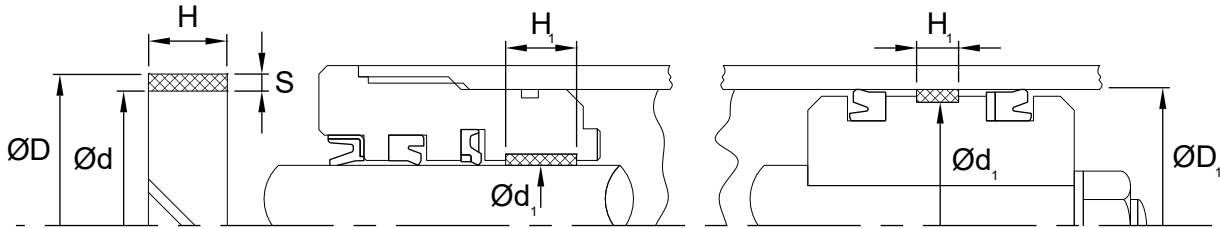
	W1 TO W4 + WR	F	2
	CAT - PISTON GUIDING ELEMENT	F	12
	CAT - ROD GUIDING ELEMENT	F	16
	WS	F	18
<b>INFO</b>	DU REF. TABLE	F	19
	DU BEARING	F	21
	SBB	F	25
	SBB-2RS	F	27



# 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  $d_1$  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 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
<b>1/16" Cross Section - 0.062"</b>					
W1006250500	<b>0.625</b>	<b>0.500</b>	0.625	0.500	0.062
W1008750500	<b>0.875</b>	<b>0.750</b>	0.875	0.500	0.062
W1011250500	<b>1.125</b>	<b>1.000</b>	1.125	0.500	0.062
W1013750980	<b>1.375</b>	<b>1.250</b>	1.375	0.980	0.062
W1015000500	<b>1.500</b>	<b>1.375</b>	1.500	0.500	0.062
W1016250980	<b>1.625</b>	<b>1.500</b>	1.625	0.980	0.062
W1016251000	<b>1.625</b>	<b>1.500</b>	1.625	1.000	0.062
W1016251250	<b>1.625</b>	<b>1.500</b>	1.625	1.250	0.062
W1016500500	<b>1.650</b>	<b>1.525</b>	1.650	0.500	0.062
W1016700500	<b>1.670</b>	<b>1.545</b>	1.670	0.500	0.062
W1017500500	<b>1.750</b>	<b>1.625</b>	1.750	0.500	0.062
W1018750980	<b>1.875</b>	<b>1.750</b>	1.875	0.980	0.062
W1018751000	<b>1.875</b>	<b>1.750</b>	1.875	1.000	0.062
W1020000260	<b>2.000</b>	<b>1.875</b>	2.000	0.260	0.062
W1020000312	<b>2.000</b>	<b>1.875</b>	2.000	0.312	0.062
W1020000730	<b>2.000</b>	<b>1.875</b>	2.000	0.730	0.062
W1020000980	<b>2.000</b>	<b>1.875</b>	2.000	0.980	0.062
W1021250750	<b>2.125</b>	<b>2.000</b>	2.125	0.750	0.062
W1021251000	<b>2.125</b>	<b>2.000</b>	2.125	1.000	0.062
W1021251250	<b>2.125</b>	<b>2.000</b>	2.125	1.250	0.062
W1022500370	<b>2.250</b>	<b>2.125</b>	2.250	0.370	0.062
W1022500730	<b>2.250</b>	<b>2.125</b>	2.250	0.730	0.062
W1022500980	<b>2.250</b>	<b>2.125</b>	2.250	0.980	0.062
W1023750980	<b>2.375</b>	<b>2.250</b>	2.375	0.980	0.062
W1023751000	<b>2.375</b>	<b>2.250</b>	2.375	1.000	0.062
W1023751180	<b>2.375</b>	<b>2.250</b>	2.375	1.180	0.062
W1023751480	<b>2.375</b>	<b>2.250</b>	2.375	1.480	0.062
W1023751500	<b>2.375</b>	<b>2.250</b>	2.375	1.500	0.062
W1025000500	<b>2.500</b>	<b>2.375</b>	2.500	0.500	0.062
W1025001260	<b>2.500</b>	<b>2.375</b>	2.500	1.260	0.062
W1026250500	<b>2.625</b>	<b>2.500</b>	2.625	0.500	0.062
W1026250980	<b>2.625</b>	<b>2.500</b>	2.625	0.980	0.062
W1026251000	<b>2.625</b>	<b>2.500</b>	2.625	1.000	0.062
W1026251250	<b>2.625</b>	<b>2.500</b>	2.625	1.250	0.062
W1026251500	<b>2.625</b>	<b>2.500</b>	2.625	1.500	0.062
W1026251690	<b>2.625</b>	<b>2.500</b>	2.625	1.690	0.062
W1027500500	<b>2.750</b>	<b>2.625</b>	2.750	0.500	0.062
W1027500980	<b>2.750</b>	<b>2.625</b>	2.750	0.980	0.062
W1027501000	<b>2.750</b>	<b>2.625</b>	2.750	1.000	0.062
W1028750975	<b>2.875</b>	<b>2.750</b>	2.875	0.975	0.062
W1028751000	<b>2.875</b>	<b>2.750</b>	2.875	1.000	0.062
W1028751260	<b>2.875</b>	<b>2.750</b>	2.875	1.260	0.062
W1028751500	<b>2.875</b>	<b>2.750</b>	2.875	1.500	0.062
W1028751570	<b>2.875</b>	<b>2.750</b>	2.875	1.570	0.062

Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
<b>1/16" Cross Section - 0.062"</b>					
W1028751790	<b>2.875</b>	<b>2.750</b>	2.875	1.790	0.062
W1028751810	<b>2.875</b>	<b>2.750</b>	2.875	1.810	0.062
W1031250500	<b>3.125</b>	<b>3.000</b>	3.125	0.500	0.062
W1031250980	<b>3.125</b>	<b>3.000</b>	3.125	0.980	0.062
W1031251240	<b>3.125</b>	<b>3.000</b>	3.125	1.240	0.062
W1031251260	<b>3.125</b>	<b>3.000</b>	3.125	1.260	0.062
W1031251480	<b>3.125</b>	<b>3.000</b>	3.125	1.480	0.062
W1031251500	<b>3.125</b>	<b>3.000</b>	3.125	1.500	0.062
W1031251562	<b>3.125</b>	<b>3.000</b>	3.125	1.562	0.062
W1031251570	<b>3.125</b>	<b>3.000</b>	3.125	1.570	0.062
W1031251650	<b>3.125</b>	<b>3.000</b>	3.125	1.650	0.062
W1031870312	<b>3.187</b>	<b>3.062</b>	3.187	0.312	0.062
W1033751730	<b>3.375</b>	<b>3.250</b>	3.375	1.730	0.062
W1033751875	<b>3.375</b>	<b>3.250</b>	3.375	1.875	0.062
W1036251060	<b>3.625</b>	<b>3.500</b>	3.625	1.060	0.062
W1036251880	<b>3.625</b>	<b>3.500</b>	3.625	1.880	0.062
W1038751570	<b>3.875</b>	<b>3.750</b>	3.875	1.570	0.062
<b>5/64" Cross Section - 0.078"</b>					
WR012500500-078	<b>1.250</b>	<b>1.094</b>	1.250	0.500	0.078
WR016600625-078	<b>1.660</b>	<b>1.503</b>	1.660	0.625	0.078
<b>3/32" Cross Section - 0.094"</b>					
WR012500187-094	<b>1.250</b>	<b>1.062</b>	1.250	0.187	0.094
WR015000187-094	<b>1.500</b>	<b>1.312</b>	1.500	0.187	0.094
WR015000375-094	<b>1.500</b>	<b>1.312</b>	1.500	0.375	0.094
WR020000187-094	<b>2.000</b>	<b>1.812</b>	2.000	0.187	0.094
WR020000375-094	<b>2.000</b>	<b>1.812</b>	2.000	0.375	0.094
WR025000375-094	<b>2.500</b>	<b>2.312</b>	2.500	0.375	0.094
WR025501500-094	<b>2.550</b>	<b>2.362</b>	2.550	1.500	0.094
WR028501000-094	<b>2.850</b>	<b>2.662</b>	2.850	1.000	0.094
WR030000218-094	<b>3.000</b>	<b>2.812</b>	3.000	0.218	0.094
WR032500375-094	<b>3.250</b>	<b>3.062</b>	3.250	0.375	0.094
WR033120625-094	<b>3.312</b>	<b>3.125</b>	3.312	0.625	0.094
WR035000500-094	<b>3.500</b>	<b>3.312</b>	3.500	0.500	0.094
WR036250218-094	<b>3.625</b>	<b>3.437</b>	3.625	0.218	0.094
WR039370218-094	<b>3.937</b>	<b>3.750</b>	3.937	0.218	0.094
WR040000375-094	<b>4.000</b>	<b>3.812</b>	4.000	0.375	0.094
WR050000500-094	<b>5.000</b>	<b>4.812</b>	5.000	0.500	0.094
WR060000500-094	<b>6.000</b>	<b>5.812</b>	6.000	0.500	0.094
<b>3/31" Cross Section - 0.096"</b>					
WR032500212-096	<b>3.250</b>	<b>3.058</b>	3.250	0.212	0.096
WR036250212-096	<b>3.625</b>	<b>3.433</b>	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
<b>4/41" Cross Section - 0.098"</b>					
WR020000190-098	<b>2.000</b>	<b>1.804</b>	2.000	0.190	0.098
WR027002280-098	<b>2.700</b>	<b>2.500</b>	2.700	2.280	0.098
WR029501970-098	<b>2.950</b>	<b>2.750</b>	2.950	1.970	0.098
WR030000990-098	<b>3.000</b>	<b>2.800</b>	3.000	0.990	0.098
WR032001180-098	<b>3.200</b>	<b>3.000</b>	3.200	1.180	0.098
WR032501125-098	<b>3.250</b>	<b>3.050</b>	3.250	1.125	0.098
WR034501610-098	<b>3.450</b>	<b>3.250</b>	3.450	1.610	0.098
WR034501970-098	<b>3.450</b>	<b>3.250</b>	3.450	1.970	0.098
WR034502760-098	<b>3.450</b>	<b>3.250</b>	3.450	2.760	0.098
WR037001770-098	<b>3.700</b>	<b>3.500</b>	3.700	1.770	0.098
WR037001880-098	<b>3.700</b>	<b>3.500</b>	3.700	1.880	0.098
WR037002360-098	<b>3.700</b>	<b>3.500</b>	3.700	2.360	0.098
WR039502440-098	<b>3.950</b>	<b>3.750</b>	3.950	2.440	0.098
WR040000212-098	<b>4.000</b>	<b>3.800</b>	4.000	0.212	0.098
WR040001312-098	<b>4.000</b>	<b>3.800</b>	4.000	1.312	0.098
WR042001312-098	<b>4.200</b>	<b>4.000</b>	4.200	1.312	0.098
WR042001570-098	<b>4.200</b>	<b>4.000</b>	4.200	1.570	0.098
WR042002560-098	<b>4.200</b>	<b>4.000</b>	4.200	2.560	0.098
WR044502360-098	<b>4.450</b>	<b>4.250</b>	4.450	2.360	0.098
WR049501970-098	<b>4.950</b>	<b>4.750</b>	4.950	1.970	0.098
WR052002520-098	<b>5.200</b>	<b>5.000</b>	5.200	2.520	0.098
WR054502500-098	<b>5.450</b>	<b>5.250</b>	5.450	2.500	0.098
WR059501970-098	<b>5.950</b>	<b>5.750</b>	5.950	1.970	0.098
WR059503620-098	<b>5.950</b>	<b>5.750</b>	5.950	3.620	0.098
WR072003150-098	<b>7.200</b>	<b>7.000</b>	7.200	3.150	0.098
<b>1/8" Cross Section - 0.125"</b>					
W2010000375	<b>1.000</b>	<b>0.750</b>	1.000	0.375	0.125
W2010000500	<b>1.000</b>	<b>0.750</b>	1.000	0.500	0.125
W2010000625	<b>1.000</b>	<b>0.750</b>	1.000	0.625	0.125
W2011250375	<b>1.125</b>	<b>0.875</b>	1.125	0.375	0.125
W2011250500	<b>1.125</b>	<b>0.875</b>	1.125	0.500	0.125
W2012500250	<b>1.250</b>	<b>1.000</b>	1.250	0.250	0.125
W2012500375	<b>1.250</b>	<b>1.000</b>	1.250	0.375	0.125
W2012500500	<b>1.250</b>	<b>1.000</b>	1.250	0.500	0.125
W2012500625	<b>1.250</b>	<b>1.000</b>	1.250	0.625	0.125
W2012500750	<b>1.250</b>	<b>1.000</b>	1.250	0.750	0.125
W2012501000	<b>1.250</b>	<b>1.000</b>	1.250	1.000	0.125
W2013750500	<b>1.375</b>	<b>1.125</b>	1.375	0.500	0.125
W2013750750	<b>1.375</b>	<b>1.125</b>	1.375	0.750	0.125
W2013751000	<b>1.375</b>	<b>1.125</b>	1.375	1.000	0.125
W2015000250	<b>1.500</b>	<b>1.250</b>	1.500	0.250	0.125
W2015000375	<b>1.500</b>	<b>1.250</b>	1.500	0.375	0.125
W2015000500	<b>1.500</b>	<b>1.250</b>	1.500	0.500	0.125

Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
<b>1/8" Cross Section - 0.125"</b>					
W2015000625	<b>1.500</b>	<b>1.250</b>	1.500	0.625	0.125
W2015000750	<b>1.500</b>	<b>1.250</b>	1.500	0.750	0.125
W2015001000	<b>1.500</b>	<b>1.250</b>	1.500	1.000	0.125
W2016250375	<b>1.625</b>	<b>1.375</b>	1.625	0.375	0.125
W2016250442	<b>1.625</b>	<b>1.375</b>	1.625	0.442	0.125
W2016250500	<b>1.625</b>	<b>1.375</b>	1.625	0.500	0.125
W2017500250	<b>1.750</b>	<b>1.500</b>	1.750	0.250	0.125
W2017500375	<b>1.750</b>	<b>1.500</b>	1.750	0.375	0.125
W2017500500	<b>1.750</b>	<b>1.500</b>	1.750	0.500	0.125
W2017500625	<b>1.750</b>	<b>1.500</b>	1.750	0.625	0.125
W2017500750	<b>1.750</b>	<b>1.500</b>	1.750	0.750	0.125
W2017501000	<b>1.750</b>	<b>1.500</b>	1.750	1.000	0.125
W2018750500	<b>1.875</b>	<b>1.625</b>	1.875	0.500	0.125
W2018750750	<b>1.875</b>	<b>1.625</b>	1.875	0.750	0.125
W2018751000	<b>1.875</b>	<b>1.625</b>	1.875	1.000	0.125
W2020000160	<b>2.000</b>	<b>1.750</b>	2.000	0.160	0.125
W2020000250	<b>2.000</b>	<b>1.750</b>	2.000	0.250	0.125
W2020000312	<b>2.000</b>	<b>1.750</b>	2.000	0.312	0.125
W2020000375	<b>2.000</b>	<b>1.750</b>	2.000	0.375	0.125
W2020000500	<b>2.000</b>	<b>1.750</b>	2.000	0.500	0.125
W2020000625	<b>2.000</b>	<b>1.750</b>	2.000	0.625	0.125
W2020000750	<b>2.000</b>	<b>1.750</b>	2.000	0.750	0.125
W2020001000	<b>2.000</b>	<b>1.750</b>	2.000	1.000	0.125
W2020001250	<b>2.000</b>	<b>1.750</b>	2.000	1.250	0.125
W2020001500	<b>2.000</b>	<b>1.750</b>	2.000	1.500	0.125
W2021250375	<b>2.125</b>	<b>1.875</b>	2.125	0.375	0.125
W2021250500	<b>2.125</b>	<b>1.875</b>	2.125	0.500	0.125
W2021250750	<b>2.125</b>	<b>1.875</b>	2.125	0.750	0.125
W2021870260	<b>2.187</b>	<b>1.937</b>	2.187	0.260	0.125
W2021871000	<b>2.187</b>	<b>1.937</b>	2.187	1.000	0.125
W2022500187	<b>2.250</b>	<b>2.000</b>	2.250	0.187	0.125
W2022500250	<b>2.250</b>	<b>2.000</b>	2.250	0.250	0.125
W2022500312	<b>2.250</b>	<b>2.000</b>	2.250	0.312	0.125
W2022500375	<b>2.250</b>	<b>2.000</b>	2.250	0.375	0.125
W2022500500	<b>2.250</b>	<b>2.000</b>	2.250	0.500	0.125
W2022500625	<b>2.250</b>	<b>2.000</b>	2.250	0.625	0.125
W2022500750	<b>2.250</b>	<b>2.000</b>	2.250	0.750	0.125
W2022500875	<b>2.250</b>	<b>2.000</b>	2.250	0.875	0.125
W2022501000	<b>2.250</b>	<b>2.000</b>	2.250	1.000	0.125
W2022501250	<b>2.250</b>	<b>2.000</b>	2.250	1.250	0.125
W2022501500	<b>2.250</b>	<b>2.000</b>	2.250	1.500	0.125
W2023750500	<b>2.375</b>	<b>2.125</b>	2.375	0.500	0.125
W2023750750	<b>2.375</b>	<b>2.125</b>	2.375	0.750	0.125
W2025000160	<b>2.500</b>	<b>2.250</b>	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
<b>1/8" Cross Section - 0.125"</b>					
W2025000187	<b>2.500</b>	<b>2.250</b>	2.500	0.187	0.125
W2025000250	<b>2.500</b>	<b>2.250</b>	2.500	0.250	0.125
W2025000312	<b>2.500</b>	<b>2.250</b>	2.500	0.312	0.125
W2025000375	<b>2.500</b>	<b>2.250</b>	2.500	0.375	0.125
W2025000500	<b>2.500</b>	<b>2.250</b>	2.500	0.500	0.125
W2025000625	<b>2.500</b>	<b>2.250</b>	2.500	0.625	0.125
W2025000740	<b>2.500</b>	<b>2.250</b>	2.500	0.740	0.125
W2025000750	<b>2.500</b>	<b>2.250</b>	2.500	0.750	0.125
W2025000875	<b>2.500</b>	<b>2.250</b>	2.500	0.875	0.125
W2025001000	<b>2.500</b>	<b>2.250</b>	2.500	1.000	0.125
W2025001250	<b>2.500</b>	<b>2.250</b>	2.500	1.250	0.125
W2025001500	<b>2.500</b>	<b>2.250</b>	2.500	1.500	0.125
W2026250500	<b>2.625</b>	<b>2.375</b>	2.625	0.500	0.125
W2026250625	<b>2.625</b>	<b>2.375</b>	2.625	0.625	0.125
W2026250750	<b>2.625</b>	<b>2.375</b>	2.625	0.750	0.125
W2026251000	<b>2.625</b>	<b>2.375</b>	2.625	1.000	0.125
W2027500250	<b>2.750</b>	<b>2.500</b>	2.750	0.250	0.125
W2027500312	<b>2.750</b>	<b>2.500</b>	2.750	0.312	0.125
W2027500375	<b>2.750</b>	<b>2.500</b>	2.750	0.375	0.125
W2027500500	<b>2.750</b>	<b>2.500</b>	2.750	0.500	0.125
W2027500625	<b>2.750</b>	<b>2.500</b>	2.750	0.625	0.125
W2027500750	<b>2.750</b>	<b>2.500</b>	2.750	0.750	0.125
W2027500940	<b>2.750</b>	<b>2.500</b>	2.750	0.940	0.125
W2027501000	<b>2.750</b>	<b>2.500</b>	2.750	1.000	0.125
W2027501500	<b>2.750</b>	<b>2.500</b>	2.750	1.500	0.125
W2027501750	<b>2.750</b>	<b>2.500</b>	2.750	1.750	0.125
W2027502000	<b>2.750</b>	<b>2.500</b>	2.750	2.000	0.125
W2028750500	<b>2.875</b>	<b>2.625</b>	2.875	0.500	0.125
W2028750750	<b>2.875</b>	<b>2.625</b>	2.875	0.750	0.125
W2028750875	<b>2.875</b>	<b>2.625</b>	2.875	0.875	0.125
W2028751000	<b>2.875</b>	<b>2.625</b>	2.875	1.000	0.125
W2030000160	<b>3.000</b>	<b>2.750</b>	3.000	0.160	0.125
W2030000250	<b>3.000</b>	<b>2.750</b>	3.000	0.250	0.125
W2030000312	<b>3.000</b>	<b>2.750</b>	3.000	0.312	0.125
W2030000375	<b>3.000</b>	<b>2.750</b>	3.000	0.375	0.125
W2030000500	<b>3.000</b>	<b>2.750</b>	3.000	0.500	0.125
W2030000570	<b>3.000</b>	<b>2.750</b>	3.000	0.570	0.125
W2030000625	<b>3.000</b>	<b>2.750</b>	3.000	0.625	0.125
W2030000750	<b>3.000</b>	<b>2.750</b>	3.000	0.750	0.125
W2030000990	<b>3.000</b>	<b>2.750</b>	3.000	0.990	0.125
W2030001000	<b>3.000</b>	<b>2.750</b>	3.000	1.000	0.125
W2030001250	<b>3.000</b>	<b>2.750</b>	3.000	1.250	0.125
W2030001500	<b>3.000</b>	<b>2.750</b>	3.000	1.500	0.125
W2030001562	<b>3.000</b>	<b>2.750</b>	3.000	1.562	0.125

Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
<b>1/8" Cross Section - 0.125"</b>					
W2030620250	<b>3.062</b>	<b>2.812</b>	3.062	0.250	0.125
W2031250500	<b>3.125</b>	<b>2.875</b>	3.125	0.500	0.125
W2031251000	<b>3.125</b>	<b>2.875</b>	3.125	1.000	0.125
W2032500250	<b>3.250</b>	<b>3.000</b>	3.250	0.250	0.125
W2032500312	<b>3.250</b>	<b>3.000</b>	3.250	0.312	0.125
W2032500375	<b>3.250</b>	<b>3.000</b>	3.250	0.375	0.125
W2032500500	<b>3.250</b>	<b>3.000</b>	3.250	0.500	0.125
W2032500625	<b>3.250</b>	<b>3.000</b>	3.250	0.625	0.125
W2032500750	<b>3.250</b>	<b>3.000</b>	3.250	0.750	0.125
W2032501000	<b>3.250</b>	<b>3.000</b>	3.250	1.000	0.125
W2032501130	<b>3.250</b>	<b>3.000</b>	3.250	1.130	0.125
W2032501250	<b>3.250</b>	<b>3.000</b>	3.250	1.250	0.125
W2032501500	<b>3.250</b>	<b>3.000</b>	3.250	1.500	0.125
W2032501550	<b>3.250</b>	<b>3.000</b>	3.250	1.550	0.125
W2032501562	<b>3.250</b>	<b>3.000</b>	3.250	1.562	0.125
W2032501625	<b>3.250</b>	<b>3.000</b>	3.250	1.625	0.125
W2032502000	<b>3.250</b>	<b>3.000</b>	3.250	2.000	0.125
W2032502125	<b>3.250</b>	<b>3.000</b>	3.250	2.125	0.125
W2033750500	<b>3.375</b>	<b>3.125</b>	3.375	0.500	0.125
W2033750750	<b>3.375</b>	<b>3.125</b>	3.375	0.750	0.125
W2035000160	<b>3.500</b>	<b>3.250</b>	3.500	0.160	0.125
W2035000250	<b>3.500</b>	<b>3.250</b>	3.500	0.250	0.125
W2035000375	<b>3.500</b>	<b>3.250</b>	3.500	0.375	0.125
W2035000437	<b>3.500</b>	<b>3.250</b>	3.500	0.437	0.125
W2035000500	<b>3.500</b>	<b>3.250</b>	3.500	0.500	0.125
W2035000625	<b>3.500</b>	<b>3.250</b>	3.500	0.625	0.125
W2035000750	<b>3.500</b>	<b>3.250</b>	3.500	0.750	0.125
W2035000875	<b>3.500</b>	<b>3.250</b>	3.500	0.875	0.125
W2035001000	<b>3.500</b>	<b>3.250</b>	3.500	1.000	0.125
W2035001120	<b>3.500</b>	<b>3.250</b>	3.500	1.120	0.125
W2035001250	<b>3.500</b>	<b>3.250</b>	3.500	1.250	0.125
W2035001500	<b>3.500</b>	<b>3.250</b>	3.500	1.500	0.125
W2036250500	<b>3.625</b>	<b>3.375</b>	3.625	0.500	0.125
W2036250625	<b>3.625</b>	<b>3.375</b>	3.625	0.625	0.125
W2036250750	<b>3.625</b>	<b>3.375</b>	3.625	0.750	0.125
W2036251000	<b>3.625</b>	<b>3.375</b>	3.625	1.000	0.125
W2037500250	<b>3.750</b>	<b>3.500</b>	3.750	0.250	0.125
W2037500375	<b>3.750</b>	<b>3.500</b>	3.750	0.375	0.125
W2037500500	<b>3.750</b>	<b>3.500</b>	3.750	0.500	0.125
W2037500625	<b>3.750</b>	<b>3.500</b>	3.750	0.625	0.125
W2037500750	<b>3.750</b>	<b>3.500</b>	3.750	0.750	0.125
W2037501000	<b>3.750</b>	<b>3.500</b>	3.750	1.000	0.125
W2037501250	<b>3.750</b>	<b>3.500</b>	3.750	1.250	0.125
W2037501490	<b>3.750</b>	<b>3.500</b>	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
<b>1/8" Cross Section - 0.125"</b>					
W2037501500	<b>3.750</b>	<b>3.500</b>	3.750	1.500	0.125
W2037502000	<b>3.750</b>	<b>3.500</b>	3.750	2.000	0.125
W2038750250	<b>3.875</b>	<b>3.625</b>	3.875	0.250	0.125
W2038751000	<b>3.875</b>	<b>3.625</b>	3.875	1.000	0.125
W2040000160	<b>4.000</b>	<b>3.750</b>	4.000	0.160	0.125
W2040000250	<b>4.000</b>	<b>3.750</b>	4.000	0.250	0.125
W2040000312	<b>4.000</b>	<b>3.750</b>	4.000	0.312	0.125
W2040000375	<b>4.000</b>	<b>3.750</b>	4.000	0.375	0.125
W2040000500	<b>4.000</b>	<b>3.750</b>	4.000	0.500	0.125
W2040000570	<b>4.000</b>	<b>3.750</b>	4.000	0.570	0.125
W2040000625	<b>4.000</b>	<b>3.750</b>	4.000	0.625	0.125
W2040000750	<b>4.000</b>	<b>3.750</b>	4.000	0.750	0.125
W2040000875	<b>4.000</b>	<b>3.750</b>	4.000	0.875	0.125
W2040000990	<b>4.000</b>	<b>3.750</b>	4.000	0.990	0.125
W2040001000	<b>4.000</b>	<b>3.750</b>	4.000	1.000	0.125
W2040001250	<b>4.000</b>	<b>3.750</b>	4.000	1.250	0.125
W2040001500	<b>4.000</b>	<b>3.750</b>	4.000	1.500	0.125
W2040002000	<b>4.000</b>	<b>3.750</b>	4.000	2.000	0.125
W2041250420	<b>4.125</b>	<b>3.875</b>	4.125	0.420	0.125
W2041251000	<b>4.125</b>	<b>3.875</b>	4.125	1.000	0.125
W2042500250	<b>4.250</b>	<b>4.000</b>	4.250	0.250	0.125
W2042500375	<b>4.250</b>	<b>4.000</b>	4.250	0.375	0.125
W2042500500	<b>4.250</b>	<b>4.000</b>	4.250	0.500	0.125
W2042500625	<b>4.250</b>	<b>4.000</b>	4.250	0.625	0.125
W2042500750	<b>4.250</b>	<b>4.000</b>	4.250	0.750	0.125
W2042500875	<b>4.250</b>	<b>4.000</b>	4.250	0.875	0.125
W2042501000	<b>4.250</b>	<b>4.000</b>	4.250	1.000	0.125
W2042501250	<b>4.250</b>	<b>4.000</b>	4.250	1.250	0.125
W2042501500	<b>4.250</b>	<b>4.000</b>	4.250	1.500	0.125
W2042501890	<b>4.250</b>	<b>4.000</b>	4.250	1.890	0.125
W2042502500	<b>4.250</b>	<b>4.000</b>	4.250	2.500	0.125
W2042600500	<b>4.260</b>	<b>4.010</b>	4.260	0.500	0.125
W2044000625	<b>4.400</b>	<b>4.150</b>	4.400	0.625	0.125
W2045000180	<b>4.500</b>	<b>4.250</b>	4.500	0.180	0.125
W2045000250	<b>4.500</b>	<b>4.250</b>	4.500	0.250	0.125
W2045000375	<b>4.500</b>	<b>4.250</b>	4.500	0.375	0.125
W2045000500	<b>4.500</b>	<b>4.250</b>	4.500	0.500	0.125
W2045000625	<b>4.500</b>	<b>4.250</b>	4.500	0.625	0.125
W2045000750	<b>4.500</b>	<b>4.250</b>	4.500	0.750	0.125
W2045000875	<b>4.500</b>	<b>4.250</b>	4.500	0.875	0.125
W2045000930	<b>4.500</b>	<b>4.250</b>	4.500	0.930	0.125
W2045000990	<b>4.500</b>	<b>4.250</b>	4.500	0.990	0.125
W2045001000	<b>4.500</b>	<b>4.250</b>	4.500	1.000	0.125
W2045001250	<b>4.500</b>	<b>4.250</b>	4.500	1.250	0.125

Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
<b>1/8" Cross Section - 0.125"</b>					
W2045001500	<b>4.500</b>	<b>4.250</b>	4.500	1.500	0.125
W2045001870	<b>4.500</b>	<b>4.250</b>	4.500	1.870	0.125
W2045002360	<b>4.500</b>	<b>4.250</b>	4.500	2.360	0.125
W2046251000	<b>4.625</b>	<b>4.375</b>	4.625	1.000	0.125
W2047500375	<b>4.750</b>	<b>4.500</b>	4.750	0.375	0.125
W2047500500	<b>4.750</b>	<b>4.500</b>	4.750	0.500	0.125
W2047500625	<b>4.750</b>	<b>4.500</b>	4.750	0.625	0.125
W2047500750	<b>4.750</b>	<b>4.500</b>	4.750	0.750	0.125
W2047501000	<b>4.750</b>	<b>4.500</b>	4.750	1.000	0.125
W2047501250	<b>4.750</b>	<b>4.500</b>	4.750	1.250	0.125
W2047501500	<b>4.750</b>	<b>4.500</b>	4.750	1.500	0.125
W2047501562	<b>4.750</b>	<b>4.500</b>	4.750	1.562	0.125
W2047501990	<b>4.750</b>	<b>4.500</b>	4.750	1.990	0.125
W2047502000	<b>4.750</b>	<b>4.500</b>	4.750	2.000	0.125
W2047503500	<b>4.750</b>	<b>4.500</b>	4.750	3.500	0.125
W2048750375	<b>4.875</b>	<b>4.625</b>	4.875	0.375	0.125
W2048750750	<b>4.875</b>	<b>4.625</b>	4.875	0.750	0.125
W2050000375	<b>5.000</b>	<b>4.750</b>	5.000	0.375	0.125
W2050000500	<b>5.000</b>	<b>4.750</b>	5.000	0.500	0.125
W2050000625	<b>5.000</b>	<b>4.750</b>	5.000	0.625	0.125
W2050000750	<b>5.000</b>	<b>4.750</b>	5.000	0.750	0.125
W2050000875	<b>5.000</b>	<b>4.750</b>	5.000	0.875	0.125
W2050001000	<b>5.000</b>	<b>4.750</b>	5.000	1.000	0.125
W2050001120	<b>5.000</b>	<b>4.750</b>	5.000	1.120	0.125
W2050001125	<b>5.000</b>	<b>4.750</b>	5.000	1.125	0.125
W2050001250	<b>5.000</b>	<b>4.750</b>	5.000	1.250	0.125
W2050001500	<b>5.000</b>	<b>4.750</b>	5.000	1.500	0.125
W2050001562	<b>5.000</b>	<b>4.750</b>	5.000	1.562	0.125
W2050001750	<b>5.000</b>	<b>4.750</b>	5.000	1.750	0.125
W2050002000	<b>5.000</b>	<b>4.750</b>	5.000	2.000	0.125
W2051251562	<b>5.125</b>	<b>4.875</b>	5.125	1.562	0.125
W2052500375	<b>5.250</b>	<b>5.000</b>	5.250	0.375	0.125
W2052500500	<b>5.250</b>	<b>5.000</b>	5.250	0.500	0.125
W2052500625	<b>5.250</b>	<b>5.000</b>	5.250	0.625	0.125
W2052500750	<b>5.250</b>	<b>5.000</b>	5.250	0.750	0.125
W2052501000	<b>5.250</b>	<b>5.000</b>	5.250	1.000	0.125
W2052501030	<b>5.250</b>	<b>5.000</b>	5.250	1.030	0.125
W2052501250	<b>5.250</b>	<b>5.000</b>	5.250	1.250	0.125
W2052501500	<b>5.250</b>	<b>5.000</b>	5.250	1.500	0.125
W2052502000	<b>5.250</b>	<b>5.000</b>	5.250	2.000	0.125
W2052502250	<b>5.250</b>	<b>5.000</b>	5.250	2.250	0.125
W2052503500	<b>5.250</b>	<b>5.000</b>	5.250	3.500	0.125
W2052503620	<b>5.250</b>	<b>5.000</b>	5.250	3.620	0.125
W2055000375	<b>5.500</b>	<b>5.250</b>	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
<b>1/8" Cross Section - 0.125"</b>					
W2055000500	<b>5.500</b>	<b>5.250</b>	5.500	0.500	0.125
W2055000625	<b>5.500</b>	<b>5.250</b>	5.500	0.625	0.125
W2055000750	<b>5.500</b>	<b>5.250</b>	5.500	0.750	0.125
W2055001000	<b>5.500</b>	<b>5.250</b>	5.500	1.000	0.125
W2055001250	<b>5.500</b>	<b>5.250</b>	5.500	1.250	0.125
W2055001312	<b>5.500</b>	<b>5.250</b>	5.500	1.312	0.125
W2055001370	<b>5.500</b>	<b>5.250</b>	5.500	1.370	0.125
W2055001500	<b>5.500</b>	<b>5.250</b>	5.500	1.500	0.125
W2055001620	<b>5.500</b>	<b>5.250</b>	5.500	1.620	0.125
W2055001750	<b>5.500</b>	<b>5.250</b>	5.500	1.750	0.125
W2055002000	<b>5.500</b>	<b>5.250</b>	5.500	2.000	0.125
W2055002250	<b>5.500</b>	<b>5.250</b>	5.500	2.250	0.125
W2057500500	<b>5.750</b>	<b>5.500</b>	5.750	0.500	0.125
W2057500625	<b>5.750</b>	<b>5.500</b>	5.750	0.625	0.125
W2057500750	<b>5.750</b>	<b>5.500</b>	5.750	0.750	0.125
W2057501000	<b>5.750</b>	<b>5.500</b>	5.750	1.000	0.125
W2057501500	<b>5.750</b>	<b>5.500</b>	5.750	1.500	0.125
W2057501620	<b>5.750</b>	<b>5.500</b>	5.750	1.620	0.125
W2057501750	<b>5.750</b>	<b>5.500</b>	5.750	1.750	0.125
W2057502000	<b>5.750</b>	<b>5.500</b>	5.750	2.000	0.125
W2057502370	<b>5.750</b>	<b>5.500</b>	5.750	2.370	0.125
W2060000180	<b>6.000</b>	<b>5.750</b>	6.000	0.180	0.125
W2060000250	<b>6.000</b>	<b>5.750</b>	6.000	0.250	0.125
W2060000375	<b>6.000</b>	<b>5.750</b>	6.000	0.375	0.125
W2060000500	<b>6.000</b>	<b>5.750</b>	6.000	0.500	0.125
W2060000625	<b>6.000</b>	<b>5.750</b>	6.000	0.625	0.125
W2060000630	<b>6.000</b>	<b>5.750</b>	6.000	0.630	0.125
W2060000750	<b>6.000</b>	<b>5.750</b>	6.000	0.750	0.125
W2060000875	<b>6.000</b>	<b>5.750</b>	6.000	0.875	0.125
W2060001000	<b>6.000</b>	<b>5.750</b>	6.000	1.000	0.125
W2060001070	<b>6.000</b>	<b>5.750</b>	6.000	1.070	0.125
W2060001250	<b>6.000</b>	<b>5.750</b>	6.000	1.250	0.125
W2060001320	<b>6.000</b>	<b>5.750</b>	6.000	1.320	0.125
W2060001500	<b>6.000</b>	<b>5.750</b>	6.000	1.500	0.125
W2060001740	<b>6.000</b>	<b>5.750</b>	6.000	1.740	0.125
W2060001750	<b>6.000</b>	<b>5.750</b>	6.000	1.750	0.125
W2060002000	<b>6.000</b>	<b>5.750</b>	6.000	2.000	0.125
W2060002860	<b>6.000</b>	<b>5.750</b>	6.000	2.860	0.125
W2062500500	<b>6.250</b>	<b>6.000</b>	6.250	0.500	0.125
W2062500625	<b>6.250</b>	<b>6.000</b>	6.250	0.625	0.125
W2062500750	<b>6.250</b>	<b>6.000</b>	6.250	0.750	0.125
W2062501000	<b>6.250</b>	<b>6.000</b>	6.250	1.000	0.125
W2062501490	<b>6.250</b>	<b>6.000</b>	6.250	1.490	0.125
W2062501500	<b>6.250</b>	<b>6.000</b>	6.250	1.500	0.125

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



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



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

Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
<b>1/8" Cross Section - 0.125"</b>					
W2082502750	<b>8.250</b>	<b>8.000</b>	8.250	2.750	0.125
W2082504130	<b>8.250</b>	<b>8.000</b>	8.250	4.130	0.125
W2083751000	<b>8.375</b>	<b>8.125</b>	8.375	1.000	0.125
W2083751250	<b>8.375</b>	<b>8.125</b>	8.375	1.250	0.125
W2084370750	<b>8.437</b>	<b>8.187</b>	8.437	0.750	0.125
W2085000500	<b>8.500</b>	<b>8.250</b>	8.500	0.500	0.125
W2085000625	<b>8.500</b>	<b>8.250</b>	8.500	0.625	0.125
W2085000750	<b>8.500</b>	<b>8.250</b>	8.500	0.750	0.125
W2085001000	<b>8.500</b>	<b>8.250</b>	8.500	1.000	0.125
W2085001500	<b>8.500</b>	<b>8.250</b>	8.500	1.500	0.125
W2085002000	<b>8.500</b>	<b>8.250</b>	8.500	2.000	0.125
W2085002370	<b>8.500</b>	<b>8.250</b>	8.500	2.370	0.125
W2085002375	<b>8.500</b>	<b>8.250</b>	8.500	2.375	0.125
W2085003000	<b>8.500</b>	<b>8.250</b>	8.500	3.000	0.125
W2086250500	<b>8.625</b>	<b>8.375</b>	8.625	0.500	0.125
W2086251000	<b>8.625</b>	<b>8.375</b>	8.625	1.000	0.125
W2087501000	<b>8.750</b>	<b>8.500</b>	8.750	1.000	0.125
W2087502000	<b>8.750</b>	<b>8.500</b>	8.750	2.000	0.125
W2090000500	<b>9.000</b>	<b>8.750</b>	9.000	0.500	0.125
W2090000625	<b>9.000</b>	<b>8.750</b>	9.000	0.625	0.125
W2090000750	<b>9.000</b>	<b>8.750</b>	9.000	0.750	0.125
W2090001000	<b>9.000</b>	<b>8.750</b>	9.000	1.000	0.125
W2090001250	<b>9.000</b>	<b>8.750</b>	9.000	1.250	0.125
W2090001500	<b>9.000</b>	<b>8.750</b>	9.000	1.500	0.125
W2090002000	<b>9.000</b>	<b>8.750</b>	9.000	2.000	0.125
W2090002950	<b>9.000</b>	<b>8.750</b>	9.000	2.950	0.125
W2091251000	<b>9.125</b>	<b>8.875</b>	9.125	1.000	0.125
W2091701000	<b>9.170</b>	<b>8.920</b>	9.170	1.000	0.125
W2092500750	<b>9.000</b>	<b>8.750</b>	9.000	0.750	0.125
W2092501000	<b>9.250</b>	<b>9.000</b>	9.250	1.000	0.125
W2092501250	<b>9.250</b>	<b>9.000</b>	9.250	1.250	0.125
W2092501500	<b>9.250</b>	<b>9.000</b>	9.250	1.500	0.125
W2092501750	<b>9.250</b>	<b>9.000</b>	9.250	1.750	0.125
W2092502000	<b>9.250</b>	<b>9.000</b>	9.250	2.000	0.125
W2092502250	<b>9.250</b>	<b>9.000</b>	9.250	2.250	0.125
W2093750500	<b>9.375</b>	<b>9.125</b>	9.375	0.500	0.125
W2095000500	<b>9.500</b>	<b>9.250</b>	9.500	0.500	0.125
W2095000625	<b>9.500</b>	<b>9.250</b>	9.500	0.625	0.125
W2095000750	<b>9.500</b>	<b>9.250</b>	9.500	0.750	0.125
W2095001000	<b>9.500</b>	<b>9.250</b>	9.500	1.000	0.125
W2095001250	<b>9.500</b>	<b>9.250</b>	9.500	1.250	0.125
W2097500500	<b>9.750</b>	<b>9.500</b>	9.750	0.500	0.125
W2097500625	<b>9.750</b>	<b>9.500</b>	9.750	0.625	0.125
W2097500750	<b>9.750</b>	<b>9.500</b>	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
<b>1/8" Cross Section - 0.125"</b>					
W2097501000	<b>9.750</b>	<b>9.500</b>	9.750	1.000	0.125
W2098750500	<b>9.875</b>	<b>9.625</b>	9.875	0.500	0.125
W2098750750	<b>9.875</b>	<b>9.625</b>	9.875	0.750	0.125
W2100000250	<b>10.000</b>	<b>9.750</b>	10.000	0.250	0.125
W2100000500	<b>10.000</b>	<b>9.750</b>	10.000	0.500	0.125
W2100000625	<b>10.000</b>	<b>9.750</b>	10.000	0.625	0.125
W2100000750	<b>10.000</b>	<b>9.750</b>	10.000	0.750	0.125
W2100000875	<b>10.000</b>	<b>9.750</b>	10.000	0.875	0.125
W2100001000	<b>10.000</b>	<b>9.750</b>	10.000	1.000	0.125
W2100001250	<b>10.000</b>	<b>9.750</b>	10.000	1.250	0.125
W2100001500	<b>10.000</b>	<b>9.750</b>	10.000	1.500	0.125
W2100001750	<b>10.000</b>	<b>9.750</b>	10.000	1.750	0.125
W2100001915	<b>10.000</b>	<b>9.750</b>	10.000	1.915	0.125
W2100002000	<b>10.000</b>	<b>9.750</b>	10.000	2.000	0.125
W2100003250	<b>10.000</b>	<b>9.750</b>	10.000	3.250	0.125
W2100003945	<b>10.000</b>	<b>9.750</b>	10.000	3.945	0.125
W2102500750	<b>10.250</b>	<b>10.000</b>	10.250	0.750	0.125
W2102501000	<b>10.250</b>	<b>10.000</b>	10.250	1.000	0.125
W2102501250	<b>10.250</b>	<b>10.000</b>	10.250	1.250	0.125
W2105000500	<b>10.500</b>	<b>10.250</b>	10.500	0.500	0.125
W2105000750	<b>10.500</b>	<b>10.250</b>	10.500	0.750	0.125
W2105001000	<b>10.500</b>	<b>10.250</b>	10.500	1.000	0.125
W2105001250	<b>10.500</b>	<b>10.250</b>	10.500	1.250	0.125
W2105001500	<b>10.500</b>	<b>10.250</b>	10.500	1.500	0.125
W2105001750	<b>10.500</b>	<b>10.250</b>	10.500	1.750	0.125
W2105002750	<b>10.500</b>	<b>10.250</b>	10.500	2.750	0.125
W2105003750	<b>10.500</b>	<b>10.250</b>	10.500	3.750	0.125
W2105004000	<b>10.500</b>	<b>10.250</b>	10.500	4.000	0.125
W2107501000	<b>10.750</b>	<b>10.500</b>	1.750	1.000	0.125
W2107502000	<b>10.750</b>	<b>10.500</b>	1.750	2.000	0.125
W2110000500	<b>11.000</b>	<b>10.750</b>	11.000	0.500	0.125
W2110000625	<b>11.000</b>	<b>10.750</b>	11.000	0.625	0.125
W2110000750	<b>11.000</b>	<b>10.750</b>	11.000	0.750	0.125
W2110001000	<b>11.000</b>	<b>10.750</b>	11.000	1.000	0.125
W2110001250	<b>11.000</b>	<b>10.750</b>	11.000	1.250	0.125
W2110001500	<b>11.000</b>	<b>10.750</b>	11.000	1.500	0.125
W2110001625	<b>11.000</b>	<b>10.750</b>	11.000	1.625	0.125
W2110001875	<b>11.000</b>	<b>10.750</b>	11.000	1.875	0.125
W2110001930	<b>11.000</b>	<b>10.750</b>	11.000	1.930	0.125
W2110003250	<b>11.000</b>	<b>10.750</b>	11.000	3.250	0.125
W2112500750	<b>11.250</b>	<b>11.000</b>	11.250	0.750	0.125
W2112501000	<b>11.250</b>	<b>11.000</b>	11.250	1.000	0.125
W2112501250	<b>11.250</b>	<b>11.000</b>	11.250	1.250	0.125
W2115000750	<b>11.500</b>	<b>11.250</b>	11.500	0.750	0.125

Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
<b>1/8" Cross Section - 0.125"</b>					
W2115001250	<b>11.500</b>	<b>11.250</b>	11.500	1.250	0.125
W2115003870	<b>11.500</b>	<b>11.250</b>	11.500	3.870	0.125
W2120000500	<b>12.000</b>	<b>11.750</b>	12.000	0.500	0.125
W2120000625	<b>12.000</b>	<b>11.750</b>	12.000	0.625	0.125
W2120000750	<b>12.000</b>	<b>11.750</b>	12.000	0.750	0.125
W2120001000	<b>12.000</b>	<b>11.750</b>	12.000	1.000	0.125
W2120001250	<b>12.000</b>	<b>11.750</b>	12.000	1.250	0.125
W2120001500	<b>12.000</b>	<b>11.750</b>	12.000	1.500	0.125
W2120002000	<b>12.000</b>	<b>11.750</b>	12.000	2.000	0.125
W2120002460	<b>12.000</b>	<b>11.750</b>	12.000	2.460	0.125
W2122501000	<b>12.250</b>	<b>12.000</b>	12.250	1.000	0.125
W2122501250	<b>12.250</b>	<b>12.000</b>	12.250	1.250	0.125
W2125000750	<b>12.500</b>	<b>12.250</b>	12.500	0.750	0.125
W2127504015	<b>12.750</b>	<b>12.500</b>	12.750	4.015	0.125
W2128754000	<b>12.875</b>	<b>12.625</b>	12.875	4.000	0.125
W2130000750	<b>13.000</b>	<b>12.750</b>	13.000	0.750	0.125
W2130001000	<b>13.000</b>	<b>12.750</b>	13.000	1.000	0.125
W2130001250	<b>13.000</b>	<b>12.750</b>	13.000	1.250	0.125
W2130001500	<b>13.000</b>	<b>12.750</b>	13.000	1.500	0.125
W2132501000	<b>13.250</b>	<b>13.000</b>	13.250	1.000	0.125
W2132501250	<b>13.250</b>	<b>13.000</b>	13.250	1.250	0.125
W2132502000	<b>13.250</b>	<b>13.000</b>	13.250	2.000	0.125
W2135000750	<b>13.500</b>	<b>13.250</b>	13.500	0.750	0.125
W2137504020	<b>13.750</b>	<b>13.500</b>	13.750	4.020	0.125
W2140000500	<b>14.000</b>	<b>13.750</b>	14.000	0.500	0.125
W2140000750	<b>14.000</b>	<b>13.750</b>	14.000	0.750	0.125
W2140001000	<b>14.000</b>	<b>13.750</b>	14.000	1.000	0.125
W2140001250	<b>14.000</b>	<b>13.750</b>	14.000	1.250	0.125
W2140001500	<b>14.000</b>	<b>13.750</b>	14.000	1.500	0.125
W2140002000	<b>14.000</b>	<b>13.750</b>	14.000	2.000	0.125
W2140002500	<b>14.000</b>	<b>13.750</b>	14.000	2.500	0.125
W2142504000	<b>14.250</b>	<b>14.000</b>	14.250	4.000	0.125
W2150001250	<b>15.000</b>	<b>14.750</b>	15.000	1.250	0.125
W2160000500	<b>16.000</b>	<b>15.750</b>	16.000	0.500	0.125
W2160001000	<b>16.000</b>	<b>15.750</b>	16.000	1.000	0.125
W2160001250	<b>16.000</b>	<b>15.750</b>	16.000	1.250	0.125
W2160001500	<b>16.000</b>	<b>15.750</b>	16.000	1.500	0.125
W2160002000	<b>16.000</b>	<b>15.750</b>	16.000	2.000	0.125
W2165001000	<b>16.500</b>	<b>16.250</b>	16.500	1.000	0.125
W2165001500	<b>16.500</b>	<b>16.250</b>	16.500	1.500	0.125
W2167504000	<b>16.750</b>	<b>16.500</b>	16.750	4.000	0.125
W2180000500	<b>18.000</b>	<b>17.750</b>	18.000	0.500	0.125
W2180001000	<b>18.000</b>	<b>17.750</b>	18.000	1.000	0.125
W2180001250	<b>18.000</b>	<b>17.750</b>	18.000	1.250	0.125



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



Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
<b>1/8" Cross Section - 0.125"</b>					
W2180001500	<b>18.000</b>	<b>17.750</b>	18.000	1.500	0.125
W2180002000	<b>18.000</b>	<b>17.750</b>	18.000	2.000	0.125
W2200000500	<b>20.000</b>	<b>19.750</b>	20.000	0.500	0.125
W2200001000	<b>20.000</b>	<b>19.750</b>	20.000	1.000	0.125
W2200001500	<b>20.000</b>	<b>19.750</b>	20.000	1.500	0.125
W2200002000	<b>20.000</b>	<b>19.750</b>	20.000	2.000	0.125
W2210001000	<b>21.000</b>	<b>20.750</b>	21.000	1.000	0.125
<b>3/16" Cross Section - 0.187"</b>					
W3018751500	<b>1.875</b>	<b>1.500</b>	1.875	1.500	0.187
W3021250750	<b>2.125</b>	<b>1.750</b>	2.125	0.750	0.187
W3022000625	<b>2.200</b>	<b>1.825</b>	2.200	0.625	0.187
W3023750825	<b>2.375</b>	<b>2.000</b>	2.375	0.825	0.187
W3026250625	<b>2.625</b>	<b>2.250</b>	2.625	0.625	0.187
W3026251000	<b>2.625</b>	<b>2.250</b>	2.625	1.000	0.187
W3028750625	<b>2.875</b>	<b>2.500</b>	2.875	0.625	0.187
W3030000500	<b>3.000</b>	<b>2.625</b>	3.000	0.500	0.187
W3030000750	<b>3.000</b>	<b>2.625</b>	3.000	0.750	0.187
W3030000875	<b>3.000</b>	<b>2.625</b>	3.000	0.875	0.187
W3030001000	<b>3.000</b>	<b>2.625</b>	3.000	1.000	0.187
W3030620625	<b>3.062</b>	<b>2.687</b>	3.062	0.625	0.187
W3031251000	<b>3.125</b>	<b>2.750</b>	3.125	1.000	0.187
W3031251250	<b>3.125</b>	<b>2.750</b>	3.125	1.250	0.187
W3032500500	<b>3.250</b>	<b>2.875</b>	3.250	0.500	0.187
W3032500625	<b>3.250</b>	<b>2.875</b>	3.250	0.625	0.187
W3032500875	<b>3.250</b>	<b>2.875</b>	3.250	0.875	0.187
W3033751250	<b>3.375</b>	<b>3.000</b>	3.375	1.250	0.187
W3035000500	<b>3.500</b>	<b>3.125</b>	3.500	0.500	0.187
W3035000750	<b>3.500</b>	<b>3.125</b>	3.500	0.750	0.187
W3035001000	<b>3.500</b>	<b>3.125</b>	3.500	1.000	0.187
W3036251250	<b>3.625</b>	<b>3.250</b>	3.625	1.250	0.187
W3037500750	<b>3.750</b>	<b>3.375</b>	3.750	0.750	0.187
W3037501000	<b>3.750</b>	<b>3.375</b>	3.750	1.000	0.187
W3038751250	<b>3.875</b>	<b>3.500</b>	3.875	1.250	0.187
W3038751750	<b>3.875</b>	<b>3.500</b>	3.875	1.750	0.187
W3038752620	<b>3.875</b>	<b>3.500</b>	3.875	2.620	0.187
W3040000250	<b>4.000</b>	<b>3.625</b>	4.000	0.250	0.187
W3040000500	<b>4.000</b>	<b>3.625</b>	4.000	0.500	0.187
W3040000750	<b>4.000</b>	<b>3.625</b>	4.000	0.750	0.187
W3040000875	<b>4.000</b>	<b>3.625</b>	4.000	0.875	0.187
W3040001000	<b>4.000</b>	<b>3.625</b>	4.000	1.000	0.187
W3040001375	<b>4.000</b>	<b>3.625</b>	4.000	1.375	0.187
W3041251000	<b>4.125</b>	<b>3.750</b>	4.125	1.000	0.187
W3042500750	<b>4.250</b>	<b>3.875</b>	4.250	0.750	0.187

Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
<b>3/16" Cross Section - 0.187"</b>					
W3043751250	<b>4.375</b>	<b>4.000</b>	4.375	1.250	0.187
W3043751500	<b>4.375</b>	<b>4.000</b>	4.375	1.500	0.187
W3043751750	<b>4.375</b>	<b>4.000</b>	4.375	1.750	0.187
W3043752390	<b>4.375</b>	<b>4.000</b>	4.375	2.390	0.187
W3045000500	<b>4.500</b>	<b>4.125</b>	4.500	0.500	0.187
W3045000750	<b>4.500</b>	<b>4.125</b>	4.500	0.750	0.187
W3045001000	<b>4.500</b>	<b>4.125</b>	4.500	1.000	0.187
W3047500750	<b>4.750</b>	<b>4.375</b>	4.750	0.750	0.187
W3048752250	<b>4.875</b>	<b>4.500</b>	4.875	2.250	0.187
W3048752875	<b>4.875</b>	<b>4.500</b>	4.875	2.875	0.187
W3050000250	<b>5.000</b>	<b>4.625</b>	5.000	0.250	0.187
W3050000500	<b>5.000</b>	<b>4.625</b>	5.000	0.500	0.187
W3050000875	<b>5.000</b>	<b>4.625</b>	5.000	0.875	0.187
W3050001000	<b>5.000</b>	<b>4.625</b>	5.000	1.000	0.187
W3050001500	<b>5.000</b>	<b>4.625</b>	5.000	1.500	0.187
W3051250750	<b>5.125</b>	<b>4.750</b>	5.125	0.750	0.187
W3051251000	<b>5.125</b>	<b>4.750</b>	5.125	1.000	0.187
W3052501500	<b>5.250</b>	<b>4.875</b>	5.250	1.500	0.187
W3055000500	<b>5.500</b>	<b>5.125</b>	5.500	0.500	0.187
W3055000750	<b>5.500</b>	<b>5.125</b>	5.500	0.750	0.187
W3055000875	<b>5.500</b>	<b>5.125</b>	5.500	0.875	0.187
W3055001000	<b>5.500</b>	<b>5.125</b>	5.500	1.000	0.187
W3055001250	<b>5.500</b>	<b>5.125</b>	5.500	1.250	0.187
W3055001500	<b>5.500</b>	<b>5.125</b>	5.500	1.500	0.187
W3055001740	<b>5.500</b>	<b>5.125</b>	5.500	1.740	0.187
W3055001750	<b>5.500</b>	<b>5.125</b>	5.500	1.750	0.187
W3057501000	<b>5.750</b>	<b>5.375</b>	5.750	1.000	0.187
W3058753500	<b>5.875</b>	<b>5.500</b>	5.875	3.500	0.187
W3060000500	<b>6.000</b>	<b>5.625</b>	6.000	0.500	0.187
W3060000625	<b>6.000</b>	<b>5.625</b>	6.000	0.625	0.187
W3060000875	<b>6.000</b>	<b>5.625</b>	6.000	0.875	0.187
W3060001000	<b>6.000</b>	<b>5.625</b>	6.000	1.000	0.187
W3060001250	<b>6.000</b>	<b>5.625</b>	6.000	1.250	0.187
W3060002750	<b>6.000</b>	<b>5.625</b>	6.000	2.750	0.187
W3061250750	<b>6.125</b>	<b>5.750</b>	6.125	0.750	0.187
W3061250953	<b>6.125</b>	<b>5.750</b>	6.125	0.953	0.187
W3065000750	<b>6.500</b>	<b>6.125</b>	6.500	0.750	0.187
W3065001000	<b>6.500</b>	<b>6.125</b>	6.500	1.000	0.187
W3065001500	<b>6.500</b>	<b>6.125</b>	6.500	1.500	0.187
W3067501000	<b>6.750</b>	<b>6.375</b>	6.750	1.000	0.187
W3070000500	<b>7.000</b>	<b>6.625</b>	7.000	0.500	0.187
W3070000750	<b>7.000</b>	<b>6.625</b>	7.000	0.750	0.187
W3070001000	<b>7.000</b>	<b>6.625</b>	7.000	1.000	0.187
W3070001250	<b>7.000</b>	<b>6.625</b>	7.000	1.250	0.187

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

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

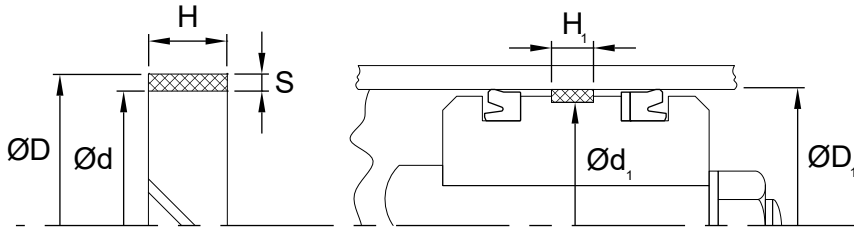
Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
<b>3/16" Cross Section - 0.187"</b>					
W3107506500	<b>10.750</b>	<b>10.375</b>	10.750	6.500	0.187
W3110001000	<b>11.000</b>	<b>10.625</b>	11.000	1.000	0.187
W3110002500	<b>11.000</b>	<b>10.625</b>	11.000	2.500	0.187
W3112501000	<b>11.250</b>	<b>10.875</b>	11.250	1.000	0.187
W31137511010	<b>11.375</b>	<b>11.000</b>	11.375	11.010	0.187
W3120000500	<b>12.000</b>	<b>11.625</b>	12.000	0.500	0.187
W3120000750	<b>12.000</b>	<b>11.625</b>	12.000	0.750	0.187
W3120001000	<b>12.000</b>	<b>11.625</b>	12.000	1.000	0.187
W3120001500	<b>12.000</b>	<b>11.625</b>	12.000	1.500	0.187
W3120002500	<b>12.000</b>	<b>11.625</b>	12.000	2.500	0.187
W3122504000	<b>12.250</b>	<b>11.875</b>	12.250	4.000	0.187
W3125002000	<b>12.500</b>	<b>12.125</b>	12.500	2.000	0.187
W3125002500	<b>12.500</b>	<b>12.125</b>	12.500	2.500	0.187
W31287512187	<b>12.875</b>	<b>12.500</b>	12.875	12.187	0.187
W31287512220	<b>12.875</b>	<b>12.500</b>	12.875	12.220	0.187
W3128752890	<b>12.875</b>	<b>12.500</b>	12.875	2.890	0.187
W3128754045	<b>12.875</b>	<b>12.500</b>	12.875	4.045	0.187
W3130001000	<b>13.000</b>	<b>12.625</b>	13.000	1.000	0.187
W3130001250	<b>13.000</b>	<b>12.625</b>	13.000	1.250	0.187
W3131256500	<b>13.125</b>	<b>12.750</b>	13.125	6.500	0.187
W3131257870	<b>13.125</b>	<b>12.750</b>	13.125	7.870	0.187
W31387510020	<b>13.875</b>	<b>13.500</b>	13.875	10.020	0.187
W3138752375	<b>13.875</b>	<b>13.500</b>	13.875	2.375	0.187
W3140001000	<b>14.000</b>	<b>13.625</b>	14.000	1.000	0.187
W3145001750	<b>14.500</b>	<b>14.125</b>	14.500	1.750	0.187
W3147504760	<b>14.750</b>	<b>14.375</b>	14.750	4.760	0.187
W3150001250	<b>15.000</b>	<b>14.625</b>	15.000	1.250	0.187
W3151257720	<b>15.125</b>	<b>14.750</b>	15.125	7.720	0.187
W3160001500	<b>16.000</b>	<b>15.625</b>	16.000	1.500	0.187
W31612510020	<b>16.125</b>	<b>15.750</b>	16.125	10.020	0.187
W3161252370	<b>16.125</b>	<b>15.750</b>	16.125	2.370	0.187
W3161257720	<b>16.125</b>	<b>15.750</b>	16.125	7.720	0.187
W3164371500	<b>16.437</b>	<b>16.062</b>	16.437	1.500	0.187
W3165001500	<b>16.500</b>	<b>16.125</b>	16.500	1.500	0.187
W3183757720	<b>18.375</b>	<b>18.000</b>	18.375	7.720	0.187
<b>1/4" Cross Section - 0.250"</b>					
W4065003500	<b>6.500</b>	<b>6.000</b>	6.500	3.500	0.250
W4082503500	<b>8.250</b>	<b>7.750</b>	8.250	3.500	0.250
W4100002750	<b>10.000</b>	<b>9.500</b>	10.000	2.750	0.250
W4110002000	<b>11.000</b>	<b>10.500</b>	11.000	2.000	0.250
W4120000500	<b>12.000</b>	<b>11.500</b>	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	<b>0.710</b>	+0.003 -0.000	0.600	+0.001 -0.001	0.040	+0.003 -0.003
RCAT-8U5770	<b>0.850</b>		0.700		0.080	
RCAT-5J9073	<b>1.500</b>		1.241		0.500	
RCAT-5J7942	<b>2.000</b>		1.741		0.496	
RCAT-7H2423	<b>2.250</b>		1.991		0.886	
RCAT-8C4802	<b>2.280</b>		1.991		0.886	
RCAT-8C4803	<b>2.310</b>		1.991		0.886	
RCAT-8J6212	<b>2.500</b>		2.241		0.750	
RCAT-8C4804	<b>2.530</b>		2.241		0.750	
RCAT-8C4805	<b>2.560</b>		2.241		0.750	
RCAT-8J0112	<b>2.750</b>		2.491		0.938	
RCAT-8C4806	<b>2.780</b>		2.491		0.938	
RCAT-8C4807	<b>2.810</b>		2.491		0.938	
RCAT-1076579	<b>2.950</b>		2.560		0.430	
RCAT-6J5733	<b>3.000</b>	+0.004 -0.000	2.741		0.996	
RCAT-8T6443	<b>3.000</b>		2.798		1.000	
RCAT-8T8361	<b>3.030</b>		2.741		1.000	
RCAT-8C4947	<b>3.030</b>		2.798		1.000	
RCAT-8T8362	<b>3.060</b>		2.741		1.000	
RCAT-8C4948	<b>3.060</b>		2.798		1.000	
RCAT-8J2577	<b>3.250</b>		2.991		0.750	
RCAT-8J6371	<b>3.250</b>		2.991		1.130	

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

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# 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	▼

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# 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-outil



Manutention de matériel



Transformation des métaux



Industrie minière



Pharmaceutique

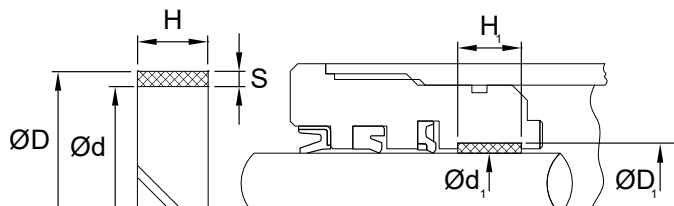


Production d'énergie

# 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 out 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.

Ref.Number	Rod Diameter		Housing Dimensions			
	d1	Tol.	D1	Tol.	H1	Tol.
RCAT-4T6780	1.500	+0.000 -0.002	1.621	+0.001 -0.001	0.984	+0.003 -0.003
RCAT-8C3853	1.500		1.621		2.087	
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	↓

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 - Rod application

Ref.Number	Rod Diameter		Housing Dimensions			
	d1	Tol.	D1	Tol.	H1	Tol.
RCAT-8C3829	3.500	+0.000 -0.004	3.700	+0.001 -0.001	1.772	+0.003 -0.003
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	+0.000 -0.005	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	+0.000 -0.005	6.383	+0.001 -0.001	2.500	+0.003 -0.003
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	▼

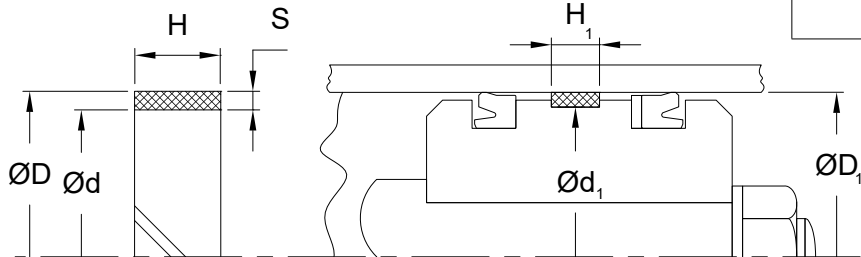
All manufacturer's names, part numbers and descriptions are use for reference purpose only.  
We do not imply that any part shown is the product of these manufacturers.



# 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.

**G. ELEMENTS**

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	

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**

**Increments of 1 ft**



# G. ELEMENTS



**GGB**  
BEARING TECHNOLOGY

# "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 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	GB13DU18									
	.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	GB24DU18	1 1/4	GB24DU20	1 1/2	GB24DU24	2	GB24DU32	
	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"

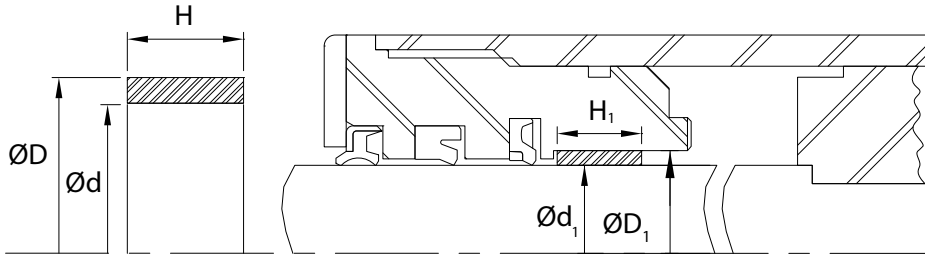
Nominal Bearing Bore	Recommended		Installed Bearing ID *	Bearing Length and Part Number											
	Shaft Dia.	Housing Bore		3	2 1/4	2	2 1/2	3	3 1/2	3 3/4	3	3 1/2	3 3/4		
2 1/8	2.1257 2.1239	2.3118 2.3130	2.1262 2.1326	3	GB34DU48										
2 1/4	2.2507 2.2489	2.4365 2.4377	2.2509 2.573	1 3/4	GB36DU28	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	<b>0.125</b>	0.125	0.187	0.125
GB02DU03	<b>0.125</b>	0.125	0.187	0.187
GB025DU025	<b>0.156</b>	0.155	0.218	0.155
GB025DU04	<b>0.156</b>	0.155	0.218	0.250
GB03DU03	<b>0.187</b>	0.187	0.250	0.187
GB03DU04	<b>0.187</b>	0.187	0.250	0.250
GB03DU06	<b>0.187</b>	0.187	0.250	0.375
GB04DU04	<b>0.250</b>	0.250	0.312	0.250
GB04DU06	<b>0.250</b>	0.250	0.312	0.375
GB05DU06	<b>0.312</b>	0.312	0.375	0.375
GB05DU08	<b>0.312</b>	0.312	0.375	0.500
GB06DU03	<b>0.375</b>	0.375	0.468	0.187
GB06DU04	<b>0.375</b>	0.375	0.468	0.250
GB06DU06	<b>0.375</b>	0.375	0.468	0.375
GB06DU08	<b>0.375</b>	0.375	0.468	0.500
GB06DU10	<b>0.375</b>	0.375	0.468	0.625
GB06DU12	<b>0.375</b>	0.375	0.468	0.750
GB07DU08	<b>0.437</b>	0.437	0.531	0.500
GB07DU12	<b>0.437</b>	0.437	0.531	0.750
GB08DU04	<b>0.500</b>	0.500	0.593	0.250
GB08DU06	<b>0.500</b>	0.500	0.593	0.375
GB08DU08	<b>0.500</b>	0.500	0.593	0.500

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

# "DU" BEARINGS series - BR.PTFE/STEEL



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

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

# "DU" BEARINGS series - BR.PTFE/STEEL

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

Ref.Number	Nominal Rod Dia.	Nominal Bearing Dimensions		
		d	D	H
GB58DU36	<b>3.625</b>	3.625	3.812	2.250
GB58DU40	<b>3.625</b>	3.625	3.812	2.500
GB58DU48	<b>3.625</b>	3.625	3.812	3.000
GB58DU60	<b>3.625</b>	3.625	3.812	3.750
GB58DU80	<b>3.625</b>	3.625	3.812	5.000
GB60DU60	<b>3.750</b>	3.750	3.937	3.750
GB60DU16	<b>3.750</b>	3.750	3.937	1.000
GB60DU28	<b>3.750</b>	3.750	3.937	1.750
GB60DU32	<b>3.750</b>	3.750	3.937	2.000
GB60DU36	<b>3.750</b>	3.750	3.937	2.250
GB60DU40	<b>3.750</b>	3.750	3.937	2.500
GB60DU48	<b>3.750</b>	3.750	3.937	3.000
GB60DU56	<b>3.750</b>	3.750	3.937	3.500
GB60DU80	<b>3.750</b>	3.750	3.937	5.000
GB64DU12	<b>4.000</b>	4.000	4.187	0.750
GB64DU16	<b>4.000</b>	4.000	4.187	1.000
GB64DU18	<b>4.000</b>	4.000	4.187	1.125
GB64DU24	<b>4.000</b>	4.000	4.187	1.500
GB48DU26	<b>4.000</b>	4.000	4.187	1.625
GB64DU32	<b>4.000</b>	4.000	4.187	2.000
GB64DU48	<b>4.000</b>	4.000	4.187	3.000
GB64DU56	<b>4.000</b>	4.000	4.187	3.500
GB64DU60	<b>4.000</b>	4.000	4.187	3.750
GB64DU76	<b>4.000</b>	4.000	4.187	4.750
GB64DU80	<b>4.000</b>	4.000	4.187	5.000
GB64DU72	<b>4.000</b>	4.000	4.187	4.500
GB68DU16	<b>4.250</b>	4.250	4.437	1.000
GB68DU32	<b>4.250</b>	4.250	4.437	2.000
GB68DU40	<b>4.250</b>	4.250	4.437	2.500
GB68DU48	<b>4.250</b>	4.250	4.437	3.000
GB68DU56	<b>4.250</b>	4.250	4.437	3.500
GB68DU64	<b>4.250</b>	4.250	4.437	4.000
GB68DU80	<b>4.250</b>	4.250	4.437	5.000
GB70DU16	<b>4.375</b>	4.375	4.562	1.000
GB70DU32	<b>4.375</b>	4.375	4.562	2.000
GB70DU36	<b>4.375</b>	4.375	4.562	2.250
GB70DU40	<b>4.375</b>	4.375	4.562	2.500
GB70DU48	<b>4.375</b>	4.375	4.562	3.000
GB70DU64	<b>4.375</b>	4.375	4.562	4.000
GB72DU14	<b>4.500</b>	4.500	4.687	0.875
GB72DU32	<b>4.500</b>	4.500	4.687	0.875
GB72DU56	<b>4.500</b>	4.500	4.687	3.500
GB72DU64	<b>4.500</b>	4.500	4.687	4.000
GB72DU72	<b>4.500</b>	4.500	4.687	4.500
GB74DU28	<b>4.625</b>	4.625	4.812	1.750
GB74DU96	<b>4.625</b>	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	<b>4.750</b>	4.750	4.937	1.119
GB76DU30.4	<b>4.750</b>	4.750	4.937	1.900
GB76DU32	<b>4.750</b>	4.750	4.937	2.000
GB76DU36	<b>4.750</b>	4.750	4.937	2.250
GB76DU56	<b>4.750</b>	4.750	4.937	3.500
GB76DU60	<b>4.750</b>	4.750	4.937	3.750
GB76DU64	<b>4.750</b>	4.750	4.937	4.000
GB76DU72	<b>4.750</b>	4.750	4.937	4.500
GB76DU76	<b>4.750</b>	4.750	4.937	4.750
GB76DU80	<b>4.750</b>	4.750	4.937	5.000
GB80DU18	<b>5.000</b>	5.000	5.187	1.125
GB80DU32	<b>5.000</b>	5.000	5.187	2.000
GB80DU48	<b>5.000</b>	5.000	5.187	3.000
GB80DU40	<b>5.000</b>	5.000	5.187	3.500
GB80DU60	<b>5.000</b>	5.000	5.187	3.750
GB80DU64	<b>5.000</b>	5.000	5.187	4.000
GB80DU80	<b>5.000</b>	5.000	5.187	5.000
GB80DU20	<b>5.000</b>	5.000	5.187	1.250
GB80DU72	<b>5.000</b>	5.000	5.187	4.500
GB84DU32	<b>5.250</b>	5.250	5.437	2.000
GB84DU48	<b>5.250</b>	5.250	5.437	3.000
GB84DU60	<b>5.250</b>	5.250	5.437	3.750
GB84DU64	<b>5.250</b>	5.250	5.437	4.000
GB84DU72	<b>5.250</b>	5.250	5.437	4.500
GB88DU32	<b>5.500</b>	5.500	5.687	2.000
GB88DU40	<b>5.500</b>	5.500	5.687	2.500
GB88DU48	<b>5.500</b>	5.500	5.687	3.000
GB88DU56	<b>5.500</b>	5.500	5.687	3.500
GB88DU60	<b>5.500</b>	5.500	5.687	3.750
GB88DU64	<b>5.500</b>	5.500	5.687	4.000
GB88DU72	<b>5.500</b>	5.500	5.687	4.500
GB88DU80	<b>5.500</b>	5.500	5.687	5.000
GB90DU64	<b>5.625</b>	5.625	5.812	4.000

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

**G. ELEMENTS**

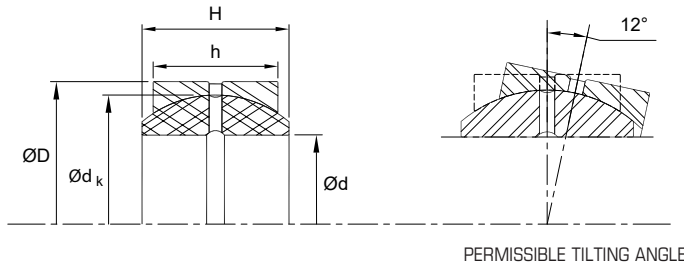


# SBB - Spherical plain bearings - Inch



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

**without seals**



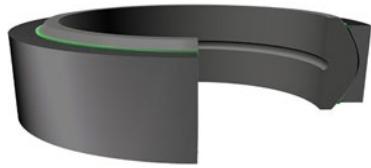
**SBB-style Radial spherical plain bearings** have an inner ring with a sphered convex outside surface and an outer ring with a correspondingly sphered but concave inside surface. Their design makes them particularly suitable for bearing arrangements where alignment movements between shaft and housing 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

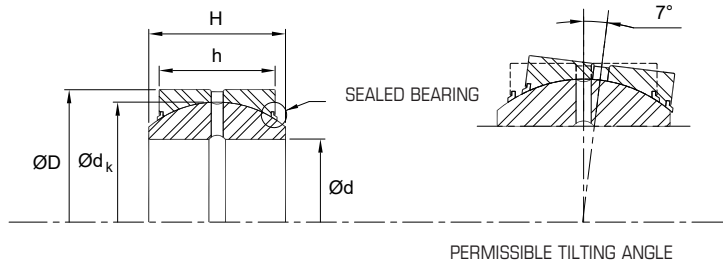


# SBB-2RS - Spherical plain bearings - Inch



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.

G. ELEMENTS



Ref. Number	Nominal Bearing Dimensions					Load ratings Pound-force (lbf)		Weight	
	d	dk	D	h	H	Dynamic	Static	kg	lbs
SBB08-2RS	<b>0.500</b>	0.709	0.875	0.375	0.437	2923	9217	0.022	0.048
SBB10-2RS	<b>0.625</b>	0.906	1.062	0.469	0.547	4946	14613	0.036	0.079
SBB12-2RS	<b>0.750</b>	1.083	1.250	0.562	0.656	6969	21357	0.053	0.117
SBB14-2RS	<b>0.875</b>	1.260	1.437	0.656	0.765	9442	28551	0.085	0.187
SBB16-2RS	<b>1.000</b>	1.417	1.625	0.750	0.875	12589	37318	0.121	0.267
SBB20-2RS	<b>1.250</b>	1.772	2.000	0.937	1.093	19334	58450	0.230	0.507
SBB22-2RS	<b>1.375</b>	1.929	2.187	1.031	1.187	22931	69691	0.350	0.772
SBB24-2RS	<b>1.500</b>	2.165	2.437	1.125	1.312	28101	84303	0.420	0.926
SBB28-2RS	<b>1.750</b>	2.520	2.812	1.312	1.531	38218	114653	0.640	1.410
SBB32-2RS	<b>2.000</b>	2.874	3.187	1.500	1.750	50357	150622	0.930	2.050
SBB36-2RS	<b>2.250</b>	3.228	3.562	1.687	1.969	62947	191088	1.300	2.866
SBB40-2RS	<b>2.500</b>	3.583	3.937	1.875	2.187	79807	238297	1.850	4.079
SBB44-2RS	<b>2.750</b>	3.937	4.375	2.062	2.406	16861	281011	2.400	5.291
SBB48-2RS	<b>3.000</b>	4.331	4.750	2.250	2.625	112404	337213	3.100	6.834
SBB52-2RS	<b>3.250</b>	4.685	5.125	2.437	2.844	131513	395664	3.800	8.378
SBB56-2RS	<b>3.500</b>	5.039	5.500	2.625	3.062	152870	458610	4.800	10.582
SBB60-2RS	<b>3.750</b>	5.394	5.875	2.812	3.281	175351	530549	5.800	12.787
SBB64-2RS	<b>4.000</b>	5.748	6.250	3.000	3.500	202328	595744	7.000	15.432
SBB72-2RS	<b>4.500</b>	6.811	7.000	3.562	4.156	251786	764350	9.800	21.605
SBB76-2RS	<b>4.750</b>	6.811	7.375	3.562	4.156	281011	843034	11.500	25.353
SBB80-2RS	<b>5.000</b>	7.205	7.750	3.750	4.375	314732	932957	13.500	29.762
SBB96-2RS	<b>6.000</b>	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 ZO	N1300-0087
SBB10	0.625	GEZ 010 ES	6SF10	B10-L	GE 15 ZO	N1300-0106
SBB12	0.750	GEZ 012 ES	7SF12	B12-L	GE 19 ZO	N1300-0125
SBB14	0.875	GEZ 014 ES	8SF14	B14-L	GE 22 ZO	N1300-0143
SBB16	1.000	GEZ 100 ES	10SF16	B16-L	GE 25 ZO	N1300-0162
SBB20	1.250	GEZ 104 ES	12SF20	B20-L	GE 31 ZO	N1300-0200
SBB22	1.375	GEZ 106 ES	13SF22	B22-L	GE 34 ZO	N1300-0218
SBB24	1.500	GEZ 108 ES	15SF24	B24-L	GE 38 ZO	N1300-0244
SBB28	1.750	GEZ 112 ES	17SF24	B28-L	GE 28 ZO	N1300-0281
SBB32	2.000	GEZ 200 ES	20SF24	B32-L	GE 32 ZO	N1300-0315
SBB36	2.250	GEZ 204 ES	22SF24	B36-L	GE 36 ZO	N1300-0356
SBB40	2.500	GEZ 208 ES	25SF40	B40-L	GE 63 ZO	N1300-0393
SBB44	2.750	GEZ 212 ES	27SF44	B44-L	GE 69 ZO	N1300-0433
SBB48	3.000	GEZ 300 ES	30SF48	B48-L	GE 76 ZO	N1300-0475
SBB52	3.250	GEZ 304 ES	32SF52	B52-L	GE 82 ZO	N1300-0512
SBB56	3.500	GEZ 308 ES	35SF56	B56-L	GE 88 ZO	N1300-0550
SBB60	3.750	GEZ 312 ES	37SBB60	B60-L	GE 95 ZO	N1300-0587
SBB64	4.000	GEZ 400 ES	40SBB64	B64-L	GE 101 ZO	N1300-0625
SBB72	4.500	GEZ 408 ES	45SFBB72	B72-L	GE 114 ZO	N1300-0700
SBB80	5.000	GEZ 500 ES	50SBB80	B80-L	GE 127 ZO	N1300-0775
SBB96	6.000	GEZ 600 ES	60SBB96	B96-L	GE 152 ZO	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**







<b>INFO</b>	MATERIAL SELECTION	G	2
<b>INFO</b>	STATIC O'RING SEALING	G	10
<b>INFO</b>	DYNAMIC O'RING SEALING	G	12
●■✘	2-XXX O'RINGS	G	14
<b>INFO</b>	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
<b>INFO</b>	ORF AND SAE O'RING REF.	G	57
	SAE FLANGE SEAL	G	58
<b>INFO</b>	BONDED SEALS APPLICATIONS	G	59
<b>INFO</b>	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

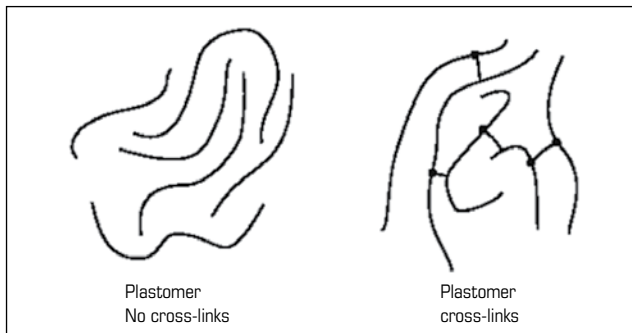


Figure 2-1 : Schematic Representation of polymer Chains

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
<b>M-Group (Saturated carbon molecules in main macro-molecule chain):</b>		
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
<b>O-Group (with oxygen molcules in the main macro-molecule chain):</b>		
Epichlorohydrin Rubber	CO	CO
Epichlorohydrin Copolymer Rubber	ECO	ECO
<b>R-Group (unsaturated hydrogen carbon chain):</b>		
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
<b>Q-Group (with Silicone in the main chain):</b>		
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
<b>U-Group (with carbon, oxygen and nitrogen in the main chain):</b>		
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)

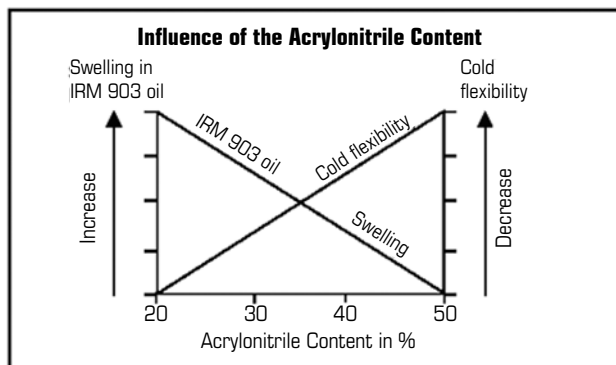


Figure 2-2 : Influence of the Acrylonitrile Content

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).



### 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.

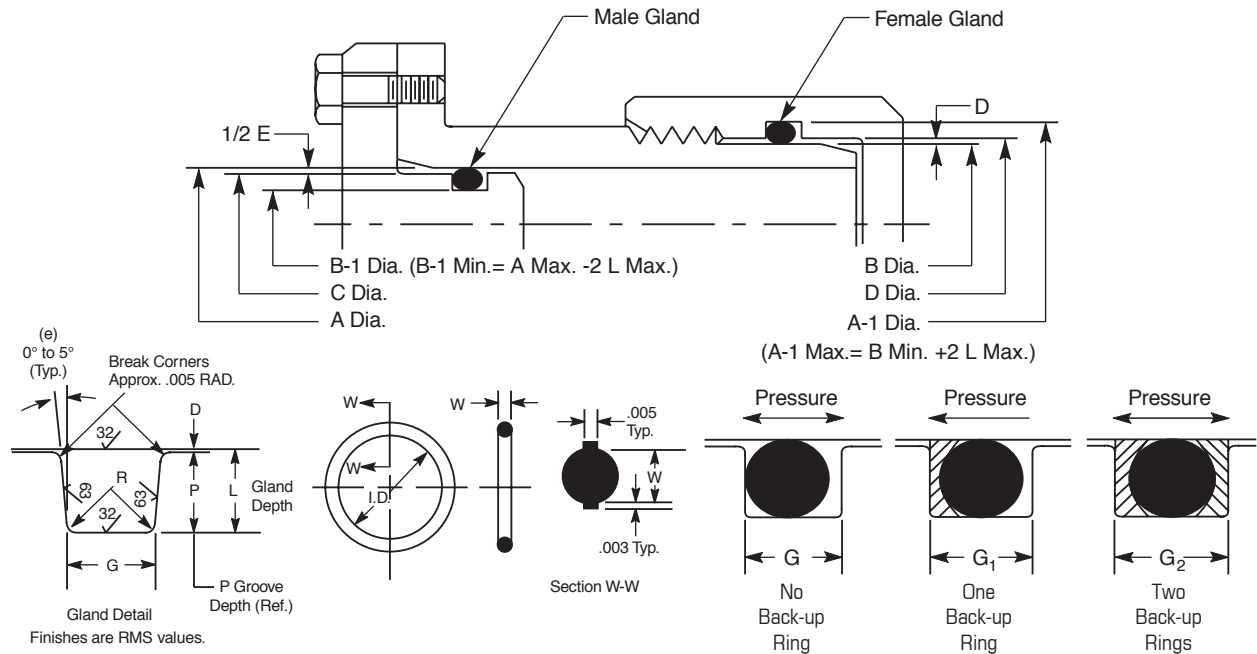
### Not compatible with:

- 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) <sub>1</sub>	No Back-Up Ring (G) <sub>2</sub>		
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.

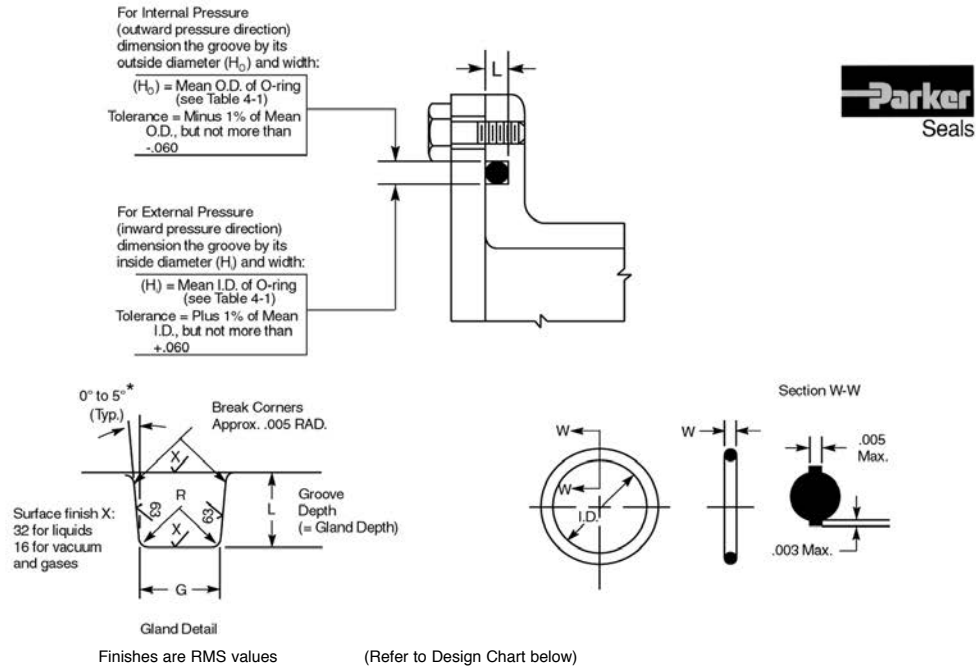
(d) For ease of assembly, when Back-Up Rings are used, glands depth may be increased up to 5%.





# Static O'Ring Sealing

## Face Seal Glands



### Design Chart — For O'Ring Face Seal Glands

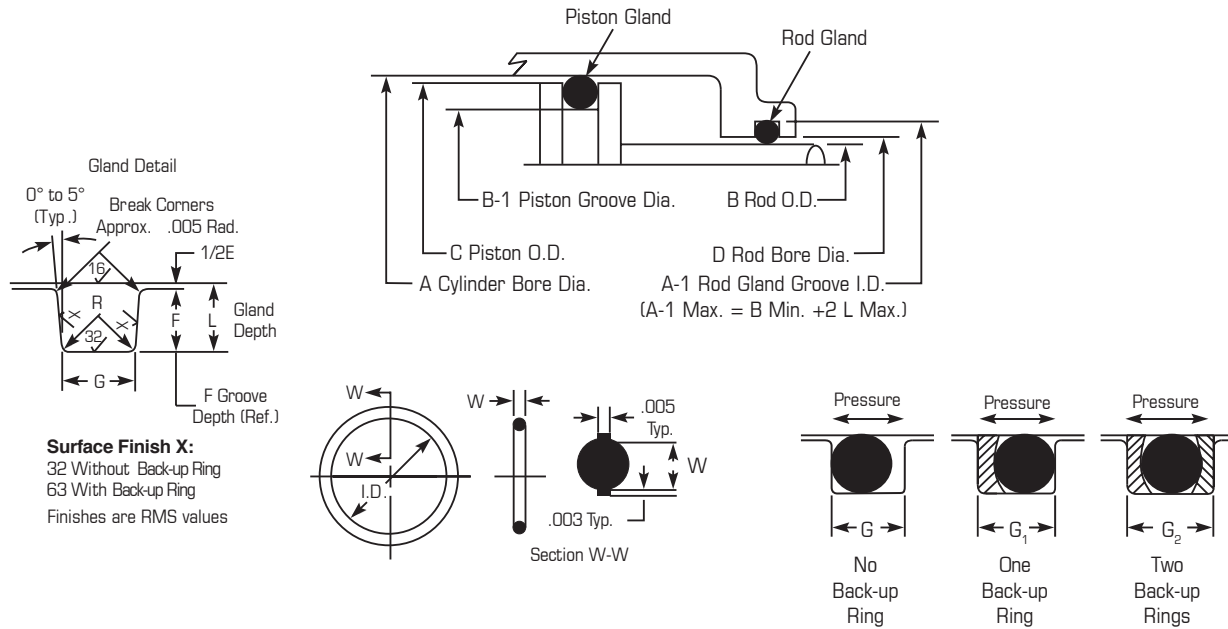
These dimensions are intended primarily for face type O'Ring seals and low temperature applications.

O'Ring Size Parker No.2	W Cross-Section		L Gland depth	Squeeze		G-Groove Width		R Groove Radius
	Nominal	Actual		Actual	%	Liquids	Vacuum and Gases	
004 through 050	1/16	.070 to ± .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 to ± .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 to ± .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 to ± .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 to ± .006	.201 to .211	.058 to .080	21 to 29	.342 to .362	.309 to .314	.020 to .035
Special	3/8	.375 to ± .007	.276 to .286	.082 to .106	22 to 28	.475 to .485	.419 to .424	.030 to .045
Special	1/2	.500 to ± .008	.370 to .380	.112 to .138	22 to 27	.638 to .645	.560 to .565	.030 to .045



# Dynamic O'Ring Sealing

**Design Chart 5-2: For Industrial Reciprocating O'Ring Packing Glands**



**Surface Finish X:**  
 32 Without Back-up Ring  
 63 With Back-up Ring  
 Finishes are RMS values

**O'RINGS**



**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) <sub>1</sub>	No Back-Up Ring (G) <sub>2</sub>		
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.

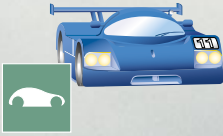
(b) Total indicator reading between groove and adjacent bearing surface.

**Design Chart 5-2: Design Chart for Industrial Reciprocating O'Ring Packing Glands**



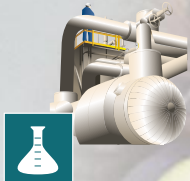
# Applications

Parker O-rings are used in many applications and industries, including:



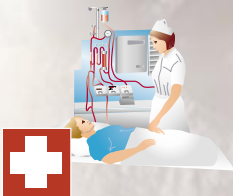
## Transportation

- 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



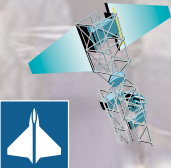
## Medical

- 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



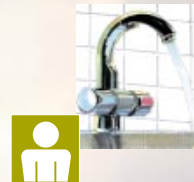
## Energy/Oil Field

- Drilling
- Exploration
- Production
- Transportation



## Fluid Power

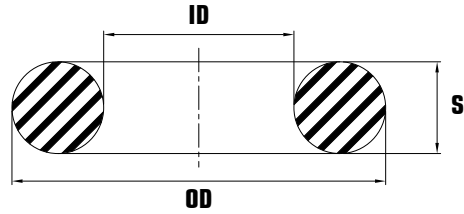
- Accumulators
- Cylinders, valves
- Filters
- Fittings
- Pumps
- Rotary actuators







## Consumer Products

- Appliances
- Compounds meeting the requirements/recommendations: FDA, NSF, WRC, DVGW, BGA, KTW
- Heating/plumbing
- Sanitary equipment

# Series 2-XXX - O'Rings



## Part Number Nomenclature

	O'Rings	<b>2-XXX/Material Identification</b> Ex: 2-001/N70
	BOSS O'Rings	<b>3-XXX/Material Identification</b> Ex: 3-901/N70
	X-Rings	<b>4-XXX/Material Identification</b> Ex: 4-001/QN70
	Square Rings	<b>TS-XXX/Material Identification</b> 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		0.139	.004	0.021	7.52		3.53	.100	2-203
2-204	-204	3/8	5/8	1/8	0.359	.005	0.139		0.024	9.12	.130	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	.035	0.139		0.238	123.42	.890	3.53		2-249
2-250	-250	5	5 1/4	1/8	4.984		0.139		0.244	126.59		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		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		0.275		0.371	43.82		6.99		2-403
2-404	-404	1 7/8	2 3/8	1/4	1.850	.015	0.275	.006	0.394	46.99	.380	6.99	.150	2-404
2-405	-405	2	2 1/2	1/4	1.975		0.275		0.417	50.17		6.99		2-405
2-406	-406	2 1/8	2 5/8	1/4	2.100	.018	0.275		0.441	53.34	.460	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		0.275		1.633	215.27		6.99		2-446
2-447	-447	9	9 1/2	1/4	8.975	.055	0.275	.006	1.726	227.97	1.40	6.99	.150	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		0.275		2.006	266.07		6.99		2-450
2-451	-451	11	11 1/2	1/4	10.975	.060	0.275		2.099	278.77	1.52	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		0.275		3.029	405.26		6.99		2-461
2-462	-462	16 1/2	17	1/4	16.455	.075	0.275		3.122	417.96	1.91	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



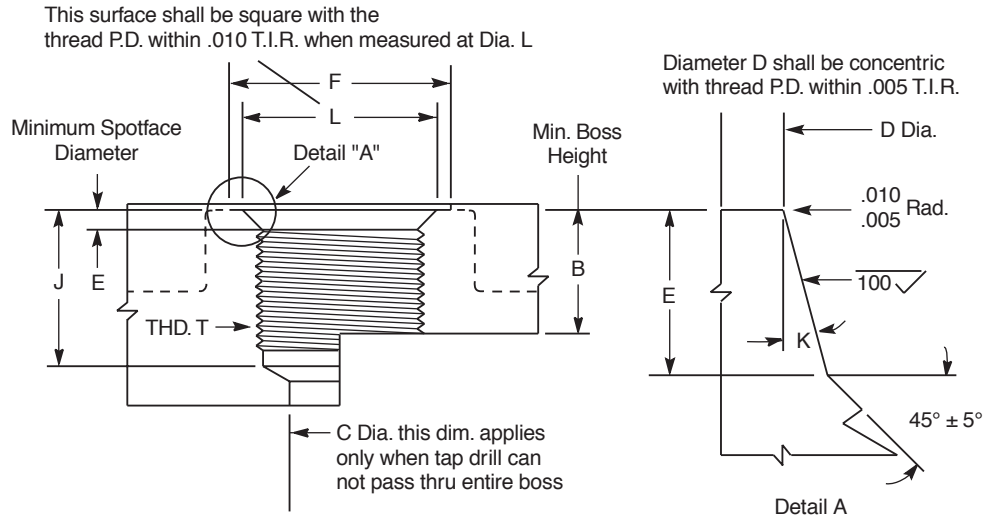
Recreational



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			.750	.719	1.273	.130	1.765	.906	15°	1.375
3-914	.116 ± .004	1.047 ± .010	7/8	1 3/16-12		.750	.844	1.398	.130	1.910	.906	15°	1.500
3-916	.116 ± .004	1.171 ± .010	1	1 5/16-12		.750	1.078	1.713	.132	2.270	.906	15°	1.875
3-918	.116 ± .004	1.355 ± .012	1 1/8			.750	1.312	1.962	.132	2.560	.906	15°	2.125
3-920	.118 ± .004	1.455 ± .014	1 1/4	1 5/8-12		.750	1.781	2.587	.132	3.480	.906	15°	2.750
3-924	.118 ± .004	1.720 ± .014	1 1/2	1 7/8-12									
3-932	.118 ± .004	2.337 ± .018	2	2 1/2-2									

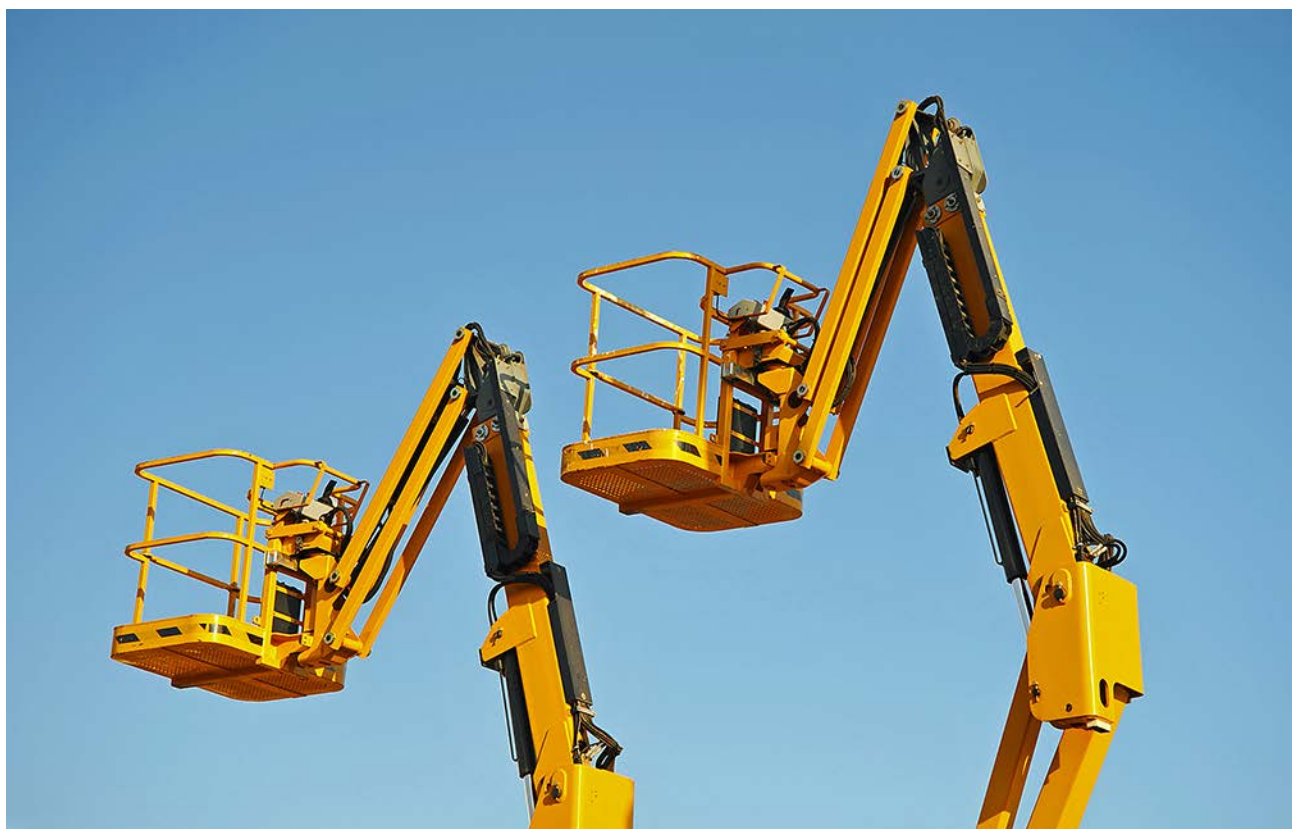
**Boss Dimensions for Industrial Straight Thread Tube Fitting O'Ring Gaskets Per SAE J1926 and MS16142**

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	<b>-901</b>	3/32	0.185		0.056		0.0025	4.70		1.42		3-901
3-902	<b>-902</b>	1/8	0.239	.005	0.064	.003	0.0034	6.07	.130	1.63	.080	3-902
3-903	<b>-903</b>	3/16	0.301		0.064		0.0032	7.65		1.63		3-903
3-904	<b>-904</b>	1/4	0.351		0.072		0.0041	8.92		1.83		3-904
3-905	<b>-905</b>	5/16	0.414		0.072		0.0041	10.52		1.83		3-905
3-906	<b>-906</b>	3/8	0.468	▼	0.078		0.0048	11.89	▼	1.98		3-906
3-907	<b>-907</b>	7/16	0.530	.007	0.082		0.0053	13.46	.180	2.08		3-907
3-908	<b>-908</b>	1/2	0.644	.009	0.087		0.0059	16.36	.230	2.21		3-908
3-909	<b>-909</b>	9/16	0.706		0.097		0.0074	17.93		2.46		3-909
3-910	<b>-910</b>	5/8	0.755	▼	0.097	▼	0.0074	19.18		2.46	▼	3-910
3-911	<b>-911</b>	11/16	0.863	▼	0.116	.004	0.0106	21.92	▼	2.95	.100	3-911
3-912	<b>-912</b>	3/4	0.924	▼	0.116		0.0106	23.47	▼	2.95		3-912
3-913	<b>-913</b>	13/16	0.986	.010	0.116		0.0106	25.04	.260	2.95		3-913
3-914	<b>-914</b>	7/8	1.047		0.116		0.0106	26.59		2.95		3-914
3-916	<b>-916</b>	1	1.171	▼	0.116		0.0106	29.74		2.95		3-916
3-918	<b>-918</b>	1 1/8	1.355	.012	0.116		0.0106	34.42	.300	2.95		3-918
3-920	<b>-920</b>	1 1/4	1.475	.014	0.118		0.0109	37.47	.360	3.00		3-920
3-924	<b>-924</b>	1 1/2	1.72		0.118		0.0109	43.69		3.00		3-924
3-928	<b>-928</b>	1 3/4	2.09	.018	0.118		0.0109	53.09	.460	3.00		3-928
3-932	<b>-932</b>	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

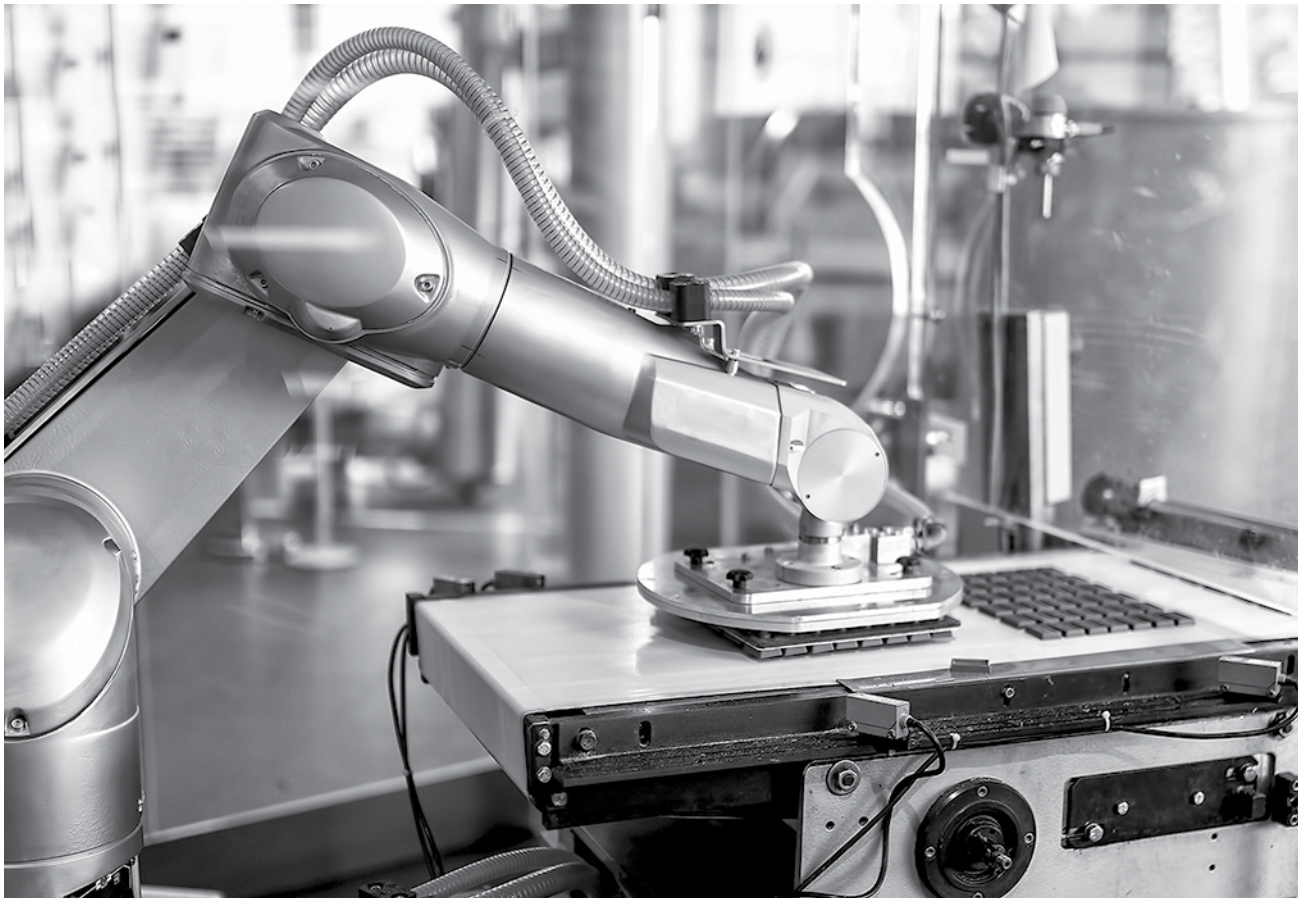


Standard Materials	Temperature Range
Nitrile 70A	-30°F to +250°F (-34°C to +121°C)

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.

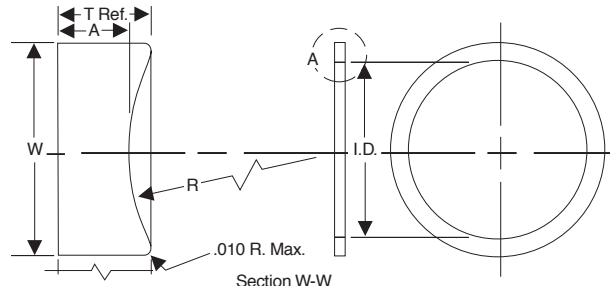
**Alternate Materials:** For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

CROSS SECTION DIAMETER AVAILABLE																
<b>NITRILE 70A</b>																
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"
<b>FLUOROCARBON 75A</b>																
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"
<b>ETHYLENE PROPYLENE 80A</b>																
1/16"	3/32"		1/8"		3/16"		1/4"		5/16"							
.070"	.093"	.103"	.125"	.139"	.187"	.210"	.250"	.275"	.312"							
<b>SILICONE 70A</b>																
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	<b>8-XXX/N90</b> <b>Ex: 8-001/N90</b>
	Back-up rings	<b>8-XXX/Material Identification</b> <b>Ex: 8-001/U</b>

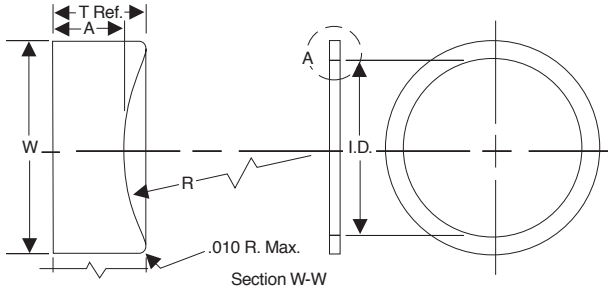
Material	Abbreviation	Duro	Color	Identification	Temperature Range *
Nitrile	NBR	90A	Black	N90	-40°F to +250°F (-40°C to +121°C)
Polyurethane	AU	95A	Black/Clear	U	-60°F to +250°F (-51°C to +121°C)
Polytetrafluoroethylene	PTFE	55D	White	T	-320°F to +450°F (-196°C to +232°C)
Polymyte	TPE	56D	Orange	P	-65°F 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	<b>0.096</b>	.005	.087	.049	.045	.003	.053	.003
8-005	<b>0.127</b>		.087	.049	.045		.053	
8-006	<b>0.140</b>		.087	.049	.045		.053	
8-007	<b>0.171</b>		.087	.049	.045		.053	
8-008	<b>0.202</b>		.087	.049	.045		.053	
8-009	<b>0.234</b>		.087	.049	.045		.053	
8-010	<b>0.265</b>		.087	.049	.045		.053	
8-011	<b>0.327</b>		.087	.049	.045		.053	
8-012	<b>0.390</b>		.087	.049	.045		.053	
8-013	<b>0.455</b>		.087	.049	.045		.053	
8-014	<b>0.518</b>	↓	.087	.049	.045		.053	
8-015	<b>0.580</b>	.007	.087	.049	.045		.053	
8-016	<b>0.643</b>	.009	.087	.049	.045		.053	
8-017	<b>0.705</b>		.087	.049	.045		.053	
8-018	<b>0.768</b>		.087	.049	.045		.053	
8-019	<b>0.830</b>		.087	.049	.045		.053	
8-020	<b>0.893</b>		.087	.049	.045		.053	
8-021	<b>0.955</b>	↓	.087	.049	.045		.053	
8-022	<b>1.018</b>	.010	.087	.049	.045		.053	
8-023	<b>1.080</b>		.087	.049	.045		.053	
8-024	<b>1.143</b>	↓	.087	.049	.045		.053	
8-025	<b>1.205</b>	.011	.087	.049	.045	↓	.053	↓

Dash No.	I.D. (in.)	Tol. ±	R ±.010	T (Ref.)	A (in.)	Tol. ±	W (in.)	Tol. ±
8-026	<b>1.268</b>	.011	.087	.049	.045	.003	.053	.003
8-027	<b>1.330</b>		.087	.049	.045		.053	
8-028	<b>1.393</b>	.013	.087	.049	.045		.053	
8-029	<b>1.518</b>		.087	.049	.045		.053	
8-030	<b>1.643</b>	↓	.087	.049	.045		.053	
8-031	<b>1.768</b>	.015	.087	.049	.045		.053	
8-032	<b>1.893</b>		.087	.049	.045		.053	
8-033	<b>2.018</b>	.087	.087	.049	.045		.053	
8-034	<b>2.143</b>		.087	.049	.045		.053	
8-035	<b>2.268</b>		.087	.049	.045		.053	
8-036	<b>2.393</b>		.087	.049	.045		.053	
8-037	<b>2.518</b>	↓	.087	.049	.045		.053	
8-038	<b>2.643</b>	.020	.087	.049	.045		.053	
8-039	<b>2.768</b>		.087	.049	.045		.053	
8-040	<b>2.893</b>	↓	.087	.049	.045		.053	
8-041	<b>3.018</b>	.024	.087	.049	.045		.053	
8-042	<b>3.268</b>		.087	.049	.045		.053	
8-043	<b>3.518</b>	↓	.087	.049	.045		.053	
8-044	<b>3.768</b>	.027	.087	.049	.045		.053	
8-045	<b>4.018</b>		.087	.049	.045		.053	
8-046	<b>4.268</b>	.030	.087	.049	.045		.053	
8-047	<b>4.518</b>		.087	.049	.045	↓	.053	↓

# Back-up Rings - NBR 90

Dash No.	I.D. (in.)	Tol. ±	R ±.010	T (Ref.)	A (in.)	Tol. ±	W (in.)	Tol. ±
8-048	<b>4.768</b>	0.030	.087	.049	.045	.003	.053	.003
8-049	<b>5.018</b>	.037	.087	.049	.045		.053	
8-050	<b>5.268</b>		.087	.049	.045		.053	
8-102	<b>0.077</b>	.005	.129	.053	.045		.086	
8-103	<b>0.109</b>		.129	.053	.045		.086	
8-104	<b>0.140</b>		.129	.053	.045		.086	
8-105	<b>0.171</b>		.129	.053	.045		.086	
8-106	<b>0.202</b>		.129	.053	.045		.086	
8-107	<b>0.234</b>		.129	.053	.045		.086	
8-108	<b>0.265</b>		.129	.053	.045		.086	
8-109	<b>0.327</b>		.129	.053	.045		.086	
8-110	<b>0.390</b>		.129	.053	.045		.086	
8-111	<b>0.452</b>		.129	.053	.045		.086	
8-112	<b>0.515</b>	▼	.129	.053	.045		.086	
8-113	<b>0.577</b>	0.007	.129	.053	.045		.086	
8-114	<b>0.64</b>	.009	.129	.053	.045		.086	
8-115	<b>0.702</b>		.129	.053	.045		.086	
8-116	<b>0.765</b>	▼	.129	.053	.045		.086	
8-117	<b>0.831</b>	.010	.129	.053	.045		.086	
8-118	<b>0.893</b>		.129	.053	.045		.086	
8-119	<b>0.956</b>		.129	.053	.045		.086	
8-120	<b>1.018</b>		.129	.053	.045		.086	
8-121	<b>1.081</b>		.129	.053	.045		.086	
8-122	<b>1.143</b>	▼	.129	.053	.045		.086	
8-123	<b>1.206</b>	.012	.129	.053	.045		.086	
8-124	<b>1.268</b>		.129	.053	.045		.086	
8-125	<b>1.331</b>		.129	.053	.045		.086	
8-126	<b>1.393</b>		.129	.053	.045		.086	
8-127	<b>1.456</b>		.129	.053	.045		.086	
8-128	<b>1.518</b>	▼	.129	.053	.045		.086	
8-129	<b>1.581</b>	.015	.129	.053	.045		.086	
8-130	<b>1.643</b>		.129	.053	.045		.086	
8-131	<b>1.706</b>		.129	.053	.045		.086	
8-132	<b>1.768</b>		.129	.053	.045		.086	
8-133	<b>1.831</b>		.129	.053	.045		.086	
8-134	<b>1.893</b>	▼	.129	.053	.045		.086	
8-135	<b>1.956</b>	.017	.129	.053	.045		.086	
8-136	<b>2.018</b>		.129	.053	.045		.086	
8-137	<b>2.081</b>		.129	.053	.045		.086	
8-138	<b>2.143</b>		.129	.053	.045		.086	
8-139	<b>2.206</b>		.129	.053	.045		.086	
8-140	<b>2.268</b>	▼	.129	.053	.045		.086	
8-141	<b>2.331</b>	.020	.129	.053	.045		.086	
8-142	<b>2.393</b>		.129	.053	.045		.086	
8-143	<b>2.456</b>		.129	.053	.045		.086	
8-144	<b>2.518</b>	▼	.129	.053	.045	▼	.086	▼

Dash No.	I.D. (in.)	Tol. ±	R ±.010	T (Ref.)	A (in.)	Tol. ±	W (in.)	Tol. ±
8-145	<b>2.581</b>	.020	.087	.053	.045	.003	.053	.003
8-146	<b>2.643</b>		.087	.053	.045		.053	
8-147	<b>2.706</b>	.022	.087	.053	.045		.053	
8-148	<b>2.768</b>		.087	.053	.045		.053	
8-149	<b>2.831</b>	▼	.087	.053	.045		.053	
8-150	<b>2.893</b>		.087	.053	.045		.053	
8-151	<b>3.018</b>	.022	.087	.053	.045		.053	
8-152	<b>3.268</b>		.087	.053	.045		.053	
8-153	<b>3.518</b>	▼	.087	.053	.045		.053	
8-154	<b>3.768</b>	.028	.087	.053	.045		.053	
8-155	<b>4.018</b>		.087	.053	.045		.053	
8-156	<b>4.268</b>	.030	.087	.053	.045		.053	
8-157	<b>4.518</b>		.087	.053	.045		.053	
8-158	<b>4.768</b>	▼	.087	.053	.045		.053	
8-159	<b>5.018</b>	.030	.087	.053	.045		.053	
8-160	<b>5.268</b>		.087	.053	.045		.053	
8-161	<b>5.518</b>	▼	.087	.053	.045		.053	
8-162	<b>5.768</b>	▼	.087	.053	.045		.053	
8-163	<b>6.018</b>	0.035	.087	.053	.045		.053	
8-164	<b>6.268</b>	.040	.087	.053	.045		.053	
8-165	<b>6.518</b>		.087	.053	.045		.053	
8-166	<b>6.768</b>		.087	.053	.045		.053	
8-167	<b>7.018</b>	▼	.087	.053	.045		.053	
8-168	<b>7.268</b>	.045	.087	.053	.045		.053	
8-169	<b>7.518</b>		.087	.053	.045		.053	
8-170	<b>7.768</b>	▼	.087	.053	.045		.053	
8-171	<b>8.018</b>		.087	.053	.045		.053	
8-172	<b>8.268</b>	.050	.087	.053	.045		.053	
8-173	<b>8.518</b>		.087	.053	.045		.053	
8-174	<b>8.768</b>	▼	.087	.053	.045		.053	
8-175	<b>9.018</b>		.087	.053	.045		.053	
8-176	<b>9.268</b>	.055	.087	.053	.045		.053	
8-177	<b>9.518</b>		.087	.053	.045		.053	
8-178	<b>9.768</b>	▼	.129	.053	.045		.086	▼
8-201	<b>0.202</b>	.005	.174	.050	.040		.118	.004
8-202	<b>0.265</b>		.174	.050	.040		.118	
8-203	<b>0.327</b>		.174	.050	.040		.118	
8-204	<b>0.39</b>		.174	.050	.040		.118	
8-205	<b>0.455</b>		.174	.050	.040		.118	
8-206	<b>0.518</b>	▼	.174	.050	.040		.118	
8-207	<b>0.58</b>	0.007	.174	.050	.040		.118	
8-208	<b>0.643</b>	.009	.174	.050	.040		.118	
8-209	<b>0.705</b>		.174	.050	.040		.118	
8-210	<b>0.766</b>	.010	.174	.050	.040		.118	
8-211	<b>0.828</b>		.174	.050	.040		.118	
8-212	<b>0.891</b>	▼	.174	.050	.040	▼	.118	▼

O-RINGS



# 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	<b>0.953</b>	.010	.174	.050	.040	.003	.118	.004
8-214	<b>1.016</b>		.174	.050	.040		.118	
8-215	<b>1.078</b>	▼	.174	.050	.040		.118	
8-216	<b>1.141</b>	.012	.174	.050	.040		.118	
8-217	<b>1.203</b>		.174	.050	.040	.118		
8-218	<b>1.266</b>		.174	.050	.040		.118	
8-219	<b>1.334</b>		.174	.050	.040		.118	
8-220	<b>1.397</b>		.174	.050	.040		.118	
8-221	<b>1.459</b>	▼	.174	.050	.040		.118	
8-222	<b>1.522</b>	.015	.174	.050	.040		.118	
8-223	<b>1.647</b>		.174	.050	.040	.118		
8-224	<b>1.772</b>	▼	.174	.050	.040		.118	
8-225	<b>1.897</b>	.018	.174	.050	.040		.118	
8-226	<b>2.022</b>		.174	.050	.040	.118		
8-227	<b>2.147</b>	▼	.174	.050	.040		.118	
8-228	<b>2.272</b>	.020	.174	.050	.040		.118	
8-229	<b>2.397</b>		.174	.050	.040	.118		
8-230	<b>2.522</b>		.174	.050	.040		.118	
8-231	<b>2.631</b>	▼	.174	.050	.040		.118	
8-232	<b>2.756</b>	.024	.174	.050	.040		.118	
8-233	<b>2.881</b>		.174	.050	.040	.118		
8-234	<b>3.006</b>		.174	.050	.040		.118	
8-235	<b>3.131</b>		.174	.050	.040		.118	
8-236	<b>3.256</b>		.174	.050	.040		.118	
8-237	<b>3.381</b>		.174	.050	.040		.118	
8-238	<b>3.506</b>	▼	.174	.050	.040		.118	
8-239	<b>3.631</b>	.028	.174	.050	.040		.118	
8-240	<b>3.756</b>		.174	.050	.040	.118		
8-241	<b>3.881</b>		.174	.050	.040		.118	
8-242	<b>4.006</b>		.174	.050	.040		.118	
8-243	<b>4.131</b>	▼	.174	.050	.040		.118	
8-244	<b>4.256</b>	.030	.174	.050	.040		.118	
8-245	<b>4.381</b>		.174	.050	.040	.118		
8-246	<b>4.506</b>		.174	.050	.040		.118	
8-247	<b>4.631</b>		.174	.050	.040		.118	
8-248	<b>4.768</b>	▼	.174	.050	.040		.118	
8-249	<b>4.893</b>	.035	.174	.050	.040		.118	
8-250	<b>5.018</b>		.174	.050	.040	.118		
8-251	<b>5.143</b>		.174	.050	.040		.118	
8-252	<b>5.268</b>		.174	.050	.040		.118	
8-253	<b>5.393</b>		.174	.050	.040		.118	
8-254	<b>5.518</b>		.174	.050	.040		.118	
8-255	<b>5.643</b>		.174	.050	.040		.118	
8-256	<b>5.768</b>		.174	.050	.040		.118	
8-257	<b>5.893</b>		.174	.050	.040		.118	
8-258	<b>6.018</b>	▼	.174	.050	.040	▼	.118	▼

Dash No.	I.D. (in.)	Tol. ±	R ±.010	T (Ref.)	A (in.)	Tol. ±	W (in.)	Tol. ±
8-259	<b>6.268</b>	.040	.174	.050	.040	.003	.118	.004
8-260	<b>6.518</b>		.174	.050	.040		.118	
8-261	<b>6.768</b>	▼	.174	.050	.040		.118	
8-262	<b>7.018</b>	▼	.174	.050	.040		.118	
8-263	<b>7.268</b>	.045	.174	.050	.040		.118	
8-264	<b>7.518</b>		.174	.050	.040	.118		
8-265	<b>7.768</b>		.174	.050	.040		.118	
8-266	<b>8.018</b>	▼	.174	.050	.040		.118	
8-267	<b>8.268</b>	.050	.174	.050	.040		.118	
8-268	<b>8.518</b>		.174	.050	.040	.118		
8-269	<b>8.768</b>		.174	.050	.040		.118	
8-270	<b>9.018</b>	▼	.174	.050	.040		.118	
8-271	<b>9.268</b>	.055	.174	.050	.040		.118	
8-272	<b>9.518</b>		.174	.050	.040	.118		
8-273	<b>9.768</b>		.174	.050	.040		.118	
8-274	<b>10.018</b>		.174	.050	.040		.118	
8-275	<b>10.518</b>	▼	.174	.050	.040		.118	
8-276	<b>11.018</b>	.065	.174	.050	.040		.118	
8-277	<b>11.518</b>		.174	.050	.040	.118		
8-278	<b>12.018</b>		.174	.050	.040		.118	
8-279	<b>13.018</b>		.174	.050	.040		.118	
8-280	<b>14.018</b>		.174	.050	.040		.118	
8-281	<b>15.018</b>	▼	.174	.050	.040		.118	
8-282	<b>15.989</b>	.075	.174	.050	.040		.118	
8-283	<b>16.989</b>	.080	.174	.050	.040	▼	.118	▼
8-284	<b>17.989</b>	.085	.174	.050	.040	.004	.118	.005
8-309	<b>0.450</b>	.005	.262	.076	.060	.004	.183	.005
8-310	<b>0.513</b>		.262	.076	.060		.183	
8-311	<b>0.575</b>	.007	.262	.076	.060		.183	
8-312	<b>0.638</b>	.009	.262	.076	.060		.183	
8-313	<b>0.700</b>	.009	.262	.076	.060		.183	
8-314	<b>0.763</b>	.010	.262	.076	.060		.183	
8-315	<b>0.825</b>		.262	.076	.060	.183		
8-316	<b>0.888</b>		.262	.076	.060		.183	
8-317	<b>0.950</b>		.262	.076	.060		.183	
8-318	<b>1.013</b>		.262	.076	.060		.183	
8-319	<b>1.075</b>	▼	.262	.076	.060		.183	
8-320	<b>1.138</b>	.012	.262	.076	.060		.183	
8-321	<b>1.200</b>		.262	.076	.060	.183		
8-322	<b>1.263</b>		.262	.076	.060		.183	
8-323	<b>1.316</b>		.262	.076	.060		.183	
8-324	<b>1.388</b>	▼	.262	.076	.060		.183	
8-325	<b>1.513</b>	.015	.262	.076	.060		.183	
8-326	<b>1.638</b>		.262	.076	.060	.183		
8-327	<b>1.763</b>		.262	.076	.060		.183	
8-328	<b>1.888</b>	▼	.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	<b>2.013</b>		.262	.076	.060		.183	
8-330	<b>2.138</b>	.018	.262	.076	.060	.004	.183	.005
8-331	<b>2.268</b>		.262	.076	.060		.183	
8-332	<b>2.393</b>	▼	.262	.076	.060		.183	
8-333	<b>2.518</b>		.262	.076	.060		.183	
8-334	<b>2.643</b>	.020	.262	.076	.060		.183	
8-335	<b>2.768</b>		.262	.076	.060		.183	
8-336	<b>2.893</b>	▼	.262	.076	.060		.183	
8-337	<b>3.018</b>	.024	.262	.076	.060		.183	
8-338	<b>3.143</b>		.262	.076	.060		.183	
8-339	<b>3.273</b>		.262	.076	.060		.183	
8-340	<b>3.398</b>		.262	.076	.060		.183	
8-341	<b>3.523</b>	▼	.262	.076	.060		.183	
8-342	<b>3.648</b>		.262	.076	.060		.183	
8-343	<b>3.773</b>	.028	.262	.076	.060		.183	
8-344	<b>3.898</b>		.262	.076	.060		.183	
8-345	<b>4.028</b>		.262	.076	.060		.183	
8-346	<b>4.153</b>	▼	.262	.076	.060		.183	
8-347	<b>4.278</b>	.030	.262	.076	.060		.183	
8-348	<b>4.403</b>		.262	.076	.060		.183	
8-349	<b>4.528</b>		.262	.076	.060		.183	
8-350	<b>4.653</b>		.262	.076	.060		.183	
8-351	<b>4.778</b>		.262	.076	.060		.183	
8-352	<b>4.903</b>	▼	.262	.076	.060		.183	
8-353	<b>5.028</b>		.262	.076	.060		.183	
8-354	<b>5.153</b>	.037	.262	.076	.060		.183	
8-355	<b>5.278</b>		.262	.076	.060		.183	
8-356	<b>5.403</b>		.262	.076	.060		.183	
8-357	<b>5.528</b>		.262	.076	.060		.183	
8-358	<b>5.653</b>		.262	.076	.060		.183	
8-359	<b>5.778</b>		.262	.076	.060		.183	
8-360	<b>5.903</b>		.262	.076	.060		.183	
8-361	<b>6.028</b>	▼	.262	.076	.060		.183	
8-362	<b>6.278</b>	.040	.262	.076	.060		.183	
8-363	<b>6.528</b>		.262	.076	.060		.183	
8-364	<b>6.778</b>		.262	.076	.060		.183	
8-365	<b>7.028</b>	▼	.262	.076	.060		.183	
8-366	<b>7.278</b>	.045	.262	.076	.060		.183	
8-367	<b>7.528</b>		.262	.076	.060		.183	
8-368	<b>7.778</b>		.262	.076	.060		.183	
8-369	<b>8.028</b>	▼	.262	.076	.060		.183	
8-370	<b>8.278</b>	.050	.262	.076	.060		.183	
8-371	<b>8.528</b>		.262	.076	.060		.183	
8-372	<b>8.778</b>		.262	.076	.060		.183	
8-373	<b>9.028</b>	▼	.262	.076	.060		.183	
8-374	<b>9.278</b>	.055	.262	.076	.060	▼	.183	▼

Dash No.	I.D. (in.)	Tol. ±	R ±.010	T (Ref.)	A (in.)	Tol. ±	W (in.)	Tol. ±
8-375	<b>9.528</b>		.262	.076	.060		.183	
8-376	<b>9.778</b>	.018	.262	.076	.060	.003	.183	.003
8-377	<b>10.028</b>	▼	.262	.076	.060		.183	
8-378	<b>10.528</b>		.262	.076	.060		.183	
8-379	<b>11.028</b>	.060	.262	.076	.060		.183	
8-380	<b>11.528</b>		.262	.076	.060		.183	
8-381	<b>12.028</b>	.065	.262	.076	.060		.183	
8-382	<b>13.028</b>	▼	.262	.076	.060		.183	
8-383	<b>14.028</b>	.070	.262	.076	.060		.183	
8-384	<b>15.028</b>		.262	.076	.060		.183	
8-385	<b>16.008</b>	.075	.262	.076	.060		.183	
8-386	<b>17.008</b>	.080	.262	.076	.060		.183	
8-387	<b>18.008</b>	.085	.262	.076	.060		.183	
8-388	<b>19.006</b>	.090	.262	.076	.060		.183	
8-389	<b>20.006</b>		.262	.076	.060		.183	
8-390	<b>21.006</b>	.095	.262	.076	.060		.183	
8-391	<b>22.006</b>	.100	.262	.076	.060		.183	
8-392	<b>22.993</b>	.105	.262	.076	.060		.183	
8-393	<b>23.993</b>	.110	.262	.076	.060		.183	
8-394	<b>24.993</b>	.115	.262	.076	.060		.183	
8-395	<b>25.993</b>	.120	.262	.076	.060	▼	.183	▼
8-425	<b>4.551</b>	.033	.344	.117	.096	.005	.236	.005
8-426	<b>4.676</b>		.344	.117	.096		.236	
8-427	<b>4.801</b>		.344	.117	.096		.236	
8-428	<b>4.926</b>	▼	.344	.117	.096		.236	
8-429	<b>5.051</b>		.344	.117	.096		.236	
8-430	<b>5.176</b>	.037	.344	.117	.096		.236	
8-431	<b>5.301</b>		.344	.117	.096		.236	
8-432	<b>5.426</b>		.344	.117	.096		.236	
8-433	<b>5.551</b>		.344	.117	.096		.236	
8-434	<b>5.676</b>		.344	.117	.096		.236	
8-435	<b>5.801</b>		.344	.117	.096		.236	
8-436	<b>5.926</b>		.344	.117	.096		.236	
8-437	<b>6.051</b>	▼	.344	.117	.096		.236	
8-438	<b>6.274</b>	.040	.344	.117	.096		.236	
8-439	<b>6.524</b>		.344	.117	.096		.236	
8-440	<b>6.774</b>		.344	.117	.096		.236	
8-441	<b>7.024</b>	▼	.344	.117	.096		.236	
8-442	<b>7.274</b>		.344	.117	.096		.236	
8-443	<b>7.524</b>	.045	.344	.117	.096		.236	
8-444	<b>7.774</b>		.344	.117	.096		.236	
8-445	<b>8.024</b>	▼	.344	.117	.096		.236	
8-446	<b>8.524</b>		.344	.117	.096		.236	
8-447	<b>9.024</b>	.055	.344	.117	.096		.236	
8-448	<b>9.524</b>		.344	.117	.096		.236	
8-449	<b>10.024</b>	▼	.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	<b>10.524</b>	.060	.344	.117	.096	.005	.236	.006
8-451	<b>11.024</b>		.344	.117	.096		.236	
8-452	<b>11.524</b>		.344	.117	.096		.236	
8-453	<b>12.024</b>		.344	.117	.096		.236	
8-454	<b>12.524</b>		.344	.117	.096		.236	
8-455	<b>13.024</b>	▼	.344	.117	.096		.236	
8-456	<b>13.524</b>	.070	.344	.117	.096		.236	
8-457	<b>14.024</b>		.344	.117	.096	.236		
8-458	<b>14.524</b>		.344	.117	.096		.236	
8-459	<b>15.024</b>		.344	.117	.096		.236	
8-460	<b>15.524</b>	▼	.344	.117	.096		.236	
8-461	<b>16.004</b>	.075	.344	.117	.096		.236	
8-462	<b>16.504</b>		.344	.117	.096	▼	.236	▼

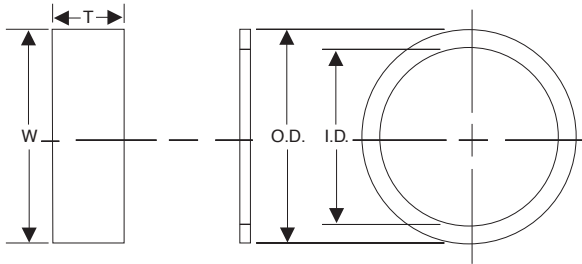
Dash No.	I.D. (in.)	Tol. ±	R ±.010	T (Ref.)	A (in.)	Tol. ±	W (in.)	Tol. ±
8-463	<b>17.004</b>	0.080	.344	.117	.096	.005	.236	.006
8-464	<b>17.504</b>	.085	.344	.117	.096		.236	
8-465	<b>18.004</b>			.344	.117	.096		.236
8-466	<b>18.504</b>	▼	.344	.117	.096		.236	
8-467	<b>19.004</b>	.090	.344	.117	.096		.236	
8-468	<b>19.504</b>		.344	.117	.096	.236		
8-469	<b>20.004</b>	.095	.344	.117	.096		.236	
8-470	<b>21.004</b>		.344	.117	.096	.236		
8-471	<b>22.004</b>	0.100	.344	.117	.096		.236	
8-472	<b>23.004</b>	0.105	.344	.117	.096		.236	
8-473	<b>24.004</b>	0.110	.344	.117	.096		.236	
8-474	<b>25.004</b>	0.115	.344	.117	.096		.236	
8-475	<b>26.004</b>	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	<b>5/64</b>	13/64	0.045	.003	0.053	.003
8-005	<b>3/32</b>	7/32	0.045		0.053	
8-006	<b>1/8</b>	1/4	0.045		0.053	
8-007	<b>5/32</b>	9/32	0.045		0.053	
8-008	<b>3/16</b>	5/16	0.045		0.053	
8-009	<b>7/32</b>	11/32	0.045		0.053	
8-010	<b>1/4</b>	3/8	0.040		0.053	
8-011	<b>5/16</b>	7/16	0.040		0.053	
8-012	<b>3/8</b>	1/2	0.040		0.053	
8-013	<b>7/16</b>	9/16	0.040		0.053	
8-014	<b>1/2</b>	5/8	0.040		0.053	
8-015	<b>9/16</b>	11/16	0.040		0.053	
8-016	<b>5/8</b>	3/4	0.040		0.053	
8-017	<b>11/16</b>	13/16	0.040		0.053	
8-018	<b>3/4</b>	7/8	0.040		0.053	
8-019	<b>13/16</b>	15/16	0.040		0.053	
8-020	<b>7/8</b>	1	0.040		0.053	
8-021	<b>15/16</b>	1 1/16	0.040		0.053	
8-022	<b>1</b>	1 1/8	0.040		0.053	
8-023	<b>1 1/16</b>	1 3/16	0.040		0.053	
8-024	<b>1 1/8</b>	1 1/4	0.040		0.053	
8-025	<b>1 3/16</b>	1 5/16	0.040	▼	0.053	▼

Ref. Number	Nominal Size		Actual Dimensions			
	ID	OD	T	Tol. +/-	W	Tol. +/-
8-026	<b>1 1/4</b>	1 3/8	0.040	.003	0.053	.003
8-027	<b>1 5/16</b>	1 7/16	0.040		0.053	
8-028	<b>1 3/8</b>	1 1/2	0.040		0.053	
8-029	<b>1 1/2</b>	1 5/8	0.040		0.053	
8-030	<b>1 5/8</b>	1 3/4	0.040		0.053	
8-031	<b>1 3/4</b>	1 7/8	0.040		0.053	
8-032	<b>1 7/8</b>	2	0.040		0.053	
8-033	<b>2</b>	2 1/8	0.040		0.053	
8-034	<b>2 1/8</b>	2 1/4	0.040		0.053	
8-035	<b>2 1/4</b>	2 3/8	0.040		0.053	
8-036	<b>2 3/8</b>	2 1/2	0.040		0.053	
8-037	<b>2 1/2</b>	2 5/8	0.040		0.053	
8-038	<b>2 5/8</b>	2 3/4	0.040		0.053	
8-039	<b>2 3/4</b>	2 7/8	0.040		0.053	
8-040	<b>2 7/8</b>	3	0.040		0.053	
8-041	<b>3</b>	3 1/8	0.040		0.053	
8-042	<b>3 1/4</b>	3 3/8	0.040		0.053	
8-043	<b>3 1/2</b>	3 5/8	0.040		0.053	
8-044	<b>3 3/4</b>	3 7/8	0.040		0.053	
8-045	<b>4</b>	4 1/8	0.040		0.053	
8-046	<b>4 1/4</b>	4 3/8	0.040		0.053	
8-047	<b>4 1/2</b>	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	PO.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	▼

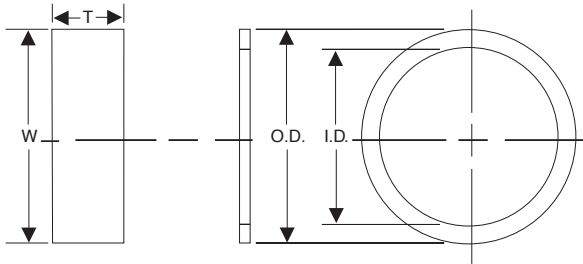
Ref. Number	Nominal Size		Actual Dimensions			
	ID	OD	T	Tol. +/-	W	Tol. +/-
8-451	11	11 1/2	0.085	.005	0.236	.006
8-452	11 1/2	12	0.085		0.236	
8-453	12	12 1/2	0.085		0.236	
8-454	12 1/2	13	0.085		0.236	
8-455	13	13 1/2	0.085		0.236	
8-456	13 1/2	14	0.085		0.236	
8-457	14	14 1/2	0.085		0.236	
8-458	14 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		0.088		0.050	
8-111	7/16	5/8	0.437	.001	0.088	.001	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	.002	0.185	.001	0.073	.002
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	.002	0.185	.001	0.073	.002
8-329	2	2 3/8	1.998	.002	0.185	.001	0.073	.002
8-330	2 1/8	2 1/2	2.123	.002	0.185	.001	0.073	.002
8-331	2 1/4	2 5/8	2.248	.002	0.185	.001	0.073	.002
8-332	2 3/8	2 3/4	2.373	.002	0.185	.001	0.073	.002
8-333	2 1/2	2 7/8	2.498	.002	0.185	.001	0.073	.002
8-334	2 5/8	3	2.623	.002	0.185	.001	0.073	.002
8-335	2 3/4	3 1/8	2.748	.002	0.185	.001	0.073	.002
8-336	2 7/8	3 1/4	2.873	.002	0.185	.001	0.073	.002
8-337	3	3 3/8	2.998	.002	0.185	.001	0.073	.002
8-338	3 1/8	3 1/2	3.123	.002	0.185	.001	0.073	.002
8-339	3 1/4	3 5/8	3.248	.002	0.185	.001	0.073	.002
8-340	3 3/8	3 3/4	3.373	.002	0.185	.001	0.073	.002
8-341	3 1/2	3 7/8	3.498	.002	0.185	.001	0.073	.002
8-342	3 5/8	4	3.623	.002	0.185	.001	0.073	.002
8-343	3 3/4	4 1/8	3.748	.002	0.185	.001	0.073	.002
8-344	3 7/8	4 1/4	3.873	.002	0.185	.001	0.073	.002
8-345	4	4 3/8	3.998	.002	0.185	.001	0.073	.002
8-346	4 1/8	4 1/2	4.123	.002	0.185	.001	0.073	.002
8-347	4 1/4	4 5/8	4.248	.002	0.185	.001	0.073	.002
8-348	4 3/8	4 3/4	4.373	.002	0.185	.001	0.073	.002
8-349	4 1/2	4 7/8	4.498	.002	0.185	.001	0.073	.002
8-350	4 5/8	5	4.623	.003	0.185	.002	0.073	.003
8-351	4 3/4	5 1/8	4.750	.003	0.185	.002	0.073	.003
8-352	4 7/8	5 1/4	4.875	.003	0.185	.002	0.073	.003
8-353	5	5 3/8	5.000	.003	0.185	.002	0.073	.003
8-354	5 1/8	5 1/2	5.125	.003	0.185	.002	0.073	.003
8-355	5 1/4	5 5/8	5.250	.003	0.185	.002	0.073	.003
8-356	5 3/8	5 3/4	5.375	.003	0.185	.002	0.073	.003
8-357	5 1/2	5 7/8	5.500	.003	0.185	.002	0.073	.003
8-358	5 5/8	6	5.625	.003	0.185	.002	0.073	.003
8-359	5 3/4	6 1/8	5.750	.003	0.185	.002	0.073	.003
8-360	5 7/8	6 1/4	5.875	.003	0.185	.002	0.073	.003
8-361	6	6 3/8	6.000	.003	0.185	.002	0.073	.003
8-362	6 1/4	6 5/8	6.250	.003	0.185	.002	0.073	.003
8-363	6 1/2	6 7/8	6.500	.003	0.185	.002	0.073	.003
8-364	6 3/4	7 1/8	6.750	.003	0.185	.002	0.073	.003
8-365	7	7 3/8	7.000	.003	0.185	.002	0.073	.003
8-366	7 1/4	7 5/8	7.250	.003	0.185	.002	0.073	.003
8-367	7 1/2	7 7/8	7.500	.003	0.185	.002	0.073	.003
8-368	7 3/4	8 1/8	7.750	.003	0.185	.002	0.073	.003
8-369	8	8 3/8	8.000	.003	0.185	.002	0.073	.003
8-370	8 1/4	8 5/8	8.251	.005	0.185	.002	0.073	.005
8-371	8 1/2	8 7/8	8.501	.005	0.185	.002	0.073	.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	.005	0.185	.002	0.073	.005
8-373	9	9 3/8	9.001	.005	0.185	.002	0.073	.005
8-374	9 1/4	9 5/8	9.251	.005	0.185	.002	0.073	.005
8-375	9 1/2	9 7/8	9.501	.005	0.185	.002	0.073	.005
8-376	9 3/4	10 1/8	9.751	.005	0.185	.002	0.073	.005
8-377	10	10 3/8	10.001	.005	0.185	.002	0.073	.005
8-378	10 1/2	10 7/8	10.251	.005	0.185	.002	0.073	.005
8-379	11	11 3/8	10.501	.005	0.185	.002	0.073	.005
8-380	11 1/2	11 7/8	10.751	.005	0.185	.002	0.073	.005
8-381	12	12 3/8	11.001	.005	0.185	.002	0.073	.005
8-382	13	13 3/8	11.251	.005	0.185	.002	0.073	.005
8-383	14	14 3/8	11.501	.005	0.185	.002	0.073	.005
8-384	15	15 3/8	11.751	.005	0.185	.002	0.073	.005
8-385	16	16 3/8	12.001	.005	0.185	.002	0.073	.005
8-386	17	17 3/8	12.251	.005	0.185	.002	0.073	.005
8-387	18	18 3/8	12.501	.005	0.185	.002	0.073	.005
8-388	19	19 3/8	12.751	.005	0.185	.002	0.073	.005
8-389	20	20 3/8	13.001	.005	0.185	.002	0.073	.005
8-390	21	21 3/8	13.251	.005	0.185	.002	0.073	.005
8-391	22	22 3/8	13.501	.005	0.185	.002	0.073	.005
8-392	23	23 3/8	13.751	.005	0.185	.002	0.073	.005
8-393	24	24 3/8	14.001	.005	0.185	.002	0.073	.005
8-394	25	25 3/8	14.251	.005	0.185	.002	0.073	.005
8-395	26	26 3/8	14.501	.005	0.185	.002	0.073	.005
8-400	1 3/8	1 7/8	1.379	.003	0.236	.001	0.108	.003
8-401	1 1/2	2	1.504	.003	0.236	.001	0.108	.003
8-402	1 5/8	2 1/8	1.629	.003	0.236	.001	0.108	.003
8-403	1 3/4	2 1/4	1.754	.003	0.236	.001	0.108	.003
8-404	1 7/8	2 3/8	1.879	.003	0.236	.001	0.108	.003
8-405	2	2 1/2	2.004	.003	0.236	.001	0.108	.003
8-406	2 1/8	2 5/8	2.129	.003	0.236	.001	0.108	.003
8-407	2 1/4	2 3/4	2.254	.003	0.236	.001	0.108	.003
8-408	2 3/8	2 7/8	2.379	.003	0.236	.001	0.108	.003
8-409	2 1/2	3	2.504	.003	0.236	.001	0.108	.003
8-410	2 5/8	3 1/8	2.629	.003	0.236	.001	0.108	.003
8-411	2 3/4	3 1/4	2.754	.003	0.236	.001	0.108	.003
8-412	2 7/8	3 3/8	2.879	.003	0.236	.001	0.108	.003
8-413	3	3 1/2	3.004	.003	0.236	.001	0.108	.003
8-414	3 1/8	3 5/8	3.129	.003	0.236	.001	0.108	.003
8-415	3 1/4	3 3/4	3.254	.003	0.236	.001	0.108	.003
8-416	3 3/8	3 7/8	3.379	.003	0.236	.001	0.108	.003
8-417	3 1/2	4	3.504	.003	0.236	.001	0.108	.003
8-418	3 5/8	4 1/8	3.629	.003	0.236	.001	0.108	.003
8-419	3 3/4	4 1/4	3.754	.003	0.236	.001	0.108	.003
8-420	3 7/8	4 3/8	3.879	.003	0.236	.001	0.108	.003
8-421	4	4 1/2	4.004	.003	0.236	.001	0.108	.003

O-RINGS



# Back-up Rings - PTFE SOLID MS27595

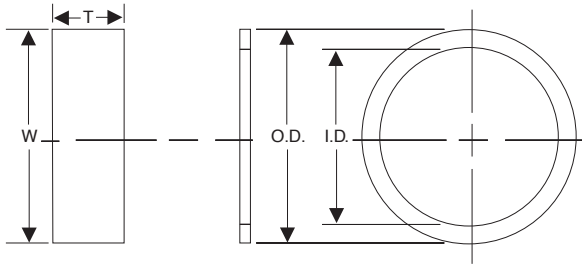
**O'RINGS**

Ref. No.	Nominal Size		Actual Dimensions					
	ID	OD	ID	Tol. +/-	W	Tol. +/-	T	Tol. +/-
8-422	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

O'RINGS



Ref. No.	Nominal Size		Actual Dimensions					
	ID	OD	ID	Tol. +/-	W	Tol. +/-	T	Tol. +/-
8-045	4	4 1/8	4.025	.003	0.053	.002	0.048	.004
8-046	4 1/4	4 3/8	4.275		0.053		0.048	
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	▼

# Back-up Rings - PTFE SPLIT MS28774

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	▼

O-RINGS



# Back-up Rings - PTFE SPLIT MS28774

O'RINGS



Ref. No.	Nominal Size		Actual Dimensions					
	ID	OD	ID	Tol. +/-	W	Tol. +/-	T	Tol. +/-
8-326	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	▼

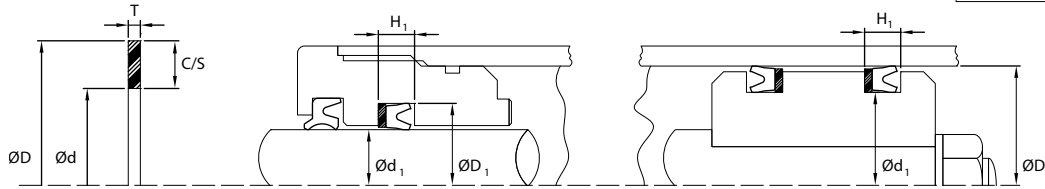
O'RINGS



# 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

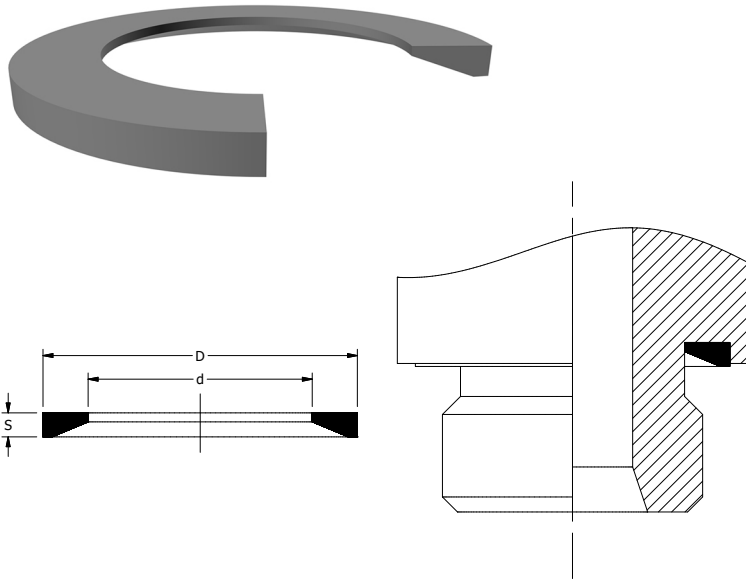
Ref.Number	Nominal Seal Dimensions		
	d	D	T
870601875	1.875	2.250	0.062
870701937	1.937	2.375	0.062
870602000	2.000	2.375	0.062
870802000	2.000	2.500	0.062
870602125	2.125	2.500	0.062
870602156	2.156	2.531	0.062
870602250	2.250	2.625	0.062
871202250	2.250	3.000	0.062
870602375	2.375	2.750	0.062
871002375	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



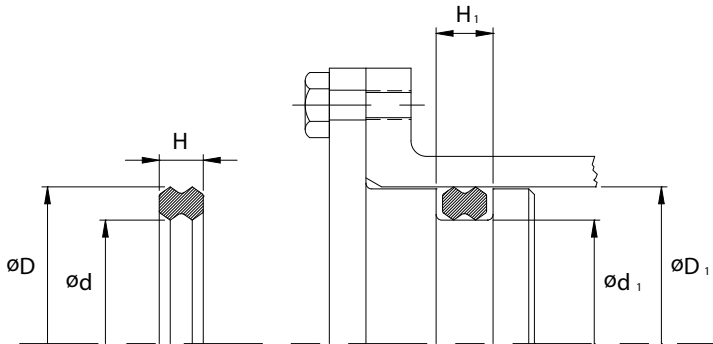
Standard Materials	Temperature Range
Nitrile /N	-22°F to +212°F (-30°C to +100°C)
Fluorocarbon /V	-4°F to +392°F (-20°C to +200°C)
Optional Material	Temperature Range
Ethylene-Propylene /E	-49°F to +302°F (-45°C to +150°C)

**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
ED16X1.5X	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

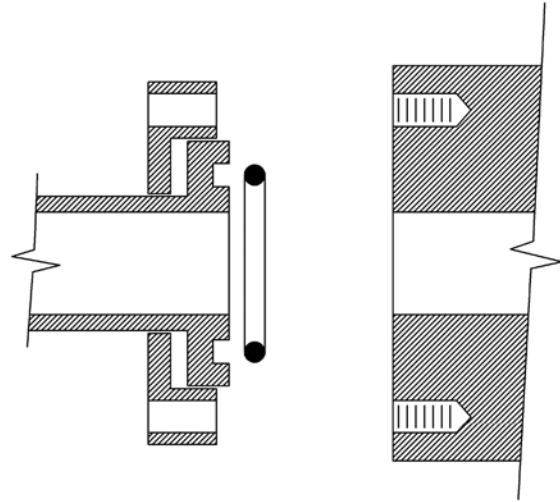
**O'RINGS**



# CAT Hydraulic Hose Coupling Seals

## O-RING STYLE

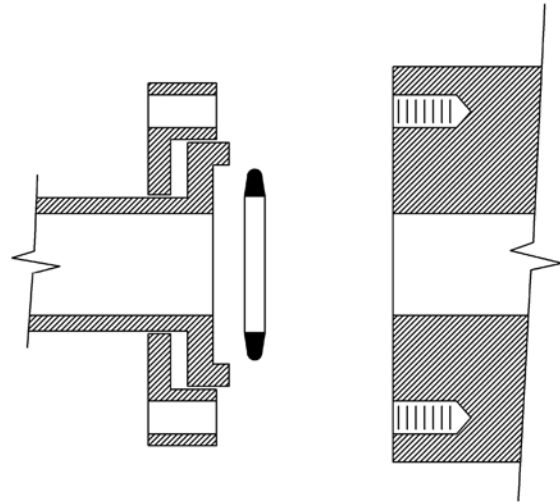
Ref. Number	Nominal Hose Size
RCAT-4J5140	0.500
RCAT-4J5267	0.750
RCAT-4J0520	1.000
RCAT-4J0522	1.250
RCAT-4J0524	1.500
RCAT-4J0527	2.000



## METAL BACK SEALS

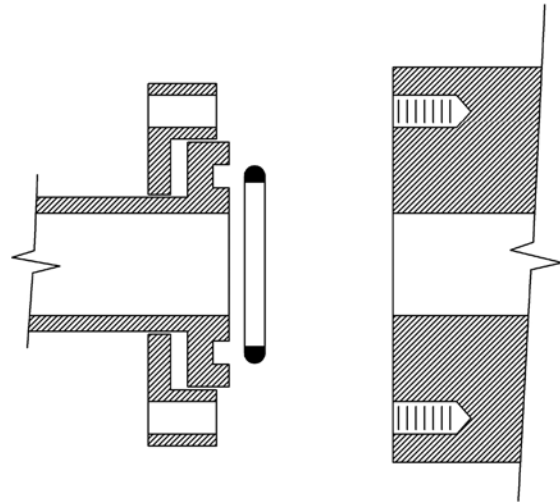
Ref. Number	Nominal Hose Size
RCAT-5J583*	0.500
RCAT-1P3702*	0.750
RCAT-6J3600*	1.000
RCAT-6J3625*	1.250
RCAT-6J3650*	1.500
RCAT-1J3708*	2.000

\* 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



O-RINGS



# 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



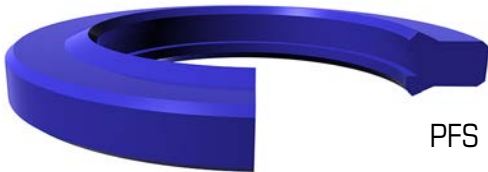
Building  
Engineering



# SAE Flange seals

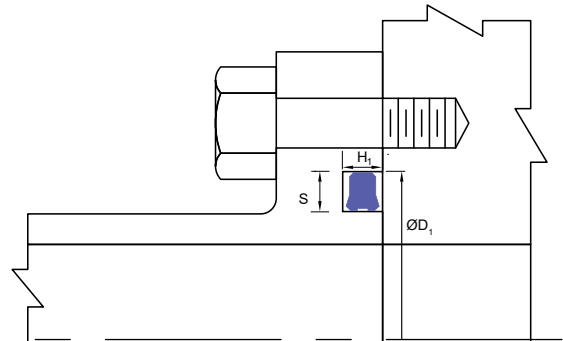


SFS



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



Industrie Chimique



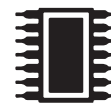
Marine Commerciale



Construction



Distribution



Électronique

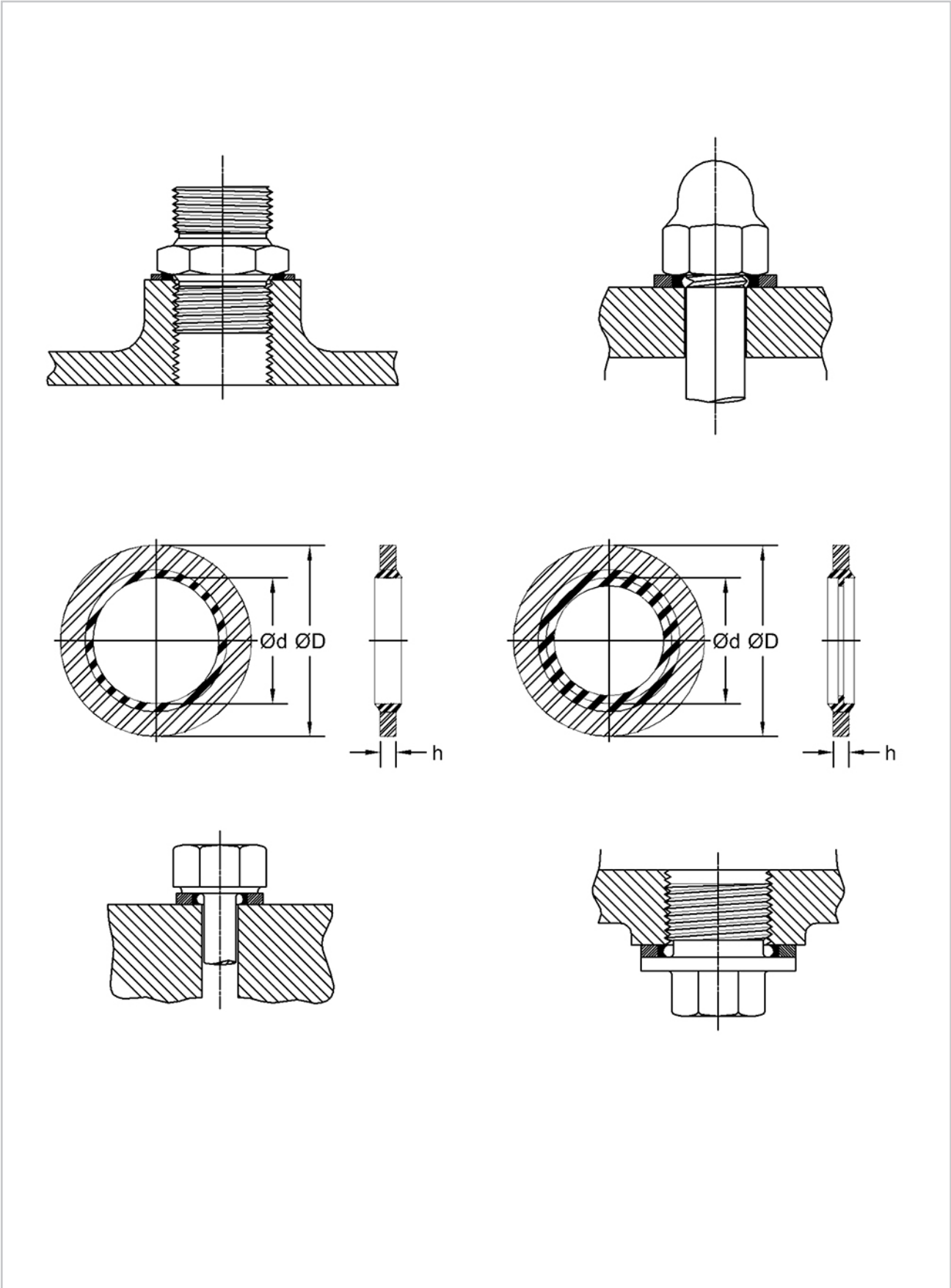


Énergie

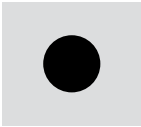




# Bonded Seals - Typical Applications



**O'RINGS**



# Bonded Seals - Reference Chart

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

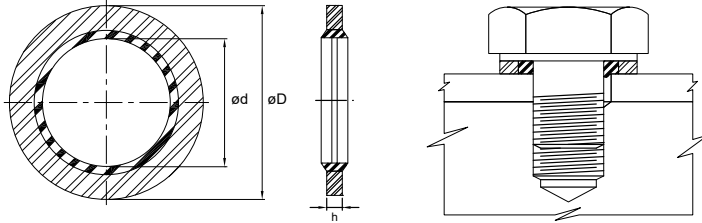
O'RINGS



# 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

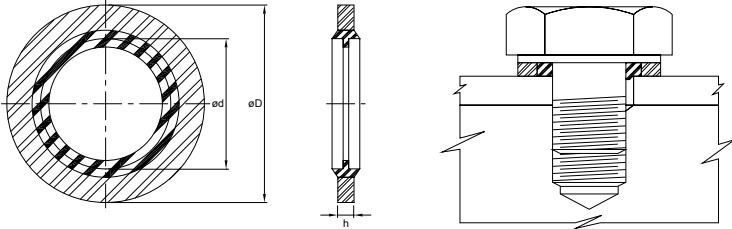
Ref.Number	Nominal Seal Dimensions		
	d	D	h
BS400021	0.536	0.810	0.080
BS400022	0.618	0.875	0.080
BS400023	0.675	0.937	0.080
BS400024	0.770	1.060	0.092
BS400025	0.843	1.125	0.092
BS400026	0.920	1.250	0.092
BS400027	1.060	1.375	0.092
BS400028	1.090	1.520	0.092
BS400029	1.208	1.500	0.092
BS400030	1.329	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.

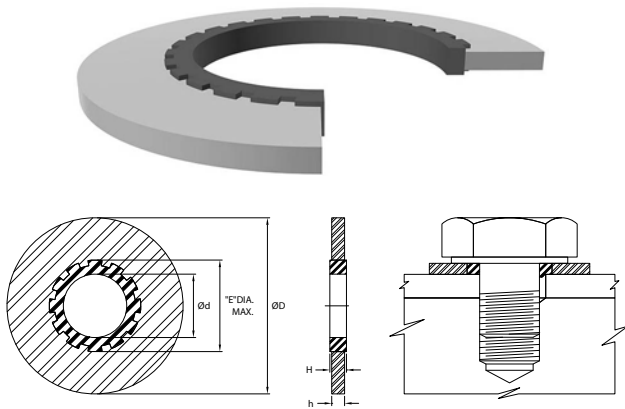
**Alternate Materials:** For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

Ref.Number	Nominal Seal Dimensions		
	d	D	h
BS400011SC	<b>0.650</b>	1.000	0.080
BS400012SC	<b>0.715</b>	1.000	0.092
BS400020SC	<b>0.403</b>	0.625	0.080
BS400021SC	<b>0.536</b>	0.810	0.080
BS400023SC	<b>0.675</b>	0.937	0.080
BS400025SC	<b>0.843</b>	1.125	0.092
BS400026SC	<b>0.920</b>	1.250	0.092
BS400027SC	<b>1.060</b>	1.375	0.092

Ref.Number	Nominal Seal Dimensions		
	d	D	h
BS400029SC	<b>1.208</b>	1.500	0.092
BS400030SC	<b>1.329</b>	1.685	0.128
BS400031SC	<b>1.329</b>	1.685	0.092
BS400032SC	<b>1.685</b>	2.062	0.128
BS400033SC	<b>1.902</b>	2.307	0.128
BS400034SC	<b>2.156</b>	2.750	0.128
BS400036SC	<b>2.380</b>	2.875	0.128
BS400038SC	<b>2.620</b>	3.130	0.128
BS400039SC	<b>2.990</b>	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	<b>0.130</b>	0.385	0.040
600-001-8-1	<b>0.156</b>	0.385	0.040
600-001-10-1	<b>0.180</b>	0.443	0.050
600-001-100S-1	<b>0.186</b>	0.468	0.050
600-001-1/4-1	<b>0.240</b>	0.505	0.050
600-001-1/40S-2	<b>0.245</b>	0.531	0.050
600-001-5/16-1	<b>0.301</b>	0.603	0.050
600-001-3/8-1	<b>0.364</b>	0.666	0.050

Ref.Number	Nominal Seal Dimensions		
	d	D	H
600-001-7/16-1	<b>0.427</b>	0.760	0.050
600-001-1/2-1	<b>0.490</b>	0.880	0.050
600-001-9/16-1	<b>0.552</b>	1.067	0.050
600-001-5/8-1	<b>0.615</b>	1.193	0.050
600-001-3/4-1	<b>0.740</b>	1.322	0.064
600-001-7/8-1	<b>0.864</b>	1.510	0.064
600-001-1-1	<b>0.988</b>	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

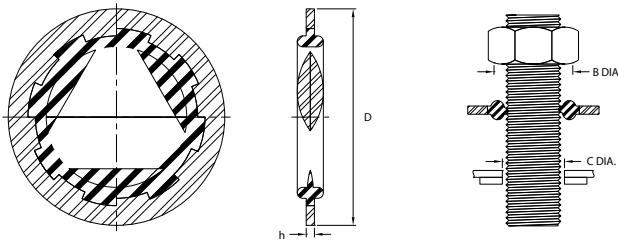
O'RINGS



# 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



Camion et autobus



Accumulateurs



# 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.

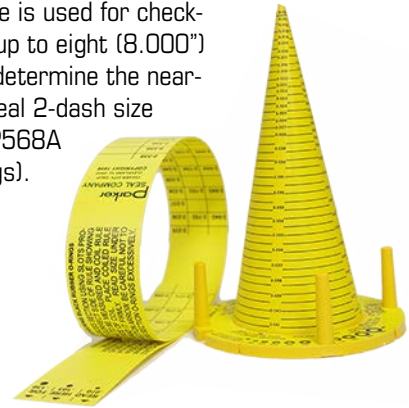
Parker Super O-Lube is non-toxic and non-irritating under normal conditions. It will not clog 30 micron filters and is unusually moisture resistant and adheres with unusual tenacity.



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.



# O'Ring kits and accessories



## PARKER SERIES

Ref. Number	Material	Total Qty	Sizes
ORK-P-E0540	ETHYLENE PROPYLENE 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	FLUOROCARBON 75 (BLACK)	485	37
ORK-P-V1476	FLUOROCARBON 75 (BROWN)	485	37
ORK-P-V1411	FLUOROCARBON 90 (BLACK)	485	37
ORK-P-V1412	FLUOROCARBON 90 (BROWN)	485	37
QRK-P-N70	NITRILE 70	485	37



## COMPACT SERIES

Ref. Number	Material	Total Qty	Sizes
ORK-C-E70	ETHYLENE PROPYLENE 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	FLUOROCARBON 75 (BLACK)	375	30
ORK-C-V75B	FLUOROCARBON 75 (BROWN)	375	30
ORK-C-V90	FLUOROCARBON 90	375	30
QRK-C-N70	QUADRING NITRILE 70	375	30



## INDUSTRIAL SERIES

Ref. Number	Material	Total Qty	Sizes
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	VIRGIN PTFE	325	36
ORK-IND-V75B	FLUOROCARBON 75	435	36
ORK-IND-N70	QUADRING NITRILE 70	226	36



## WAREHOUSE SERIES

Ref. Number	Material	Total Qty	Sizes
ORK-WHSE-E70	ETHYLENE PROPYLENE 80	1110	150
ORK-WHSE-N70	NITRILE 70	1110	150
ORK-WHSE-N90	NITRILE 90	1110	150
ORK-WHSE-S70	SILICONE 70	1110	150
ORK-WHSE-V75	FLUOROCARBON 75 (BLACK)	1110	150
ORK-WHSE-V75B	FLUOROCARBON 75 (BROWN)	1110	150



## BOSS SERIES

Ref. Number	Material	Total Qty	Sizes
ORK-BOSS-N90D	NITRILE 90	212	20
ORK-BOSS-V90	FLUOROCARBON 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



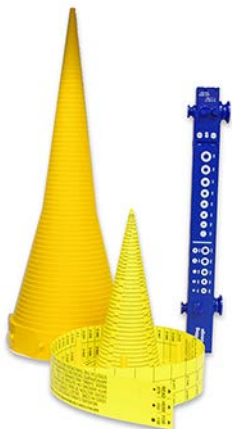
## OSK SERIES

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

## OTHER PROFILES ARE ALSO AVAILABLE ON REQUEST

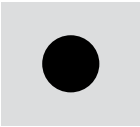
Though this product offering contains a wide selection of commonly used parts in the marketplace, it is possible that you haven't found the exact part you were looking for.

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**



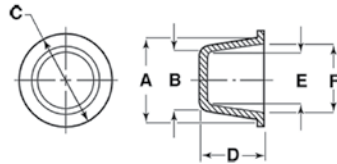
# O'RINGS



	CAPS & PLUGS TAPERED	H	2
	CAPS & PLUGS <b>OR</b> SERIES	H	4
	CAPS & PLUGS <b>BFP/ XP SERIES</b>	H	4
	CAPS & PLUGS <b>T SERIES</b>	H	5
	CAPS & PLUGS <b>TH</b> SERIES	H	5
	CAPS & PLUGS <b>G</b> SERIES	H	6
	CAPS & PLUGS <b>TP</b> SERIES	H	6
	CAPS & PLUGS <b>TMO</b> SERIES	H	7
	ANTI-SEIZE	H	8

	LOCK NUTS	H	9
	RETAINING RINGS <b>N1300</b>	H	11
	RETAINING RINGS <b>N1400</b>	H	12
	R.RINGS SELECTION GUIDE	H	14
	RETAINING RINGS <b>WH</b>	H	16
	RETAINING RINGS <b>WHM</b>	H	18
	RETAINING RINGS <b>WHT</b>	H	19
	RETAINING RINGS <b>WS</b>	H	21
	RETAINING RINGS <b>WSM</b>	H	23
	RETAINING RINGS <b>WST</b>	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.

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

MISC.





# Tapered Caps and Plugs - Numbered series

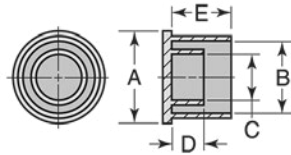
Ref. Number	Use as a plug				Use as a cap				Common uses/plugs			Common uses/caps						
	A		B		C		D		E		F		NPT/RSP	Standard Thread	Metric Thread	NPT/RSP	Standard Thread	Metric Thread
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm						
CP-26	0.825	20.96	0.725	18.42	1.000	25.40	0.500	12.70	0.662	16.81	0.760	19.30	-	-	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"	-	-	-	-



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# 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	

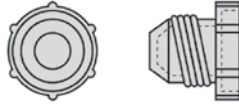
MISC.



# Threaded Plugs - T series

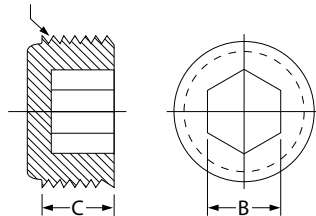


Standard Material	Standard Color	Specification
Low density Polyethylene	Red	Conforms to Mil-C5501, with exceptions of Flare Angle variance of 2°



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



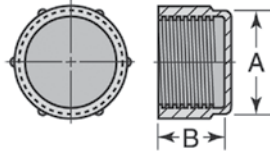
Standard Material	Standard Color
High-density Polyethylene	Black - Applicable Spec; MIL-C-5501/5

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

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# Threaded Cap - G series

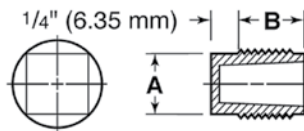


Standard Material	Standard Color
Low density Polyethylene	Blue

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

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# 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

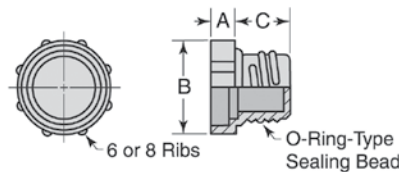
# Threaded (npt) Plugs - TP series

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

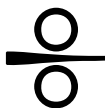
Markets segments we are servicing



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



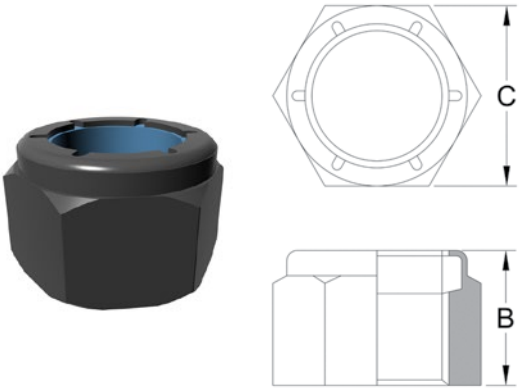
Product	Description	Container Size
AS907A-08	GENERAL PURPOSE - ALUMINIUM/GRAPHITE	8 oz
AS907A-16	GENERAL PURPOSE - ALUMINIUM/GRAPHITE	16 oz
AS907C-08	GENERAL PURPOSE - COPPER/GRAPHITE	8 oz
AS907C-16	GENERAL PURPOSE - COPPER/GRAPHITE	16 oz
AS907N-08	HIGH TEMPERATURE - NICKEL/GRAPHITE	8 oz
AS907N-16	HIGH 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
	<b>RCAT-1J5674</b>	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	<b>RCAT-2J6384</b>	1.250 - 12	2.000	1.109
	<b>RCAT-6M5032</b>	1.375 - 12	2.187	1.188
NUT-2412NE/X53		1.500 - 12	2.187	1.609
NUT-2412NTU/X53	<b>RCAT-2J3950</b>	1.500 - 12	2.375	1.313
NUT-2812N4124/X53	<b>RCAT-5J5731</b>	1.750 - 12	2.562	1.469
NUT-2812NTU/X53	<b>RCAT-2J3247</b>	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	<b>RCAT-2J0564</b>	2.000 - 12	3.125	1.672
NUT-3212NU/X53	<b>RCAT-3J9545</b>	2.000 - 12	3.125	2.406
NUT-3216N4416/X53		2.000 - 16	2.750	1.000
NUT-3612NTU/X53	<b>RCAT-5J3488</b>	2.250 - 12	3.500	1.938
NUT-3612NU/X53	<b>RCAT-3J6899</b>	2.250 - 12	3.500	2.813
NUT-4012N6442/X53	<b>RCAT-3J9449</b>	2.500 - 12	4.000	2.641
NUT-4012NTU/X53	<b>RCAT-2J7686</b>	2.500 - 12	4.000	2.187
NUT-4412NTU/X53	<b>RCAT-4J6888</b>	2.750 - 12	4.000	2.187
NUT-4412NU/X53	<b>RCAT-4J8734</b>	2.750 - 12	4.000	3.093
NUT-5212N7250/X53	<b>RCAT-7J9250</b>	3.250 - 12	4.500	3.125
	<b>RCAT-9X6017</b>	3.750 - 12	5.250	3.525
	<b>RCAT-9X6018</b>	4.000 - 12	5.562	3.725
NUT-7212N1046/X53	<b>RCAT-3G5022</b>	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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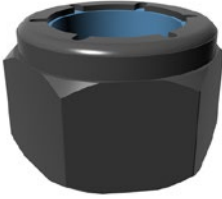
# Lock Nuts

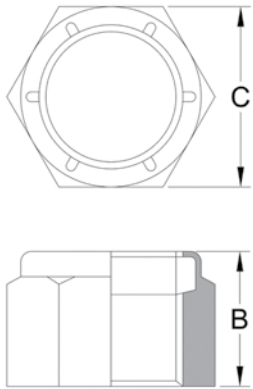
**NYLON INSERT LOCK NUTS**

**1 - Grade 8/ heat-treated**  
**2 - Blue nylon locking insert**

**MATERIALS :**

**X53      Medium carbon steel heat treated**  
**RC 26-30, Phos. and Oil**





## Lock Nuts - Caterpillar® Ref.

Ref.Number	Thread Size	Dimensions	
		C	B
RCAT-8T5065	<b>30.00 - 3.5</b>	46.00	30.00
RCAT-8T3018	<b>36.00 - 4</b>	55.00	36.00
RCAT-1475835	<b>64.00 - 2</b>	95.00	63.00
RCAT-7Y4622	<b>72.00 - 2</b>	105.00	70.00
RCAT-1232060	<b>80.00 - 2</b>	115.00	64.00
RCAT-7Y4695	<b>80.00 - 2</b>	115.00	76.00

Ref.Number	Thread Size	Dimensions	
		C	B
RCAT-1232112	<b>90.00 - 2</b>	130.00	76.00
RCAT-7Y4956	<b>90.00 - 2</b>	130.00	84.00
RCAT-0875385	<b>95.00 - 2</b>	135.00	88.00
RCAT-1261971	<b>100.00 - 2</b>	146.00	88.00
RCAT-1163513	<b>105.00 - 2</b>	150.00	97.00
RCAT-1163516	<b>120.00 - 2</b>	170.00	108.00

## Lock Nuts - Komatsu® Ref.

Ref.Number	Thread Size	Dimensions	
		C	B
RKOM-07165/14547	<b>45.00 - 3</b>	70.00	45.00
RKOM-07165/15252	<b>52.00 - 3</b>	80.00	52.00
RKOM-07165/15860	<b>58.00 - 4</b>	85.00	60.00
RKOM-707/68/10580	<b>59.00 - 4</b>	85.00	60.00

Ref.Number	Thread Size	Dimensions	
		C	B
RKOM-175/63/52432	<b>68.00 - 4</b>	95.00	64.00
RKOM-07165/16870	<b>68.00 - 4</b>	95.00	70.00
RKOM-707/68/10680	<b>68.00 - 4</b>	95.00	70.00
RKOM-07165/18583	<b>85.00 - 4</b>	115.00	83.00

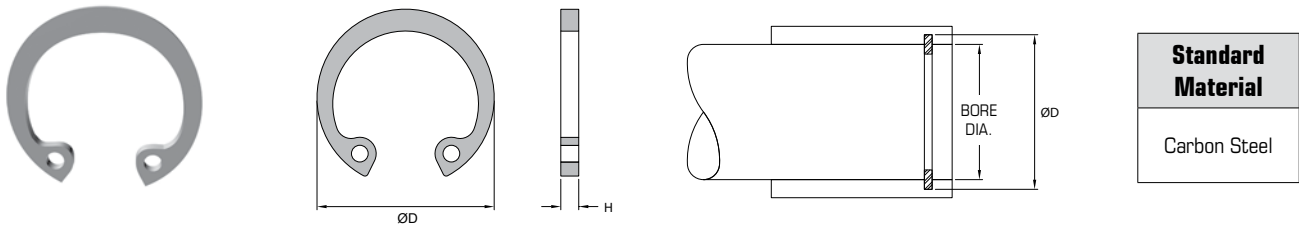
All manufacturer's names, part numbers and descriptions are use for reference purpose only.  
 We do not imply that any part shown is the product of these manufacturers.

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# 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	<b>0.375</b>	0.415	0.025
N1300-0043	<b>0.437</b>	0.482	0.025
N1300-0050	<b>0.500</b>	0.548	0.035
N1300-0056	<b>0.562</b>	0.620	0.035
N1300-0062	<b>0.625</b>	0.694	0.035
N1300-0068	<b>0.687</b>	0.763	0.035
N1300-0075	<b>0.750</b>	0.831	0.035
N1300-0081	<b>0.812</b>	0.901	0.042
N1300-0087	<b>0.875</b>	0.971	0.042
N1300-0093	<b>0.937</b>	1.041	0.042
N1300-0100	<b>1.000</b>	1.111	0.042
N1300-0102	<b>1.023</b>	1.136	0.042
N1300-0106	<b>1.062</b>	1.180	0.050
N1300-0112	<b>1.125</b>	1.249	0.050
N1300-0118	<b>1.187</b>	1.319	0.050
N1300-0125	<b>1.250</b>	1.388	0.050
N1300-0131	<b>1.312</b>	1.456	0.050
N1300-0137	<b>1.375</b>	1.526	0.050
N1300-0143	<b>1.437</b>	1.596	0.050

Ref.Number	Bore dia.	Free dia.	Thickness
		D	H
N1300-0145	<b>1.456</b>	1.616	0.050
N1300-0150	<b>1.500</b>	1.660	0.050
N1300-0156	<b>1.562</b>	1.734	0.062
N1300-0162	<b>1.625</b>	1.804	0.062
N1300-0165	<b>1.653</b>	1.835	0.062
N1300-0168	<b>1.687</b>	1.874	0.062
N1300-0175	<b>1.750</b>	1.942	0.062
N1300-0181	<b>1.812</b>	2.012	0.062
N1300-0185	<b>1.850</b>	2.054	0.062
N1300-0187	<b>1.875</b>	2.072	0.062
N1300-0193	<b>1.937</b>	2.141	0.062
N1300-0200	<b>2.000</b>	2.210	0.062
N1300-0206	<b>2.062</b>	2.280	0.078
N1300-0212	<b>2.125</b>	2.350	0.078
N1300-0218	<b>2.187</b>	2.415	0.078
N1300-0225	<b>2.250</b>	2.490	0.078
N1300-0231	<b>2.312</b>	2.560	0.078
N1300-0237	<b>2.375</b>	2.630	0.078
N1300-0244	<b>2.440</b>	2.702	0.078

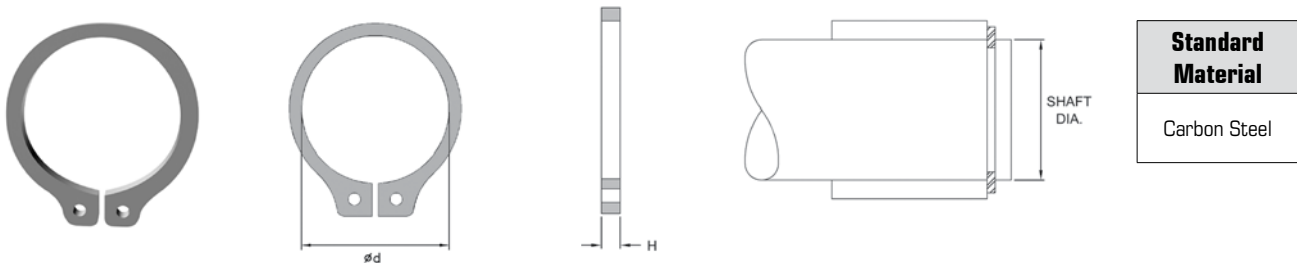
# N1300 series - Retaining rings - Internal

Ref.Number	Bore dia.	Free dia.	Thickness
		D	H
N1300-0250	<b>2.500</b>	2.775	0.078
N1300-0256	<b>2.562</b>	2.844	0.093
N1300-0262	<b>2.625</b>	2.910	0.093
N1300-0268	<b>2.687</b>	2.980	0.093
N1300-0275	<b>2.750</b>	3.050	0.093
N1300-0281	<b>2.812</b>	3.121	0.093
N1300-0287	<b>2.875</b>	3.191	0.093
N1300-0300	<b>3.000</b>	3.325	0.093
N1300-0306	<b>3.062</b>	3.418	0.109
N1300-0312	<b>3.125</b>	3.488	0.109
N1300-0315	<b>3.156</b>	3.523	0.109
N1300-0325	<b>3.250</b>	3.623	0.109
N1300-0334	<b>3.346</b>	3.734	0.109
N1300-0347	<b>3.437</b>	3.857	0.109
N1300-0350	<b>3.500</b>	3.890	0.109
N1300-0354	<b>3.543</b>	3.936	0.109
N1300-0362	<b>3.625</b>	4.024	0.109
N1300-0375	<b>3.750</b>	4.157	0.109
N1300-0387	<b>3.875</b>	4.291	0.109
N1300-0393	<b>3.937</b>	4.358	0.109
N1300-0400	<b>4.000</b>	4.424	0.109
N1300-0412	<b>4.125</b>	4.558	0.109
N1300-0425	<b>4.250</b>	4.691	0.109
N1300-0433	<b>4.331</b>	4.756	0.109
N1300-0450	<b>4.500</b>	4.940	0.109

N° de référence	Bore dia.	Free dia.	Thickness
		D	H
N1300-0462	<b>4.625</b>	5.076	0.109
N1300-0475	<b>4.750</b>	5.213	0.109
N1300-0500	<b>5.000</b>	5.485	0.109
N1300-0525	<b>5.250</b>	5.770	0.125
N1300-0537	<b>5.375</b>	5.910	0.125
N1300-0550	<b>5.500</b>	6.066	0.125
N1300-0575	<b>5.750</b>	6.336	0.125
N1300-0600	<b>6.000</b>	6.620	0.125
N1300-0625	<b>6.250</b>	6.895	0.156
N1300-0650	<b>6.500</b>	7.170	0.156
N1300-0662	<b>6.625</b>	7.308	0.156
N1300-0675	<b>6.750</b>	7.445	0.156
N1300-0700	<b>7.000</b>	7.720	0.156
N1300-0725	<b>7.250</b>	7.995	0.187
N1300-0750	<b>7.500</b>	8.270	0.187
N1300-0775	<b>7.750</b>	8.545	0.187
N1300-0800	<b>8.000</b>	8.820	0.187
N1300-0825	<b>8.250</b>	9.095	0.187
N1300-0850	<b>8.500</b>	9.285	0.187
N1300-0875	<b>8.750</b>	9.558	0.187
N1300-0900	<b>9.000</b>	9.830	0.187
N1300-0925	<b>9.250</b>	10.102	0.187
N1300-0950	<b>9.500</b>	10.375	0.187
N1300-1000	<b>10.000</b>	10.920	0.187

MISC.

# N1400 series - Retaining rings - External



Ref.Number	Shaft dia.	Free dia.	Thickness
		d	H
N1400-0012	<b>0.125</b>	0.112	0.010
N1400-0015	<b>0.156</b>	0.142	0.010
N1400-0018	<b>0.187</b>	0.168	0.015
N1400-0019	<b>0.197</b>	0.179	0.015
N1400-0021	<b>0.219</b>	0.196	0.015
N1400-0023	<b>0.236</b>	0.215	0.015

Ref.Number	Shaft dia.	Free dia.	Thickness
		d	H
N1400-0025	<b>0.250</b>	0.225	0.025
N1400-0027	<b>0.276</b>	0.250	0.025
N1400-0028	<b>0.281</b>	0.256	0.025
N1400-0031	<b>0.312</b>	0.281	0.025
N1400-0037	<b>0.375</b>	0.338	0.025
N1400-0043	<b>0.437</b>	0.395	0.025

# N1400 series - Retaining rings - External

Ref.Number	Shaft dia.	Free dia.	Thickness
		d	H
N1400-0046	<b>0.468</b>	0.428	0.025
N1400-0050	<b>0.500</b>	0.461	0.035
N1400-0056	<b>0.562</b>	0.521	0.035
N1400-0059	<b>0.594</b>	0.550	0.035
N1400-0062	<b>0.625</b>	0.579	0.035
N1400-0066	<b>0.669</b>	0.621	0.035
N1400-0068	<b>0.687</b>	0.635	0.042
N1400-0075	<b>0.750</b>	0.693	0.042
N1400-0078	<b>0.781</b>	0.722	0.042
N1400-0081	<b>0.812</b>	0.751	0.042
N1400-0087	<b>0.875</b>	0.810	0.042
N1400-0093	<b>0.937</b>	0.867	0.042
N1400-0098	<b>0.984</b>	0.910	0.042
N1400-0100	<b>1.000</b>	0.925	0.042
N1400-0102	<b>1.023</b>	0.946	0.042
N1400-0106	<b>1.062</b>	0.982	0.050
N1400-0112	<b>1.125</b>	1.041	0.050
N1400-0118	<b>1.187</b>	1.098	0.050
N1400-0125	<b>1.250</b>	1.156	0.050
N1400-0131	<b>1.312</b>	1.214	0.050
N1400-0137	<b>1.375</b>	1.272	0.050
N1400-0143	<b>1.437</b>	1.333	0.050
N1400-0150	<b>1.500</b>	1.387	0.050
N1400-0156	<b>1.562</b>	1.446	0.062
N1400-0162	<b>1.625</b>	1.503	0.062
N1400-0168	<b>1.687</b>	1.560	0.062
N1400-0175	<b>1.750</b>	1.618	0.062
N1400-0177	<b>1.772</b>	1.637	0.062
N1400-0181	<b>1.812</b>	1.675	0.062
N1400-0187	<b>1.875</b>	1.735	0.062
N1400-0196	<b>1.969</b>	1.819	0.062
N1400-0200	<b>2.000</b>	1.850	0.062
N1400-0206	<b>2.062</b>	1.906	0.078
N1400-0212	<b>2.125</b>	1.964	0.078
N1400-0215	<b>2.156</b>	1.993	0.078
N1400-0225	<b>2.250</b>	2.081	0.078
N1400-0231	<b>2.312</b>	2.139	0.078
N1400-0237	<b>2.375</b>	2.197	0.078
N1400-0243	<b>2.437</b>	2.255	0.078

Ref.Number	Shaft dia.	Free dia.	Thickness
		d	H
N1400-0250	<b>2.500</b>	2.313	0.078
N1400-0255	<b>2.559</b>	2.377	0.078
N1400-0262	<b>2.625</b>	2.428	0.078
N1400-0268	<b>2.687</b>	2.485	0.078
N1400-0275	<b>2.750</b>	2.543	0.093
N1400-0287	<b>2.875</b>	2.659	0.093
N1400-0293	<b>2.937</b>	2.717	0.093
N1400-0300	<b>3.000</b>	2.775	0.093
N1400-0306	<b>3.062</b>	2.832	0.093
N1400-0312	<b>3.125</b>	2.892	0.093
N1400-0315	<b>3.156</b>	2.920	0.093
N1400-0325	<b>3.250</b>	3.006	0.093
N1400-0334	<b>3.346</b>	3.092	0.093
N1400-0343	<b>3.437</b>	3.179	0.093
N1400-0350	<b>3.500</b>	3.237	0.109
N1400-0354	<b>3.543</b>	3.277	0.109
N1400-0362	<b>3.625</b>	3.352	0.109
N1400-0368	<b>3.687</b>	3.410	0.109
N1400-0375	<b>3.750</b>	3.468	0.109
N1400-0387	<b>3.875</b>	3.584	0.109
N1400-0393	<b>3.937</b>	3.642	0.109
N1400-0400	<b>4.000</b>	3.700	0.109
N1400-0425	<b>4.250</b>	3.989	0.109
N1400-0437	<b>4.375</b>	4.106	0.109
N1400-0450	<b>4.500</b>	4.223	0.109
N1400-0475	<b>4.750</b>	4.458	0.109
N1400-0500	<b>5.000</b>	4.692	0.109
N1400-0525	<b>5.250</b>	4.927	0.125
N1400-0550	<b>5.500</b>	5.162	0.125
N1400-0575	<b>5.750</b>	5.396	0.125
N1400-0600	<b>6.000</b>	5.631	0.125
N1400-0625	<b>6.250</b>	5.866	0.156
N1400-0650	<b>6.500</b>	6.100	0.156
N1400-0675	<b>6.750</b>	6.335	0.156
N1400-0700	<b>7.000</b>	6.570	0.156
N1400-0750	<b>7.500</b>	7.039	0.187
N1400-0775	<b>7.750</b>	8.545	0.187
N1400-0800	<b>8.000</b>	7.508	0.187
N1400-0950	<b>9.500</b>	8.915	0.187

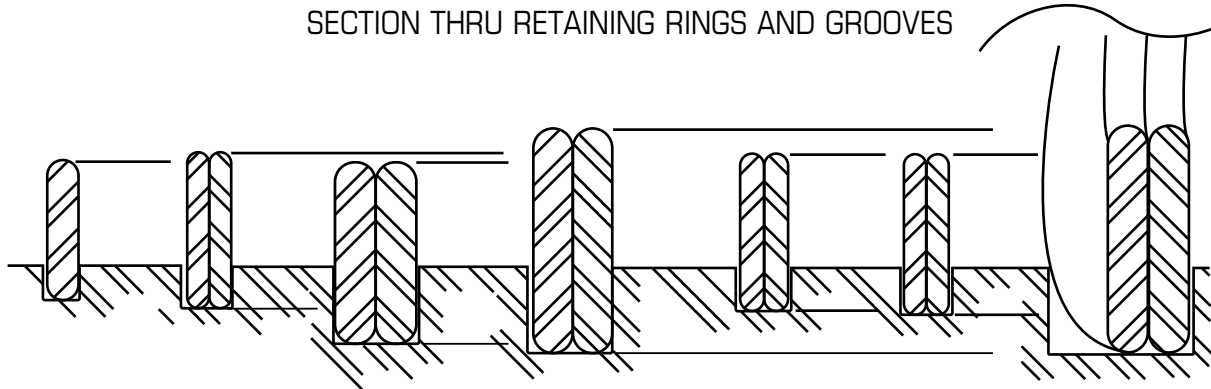
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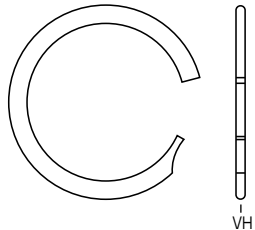
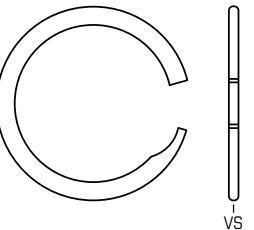
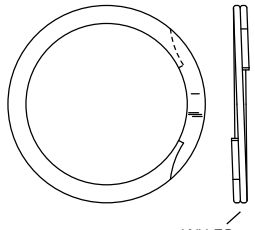
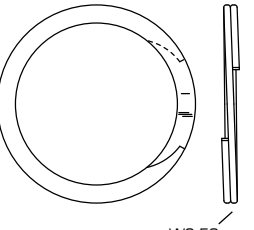
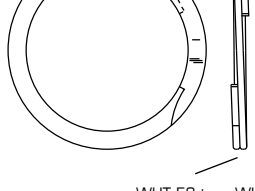
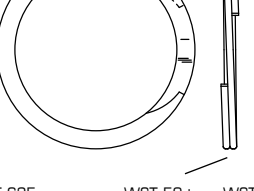


# Selection Guide

Relative proportions of retaining rings with same house bore or shaft dimension.

SECTION THRU RETAINING RINGS AND GROOVES

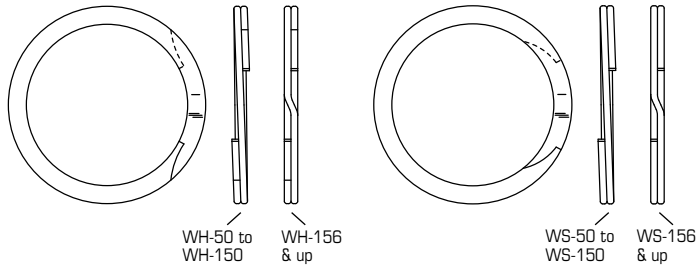


<b>VH &amp; VS</b> Light Duty Series	<b>WH &amp; WS</b> Medium Duty Series	<b>WHT &amp; WST</b> Medium Heavy Duty Series	<b>WHM &amp; WSM</b> Heavy Duty Series	<b>DNH &amp; DNS</b> DIN Metric Series	<b>EH &amp; ES</b> Metric Aerospace Series	<b>WHW &amp; WSW</b> WaveRing Series
<b>VH &amp; VS Light Duty Series</b>						
				<p>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.</p>		
<b>WH &amp; WS Medium Duty Series</b>						
				<p>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.</p>		
<p>WH-50 to WH-150</p>		<p>WH-156 &amp; up</p>		<p>WS-50 to WS-150</p>		<p>WS-156 &amp; up</p>
<b>WHT &amp; WST Medium Heavy Duty Series</b>						
				<p>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.</p>		
<p>WHT-50 to WHT-150</p>		<p>WHT-156 to WHT-600</p>		<p>WHT-625 &amp; up</p>		<p>WST-50 to WST-150</p>
<p>WST-156 to WST-600</p>		<p>WST-625 &amp; up</p>				

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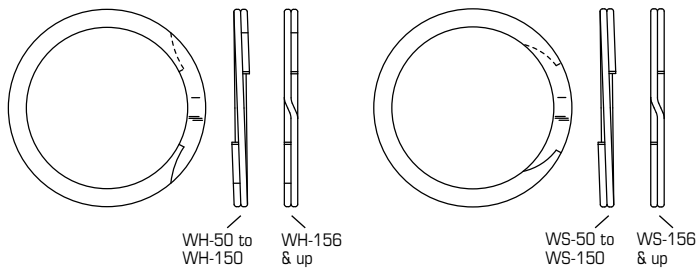


## WHM & WSM Heavy Duty Series



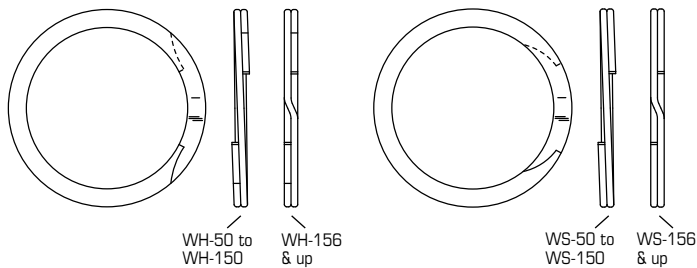
A major segment of Smalley manufacturing is in "special" or prototype retaining rings. Common Smalley specials include balanced, multi-turn (4, 5, 6 turns and more) and special ends in English and metric diameters from 3/8" to 84" and larger.

## DNH & DNS DIN Metric Series



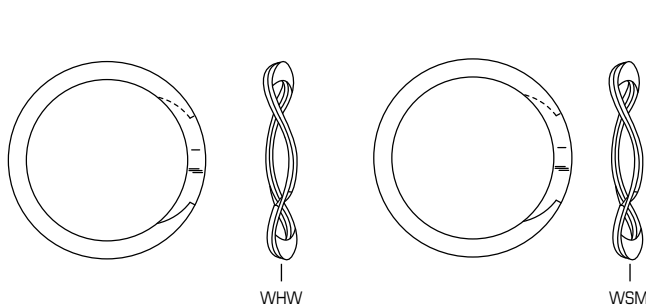
These DIN series retaining ring are Smalley's equivalent to the European or Hard metric retaining rings. With their 2-turn offset configuration, the rings will fit into the grooves established by DIN specifications. They are available in both internal and external sizes from 13 mm to 400mm and are offered 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.

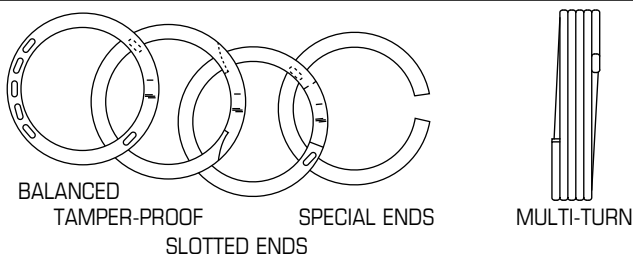
## WaveRings®



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.

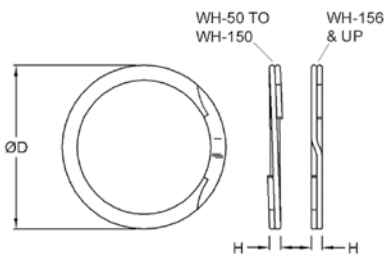
Designed to fit into a groove, the WaveRing applies pressure in two directions: against the groove wall and against the assembly components. Single, double or multiple turns in the WaveRing are possible as well as a choice of materials, including our standard 17-7 PH stainless and carbon steel.

## 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	<b>0.500</b>	0.532	0.025
WH-051	<b>0.512</b>	0.544	0.025
WH-053	<b>0.531</b>	0.564	0.025
WH-056	<b>0.562</b>	0.594	0.025
WH-059	<b>0.594</b>	0.626	0.025
WH-062	<b>0.625</b>	0.658	0.025
WH-065	<b>0.656</b>	0.689	0.025
WH-068	<b>0.687</b>	0.720	0.025
WH-071	<b>0.718</b>	0.751	0.025
WH-075	<b>0.750</b>	0.790	0.031
WH-077	<b>0.777</b>	0.817	0.031
WH-078	<b>0.781</b>	0.821	0.031
WH-081	<b>0.812</b>	0.853	0.031
WH-084	<b>0.843</b>	0.889	0.031
WH-086	<b>0.866</b>	0.913	0.031
WH-087	<b>0.875</b>	0.922	0.031
WH-090	<b>0.906</b>	0.949	0.031
WH-093	<b>0.938</b>	0.986	0.031
WH-096	<b>0.968</b>	1.025	0.037
WH-098	<b>0.987</b>	1.041	0.037
WH-100	<b>1.000</b>	1.054	0.037
WH-102	<b>1.023</b>	1.078	0.037
WH-103	<b>1.031</b>	1.084	0.037
WH-106	<b>1.062</b>	1.117	0.037
WH-109	<b>1.093</b>	1.147	0.037
WH-112	<b>1.125</b>	1.180	0.037
WH-115	<b>1.156</b>	1.210	0.037
WH-118	<b>1.188</b>	1.249	0.043
WH-121	<b>1.218</b>	1.278	0.043
WH-125	<b>1.250</b>	1.312	0.043
WH-128	<b>1.281</b>	1.342	0.043
WH-131	<b>1.312</b>	1.374	0.043
WH-134	<b>1.343</b>	1.408	0.043
WH-137	<b>1.375</b>	1.442	0.043
WH-140	<b>1.406</b>	1.472	0.043
WH-143	<b>1.437</b>	1.504	0.043
WH-145	<b>1.456</b>	1.523	0.043
WH-146	<b>1.468</b>	1.535	0.043
WH-150	<b>1.500</b>	1.567	0.043

N° de référence	Bore dia.	Free dia.	Thickness
		D	H
WH-156	<b>1.562</b>	1.634	0.049
WH-157	<b>1.574</b>	1.649	0.049
WH-162	<b>1.625</b>	1.701	0.049
WH-165	<b>1.653</b>	1.730	0.049
WH-168	<b>1.687</b>	1.768	0.049
WH-175	<b>1.750</b>	1.834	0.049
WH-181	<b>1.813</b>	1.894	0.049
WH-185	<b>1.850</b>	1.937	0.049
WH-187	<b>1.875</b>	1.960	0.049
WH-193	<b>1.938</b>	2.025	0.049
WH-200	<b>2.000</b>	2.091	0.049
WH-204	<b>2.047</b>	2.138	0.049
WH-206	<b>2.062</b>	2.154	0.049
WH-212	<b>2.125</b>	2.217	0.049
WH-216	<b>2.165</b>	2.260	0.049
WH-218	<b>2.188</b>	2.284	0.049
WH-225	<b>2.250</b>	2.347	0.049
WH-231	<b>2.312</b>	2.413	0.049
WH-237	<b>2.375</b>	2.476	0.049
WH-243	<b>2.437</b>	2.543	0.049
WH-244	<b>2.440</b>	2.546	0.049
WH-250	<b>2.500</b>	2.606	0.049
WH-253	<b>2.531</b>	2.641	0.049
WH-256	<b>2.562</b>	2.673	0.049
WH-262	<b>2.625</b>	2.736	0.049
WH-267	<b>2.677</b>	2.789	0.049
WH-268	<b>2.688</b>	2.803	0.049
WH-275	<b>2.750</b>	2.865	0.049
WH-281	<b>2.813</b>	2.929	0.049
WH-283	<b>2.834</b>	2.954	0.049
WH-287	<b>2.875</b>	2.995	0.049
WH-293	<b>2.937</b>	3.058	0.049
WH-295	<b>2.952</b>	3.073	0.049
WH-300	<b>3.000</b>	3.122	0.061
WH-306	<b>3.062</b>	3.186	0.061
WH-312	<b>3.125</b>	3.251	0.061
WH-314	<b>3.149</b>	3.276	0.061
WH-318	<b>3.187</b>	3.311	0.061
WH-325	<b>3.250</b>	3.379	0.061

MISC.



# WH - Retaining rings - Internal

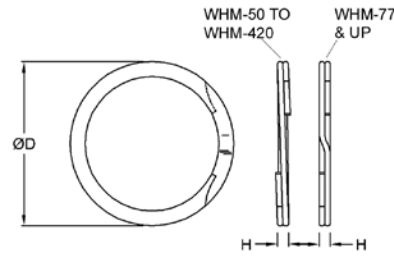
N° de référence	Bore dia.	Free dia.	Thickness
		D	H
WH-331	<b>3.312</b>	3.446	0.061
WH-334	<b>3.346</b>	3.479	0.061
WH-337	<b>3.375</b>	3.509	0.061
WH-343	<b>3.437</b>	3.574	0.061
WH-350	<b>3.500</b>	3.636	0.061
WH-354	<b>3.543</b>	3.684	0.061
WH-356	<b>3.562</b>	3.703	0.061
WH-362	<b>3.625</b>	3.769	0.061
WH-368	<b>3.687</b>	3.832	0.061
WH-374	<b>3.740</b>	3.885	0.061
WH-375	<b>3.750</b>	3.894	0.061
WH-381	<b>3.812</b>	3.963	0.061
WH-387	<b>3.875</b>	4.025	0.061
WH-393	<b>3.938</b>	4.089	0.061
WH-400	<b>4.000</b>	4.157	0.061
WH-406	<b>4.063</b>	4.222	0.061
WH-412	<b>4.125</b>	4.284	0.061
WH-418	<b>4.188</b>	4.347	0.061
WH-425	<b>4.250</b>	4.416	0.061
WH-431	<b>4.312</b>	4.479	0.061
WH-433	<b>4.330</b>	4.497	0.061
WH-437	<b>4.375</b>	4.505	0.061
WH-443	<b>4.437</b>	4.611	0.061
WH-450	<b>4.500</b>	4.674	0.061
WH-452	<b>4.527</b>	4.701	0.061
WH-456	<b>4.562</b>	4.737	0.061
WH-462	<b>4.625</b>	4.803	0.072
WH-468	<b>4.687</b>	4.867	0.072
WH-472	<b>4.724</b>	4.903	0.072
WH-475	<b>4.750</b>	4.930	0.072
WH-481	<b>4.812</b>	4.993	0.072
WH-487	<b>4.875</b>	5.055	0.072
WH-492	<b>4.921</b>	5.102	0.072
WH-493	<b>4.937</b>	5.122	0.072
WH-500	<b>5.000</b>	5.185	0.072
WH-511	<b>5.118</b>	5.304	0.072
WH-512	<b>5.125</b>	5.311	0.072
WH-525	<b>5.250</b>	5.436	0.072
WH-537	<b>5.375</b>	5.566	0.072
WH-550	<b>5.500</b>	5.693	0.072
WH-551	<b>5.511</b>	5.703	0.072
WH-562	<b>5.625</b>	5.818	0.072

N° de référence	Bore dia.	Free dia.	Thickness
		D	H
WH-570	<b>5.708</b>	5.909	0.072
WH-575	<b>5.750</b>	5.950	0.072
WH-587	<b>5.875</b>	6.077	0.072
WH-580	<b>5.800</b>	6.105	0.072
WH-600	<b>6.000</b>	6.202	0.072
WH-612	<b>6.125</b>	6.349	0.086
WH-625	<b>6.250</b>	6.474	0.086
WH-629	<b>6.299</b>	6.524	0.086
WH-637	<b>6.375</b>	6.601	0.086
WH-650	<b>6.500</b>	6.726	0.086
WH-662	<b>6.625</b>	6.863	0.086
WH-669	<b>6.692</b>	6.931	0.086
WH-675	<b>6.750</b>	6.987	0.086
WH-687	<b>6.875</b>	7.114	0.086
WH-700	<b>7.000</b>	7.239	0.086
WH-708	<b>7.086</b>	7.337	0.086
WH-712	<b>7.125</b>	7.376	0.086
WH-725	<b>7.250</b>	7.501	0.086
WH-737	<b>7.375</b>	7.628	0.086
WH-748	<b>7.480</b>	7.734	0.086
WH-750	<b>7.500</b>	7.754	0.086
WH-762	<b>7.625</b>	7.890	0.086
WH-775	<b>7.750</b>	8.014	0.086
WH-787	<b>7.875</b>	8.131	0.086
WH-800	<b>8.000</b>	8.266	0.086
WH-825	<b>8.250</b>	8.528	0.086
WH-826	<b>8.267</b>	8.546	0.086
WH-846	<b>8.464</b>	8.744	0.086
WH-850	<b>8.500</b>	8.780	0.086
WH-875	<b>8.750</b>	9.041	0.086
WH-885	<b>8.858</b>	9.151	0.086
WH-900	<b>9.000</b>	9.293	0.086
WH-905	<b>9.055</b>	9.359	0.086
WH-925	<b>9.250</b>	9.555	0.086
WH-944	<b>9.448</b>	9.755	0.086
WH-950	<b>9.500</b>	9.806	0.086
WH-975	<b>9.750</b>	10.068	0.086
WH-1000	<b>10.000</b>	10.320	0.086
WH-1025	<b>10.250</b>	10.582	0.086
WH-1050	<b>10.500</b>	10.834	0.086
WH-1075	<b>10.750</b>	11.095	0.086
WH-1100	<b>11.000</b>	11.347	0.086

MISC.



# WHM - Retaining rings - Internal



**Standard Material**

Carbon Steel

Ref.Number	Bore dia.	Free dia.	Thickness
		D	H
WHM-050	<b>0.500</b>	0.538	0.035
WHM-051	<b>0.512</b>	0.550	0.035
WHM-056	<b>0.562</b>	0.605	0.035
WHM-062	<b>0.625</b>	0.675	0.035
WHM-068	<b>0.688</b>	0.743	0.035
WHM-075	<b>0.750</b>	0.807	0.035
WHM-077	<b>0.777</b>	0.836	0.042
WHM-081	<b>0.812</b>	0.873	0.042
WHM-086	<b>0.866</b>	0.931	0.042
WHM-087	<b>0.875</b>	0.943	0.042
WHM-090	<b>0.901</b>	0.972	0.042
WHM-093	<b>0.938</b>	1.013	0.042
WHM-100	<b>1.000</b>	1.080	0.042
WHM-102	<b>1.023</b>	1.105	0.042
WHM-106	<b>1.062</b>	1.138	0.050
WHM-112	<b>1.125</b>	1.205	0.050
WHM-118	<b>1.188</b>	1.271	0.050
WHM-125	<b>1.250</b>	1.339	0.050
WHM-131	<b>1.312</b>	1.406	0.050
WHM-137	<b>1.375</b>	1.471	0.050
WHM-143	<b>1.439</b>	1.539	0.050
WHM-145	<b>1.456</b>	1.559	0.050
WHM-150	<b>1.500</b>	1.605	0.050
WHM-156	<b>1.562</b>	1.675	0.062
WHM-162	<b>1.625</b>	1.742	0.062
WHM-165	<b>1.653</b>	1.772	0.062
WHM-168	<b>1.688</b>	1.810	0.062
WHM-175	<b>1.750</b>	1.876	0.062
WHM-181	<b>1.812</b>	1.940	0.062
WHM-185	<b>1.850</b>	1.981	0.062
WHM-187	<b>1.875</b>	2.008	0.062
WHM-193	<b>1.938</b>	2.075	0.062
WHM-200	<b>2.000</b>	2.142	0.062
WHM-206	<b>2.062</b>	2.201	0.078
WHM-212	<b>2.125</b>	2.267	0.078
WHM-218	<b>2.188</b>	2.334	0.078
WHM-225	<b>2.250</b>	2.399	0.078
WHM-231	<b>2.312</b>	2.467	0.078
WHM-237	<b>2.375</b>	2.535	0.078

Ref.Number	Bore dia.	Free dia.	Thickness
		D	H
WHM-244	<b>2.440</b>	2.602	0.078
WHM-250	<b>2.500</b>	2.667	0.078
WHM-253	<b>2.531</b>	2.700	0.078
WHM-256	<b>2.562</b>	2.733	0.093
WHM-262	<b>2.625</b>	2.801	0.093
WHM-268	<b>2.688</b>	2.868	0.093
WHM-275	<b>2.750</b>	2.934	0.093
WHM-281	<b>2.813</b>	3.001	0.093
WHM-283	<b>2.834</b>	3.027	0.093
WHM-287	<b>2.875</b>	3.072	0.093
WHM-300	<b>3.000</b>	3.204	0.093
WHM-306	<b>3.062</b>	3.271	0.111
WHM-312	<b>3.125</b>	3.338	0.111
WHM-315	<b>3.157</b>	3.371	0.111
WHM-325	<b>3.250</b>	3.470	0.111
WHM-334	<b>3.346</b>	3.571	0.111
WHM-347	<b>3.469</b>	3.701	0.111
WHM-350	<b>3.500</b>	3.736	0.111
WHM-354	<b>3.543</b>	3.781	0.111
WHM-356	<b>3.562</b>	3.802	0.111
WHM-362	<b>3.625</b>	3.868	0.111
WHM-375	<b>3.750</b>	4.002	0.111
WHM-387	<b>3.875</b>	4.136	0.111
WHM-393	<b>3.938</b>	4.203	0.111
WHM-400	<b>4.000</b>	4.270	0.111
WHM-412	<b>4.125</b>	4.369	0.111
WHM-425	<b>4.250</b>	4.501	0.111
WHM-433	<b>4.330</b>	4.588	0.111
WHM-450	<b>4.500</b>	4.768	0.111
WHM-462	<b>4.625</b>	4.899	0.111
WHM-475	<b>4.750</b>	5.030	0.111
WHM-500	<b>5.000</b>	5.297	0.111
WHM-525	<b>5.250</b>	5.559	0.127
WHM-537	<b>5.375</b>	5.690	0.127
WHM-550	<b>5.500</b>	5.810	0.127
WHM-575	<b>5.750</b>	6.062	0.127
WHM-600	<b>6.000</b>	6.314	0.127
WHM-625	<b>6.250</b>	6.576	0.156
WHM-650	<b>6.500</b>	6.838	0.156

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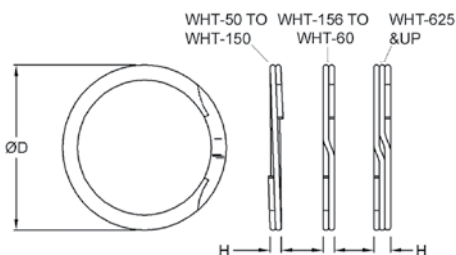


# WHM - Retaining rings - Internal

Ref.Number	Bore dia.	Free dia.	Thickness
		D	H
WHM-662	<b>6.625</b>	6.974	0.156
WHM-675	<b>6.750</b>	7.105	0.156
WHM-700	<b>7.000</b>	7.366	0.156
WHM-725	<b>7.250</b>	7.628	0.187
WHM-750	<b>7.500</b>	7.895	0.187
WHM-775	<b>7.750</b>	8.157	0.187
WHM-800	<b>8.000</b>	8.419	0.187
WHM-825	<b>8.250</b>	8.680	0.187
WHM-850	<b>8.500</b>	8.942	0.187
WHM-875	<b>8.750</b>	9.209	0.187
WHM-900	<b>9.000</b>	9.471	0.187
WHM-925	<b>9.250</b>	9.737	0.187
WHM-950	<b>9.500</b>	10.000	0.187
WHM-975	<b>9.750</b>	10.260	0.187
WHM-1000	<b>10.000</b>	10.523	0.187
WHM-1025	<b>10.250</b>	10.786	0.187
WHM-1050	<b>10.500</b>	11.047	0.187
WHM-1075	<b>10.750</b>	11.313	0.187

Ref.Number	Bore dia.	Free dia.	Thickness
		D	H
WHM-1100	<b>11.000</b>	11.575	0.187
WHM-1125	<b>11.250</b>	11.838	0.187
WHM-1150	<b>11.500</b>	12.102	0.187
WHM-1175	<b>11.750</b>	12.365	0.187
WHM-1200	<b>12.000</b>	12.628	0.187
WHM-1225	<b>12.250</b>	12.891	0.187
WHM-1250	<b>12.500</b>	13.154	0.187
WHM-1275	<b>12.750</b>	13.417	0.187
WHM-1300	<b>13.000</b>	13.680	0.187
WHM-1325	<b>13.250</b>	13.943	0.187
WHM-1350	<b>13.500</b>	14.207	0.187
WHM-1375	<b>13.750</b>	14.470	0.187
WHM-1400	<b>14.000</b>	14.732	0.187
WHM-1425	<b>14.250</b>	14.995	0.187
WHM-1450	<b>14.500</b>	15.259	0.187
WHM-1475	<b>14.750</b>	15.522	0.187
WHM-1500	<b>15.000</b>	15.785	0.187

# WHT - Retaining rings - Internal



<b>Standard Material</b>
Carbon Steel

Ref.Number	Bore dia.	Free dia.	Thickness
		D	H
WHT-050	<b>0.500</b>	0.529	0.035
WHT-051	<b>0.512</b>	0.541	0.035
WHT-056	<b>0.562</b>	0.597	0.035
WHT-062	<b>0.625</b>	0.665	0.035
WHT-068	<b>0.688</b>	0.730	0.035
WHT-075	<b>0.750</b>	0.796	0.035
WHT-077	<b>0.777</b>	0.825	0.042
WHT-081	<b>0.812</b>	0.864	0.042
WHT-086	<b>0.866</b>	0.919	0.042
WHT-087	<b>0.875</b>	0.929	0.042

Ref.Number	Bore dia.	Free dia.	Thickness
		D	H
WHT-090	<b>0.901</b>	0.957	0.042
WHT-093	<b>0.938</b>	0.997	0.042
WHT-100	<b>1.000</b>	1.063	0.042
WHT-102	<b>1.023</b>	1.087	0.042
WHT-106	<b>1.062</b>	1.129	0.050
WHT-112	<b>1.125</b>	1.195	0.050
WHT-118	<b>1.188</b>	1.260	0.050
WHT-125	<b>1.250</b>	1.330	0.050
WHT-131	<b>1.312</b>	1.395	0.050
WHT-137	<b>1.375</b>	1.461	0.050

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# WHT - Retaining rings - Internal

Ref.Number	Bore dia.	Free dia.	Thickness
		D	H
WHT-143	<b>1.438</b>	1.526	0.050
WHT-145	<b>1.456</b>	1.546	0.050
WHT-150	<b>1.500</b>	1.591	0.050
WHT-156	<b>1.562</b>	1.659	0.062
WHT-162	<b>1.625</b>	1.727	0.062
WHT-165	<b>1.653</b>	1.757	0.062
WHT-168	<b>1.688</b>	1.793	0.062
WHT-175	<b>1.750</b>	1.853	0.062
WHT-181	<b>1.812</b>	1.923	0.062
WHT-185	<b>1.850</b>	1.963	0.062
WHT-187	<b>1.875</b>	1.984	0.062
WHT-193	<b>1.938</b>	2.054	0.062
WHT-200	<b>2.000</b>	2.125	0.062
WHT-206	<b>2.062</b>	2.190	0.078
WHT-212	<b>2.125</b>	2.255	0.078
WHT-218	<b>2.188</b>	2.321	0.078
WHT-225	<b>2.250</b>	2.386	0.078
WHT-231	<b>2.312</b>	2.457	0.078
WHT-237	<b>2.375</b>	2.522	0.078
WHT-244	<b>2.440</b>	2.588	0.078
WHT-250	<b>2.500</b>	2.653	0.078
WHT-253	<b>2.531</b>	2.687	0.078
WHT-256	<b>2.562</b>	2.720	0.093
WHT-262	<b>2.625</b>	2.785	0.093
WHT-268	<b>2.688</b>	2.855	0.093
WHT-275	<b>2.750</b>	2.921	0.093
WHT-281	<b>2.813</b>	2.987	0.093
WHT-283	<b>2.834</b>	3.009	0.093
WHT-287	<b>2.875</b>	3.053	0.093
WHT-300	<b>3.000</b>	3.188	0.093
WHT-306	<b>3.062</b>	3.257	0.111
WHT-312	<b>3.125</b>	3.318	0.111
WHT-315	<b>3.156</b>	3.354	0.111
WHT-325	<b>3.250</b>	3.450	0.111
WHT-334	<b>3.346</b>	3.550	0.111
WHT-347	<b>3.469</b>	3.683	0.111
WHT-350	<b>3.500</b>	3.716	0.111

Ref.Number	Bore dia.	Free dia.	Thickness
		D	H
WHT-354	<b>3.543</b>	3.761	0.111
WHT-356	<b>3.562</b>	3.783	0.111
WHT-362	<b>3.625</b>	3.849	0.111
WHT-375	<b>3.750</b>	3.982	0.111
WHT-387	<b>3.875</b>	4.115	0.111
WHT-393	<b>3.938</b>	4.178	0.111
WHT-400	<b>4.000</b>	4.248	0.111
WHT-412	<b>4.125</b>	4.368	0.111
WHT-425	<b>4.250</b>	4.500	0.111
WHT-433	<b>4.330</b>	4.586	0.111
WHT-450	<b>4.500</b>	4.768	0.111
WHT-462	<b>4.625</b>	4.897	0.111
WHT-475	<b>4.750</b>	5.028	0.111
WHT-500	<b>5.000</b>	5.295	0.111
WHT-525	<b>5.250</b>	5.559	0.127
WHT-537	<b>5.375</b>	5.689	0.127
WHT-550	<b>5.500</b>	5.810	0.127
WHT-575	<b>5.750</b>	6.062	0.127
WHT-600	<b>6.000</b>	6.314	0.127
WHT-625	<b>6.250</b>	6.576	0.165
WHT-650	<b>6.500</b>	6.837	0.165
WHT-662	<b>6.625</b>	6.973	0.165
WHT-675	<b>6.750</b>	7.104	0.165
WHT-700	<b>7.000</b>	7.366	0.165
WHT-725	<b>7.250</b>	7.628	0.189
WHT-750	<b>7.500</b>	7.895	0.189
WHT-775	<b>7.750</b>	8.156	0.189
WHT-800	<b>8.000</b>	8.418	0.189
WHT-825	<b>8.250</b>	8.680	0.189
WHT-850	<b>8.500</b>	8.942	0.189
WHT-875	<b>8.750</b>	9.209	0.189
WHT-900	<b>9.000</b>	9.471	0.189
WHT-925	<b>9.250</b>	9.736	0.189
WHT-950	<b>9.500</b>	9.999	0.189
WHT-975	<b>9.750</b>	10.260	0.189
WHT-1000	<b>10.000</b>	10.552	0.189
WHT-1050	<b>10.500</b>	11.036	0.189

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## Markets segments we are servicing



Power Tools



Power Transmission



Pulp & Paper



Railway

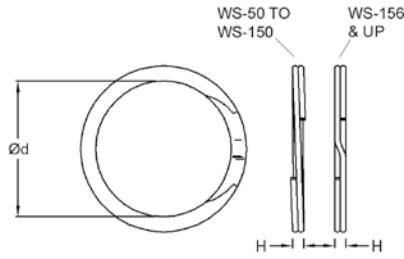


Recreational



Truck & Bus Tier

# WS - Retaining rings - External



<b>Standard Material</b>
Carbon Steel

Ref.Number	Shaft dia.	Free dia.		Thickness	
		d	H	d	H
WS-050	<b>0.500</b>	0.467	0.025		
WS-053	<b>0.531</b>	0.498	0.025		
WS-055	<b>0.551</b>	0.518	0.025		
WS-056	<b>0.562</b>	0.529	0.025		
WS-059	<b>0.594</b>	0.561	0.025		
WS-062	<b>0.625</b>	0.585	0.025		
WS-065	<b>0.656</b>	0.617	0.025		
WS-066	<b>0.669</b>	0.629	0.025		
WS-068	<b>0.687</b>	0.647	0.025		
WS-071	<b>0.718</b>	0.679	0.025		
WS-075	<b>0.750</b>	0.710	0.031		
WS-078	<b>0.781</b>	0.741	0.031		
WS-081	<b>0.812</b>	0.771	0.031		
WS-084	<b>0.843</b>	0.803	0.031		
WS-087	<b>0.875</b>	0.828	0.031		
WS-090	<b>0.906</b>	0.860	0.031		
WS-093	<b>0.937</b>	0.889	0.031		
WS-096	<b>0.968</b>	0.916	0.037		
WS-098	<b>0.984</b>	0.930	0.037		
WS-100	<b>1.000</b>	0.946	0.037		
WS-102	<b>1.023</b>	0.968	0.037		
WS-103	<b>1.031</b>	0.978	0.037		
WS-106	<b>1.062</b>	1.007	0.037		
WS-109	<b>1.093</b>	1.040	0.037		
WS-112	<b>1.125</b>	1.070	0.037		
WS-115	<b>1.156</b>	1.102	0.037		
WS-118	<b>1.188</b>	1.127	0.043		
WS-121	<b>1.218</b>	1.159	0.043		
WS-125	<b>1.250</b>	1.188	0.043		
WS-128	<b>1.281</b>	1.221	0.043		
WS-131	<b>1.312</b>	1.251	0.043		
WS-134	<b>1.343</b>	1.282	0.043		
WS-137	<b>1.375</b>	1.308	0.043		
WS-140	<b>1.406</b>	1.340	0.043		
WS-143	<b>1.437</b>	1.370	0.043		
WS-146	<b>1.468</b>	1.402	0.043		
WS-150	<b>1.500</b>	1.433	0.043		
WS-156	<b>1.562</b>	1.490	0.049		
WS-157	<b>1.575</b>	1.503	0.049		

Ref.Number	Shaft dia.	Free dia.		Thickness	
		d	H	d	H
WS-162	<b>1.625</b>	1.549	0.049		
WS-168	<b>1.687</b>	1.610	0.049		
WS-175	<b>1.750</b>	1.673	0.049		
WS-177	<b>1.771</b>	1.690	0.049		
WS-181	<b>1.813</b>	1.730	0.049		
WS-187	<b>1.875</b>	1.789	0.049		
WS-193	<b>1.938</b>	1.844	0.049		
WS-196	<b>1.969</b>	1.882	0.049		
WS-200	<b>2.000</b>	1.909	0.049		
WS-206	<b>2.062</b>	1.971	0.049		
WS-212	<b>2.125</b>	2.029	0.049		
WS-215	<b>2.156</b>	2.060	0.049		
WS-216	<b>2.165</b>	2.070	0.049		
WS-218	<b>2.188</b>	2.092	0.049		
WS-225	<b>2.250</b>	2.153	0.049		
WS-231	<b>2.312</b>	2.211	0.049		
WS-236	<b>2.362</b>	2.261	0.049		
WS-237	<b>2.375</b>	2.273	0.049		
WS-243	<b>2.437</b>	2.331	0.049		
WS-250	<b>2.500</b>	2.394	0.049		
WS-255	<b>2.559</b>	2.449	0.049		
WS-256	<b>2.562</b>	2.452	0.049		
WS-262	<b>2.625</b>	2.514	0.049		
WS-268	<b>2.688</b>	2.572	0.049		
WS-275	<b>2.750</b>	2.635	0.049		
WS-281	<b>2.813</b>	2.696	0.049		
WS-287	<b>2.875</b>	2.755	0.049		
WS-293	<b>2.937</b>	2.817	0.049		
WS-295	<b>2.952</b>	2.831	0.049		
WS-300	<b>3.000</b>	2.877	0.061		
WS-306	<b>3.062</b>	2.938	0.061		
WS-312	<b>3.125</b>	3.000	0.061		
WS-314	<b>3.149</b>	3.023	0.061		
WS-318	<b>3.187</b>	3.061	0.061		
WS-325	<b>3.250</b>	3.121	0.061		
WS-331	<b>3.312</b>	3.180	0.061		
WS-334	<b>3.343</b>	3.210	0.061		
WS-337	<b>3.375</b>	3.242	0.061		
WS-343	<b>3.437</b>	3.301	0.061		

MISC.



# WS - Retaining rings - External

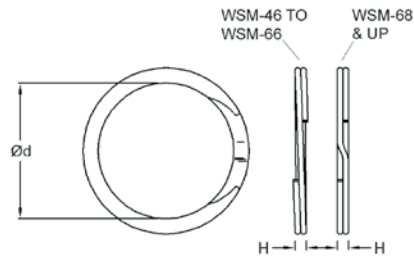
Ref.Number	Shaft dia.	Free dia.	Thickness
		d	H
WS-350	<b>3.500</b>	3.363	0.061
WS-354	<b>3.543</b>	3.402	0.061
WS-356	<b>3.562</b>	3.422	0.061
WS-362	<b>3.625</b>	3.483	0.061
WS-368	<b>3.687</b>	3.543	0.061
WS-374	<b>3.740</b>	3.597	0.061
WS-375	<b>3.750</b>	3.606	0.061
WS-381	<b>3.812</b>	3.668	0.061
WS-387	<b>3.875</b>	3.724	0.061
WS-393	<b>3.938</b>	3.784	0.061
WS-400	<b>4.000</b>	3.842	0.061
WS-406	<b>4.063</b>	3.906	0.061
WS-412	<b>4.125</b>	3.967	0.061
WS-413	<b>4.134</b>	3.975	0.061
WS-418	<b>4.188</b>	4.030	0.061
WS-425	<b>4.250</b>	4.084	0.061
WS-431	<b>4.312</b>	4.147	0.061
WS-433	<b>4.331</b>	4.164	0.061
WS-437	<b>4.375</b>	4.208	0.061
WS-443	<b>4.437</b>	4.271	0.061
WS-450	<b>4.500</b>	4.326	0.061
WS-456	<b>4.562</b>	4.384	0.072
WS-462	<b>4.625</b>	4.447	0.072
WS-468	<b>4.687</b>	4.508	0.072
WS-472	<b>4.724</b>	4.546	0.072
WS-475	<b>4.750</b>	4.571	0.072
WS-481	<b>4.812</b>	4.633	0.072
WS-487	<b>4.875</b>	4.695	0.072
WS-493	<b>4.937</b>	4.757	0.072
WS-500	<b>5.000</b>	4.820	0.072
WS-511	<b>5.118</b>	4.934	0.072
WS-512	<b>5.125</b>	4.939	0.072
WS-525	<b>5.250</b>	5.064	0.072
WS-537	<b>5.375</b>	5.187	0.072
WS-550	<b>5.500</b>	5.308	0.072

Ref.Number	Shaft dia.	Free dia.	Thickness
		d	H
WS-551	<b>5.511</b>	5.320	0.072
WS-562	<b>5.625</b>	5.433	0.072
WS-575	<b>5.750</b>	5.550	0.072
WS-587	<b>5.875</b>	5.674	0.072
WS-590	<b>5.905</b>	5.705	0.072
WS-600	<b>6.000</b>	5.798	0.072
WS-612	<b>6.125</b>	5.903	0.086
WS-625	<b>6.250</b>	6.026	0.086
WS-629	<b>6.299</b>	6.076	0.086
WS-637	<b>6.375</b>	6.152	0.086
WS-650	<b>6.500</b>	6.274	0.086
WS-662	<b>6.625</b>	6.390	0.086
WS-675	<b>6.750</b>	6.513	0.086
WS-687	<b>6.875</b>	6.638	0.086
WS-700	<b>7.000</b>	6.761	0.086
WS-712	<b>7.125</b>	6.877	0.086
WS-725	<b>7.250</b>	6.999	0.086
WS-737	<b>7.375</b>	7.125	0.086
WS-750	<b>7.500</b>	7.250	0.086
WS-762	<b>7.625</b>	7.363	0.086
WS-775	<b>7.750</b>	7.486	0.086
WS-787	<b>7.875</b>	7.611	0.086
WS-800	<b>8.000</b>	7.734	0.086
WS-825	<b>8.250</b>	7.972	0.086
WS-850	<b>8.500</b>	8.220	0.086
WS-875	<b>8.750</b>	8.459	0.086
WS-900	<b>9.000</b>	8.707	0.086
WS-925	<b>9.250</b>	8.945	0.086
WS-950	<b>9.500</b>	9.194	0.086
WS-975	<b>9.750</b>	9.432	0.086
WS-1000	<b>10.000</b>	9.680	0.086
WS-1025	<b>10.250</b>	9.918	0.086
WS-1050	<b>10.500</b>	10.166	0.086
WS-1075	<b>10.750</b>	10.405	0.086
WS-1100	<b>11.000</b>	10.653	0.086

MISC.



# WSM - Retaining rings - External



**Standard Material**  
Carbon Steel

Ref.Number	Shaft dia.	Free dia.	Thickness
		d	H
WSM-046	<b>0.469</b>	0.439	0.025
WSM-050	<b>0.500</b>	0.464	0.035
WSM-055	<b>0.551</b>	0.514	0.035
WSM-056	<b>0.562</b>	0.525	0.035
WSM-059	<b>0.594</b>	0.554	0.035
WSM-062	<b>0.625</b>	0.583	0.035
WSM-066	<b>0.669</b>	0.623	0.035
WSM-068	<b>0.688</b>	0.641	0.042
WSM-075	<b>0.750</b>	0.698	0.042
WSM-078	<b>0.781</b>	0.727	0.042
WSM-081	<b>0.812</b>	0.756	0.042
WSM-087	<b>0.875</b>	0.814	0.042
WSM-093	<b>0.938</b>	0.875	0.042
WSM-098	<b>0.984</b>	0.919	0.042
WSM-100	<b>1.000</b>	0.932	0.042
WSM-102	<b>1.023</b>	0.953	0.042
WSM-106	<b>1.062</b>	0.986	0.050
WSM-112	<b>1.125</b>	1.047	0.050
WSM-118	<b>1.188</b>	1.105	0.050
WSM-125	<b>1.250</b>	1.163	0.050
WSM-131	<b>1.312</b>	1.218	0.050
WSM-137	<b>1.375</b>	1.277	0.050
WSM-143	<b>1.438</b>	1.336	0.050
WSM-150	<b>1.500</b>	1.385	0.050
WSM-156	<b>1.562</b>	1.453	0.062
WSM-162	<b>1.625</b>	1.513	0.062
WSM-168	<b>1.687</b>	1.573	0.062
WSM-175	<b>1.750</b>	1.633	0.062
WSM-177	<b>1.771</b>	1.651	0.062
WSM-181	<b>1.812</b>	1.690	0.062
WSM-187	<b>1.875</b>	1.751	0.062
WSM-196	<b>1.969</b>	1.838	0.062
WSM-200	<b>2.000</b>	1.867	0.062
WSM-206	<b>2.062</b>	1.932	0.078
WSM-212	<b>2.125</b>	1.989	0.078
WSM-215	<b>2.156</b>	2.018	0.078
WSM-225	<b>2.250</b>	2.105	0.078
WSM-231	<b>2.312</b>	2.163	0.078
WSM-237	<b>2.375</b>	2.223	0.078

Ref.Number	Shaft dia.	Free dia.	Thickness
		d	H
WSM-243	<b>2.437</b>	2.283	0.078
WSM-250	<b>2.500</b>	2.343	0.078
WSM-255	<b>2.559</b>	2.402	0.078
WSM-262	<b>2.625</b>	2.464	0.078
WSM-268	<b>2.687</b>	2.523	0.078
WSM-275	<b>2.750</b>	2.584	0.093
WSM-287	<b>2.875</b>	2.702	0.093
WSM-293	<b>2.937</b>	2.760	0.093
WSM-300	<b>3.000</b>	2.818	0.093
WSM-306	<b>3.062</b>	2.878	0.093
WSM-312	<b>3.125</b>	2.936	0.093
WSM-315	<b>3.156</b>	2.965	0.093
WSM-325	<b>3.250</b>	3.054	0.093
WSM-334	<b>3.344</b>	3.144	0.093
WSM-343	<b>3.437</b>	3.234	0.093
WSM-350	<b>3.500</b>	3.293	0.111
WSM-354	<b>3.543</b>	3.333	0.111
WSM-362	<b>3.625</b>	3.411	0.111
WSM-368	<b>3.687</b>	3.469	0.111
WSM-375	<b>3.750</b>	3.527	0.111
WSM-387	<b>3.875</b>	3.647	0.111
WSM-393	<b>3.938</b>	3.708	0.111
WSM-400	<b>4.000</b>	3.765	0.111
WSM-425	<b>4.250</b>	4.037	0.111
WSM-437	<b>4.375</b>	4.161	0.111
WSM-450	<b>4.500</b>	4.280	0.111
WSM-475	<b>4.750</b>	4.518	0.111
WSM-500	<b>5.000</b>	4.756	0.111
WSM-525	<b>5.250</b>	4.995	0.127
WSM-550	<b>5.500</b>	5.228	0.127
WSM-575	<b>5.750</b>	5.466	0.127
WSM-600	<b>6.000</b>	5.705	0.127
WSM-625	<b>6.250</b>	5.938	0.156
WSM-650	<b>6.500</b>	6.181	0.156
WSM-675	<b>6.750</b>	6.410	0.156
WSM-700	<b>7.000</b>	6.648	0.156
WSM-725	<b>7.250</b>	6.891	0.156
WSM-750	<b>7.500</b>	7.130	0.187
WSM-775	<b>7.750</b>	7.368	0.187

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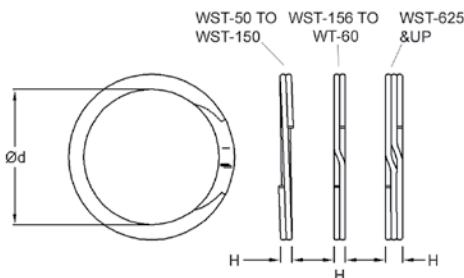


# WSM - Retaining rings - External

Ref.Number	Shaft dia.	Free dia.	Thickness
		d	H
WSM-800	<b>8.000</b>	7.606	0.187
WSM-825	<b>8.250</b>	7.845	0.187
WSM-850	<b>8.500</b>	8.083	0.187
WSM-875	<b>8.750</b>	8.324	0.187
WSM-900	<b>9.000</b>	8.560	0.187
WSM-925	<b>9.250</b>	8.798	0.187
WSM-950	<b>9.500</b>	9.036	0.187
WSM-975	<b>9.750</b>	9.275	0.187
WSM-1000	<b>10.000</b>	9.508	0.187
WSM-1025	<b>10.250</b>	9.745	0.187
WSM-1050	<b>10.500</b>	9.984	0.187
WSM-1075	<b>10.750</b>	10.221	0.187
WSM-1100	<b>11.000</b>	10.459	0.187
WSM-1125	<b>11.250</b>	10.692	0.187
WSM-1150	<b>11.500</b>	10.934	0.187

Ref.Number	Shaft dia.	Free dia.	Thickness
		d	H
WSM-1175	<b>11.750</b>	11.171	0.187
WSM-1200	<b>12.000</b>	11.410	0.187
WSM-1225	<b>12.250</b>	11.647	0.187
WSM-1250	<b>12.500</b>	11.885	0.187
WSM-1275	<b>12.750</b>	12.124	0.187
WSM-1300	<b>13.000</b>	12.361	0.187
WSM-1325	<b>13.250</b>	12.598	0.187
WSM-1350	<b>13.500</b>	12.837	0.187
WSM-1375	<b>13.750</b>	13.074	0.187
WSM-1400	<b>14.000</b>	13.311	0.187
WSM-1425	<b>14.250</b>	13.548	0.187
WSM-1450	<b>14.500</b>	13.787	0.187
WSM-1475	<b>14.750</b>	14.024	0.187
WSM-1500	<b>15.000</b>	14.262	0.187

# WST - Retaining rings - External



**Standard Material**  
Carbon Steel

Ref.Number	Shaft dia.	Free dia.	Thickness
		d	H
WST-046	<b>0.469</b>	0.436	0.024
WST-050	<b>0.500</b>	0.469	0.035
WST-055	<b>0.551</b>	0.518	0.035
WST-056	<b>0.562</b>	0.529	0.035
WST-059	<b>0.594</b>	0.559	0.035
WST-062	<b>0.625</b>	0.590	0.035
WST-066	<b>0.669</b>	0.630	0.035
WST-068	<b>0.688</b>	0.648	0.042
WST-075	<b>0.750</b>	0.708	0.042
WST-078	<b>0.781</b>	0.738	0.042
WST-081	<b>0.812</b>	0.768	0.042
WST-087	<b>0.875</b>	0.827	0.042
WST-093	<b>0.938</b>	0.886	0.042
WST-098	<b>0.984</b>	0.934	0.042

Ref.Number	Shaft dia.	Free dia.	Thickness
		d	H
WST-100	<b>1.000</b>	0.947	0.042
WST-102	<b>1.023</b>	0.969	0.042
WST-106	<b>1.062</b>	1.005	0.050
WST-112	<b>1.125</b>	1.064	0.050
WST-118	<b>1.188</b>	1.126	0.050
WST-125	<b>1.250</b>	1.184	0.050
WST-131	<b>1.312</b>	1.240	0.050
WST-137	<b>1.375</b>	1.298	0.050
WST-143	<b>1.438</b>	1.359	0.050
WST-150	<b>1.500</b>	1.419	0.050
WST-156	<b>1.562</b>	1.476	0.062
WST-162	<b>1.625</b>	1.537	0.062
WST-168	<b>1.687</b>	1.598	0.062
WST-175	<b>1.750</b>	1.657	0.062

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# WST - Retaining rings- Externe

Ref.Number	Shaft dia.	Free dia.	Thickness
		d	H
WST-177	<b>1.771</b>	1.676	0.062
WST-181	<b>1.812</b>	1.714	0.062
WST-187	<b>1.875</b>	1.774	0.062
WST-196	<b>1.969</b>	1.864	0.062
WST-200	<b>2.000</b>	1.894	0.062
WST-206	<b>2.062</b>	1.955	0.078
WST-212	<b>2.125</b>	2.012	0.078
WST-215	<b>2.156</b>	2.041	0.078
WST-225	<b>2.250</b>	2.129	0.078
WST-231	<b>2.312</b>	2.188	0.078
WST-237	<b>2.375</b>	2.248	0.078
WST-243	<b>2.437</b>	2.307	0.078
WST-250	<b>2.500</b>	2.366	0.078
WST-255	<b>2.559</b>	2.432	0.078
WST-262	<b>2.625</b>	2.485	0.078
WST-268	<b>2.687</b>	2.545	0.078
WST-275	<b>2.750</b>	2.604	0.093
WST-287	<b>2.875</b>	2.722	0.093
WST-293	<b>2.937</b>	2.780	0.093
WST-300	<b>3.000</b>	2.838	0.093
WST-306	<b>3.062</b>	2.897	0.093
WST-312	<b>3.125</b>	2.957	0.093
WST-315	<b>3.156</b>	2.986	0.093
WST-325	<b>3.250</b>	3.075	0.093
WST-334	<b>3.344</b>	3.164	0.093
WST-343	<b>3.437</b>	3.254	0.093
WST-350	<b>3.500</b>	3.315	0.111
WST-354	<b>3.543</b>	3.356	0.111
WST-362	<b>3.625</b>	3.433	0.111

Ref.Number	Shaft dia.	Free dia.	Thickness
		d	H
WST-368	<b>3.687</b>	3.483	0.111
WST-375	<b>3.750</b>	3.550	0.111
WST-387	<b>3.875</b>	3.670	0.111
WST-400	<b>4.000</b>	3.787	0.111
WST-425	<b>4.250</b>	4.037	0.111
WST-437	<b>4.375</b>	4.162	0.111
WST-450	<b>4.500</b>	4.280	0.111
WST-475	<b>4.750</b>	4.515	0.111
WST-500	<b>5.000</b>	4.755	0.111
WST-525	<b>5.250</b>	4.995	0.127
WST-550	<b>5.500</b>	5.229	0.127
WST-575	<b>5.750</b>	5.466	0.127
WST-600	<b>6.000</b>	5.705	0.127
WST-625	<b>6.250</b>	5.938	0.165
WST-650	<b>6.500</b>	6.182	0.165
WST-675	<b>6.750</b>	6.420	0.165
WST-700	<b>7.000</b>	6.658	0.165
WST-725	<b>7.250</b>	6.894	0.165
WST-750	<b>7.500</b>	7.130	0.189
WST-775	<b>7.750</b>	7.368	0.189
WST-800	<b>8.000</b>	7.607	0.189
WST-825	<b>8.250</b>	7.845	0.189
WST-850	<b>8.500</b>	8.083	0.189
WST-875	<b>8.750</b>	8.321	0.189
WST-900	<b>9.000</b>	8.560	0.189
WST-925	<b>9.250</b>	8.798	0.189
WST-950	<b>9.500</b>	9.036	0.189
WST-975	<b>9.750</b>	9.273	0.189
WST-1000	<b>10.000</b>	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.



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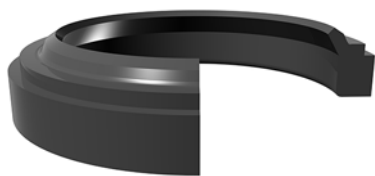




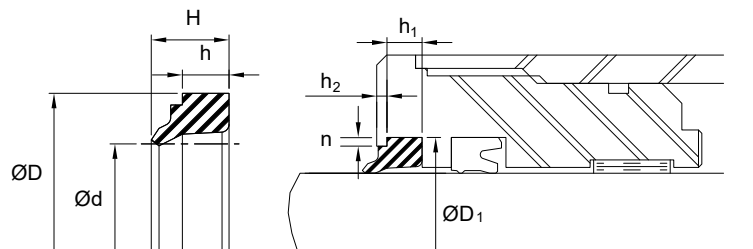


	WA		2
	WB		6
	WC		8
	WF		15
	WG		17
	WN		19
	WO		24
	WR		29
	WS		30
	WT		33
	WV		37
	WW		39
	PPW		42

# 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

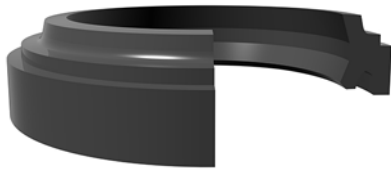
Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions				
	d1	Tol.	d	D	H	D1	Tol.	h1 +.200/- .000	n +.010/- .010	h2 +.020/- .020
W085093040WA	85.00	-.036 -.123	85.00	93.00	7.00	93.00	+.220 +.000	4.00	1.00	1.00
W086094040WA	86.00		86.00	94.00	7.00	94.00		4.00	1.00	1.00
W088096040WA	88.00		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 -.143	125.00	133.00	7.00	133.00		4.00	1.00	1.00
W125137055WA	125.00		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



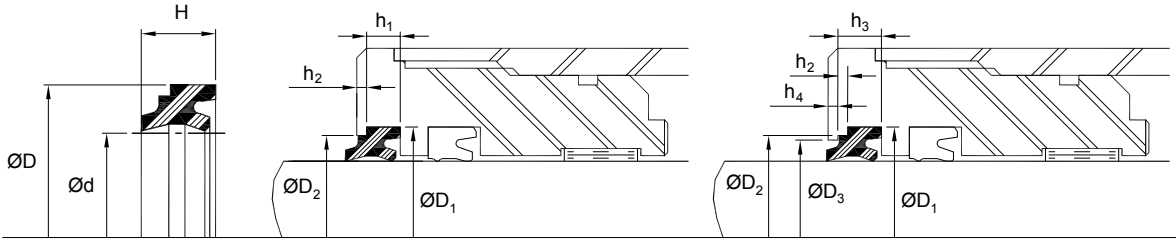
Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions				
	d1	Tol.	d	D	H	D1	Tol.	h1 + .200 / - .000	n + .010 / - .010	h2 + .020 / - .020
W188196040WA	188.00	-.050 -.165	188.00	196.00	7.00	196.00	+.290 +.000	4.00	1.00	1.00
W190202055WA	190.00		190.00	202.00	10.00	202.00		5.50	1.50	1.50
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

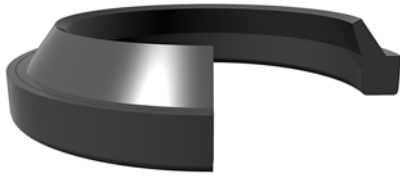
# WB series - AU 92A



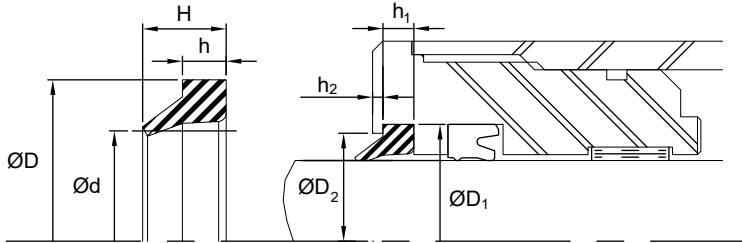
Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions									
	d1	Tol.	d	D	H	D1	Tol.	D2	Tol.	D3	Tol.	h1	h2	h3	h4
												<small>+200/-000</small>	<small>+200/-000</small>	<small>+200/-000</small>	<small>+200/-200</small>
W056064040WB/U	56.00	$-.030$ $-.104$	56.00	64.00	8.00	64.00	$+.120$ $-.000$	62.00	$+.060$ $-.060$	59.50	$+.190$ $-.000$	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	$+.140$ $-.000$	81.00	$+.070$ $-.070$	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	$+.220$ $-.000$	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	$+.160$ $-.000$	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	$+.080$ $-.080$	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	$+.250$ $-.000$	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	$+.185$ $-.000$	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	$+.093$ $-.093$	185.00	$+.290$ $-.000$	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	$+.210$ $-.000$	251.00	$+.105$ $-.105$	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	$+.320$ $-.000$	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	$+.115$ $-.115$	307.00	▼	6.50	3.00	9.50	3.00
W320335065WB/U	320.00	$-.062$ $-.202$	320.00	335.00	13.00	335.00	$+.230$ $-.000$	331.00		327.00	$+.360$ $-.000$	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	$+.250$ $-.000$	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

**ROD WIPERS**



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		2.10	
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	-0.025/-0.087	50.00	65.00	4.00	6.00	65.60	+0.190/-0.000	53.00	+0.190/-0.000	4.20	+0.200/-0.000	2.00	+0.200/-0.200
W053061050WC/U	53.00	-0.030/-0.104	53.00	61.00	5.00	7.00	61.60		56.00		5.30		2.00	
W055063050WC/U	55.00		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	+0.220/-0.000	73.00		5.30		2.00	
W070080070WC/U	70.00		70.00	80.00	7.00	12.00	80.20	+0.220/-0.000	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	+0.220/-0.000	7.10		5.00	
W075088050WC/U	75.00		75.00	88.00	5.00	7.00	88.60		78.00		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	-0.036/-0.123	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	▼



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	<b>84.00</b>	$-.036$	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	<b>85.00</b>	$-.123$	85.00	93.00	5.00	7.00	93.60		88.00		5.30		2.00	
W085097070WC/U	<b>85.00</b>		85.00	97.00	7.00	12.00	97.20		91.00		7.10		5.00	
W085101050WC/U	<b>85.00</b>		85.00	101.00	5.00	7.00	101.60		88.00		5.30		2.00	
W087095040WC/U	<b>87.00</b>		87.00	95.00	4.00	7.00	95.20		90.00		4.30	▼	3.00	
W088096050WC/U	<b>88.00</b>		88.00	96.00	5.00	7.00	96.60		91.00		5.30	$+.300$ $-.000$	2.00	
W088100070WC/U	<b>88.00</b>		88.00	100.00	7.00	12.00	100.20		94.00		7.10		5.00	
W090098050WC/U	<b>90.00</b>		90.00	98.00	5.00	7.00	98.60		93.00		5.30		2.00	
W090100070WC/U	<b>90.00</b>		90.00	100.00	7.00	12.00	100.20		96.00		7.10		5.00	
W090102058WC/U	<b>90.00</b>		90.00	102.00	5.80	8.00	102.20		94.00		6.00		2.20	
W090102070WC/U	<b>90.00</b>		90.00	102.00	7.00	12.00	102.20		96.00		7.10		5.00	
W090107070WC/U	<b>90.00</b>		90.00	107.00	7.00	12.00	107.20		96.00		7.10		5.00	
W091097050WC/U	<b>91.00</b>		91.00	97.00	5.00	7.00	97.60		94.00		5.30		2.00	
W091099050WC/U	<b>91.00</b>		91.00	99.00	5.00	7.00	99.60		94.00		5.30		2.00	
W092100050WC/U	<b>92.00</b>		92.00	100.00	5.00	7.00	100.60		95.00		5.30		2.00	
W092103052WC/U	<b>92.00</b>		92.00	103.00	5.20	7.00	103.60		97.00		5.50		1.80	
W092104070WC/U	<b>92.00</b>		92.00	104.00	7.00	12.00	104.20		98.00		7.10		5.00	
W093101047WC/U	<b>93.00</b>		93.00	101.00	4.70	7.00	101.00		96.00		5.00		2.30	
W095103050WC/U	<b>95.00</b>		95.00	103.00	5.00	7.00	103.60		98.00		5.30		2.00	
W095105070WC/U	<b>95.00</b>		95.00	105.00	7.00	12.00	105.20		101.00		7.10		5.00	
W095107070WC/U	<b>95.00</b>		95.00	107.00	7.00	12.00	107.20		101.00		7.10		5.00	
W097105047WC/U	<b>97.00</b>		97.00	105.00	4.70	7.00	105.00		100.00		5.00		2.30	
W097111070WC/U	<b>97.00</b>		97.00	111.00	7.00	12.00	111.20		103.00		7.10		5.00	
W099109052WC/U	<b>99.00</b>		99.00	109.00	5.20	7.00	109.60		105.50		5.50		1.80	
W100108050WC/U	<b>100.00</b>		100.00	108.00	5.00	7.00	108.60		103.00		5.30		2.00	
W100112058WC/U	<b>100.00</b>		100.00	112.00	5.80	8.00	112.20		104.00		6.00		2.20	
W100112070WC/U	<b>100.00</b>		100.00	112.00	7.00	12.00	112.20		106.00		7.10		5.00	
W100116080WC/U	<b>100.00</b>		100.00	116.00	8.00	12.00	116.20		106.00		8.20		4.00	
W101110050WC/U	<b>101.00</b>		101.00	110.80	5.00	7.00	111.40		104.00		5.30		2.00	
W103115070WC/U	<b>103.00</b>		103.00	115.00	7.00	12.00	115.20		109.00		7.10		5.00	
W104116070WC/U	<b>104.00</b>		104.00	116.00	7.00	12.00	116.20		110.00		7.10		5.00	
W105113050WC/U	<b>105.00</b>		105.00	113.00	5.00	7.00	113.60		108.00		5.30		2.00	
W105116070WC/U	<b>105.00</b>		105.00	116.00	7.00	12.00	116.20		111.00		7.10		5.00	
W105117070WC/U	<b>105.00</b>		105.00	117.00	7.00	12.00	117.20	▼	111.00		7.10		5.00	
W105120070WC/U	<b>105.00</b>		105.00	120.00	7.00	12.00	120.20	$+.250$ $-.000$	111.00		7.10		5.00	
W107113050WC/U	<b>107.00</b>		107.00	113.00	5.00	7.00	113.60	$+.220$ $-.000$	110.00		5.30		2.00	
W110118050WC/U	<b>110.00</b>		110.00	118.00	5.00	7.00	118.60	$+.220$ $-.000$	113.00		5.30		2.00	
W110122070WC/U	<b>110.00</b>		110.00	122.00	7.00	12.00	122.20	$+.250$ $-.000$	116.00		7.10		5.00	
W112120050WC/U	<b>112.00</b>		112.00	120.00	5.00	7.00	120.60	$+.250$ $-.000$	115.00		5.30		2.00	
W112124070WC/U	<b>112.00</b>		112.00	124.00	7.00	12.00	124.20		118.00		7.10		5.00	
W114125070WC/U	<b>114.00</b>		114.00	125.00	7.00	12.00	125.20		120.00		7.10		5.00	
W115123050WC/U	<b>115.00</b>		115.00	123.00	5.00	7.00	123.60		118.00		5.30		2.00	
W115125050WC/U	<b>115.00</b>		115.00	125.00	5.00	7.00	125.60		118.00	▼	5.30		2.00	
W115127070WC/U	<b>115.00</b>		115.00	127.00	7.00	12.00	127.20		121.00	$+.250$ $-.000$	7.10		5.00	
W116128070WC/U	<b>116.00</b>		116.00	128.00	7.00	12.00	128.20		122.00		7.10		5.00	
W116130070WC/U	<b>116.00</b>	▼	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	$-.036$	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	$-.123$	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		121.00	130.60	5.00	7.00	131.20		124.00		5.30		2.00	
W125133050WC/U	125.00	$-.043$ $-.143$	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 -.143	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		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 -.165	183.00	193.00	5.20	7.00	193.60		189.00		5.50		1.80	
W185193050WC/U	185.00		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 -.186	260.00	270.00	10.00	18.00	270.00		260.00		10.20		8.00	
W257267052WC/U	257.00		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	▼

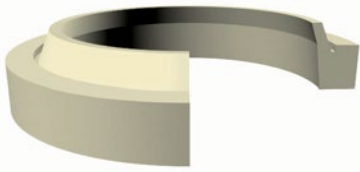


# WC series - AU 92A

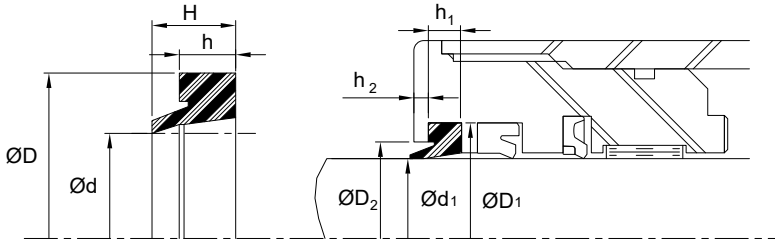
Ref.Number	Rod Diameter		Nominal Seal Dimensions				Housing Dimensions							
	d1	Tol.	d	D	h	H	D1	Tol.	D2	Tol.	h1	Tol.	h2	Tol.
W260280100WC/U	260.00	$-.056$	260.00	280.00	10.00	18.00	280.00	$+.320$ $-.000$	270.00	$+.320$ $-.000$	10.20	$+.300$ $-.000$	8.00	$+.200$ $-.200$
W280300100WC/U	280.00	$-.186$	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	▼

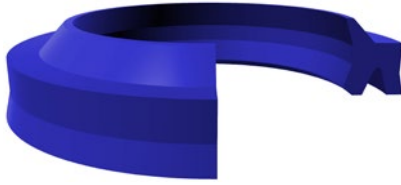


# WF series - AU 94A

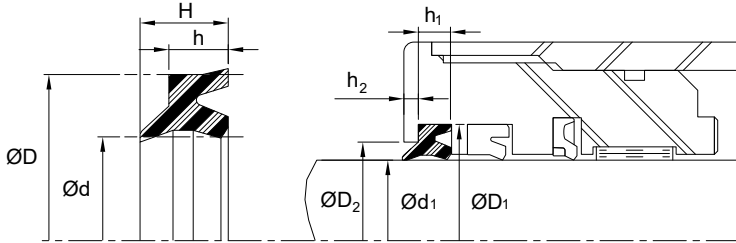
Ref.Number	Rod Diameter		Nominal Seal Dimensions				Housing Dimensions							
	d1	Tol.	d	D	h	H	D1	Tol.	D2	Tol.	h1	Tol.	h2	Tol.
W055063050WF	55.00	-.030 -.076	55.00	63.00	5.00	6.50	63.00	+.120 -.000	59.00	+.100 -.000	6.00	+.300 -.000	2.00	+.200 -.200
W056064050WF	56.00		56.00	64.00	5.00	6.50	64.00		60.00		6.00		2.00	
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		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 -.090	85.00	95.00	6.00	8.00	95.00		90.00		7.00		3.00	
W090100060WF	90.00		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		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 -.106	125.00	138.00	7.00	9.50	138.00		132.00		8.00		4.00	
W130143070WF	130.00		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		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 -.122	190.00	203.00	7.00	9.50	203.00		197.00		8.00		5.00	
W199212070WF	199.00		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		257.00		8.00		5.00	
W260275090WF	260.00	-.056 -.137	260.00	275.00	9.00	12.00	275.00		268.00		10.00		5.00	
W270285090WF	270.00		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

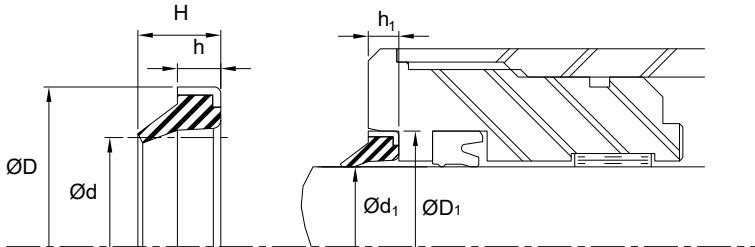
Ref.Number	Rod Diameter		Nominal Seal Dimensions				Housing Dimensions							
	d1	Tol.	d	D	h	H	D1	Tol.	D2	Tol.	h1	Tol.	h2	Tol.
W065073050WG	<b>65.00</b>	$\begin{matrix} -.030 \\ -.076 \end{matrix}$	65.00	73.00	5.00	6.50	73.00	$\begin{matrix} +.000 \\ -.200 \end{matrix}$	69.00	$\begin{matrix} +.100 \\ -.100 \end{matrix}$	6.00	$\begin{matrix} +.200 \\ -.200 \end{matrix}$	2.00	$\begin{matrix} +.200 \\ -.200 \end{matrix}$
W070080060WG	<b>70.00</b>	$\begin{matrix} -.030 \\ -.076 \end{matrix}$	70.00	80.00	6.00	8.00	80.00	$\begin{matrix} +.000 \\ -.200 \end{matrix}$	75.00	$\begin{matrix} +.100 \\ -.100 \end{matrix}$	7.00	$\begin{matrix} +.200 \\ -.200 \end{matrix}$	3.00	$\begin{matrix} +.200 \\ -.200 \end{matrix}$
W071081060WG	<b>71.00</b>		71.00	81.00	6.00	8.00	81.00		76.00		7.00		3.00	
W075085050WG	<b>75.00</b>		75.00	85.00	6.00	8.00	85.00		80.00		7.00		3.00	
W080090060WG	<b>80.00</b>	▼	80.00	90.00	6.00	8.00	90.00		85.00		7.00		3.00	
W085095060WG	<b>85.00</b>	$\begin{matrix} -.036 \\ -.090 \end{matrix}$	85.00	95.00	6.00	8.00	95.00		90.00		7.00		3.00	
W090100060WG	<b>90.00</b>	$\begin{matrix} -.036 \\ -.090 \end{matrix}$	90.00	100.00	6.00	8.00	100.00		95.00		7.00		3.00	
W095105060WG	<b>95.00</b>		95.00	105.00	6.00	8.00	105.00		100.00		7.00		3.00	
W100110060WG	<b>100.00</b>		100.00	110.00	6.00	8.00	110.00		105.00		7.00		3.00	
W105115060WG	<b>105.00</b>		105.00	115.00	6.00	8.00	115.00		110.00		7.00		3.00	
W112122060WG	<b>112.00</b>	▼	112.00	122.00	6.00	8.00	122.00		117.00		7.00		3.00	
W125138070WG	<b>125.00</b>	$\begin{matrix} -.043 \\ -.106 \end{matrix}$	125.00	138.00	7.00	9.50	138.00		132.00		8.00		3.00	
W140153070WG	<b>140.00</b>	$\begin{matrix} -.043 \\ -.106 \end{matrix}$	140.00	153.00	7.00	9.50	153.00		147.00		8.00		3.00	
W150163070WG	<b>150.00</b>		150.00	163.00	7.00	9.50	163.00		157.00		8.00		3.00	
W180193070WG	<b>180.00</b>	▼	180.00	193.00	7.00	9.50	193.00		187.00		8.00		3.00	
W185198070WG	<b>185.00</b>	$\begin{matrix} -.050 \\ -.122 \end{matrix}$	185.00	198.00	7.00	9.50	198.00		192.00		8.00		3.00	
W200213070WG	<b>200.00</b>	$\begin{matrix} -.050 \\ -.122 \end{matrix}$	200.00	213.00	7.00	9.50	213.00		207.00		8.00		3.00	
W210223070WG	<b>210.00</b>		210.00	223.00	7.00	9.50	223.00		217.00		8.00		3.00	
W250265090WG	<b>250.00</b>	▼	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	-0.016 -0.043	15.00	25.00	5.00	8.00	25.00	+0.033 -0.000	5.00	+0.500 -0.000
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	+0.039/-0.000	5.00	
W019027064WN	19.00	-0.020 -0.053	19.00	27.00	6.40	9.50	27.00	+0.033 -0.000	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	+0.039/-0.000	7.00	
W021028035WN	21.00		21.00	28.00	3.50	5.00	28.00	+0.033 -0.000	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	+0.039 -0.000	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

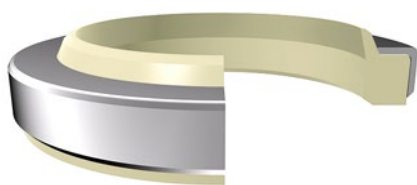


Recreational

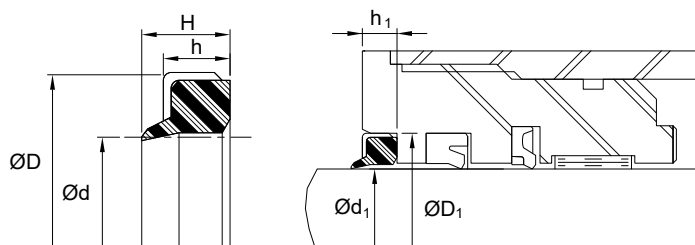


Truck & Bus Tier

# 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

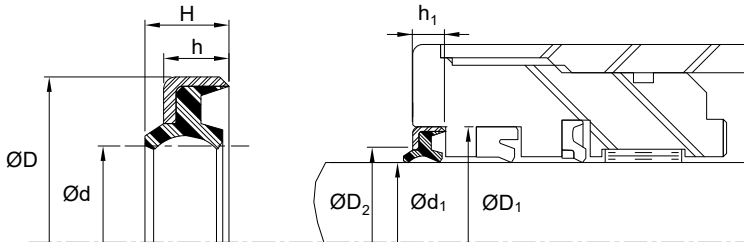
Ref.Number	Rod Diameter		Nominal Seal Dimensions				Housing Dimensions			
	d1	Tol.	d	D	h	H	D1	Tol.	h1	Tol.
W175195100WO	175.00	$\begin{matrix} -.043 \\ -.106 \end{matrix}$	175.00	195.00	10.00	14.00	195.00	$\begin{matrix} +.072 \\ -.000 \end{matrix}$	10.00	$\begin{matrix} +.500 \\ -.000 \end{matrix}$
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.

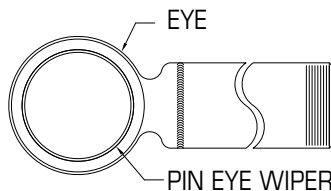
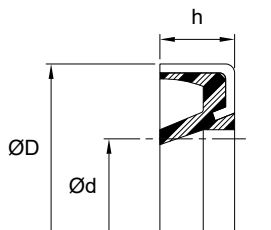
Ref.Number	Rod Diameter		Nominal Seal Dimensions				Housing Dimensions			
	d1	Tol.	d	D	h	H	D1	Tol.	h1	Tol.
W014024050WR	14.00	-.016	14.00	24.00	5.00	7.00	24.00	+.033 -.000	5.00	+.500 +.300
W016026050WR	16.00	-.043	16.00	26.00	5.00	7.00	26.00	-.000	5.00	+.500 +.300
W018030060WR	18.00	↓	18.00	30.00	6.00	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



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		5.00	
W040060050WS	40.00		40.00	60.00	5.00	60.00	+ .046 - .000	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

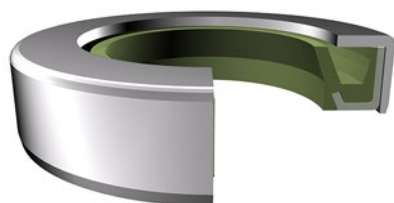
Ref.Number	Pin Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	h	D1	Tol.	h1	Tol.
W065080080WS	65.00	-.030 -.076	65.00	80.00	8.00	80.00	+.046 -.000	8.00	+.600 +.400
W070080090WS	70.00		70.00	80.00	9.00	80.00		9.00	
W070083080WS	70.00		70.00	83.00	8.00	83.00	+.054 -.000	8.00	↓
W070085050WS	70.00		70.00	85.00	5.00	85.00		5.00	+.500 +.300
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	+.500 +.300
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	↓



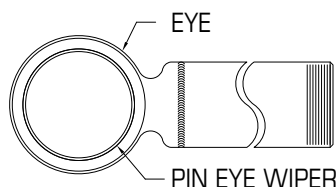
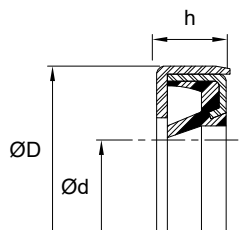
# WS series - AU/STEEL

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	+500 +300
W085110040WT	85.00		85.00	110.00	4.00	110.00		4.00	+600/+400
W090104040WT	90.00		90.00	104.00	4.00	104.00		4.00	+500/+300
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	+500/+300
W090110060WT	90.00		90.00	110.00	6.00	110.00		6.00	+600 +400
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	+500/+300
W095110040WT	95.00		95.00	110.00	4.00	110.00		4.00	+600 +400
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	+500/+300
W100114080WT	100.00		100.00	114.00	8.00	114.00		8.00	+500 +300
W100115040WT	100.00		100.00	115.00	4.00	115.00		4.00	+600/+400
W100115070WT	100.00		100.00	115.00	7.00	115.00		7.00	+500/+300
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	+600 +400
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	+500 +300
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	+600/+400
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

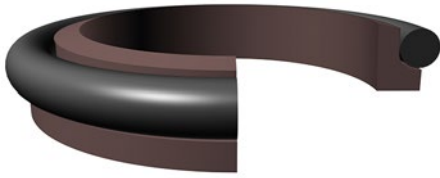


# WT series - AU/STEEL & NBR/STEEL

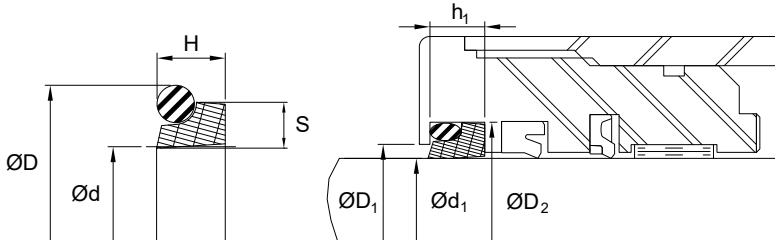
Ref.Number	Pin Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	h	D1	Tol.	h1	Tol.
W110130095WT	110.00	-0.036	110.00	130.00	9.50	130.00	+0.063	9.50	+0.600
W110135080WT	110.00	-0.090	110.00	135.00	8.00	135.00	-0.000	8.00	+0.400
W110140080WT	110.00		110.00	140.00	8.00	140.00		8.00	↓
W115130040WT	115.00		115.00	130.00	4.00	130.00		4.00	+500/+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	+500/+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	+500/+300
W130155095WT	130.00		130.00	155.00	9.50	155.00		9.50	+600/+400
W140155040WT	140.00		140.00	155.00	4.00	155.00		4.00	+500/+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	▼



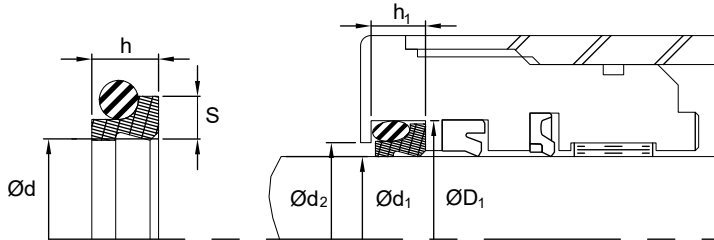
# WV series - PTFE/NBR

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.
W036042050WW	36.00	-.025	36.00	2.95	4.50	42.80	+0.062	37.50	+0.160	5.00	+0.200
W036043042WW	36.00	-.064	36.00	2.80	3.90	43.60	-0.000	37.00	-0.000	4.20	-0.000
W038044050WW	38.00		38.00	2.95	4.50	44.80		39.50		5.00	
W038045042WW	38.00		38.00	2.80	3.90	45.60		39.00		4.20	
W040046050WW	40.00		40.00	2.95	4.50	46.80		41.50		5.00	
W040048063WW	40.00		40.00	3.90	5.90	48.80		41.50		6.30	
W042048050WW	42.00		42.00	2.95	4.50	48.80	▼	43.50		5.00	
W042050063WW	42.00		42.00	3.90	5.90	50.80	+0.074	43.50		6.30	
W045051050WW	45.00		45.00	2.95	4.50	51.80	-0.000	46.50		5.00	
W045053063WW	45.00		45.00	3.90	5.90	53.80		46.50		6.30	
W048054050WW	48.00		48.00	2.95	4.50	54.80		49.50		5.00	
W048056063WW	48.00		48.00	3.90	5.90	56.80		49.50	▼	6.30	
W050056050WW	50.00		50.00	2.95	4.50	56.80		51.50	+0.190	5.00	
W050058063WW	50.00	▼	50.00	3.90	5.90	58.80		51.50	-0.000	6.30	
W052058050WW	52.00	-.030	52.00	2.95	4.50	58.80		53.50		5.00	
W052060063WW	52.00	-.076	52.00	3.90	5.90	60.80		53.50		6.30	
W055061050WW	55.00		55.00	2.95	4.50	61.80		56.50		5.00	
W056062050WW	56.00		56.00	2.95	4.50	62.80		57.50		5.00	
W055063063WW	55.00		55.00	3.90	5.90	63.80		56.50		6.30	
W056064063WW	56.00		56.00	3.90	5.90	64.80		57.50		6.30	
W060066050WW	60.00		60.00	2.95	4.50	66.80		61.50		5.00	
W060068063WW	60.00		60.00	3.90	5.90	68.80		61.50		6.30	
W063071063WW	63.00		63.00	3.90	5.90	71.80		64.50		6.30	
W065073060WW	65.00		65.00	3.75	5.50	73.80		66.50		6.00	
W065073063WW	65.00		65.00	3.90	5.90	73.80		66.50		6.30	
W070078060WW	70.00		70.00	3.75	5.50	78.80	▼	71.50		6.00	
W070082081WW	70.00		70.00	5.40	7.70	82.20	+0.087	72.00		8.10	
W075083060WW	75.00		75.00	3.75	5.50	83.80	-0.000	76.50		6.00	
W075087081WW	75.00		75.00	5.40	7.70	87.20		77.00	▼	8.10	
W080088060WW	80.00		80.00	3.75	5.50	88.80		81.50	+0.220	6.00	
W080092081WW	80.00	▼	80.00	5.40	7.70	92.20		82.00	-0.000	8.10	
W085093060WW	85.00	-.036	85.00	3.75	5.50	93.80		86.50		6.00	
W085097081WW	85.00	-.090	85.00	5.40	7.70	97.20		87.00		8.10	
W090098060WW	90.00		90.00	3.75	5.50	98.80		91.50		6.00	
W090102081WW	90.00		90.00	5.40	7.70	102.20		92.00		8.10	
W095103060WW	95.00		95.00	3.75	5.50	103.80		96.50		6.00	
W095107081WW	95.00		95.00	5.40	7.70	107.20		97.00		8.10	
W100108060WW	100.00		100.00	3.75	5.50	108.80		101.50		6.00	
W100112081WW	100.00		100.00	5.40	7.70	112.20		102.00		8.10	
W105113060WW	105.00		105.00	3.75	5.50	113.80		106.50		6.00	
W105117081WW	105.00		105.00	5.40	7.70	117.20		107.00		8.10	
W110118060WW	110.00		110.00	3.75	5.50	118.80	▼	111.50		6.00	
W110122081WW	110.00		110.00	5.40	7.70	122.20	+0.100	112.00		8.10	
W115127081WW	115.00		115.00	5.40	7.70	127.20	-0.000	117.00	▼	8.10	
W120128060WW	120.00		120.00	3.75	5.50	128.80	▼	121.50	+0.250	6.00	
W120132081WW	120.00	▼	120.00	5.40	7.70	132.20	▼	122.00	-0.000	8.10	▼



# WW series - PTFE/NBR

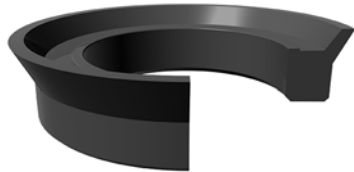


Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions					
	d1	Tol.	d	S	h	D1	Tol.	D2	Tol.	h1	Tol.
W125133060WW	125.00	-.043	125.00	3.75	5.50	133.80	+.100	126.50	+.250	6.00	+.200
W125137081WW	125.00	-.106	125.00	5.40	7.70	137.20	-.000	127.00	-.000	8.10	-.000
W130138060WW	130.00		130.00	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	+.115	172.50	▼	9.50	
W180188060WW	180.00		180.00	3.75	5.50	188.80	-.000	181.50	+.290	6.00	
W180196095WW	180.00	▼	180.00	7.00	9.10	196.00		182.50	-.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	+.130	242.50	▼	9.50	
W250258060WW	250.00		250.00	3.75	5.50	258.80	-.000	251.50	+.320	6.00	
W250266095WW	250.00	▼	250.00	7.00	9.10	266.00		252.50	-.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	+.140	302.50		9.50	
W310322084WW	310.00		310.00	5.15	7.60	322.20	-.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	+.360	8.40	
W320336095WW	320.00	-.151	320.00	7.00	9.10	336.00		322.50	-.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	▼

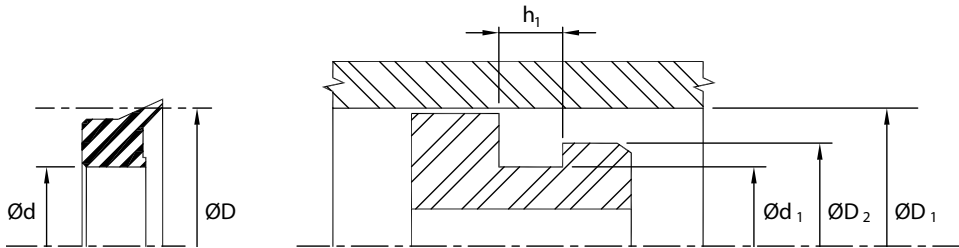
# WW series - PTFE/NBR

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.

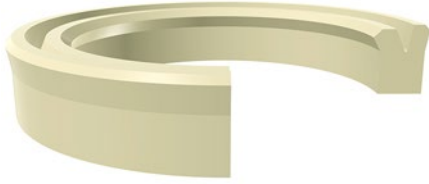




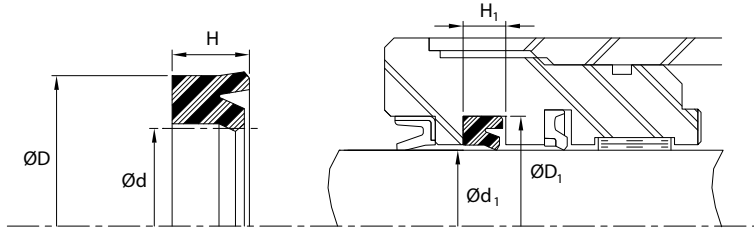


	RA	J	2
	RA/N	J	10
	RC	J	14
	RC/AER	J	24
	RE	J	26
	RH	J	28
	RV	J	30
	RX	J	33
	RZ	J	37
	R5/U	J	40
	R12	J	41
	R16	J	42
	R19	J	45
	SD/N, ST/N, SD/T, ST/T BACK-UP RINGS	J	46

# 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 -.043	12.50	22.50	7.50	22.50	+ .130 -.000	8.50	+ .200 -.000
R012022080RA	12.50		12.50	22.50	8.00	22.50		9.00	
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 -.000	9.00	
R018031100RA	18.00	↓	18.00	31.00	10.00	31.00	+ .160 -.000	11.00	
R020028050RA	20.00	.020 -.053	20.00	28.00	5.00	28.00	+ .130 -.000	5.70	
R020030060RA	20.00		20.00	30.00	6.00	30.00	+ .130 -.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 -.000	9.00	
R020033100RA	20.00		20.00	33.00	10.00	33.00	+ .160 -.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 -.000	11.00	
R023031050RA	23.50		23.50	31.50	5.00	31.50	+ .160 -.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

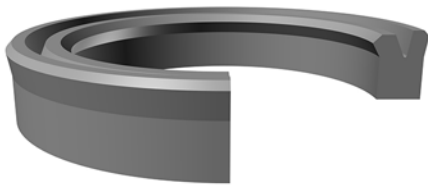


Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	H	D1	Tol.	H1	Tol.
R220245190RA	220.00	-0.050	220.00	245.00	19.00	245.00	+0.290	20.00	+0.200
R220245200RA	220.00	-0.122	220.00	245.00	20.00	245.00	-0.000	21.00	-0.000
R224244110RA	224.00		224.00	244.00	11.00	244.00		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	▼

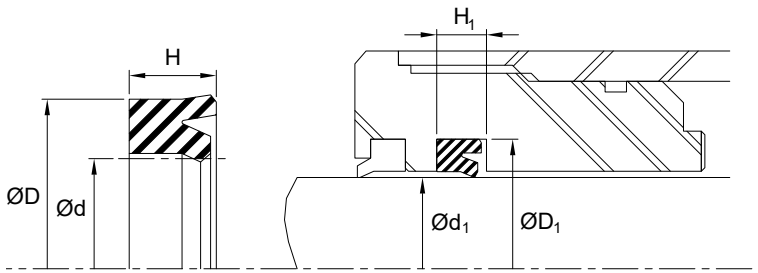
# RA series - AU 92A

Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	H	D1	Tol.	H1	Tol.
R300325190RA	300.00	-0.056 -0.137	300.00	325.00	19.00	325.00	+0.360 -0.000	20.00	+0.200 -0.000
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	-0.006 -0.020	2.00	4.50	1.70	4.50	+0.075 -0.000	2.70	+0.200 -0.000
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	-0.010 -0.028	4.00	8.00	3.00	8.00	+0.090 -0.000	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	+0.110/-0.000	5.00	
R005009025RA/N	5.00		5.00	9.00	2.50	9.00	+0.090 -0.000	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	+0.110 -0.000	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	-0.020 -0.053	25.00	37.00	6.00	37.00	+0.160 -0.000	6.00	+0.200 -0.000
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	-0.025 -0.064	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	+0.190 -0.000	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	+0.075/-0.000	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	+0.190 -0.000	11.00	
R055065070RA/N	55.00	-0.030 -0.076	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**



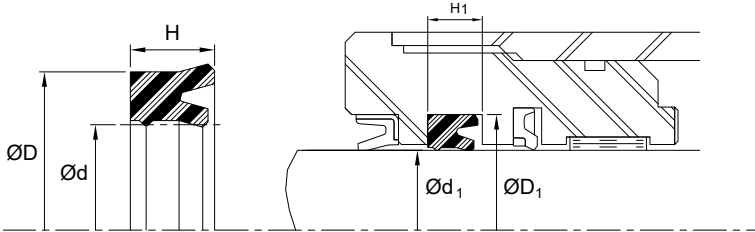
Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	H	D1	Tol.	H1	Tol.
R063075085RA/N	<b>63.00</b>	-0.030 -0.076	63.00	75.00	8.50	75.00	+0.190 -0.000	9.50	+0.200 -0.000
R065075100RA/N	<b>65.00</b>		65.00	75.00	10.00	75.00		11.00	
R065077085RA/N	<b>65.00</b>		65.00	77.00	8.50	77.00		9.50	
R068074040RA/N	<b>68.00</b>		68.00	74.00	4.00	74.00		5.00	
R068080085RA/N	<b>68.00</b>		68.00	80.00	8.50	80.00		9.50	
R070080120RA/N	<b>70.00</b>		70.00	80.00	12.00	80.00	▼	13.00	
R070082085RA/N	<b>70.00</b>		70.00	82.00	8.50	82.00	+0.220 -0.000	9.50	
R070085100RA/N	<b>70.00</b>		70.00	85.00	10.00	85.00		10.00	
R075085120RA/N	<b>75.00</b>		75.00	85.00	12.00	85.00		13.00	
R080090120RA/N	<b>80.00</b>		80.00	90.00	12.00	90.00		13.00	
R080092085RA/N	<b>80.00</b>	▼	80.00	92.00	8.50	92.00		9.50	
R085095070RA/N	<b>85.00</b>	-0.036 -0.090	85.00	95.00	7.00	95.00		8.00	
R085095120RA/N	<b>85.00</b>		85.00	95.00	12.00	95.00		13.00	
R088110165RA/N	<b>88.00</b>		88.00	110.00	16.50	110.00		17.50	
R090100120RA/N	<b>90.00</b>		90.00	100.00	12.00	100.00		13.00	
R090102085RA/N	<b>90.00</b>		90.00	102.00	8.50	102.00		9.50	
R095105120RA/N	<b>95.00</b>		95.00	105.00	12.00	105.00		13.00	
R100115100RA/N	<b>100.00</b>		100.00	115.00	10.00	115.00		11.00	
R105120120RA/N	<b>105.00</b>		105.00	120.00	12.00	120.00	▼	13.00	
R110125100RA/N	<b>110.00</b>		110.00	125.00	10.00	125.00	+0.250 -0.000	11.00	
R110130140RA/N	<b>110.00</b>		110.00	130.00	14.00	130.00		15.00	
R115125120RA/N	<b>115.00</b>		115.00	125.00	12.00	125.00		13.00	
R120135095RA/N	<b>120.00</b>	▼	120.00	135.00	9.50	135.00		10.50	
R135145120RA/N	<b>135.00</b>	-0.043 -0.106	135.00	145.00	12.00	145.00		13.00	
R140160140RA/N	<b>140.00</b>		140.00	160.00	14.00	160.00		15.00	
R155165120RA/N	<b>155.00</b>		155.00	165.00	12.00	165.00		13.00	
R160180140RA/N	<b>160.00</b>		160.00	180.00	14.00	180.00	▼	15.00	
R180200140RA/N	<b>180.00</b>	▼	180.00	200.00	14.00	200.00	+0.290 -0.000	15.00	
R185195120RA/N	<b>185.00</b>	-0.050 -0.122	185.00	195.00	12.00	195.00		13.00	
R210240280RA/N	<b>210.00</b>		210.00	240.00	28.00	240.00		29.00	
R215225120RA/N	<b>215.00</b>		215.00	225.00	12.00	225.00		13.00	
R240250120RA/N	<b>240.00</b>		240.00	250.00	12.00	250.00	▼	13.00	
R245290250RA/N	<b>245.00</b>	▼	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	-0.016 -0.043	12.00	22.00	8.00	22.00	+0.130 -0.000	9.00	+0.200 -0.000
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	-0.020 -0.053	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	-0.016 -0.043	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	-0.020 -0.053	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	+0.160 -0.000	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 - .053	25.00	33.00	7.30	33.00	+ .160 - .000	8.00	+ .200 - .000
R025033080RC	25.00		25.00	33.00	8.00	33.00		9.00	
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 - .064	30.00	40.00	7.30	40.00		8.00	
R030040080RC	30.00		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 - .064	30.00	45.00	10.00	45.00		11.00	
R030045110RC	30.00		30.00	45.00	11.00	45.00		12.00	
R030050120RC	30.00	- .020 - .053	30.00	50.00	12.00	50.00		13.00	
R032040067RC	32.00		32.00	40.00	6.70	40.00		7.50	
R032040080RC	32.00	- .025 - .064	32.00	40.00	8.00	40.00		9.00	
R032041079RC	32.00		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 - .053	32.00	42.00	10.00	42.00		11.00	
R032045100RC	32.00		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 - .064	32.00	47.00	11.40	47.00		12.50	
R033043100RC	33.00		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

**ROD SEALS**



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	+ .220 - .000	16.00	+ .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	+ .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	110.00	130.00	14.50	130.00	+0.250	15.50	+0.200
R110130150RC	110.00	-0.090	110.00	130.00	15.00	130.00	-0.000	16.00	-0.000
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	-.043/-0.106	120.00	130.00	12.00	130.00		13.00	
R120130140RC	120.00	-0.036	120.00	130.00	14.00	130.00		15.00	
R120135150RC	120.00	-0.090	120.00	135.00	15.00	135.00		16.00	
R120140120RC	120.00	-0.043	120.00	140.00	12.00	140.00		13.00	
R120140150RC	120.00	-0.106	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	125.00	135.00	10.00	135.00		11.00	
R125145120RC	125.00	-0.090	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	125.00	150.00	15.00	150.00		16.00	
R125155180RC	125.00	-0.106	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	<b>180.00</b>	-043 -106	180.00	205.00	19.00	205.00	+290 -000	20.00	+200 -000
R180210180RC	<b>180.00</b>		180.00	210.00	18.00	210.00		19.00	
R185193114RC	<b>185.00</b>	↓	185.00	193.00	11.40	193.00		12.50	
R185195120RC	<b>185.00</b>	-.050/-122	185.00	195.00	12.00	195.00		13.00	
R200208114RC	<b>200.00</b>	-.043/-106	200.00	208.00	11.40	208.00		12.50	
R200225182RC	<b>200.00</b>	-.050 -122	200.00	225.00	18.20	225.00		20.00	
R200225190RC	<b>200.00</b>		200.00	225.00	19.00	225.00		20.00	
R200230180RC	<b>200.00</b>		200.00	230.00	18.00	230.00		19.00	
R205220125RC	<b>205.00</b>		205.00	220.00	12.50	220.00		13.50	
R209228130RC	<b>209.00</b>		209.00	228.00	13.00	228.00		14.00	
R210230150RC	<b>210.00</b>		210.00	230.00	15.00	230.00		16.00	
R210240180RC	<b>210.00</b>		210.00	240.00	18.00	240.00		19.00	
R212220135RC	<b>212.00</b>		212.00	220.00	13.50	220.00		14.50	
R220220150RC	<b>200.00</b>		200.00	220.00	15.00	220.00		16.00	
R220250180RC	<b>220.00</b>		220.00	250.00	18.00	250.00		19.00	
R220250227RC	<b>220.00</b>		220.00	250.00	22.70	250.00		25.00	
R230260227RC	<b>230.00</b>		230.00	260.00	22.70	260.00	↓	25.00	
R232246120RC	<b>232.00</b>		232.00	246.00	12.00	246.00	+320 -000	13.00	
R240260150RC	<b>240.00</b>		240.00	260.00	15.00	260.00		16.00	
R250270150RC	<b>250.00</b>	↓	250.00	270.00	15.00	270.00		16.00	
R270300180RC	<b>270.00</b>	-.056 -137	270.00	300.00	18.00	300.00		19.00	
R280300150RC	<b>280.00</b>		280.00	300.00	15.00	300.00		16.00	
R280310180RC	<b>280.00</b>	↓	280.00	310.00	18.00	310.00	↓	19.00	
R320350200RC	<b>320.00</b>	-.062 -151	320.00	350.00	20.00	350.00	+360 -000	21.00	
R360390200RC	<b>360.00</b>		360.00	390.00	20.00	390.00		21.00	↓

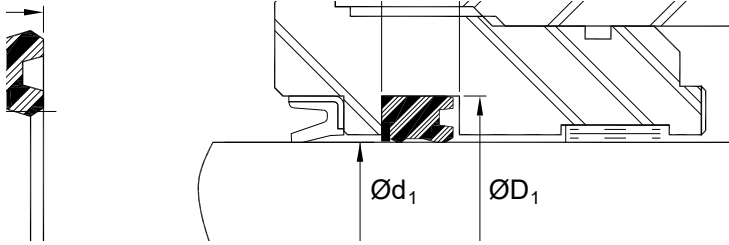


# RC/AER - Rod seals - Metric

## ROD SEALS



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		11.00	
RO40052100RC/AER	40.00	↓	40.00	52.00	10.00	52.00	+ .190 - .000	11.00	↓
RO40055100RC/AER	40.00		40.00	55.00	10.00	55.00	11.00		

# RC/AER series - AU/POM

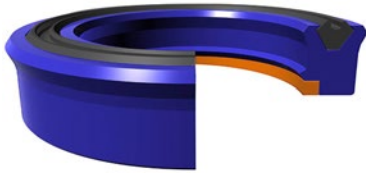
**ROD SEALS**



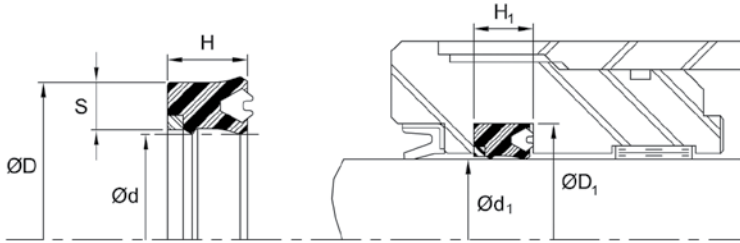
Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	H	D1	Tol.	H1	Tol.
R045053095RC/AER	45.00	-.025 -.064	45.00	53.00	9.50	53.00	+.190 -.000	10.50	+.200 -.000
R045055100RC/AER	45.00		45.00	55.00	10.00	55.00		11.00	
R045060100RC/AER	45.00		45.00	60.00	10.00	60.00		11.00	
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	▼

Revision 1

# 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



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

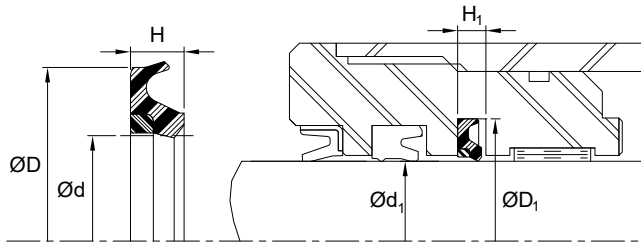


Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	H	D1	Tol.	H1	Tol.
R110130130RE	110.00	- .025	110.00	130.00	13.00	130.00	+ .080	14.00	+ .250
R110130145RE	110.00	- .087	110.00	130.00	14.50	130.00	- .080	16.00	- .000
R115135146RE	115.00		115.00	135.00	14.60	135.00		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**



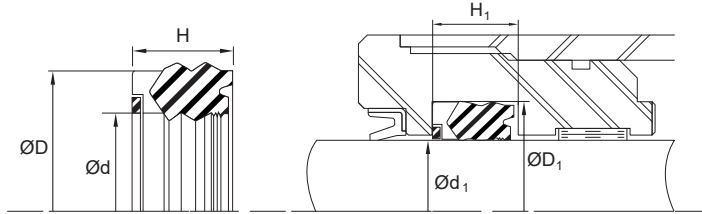
Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	h	D1	Tol.	H1	Tol.
R035051060RH	<b>35.50</b>	- .025 - .064	35.50	51.00	6.00	50.00	+ .200 - .000	6.30	+ .200 - .000
R040055060RH	<b>40.00</b>		40.00	55.50	6.00	55.50		6.30	
R045060060RH	<b>45.00</b>		45.00	60.50	6.00	60.50		6.30	
R050065060RH	<b>50.00</b>	▼	50.00	65.50	6.00	65.50		6.30	
R055070060RH	<b>55.00</b>	- .030 - .076	55.00	70.50	6.00	70.50		6.30	
R060075060RH	<b>60.00</b>		60.00	75.50	6.00	75.50		6.30	
R065080060RH	<b>65.00</b>		65.00	80.50	6.00	80.50		6.30	
R070085060RH	<b>70.00</b>		70.00	85.50	6.00	85.50		6.30	
R075090060RH	<b>75.00</b>		75.00	90.50	6.00	90.50		6.30	
R080095060RH	<b>80.00</b>	▼	80.00	95.50	6.00	95.50		6.30	
R085100060RH	<b>85.00</b>	- .036 - .090	85.00	100.50	6.00	100.50		6.30	
R090105060RH	<b>90.00</b>		90.00	105.50	6.00	105.50		6.30	
R095110060RH	<b>95.00</b>		95.00	110.50	6.00	110.50		6.30	
R100115060RH	<b>100.00</b>		100.00	115.50	6.00	115.50		6.30	
R105120060RH	<b>105.00</b>		105.00	120.50	6.00	120.50		6.30	
R110125060RH	<b>110.00</b>		110.00	125.50	6.00	125.50		6.30	
R115130060RH	<b>115.00</b>		115.00	130.50	6.00	130.50		6.30	
R120135060RH	<b>120.00</b>	▼	120.00	135.50	6.00	135.50		6.30	
R125140060RH	<b>125.00</b>	- .043 - .106	125.00	140.50	6.00	140.50		6.30	
R130145060RH	<b>130.00</b>		130.00	145.50	6.00	145.50		6.30	
R135150060RH	<b>135.00</b>		135.00	150.50	6.00	150.50		6.30	
R140155060RH	<b>140.00</b>		140.00	155.50	6.00	155.50		6.30	
R145160060RH	<b>145.00</b>		145.00	160.50	6.00	160.50		6.30	
R150165060RH	<b>150.00</b>		150.00	165.50	6.00	165.50		6.30	
R155170060RH	<b>155.00</b>		155.00	170.50	6.00	170.50		6.30	
R160175060RH	<b>160.00</b>		160.00	175.50	6.00	175.50		6.30	
R165180060RH	<b>165.00</b>		165.00	180.50	6.00	180.50		6.30	
R170185060RH	<b>170.00</b>		170.00	185.50	6.00	185.50		6.30	
R180195060RH	<b>180.00</b>	▼	180.00	195.50	6.00	195.50		6.30	
R190205060RH	<b>190.00</b>	- .043 - .106	190.00	205.50	6.00	205.50		6.30	
R200215077RH	<b>200.00</b>		200.00	215.50	7.70	215.50		8.10	
R210225077RH	<b>210.00</b>	▼	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	<b>50.00</b>	-.025/-.064	50.00	70.00		70.00		31.90	
R055070225RV	<b>55.00</b>		55.00	70.00		70.00	+ .190 - .000	22.50	+ .250 - .000
R055070250RV	<b>55.00</b>	-.030 - .076	55.00	70.00		70.00		25.00	
R055075300RV	<b>55.00</b>		55.00	75.00		75.00		30.00	
R055075320RV	<b>55.00</b>		55.00	75.00		75.00		32.00	
R056071250RV	<b>56.00</b>		56.00	71.00		71.00		25.00	
R056076280RV	<b>56.00</b>		56.00	76.00		76.00		28.00	
R060075225RV	<b>60.00</b>		60.00	75.00		75.00		22.50	
R060075250RV	<b>60.00</b>		60.00	75.00		75.00		25.00	
R060077270RV	<b>60.00</b>		60.00	77.00		77.00		27.00	
R060080300RV	<b>60.00</b>		60.00	80.00		80.00		30.00	
R060080320RV	<b>60.00</b>		60.00	80.00		80.00		32.00	
R060080349RV	<b>60.00</b>		60.00	80.00		80.00	▼	34.90	
R063083280RV	<b>63.00</b>		63.00	83.00		83.00	+ .220 - .000	28.00	
R063083290RV	<b>63.00</b>		63.00	83.00		83.00		29.00	
R065085290RV	<b>65.00</b>		65.00	85.00		85.00		29.00	
R070083250RV	<b>70.00</b>		70.00	83.00		83.00		25.00	
R070085225RV	<b>70.00</b>		70.00	85.00		85.00		22.50	
R070090300RV	<b>70.00</b>		70.00	90.00		90.00		30.00	
R070090319RV	<b>70.00</b>		70.00	90.00		90.00		31.90	
R075095280RV	<b>75.00</b>		75.00	95.00		95.00		28.00	
R075095300RV	<b>75.00</b>		75.00	95.00		95.00		30.00	
R080095225RV	<b>80.00</b>		80.00	95.00		95.00		22.50	
R080100300RV	<b>80.00</b>	▼	80.00	100.00		100.00		30.00	
R085100225RV	<b>85.00</b>	-.036 - .090	85.00	100.00		100.00		22.50	
R090105225RV	<b>90.00</b>		90.00	105.00		105.00		22.50	
R090105250RV	<b>90.00</b>		90.00	105.00		105.00		25.00	
R090105335RV	<b>90.00</b>		90.00	105.00		105.00		33.50	
R090110300RV	<b>90.00</b>		90.00	110.00		110.00		30.00	
R090110325RV	<b>90.00</b>		90.00	110.00		110.00		32.50	
R095110225RV	<b>95.00</b>		95.00	110.00		110.00		22.50	
R095115280RV	<b>95.00</b>		95.00	115.00		115.00		28.00	
R100114242RV	<b>100.00</b>		100.00	114.30		114.30	▼	24.20	
R100120300RV	<b>100.00</b>		100.00	120.00		120.00	+ .250 - .000	30.00	
R105125185RV	<b>105.00</b>		105.00	125.00		125.00		18.50	
R110125225RV	<b>110.00</b>		110.00	125.00		125.00		22.50	
R110130325RV	<b>110.00</b>		110.00	130.00		130.00		32.50	
R115130225RV	<b>115.00</b>		115.00	130.00		130.00		22.50	
R115130300RV	<b>115.00</b>		115.00	130.00		130.00		30.00	
R120140300RV	<b>120.00</b>	▼	120.00	140.00		140.00		30.00	
R125140225RV	<b>125.00</b>	-.043 - .106	125.00	140.00		140.00		22.50	
R125145300RV	<b>125.00</b>		125.00	145.00		145.00		30.00	
R130150300RV	<b>130.00</b>		130.00	150.00		150.00		30.00	
R135150225RV	<b>135.00</b>		135.00	150.00		150.00		22.50	
R140155225RV	<b>140.00</b>		140.00	155.00		155.00		22.50	
R140160225RV	<b>140.00</b>	▼	140.00	160.00		160.00	▼	22.50	▼

# RV series - NBR/NEO/POM

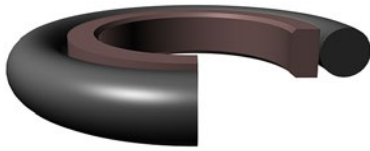
**ROD SEALS**



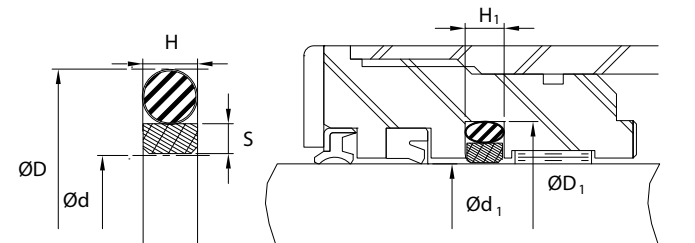
Ref.Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	H	D1	Tol.	H1	Tol.
R140160280RV	<b>140.00</b>	-.043 -.106	140.00	160.00		160.00	+ .250 -.000	28.00	+ .250 -.000
R145165225RV	<b>145.00</b>		145.00	165.00		165.00		22.50	
R150165225RV	<b>150.00</b>		150.00	165.00		165.00		22.50	
R150170280RV	<b>150.00</b>		150.00	170.00		170.00		28.00	
R155175225RV	<b>155.00</b>		155.00	175.00		175.00		22.50	
R160180280RV	<b>160.00</b>		160.00	180.00		180.00	▼	28.00	
R170185225RV	<b>170.00</b>		170.00	185.00		185.00	+ .250 -.000	22.50	
R170195350RV	<b>170.00</b>		170.00	195.00		195.00		35.00	
R175195225RV	<b>175.00</b>		175.00	195.00		195.00		22.50	
R175195300RV	<b>175.00</b>		175.00	195.00		195.00		30.00	
R180205350RV	<b>180.00</b>	▼	180.00	205.00		205.00		35.00	
R185200225RV	<b>185.00</b>	-.050 -.122	185.00	200.00		200.00		22.50	
R185210350RV	<b>185.00</b>		185.00	210.00		210.00		35.00	
R187202225RV	<b>187.00</b>		187.00	202.00		202.00		22.50	
R190215350RV	<b>190.00</b>		190.00	215.00		215.00		35.00	
R195210225RV	<b>195.00</b>		195.00	210.00		210.00		22.50	
R195220350RV	<b>195.00</b>		195.00	220.00		220.00		35.00	
R200215225RV	<b>200.00</b>		200.00	215.00		215.00		22.50	
R200225350RV	<b>200.00</b>		200.00	225.00		225.00		35.00	
R205230350RV	<b>205.00</b>		205.00	230.00		230.00		35.00	
R210235350RV	<b>210.00</b>		210.00	235.00		235.00		35.00	
R220240225RV	<b>220.00</b>		220.00	240.00		240.00		22.50	
R220245350RV	<b>220.00</b>		220.00	245.00		245.00		35.00	
R225240225RV	<b>225.00</b>		225.00	240.00		240.00		22.50	
R230250225RV	<b>230.00</b>		230.00	250.00		250.00		22.50	
R235255225RV	<b>235.00</b>		235.00	255.00		255.00	▼	22.50	
R240265350RV	<b>240.00</b>		240.00	265.00		265.00	+ .320 -.000	35.00	
R260280225RV	<b>260.00</b>		260.00	280.00		280.00		22.50	
R280305350RV	<b>280.00</b>	▼	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.
R003007020RX	3.00	-.006/- .020	3.00	1.05	2.00	-008	7.90	+ .036 - .000	2.20	+ .200 - .000
R004008020RX	4.00	-.010 -.028	4.00	1.05	2.00	-010	8.90		2.20	
R005009020RX	5.00		5.00	1.05	2.00	-011	9.90		2.20	
R006010020RX	6.00		6.00	1.05	2.00	-011	10.90		2.20	
R007011020RX	7.00	-.013 -.035	7.00	1.05	2.00	-012	11.90		2.20	
R008012020RX	8.00		8.00	1.05	2.00	-012	12.90		2.20	
R008015029RX	8.00		8.00	1.65	2.93	-111	15.30		3.20	
R010014020RX	10.00		10.00	1.05	2.00	-014	14.90		2.20	
R010017029RX	10.00	-.016 -.043	10.00	1.65	2.93	-112	17.30		3.20	
R012016020RX	12.00		12.00	1.05	2.00	-015	16.90		2.20	
R012019029RX	12.00		12.00	1.65	2.93	-113	19.30		3.20	
R014018020RX	14.00		14.00	1.05	2.00	-016	18.90		2.20	
R014021029RX	14.00		14.00	1.65	2.93	-114	21.30		3.20	
R015019020RX	15.00		15.00	1.05	2.00	-017	19.90		2.20	
R015022029RX	15.00		15.00	1.65	2.93	-116	22.30		3.20	
R016020020RX	16.00		16.00	1.05	2.00	-017	20.90		2.20	
R016023029RX	16.00		16.00	1.65	2.93	-116	23.30		3.20	
R018022020RX	18.00		18.00	1.05	2.00	-019	22.90		2.20	
R018025029RX	18.00		18.00	1.65	2.93	-118	25.30		3.20	
R020027029RX	20.00	-.020 -.053	20.00	1.65	2.93	-119	27.30		3.20	
R020030039RX	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	-0.020	22.00	1.65	2.93	-120	29.30	+0.036	3.20	+0.200
R022032039RX	22.00	-0.053	22.00	2.65	3.93	-215	32.70	-0.000	4.20	-0.000
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	-0.025	32.00	1.05	2.00	-027	36.90		2.20	
R032039029RX	32.00	-0.064	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	-0.030	52.00	3.50	5.90	-331	67.10		6.30	
R053068059RX	53.00	-0.076	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	80.00	2.65	3.93	-237	90.70	+0.036	4.20	+0.200
R080095059RX	80.00	-0.076	80.00	3.50	5.90	-340	95.10	-0.000	6.30	-0.000
R085100059RX	85.00	-0.036	85.00	3.50	5.90	-342	100.10		6.30	
R090097029RX	90.00	-0.090	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	125.00	3.50	5.90	-355	140.10		6.30	
R125145076RX	125.00	-0.106	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	180.00	4.90	7.60	-443	200.50		8.10	
R185200059RX	185.00	-0.122	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 -.137	255.00	4.90	7.60	260.00 X 7.00	275.50	+.036 -.000	8.10	+.200 -.000
R260284076RX	260.00		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 -.151	320.00	6.65	7.60	-455	344.00		8.10	
R325349076RX	325.00		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 -.165	410.00	6.65	7.60	-462	434.00		8.10	
R420444076RX	420.00		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



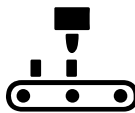
Fluid Handling



Fluid Power



Food & Beverages



Forming Machines



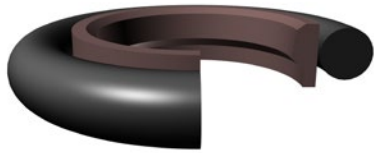
Health & Safety



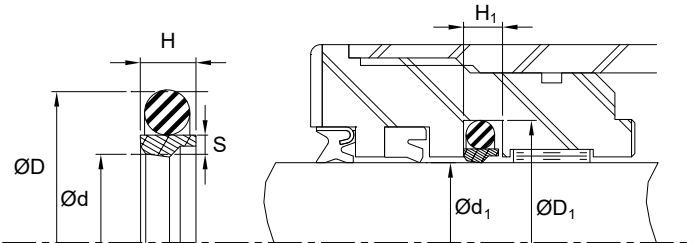
Ind Autom Aftermarket



# 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 -0.028	4.00	1.00	2.00	-010	8.90	+0.036 -0.000	2.20	+0.200 -0.000
R005009020RZ	5.00	↓	5.00	1.00	2.00	-011	9.90	↓	2.20	↓
R006010020RZ	6.00	↓	6.00	1.00	2.00	-011	10.90	+0.043 -0.000	2.20	↓
R007011020RZ	7.00	-0.013 -0.035	7.00	1.00	2.00	-012	11.90	↓	2.20	↓
R008012020RZ	8.00	↓	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 -0.043	12.00	1.00	2.00	-015	16.90	↓	2.20	↓
R012019029RZ	12.00	↓	12.00	1.70	2.93	-114	19.30	+0.052 -0.000	3.20	↓
R014018020RZ	14.00	↓	14.00	1.00	2.00	-016	18.90	↓	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 -0.053	20.00	1.70	2.93	-119	27.30	↓	3.20	↓
R020030039RZ	20.00	↓	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	↓	4.20	↓
R025032029RZ	25.00	↓	25.00	1.70	2.93	-122	32.30	+0.062 -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	▼

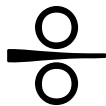
## Markets segments we are servicing



Machine Tools



Material Handling



Metal Processing



Mining

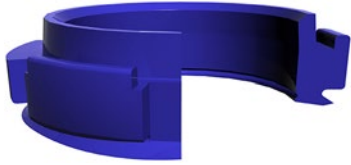


Pharmaceutical

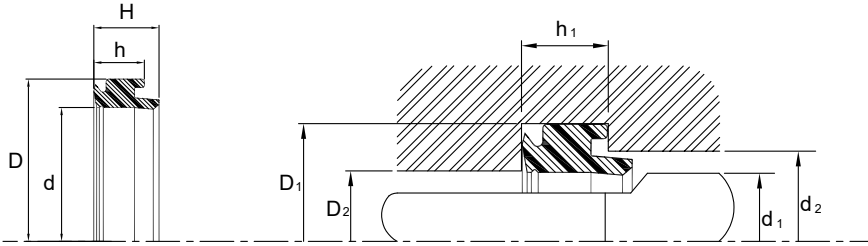


Power Generation

# 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)

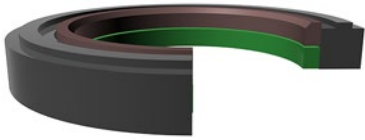


**R5/U-Style** provide end-of-stroke damping in pneumatic cylinders, eliminating the need for check valves. These polyurethane sealing elements are user-friendly and provide quick response in reverse direction, as well as easy, snap-in installation.

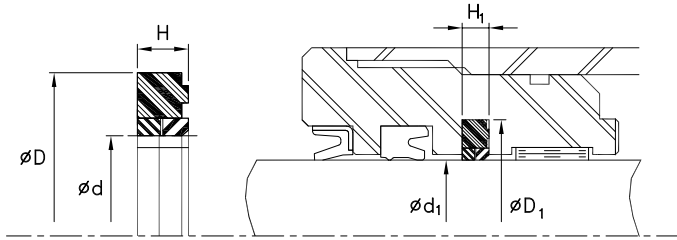
**Alternate Materials:** For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

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	+0.00 -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.

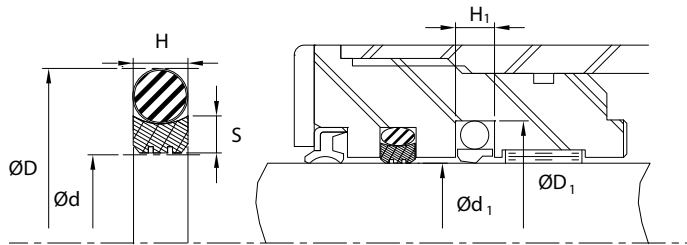
Ref. Number	Rod Diameter		Nominal Seal Dimensions			Housing Dimensions			
	d1	Tol.	d	D	H	D1	Tol.	H1	Tol.
R040055059R12	40.00	-.025	40.00	55.50	5.90	55.50	+200	6.30	+200
R045060059R12	45.00	-.064	45.00	60.50	5.90	60.50	-.000	6.30	-.000
R050065059R12	50.00		50.00	65.50	5.90	65.50		6.30	
R055070059R12	55.00		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 -.035	8.00	1.35	2.00	-012	12.90	+.043 -.000	2.20	+.200 -.000
R010014020R16	10.00		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 -.053	20.00	2.10	2.93	-119	27.50		3.20	
R021028029R16	21.00		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 -.064	32.00	2.10	2.93	-126	39.50		3.20	
R035042029R16	35.00		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	+.074 -.000	4.20	
R042053039R16	42.00		42.00	3.25	3.93	-134	53.00		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	<b>300.00</b>	-0.056 -0.137	300.00	5.80	7.60	-381	321.00	+0.140 -0.000	8.10	+0.200 -0.000
R310331076R16	<b>310.00</b>		310.00	5.80	7.60	-454	331.00		8.10	
R320341076R16	<b>320.00</b>	-0.062 -0.151	320.00	5.80	7.60	323.00 X 7.00	341.00		8.10	
R330351076R16	<b>330.00</b>		330.00	5.80	7.60	336.00 X 7.00	351.00		8.10	
R340361076R16	<b>340.00</b>		340.00	5.80	7.60	-456	361.00		8.10	
R350371076R16	<b>350.00</b>		350.00	5.80	7.60	-457	371.00		8.10	
R360381076R16	<b>360.00</b>		360.00	5.80	7.60	-458	381.00		8.10	
R370391076R16	<b>370.00</b>		370.00	5.80	7.60	375.00 x 7.00	391.00	▼	8.10	
R380401076R16	<b>380.00</b>		380.00	5.80	7.60	387.00 x 7.00	401.00	+0.155 -0.000	8.10	
R390411076R16	<b>390.00</b>		390.00	5.80	7.60	-460	411.00		8.10	
R400421076R16	<b>400.00</b>	▼	400.00	5.80	7.60	-461	421.00		8.10	
R410431076R16	<b>410.00</b>	-0.068 -0.165	410.00	5.80	7.60	-462	431.00		8.10	
R420441076R16	<b>420.00</b>		420.00	5.80	7.60	425.00 x 7.00	441.00		8.10	
R430451076R16	<b>430.00</b>		430.00	5.80	7.60	437.00 x 7.00	451.00		8.10	
R440461076R16	<b>440.00</b>		440.00	5.80	7.60	-464	461.00		8.10	
R450471076R16	<b>450.00</b>		450.00	5.80	7.60	-465	471.00		8.10	
R460481076R16	<b>460.00</b>		460.00	5.80	7.60	-466	481.00		8.10	
R470491076R16	<b>470.00</b>		470.00	5.80	7.60	475.00 x 7.00	491.00		8.10	
R480501076R16	<b>480.00</b>		480.00	5.80	7.60	487.00 x 7.00	501.00		8.10	
R490511076R16	<b>490.00</b>		490.00	5.80	7.60	-468	511.00		8.10	
R500521076R16	<b>500.00</b>	▼	500.00	5.80	7.60	-469	521.00	▼	8.10	▼

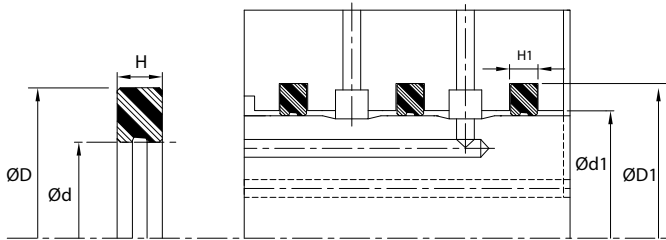




# R19 - Rod seals - Metric



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 are specifically designed for use in rotary swivel joints, and are manufactured out of high specification polyurethane.

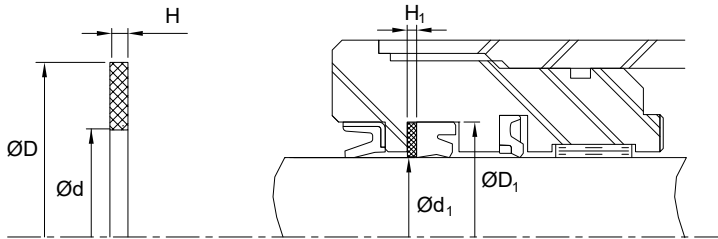
**Alternate Materials:** For applications that may require an alternate material, please contact our customer service department. Other sizes available on request.

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

**ROD SEALS**



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.



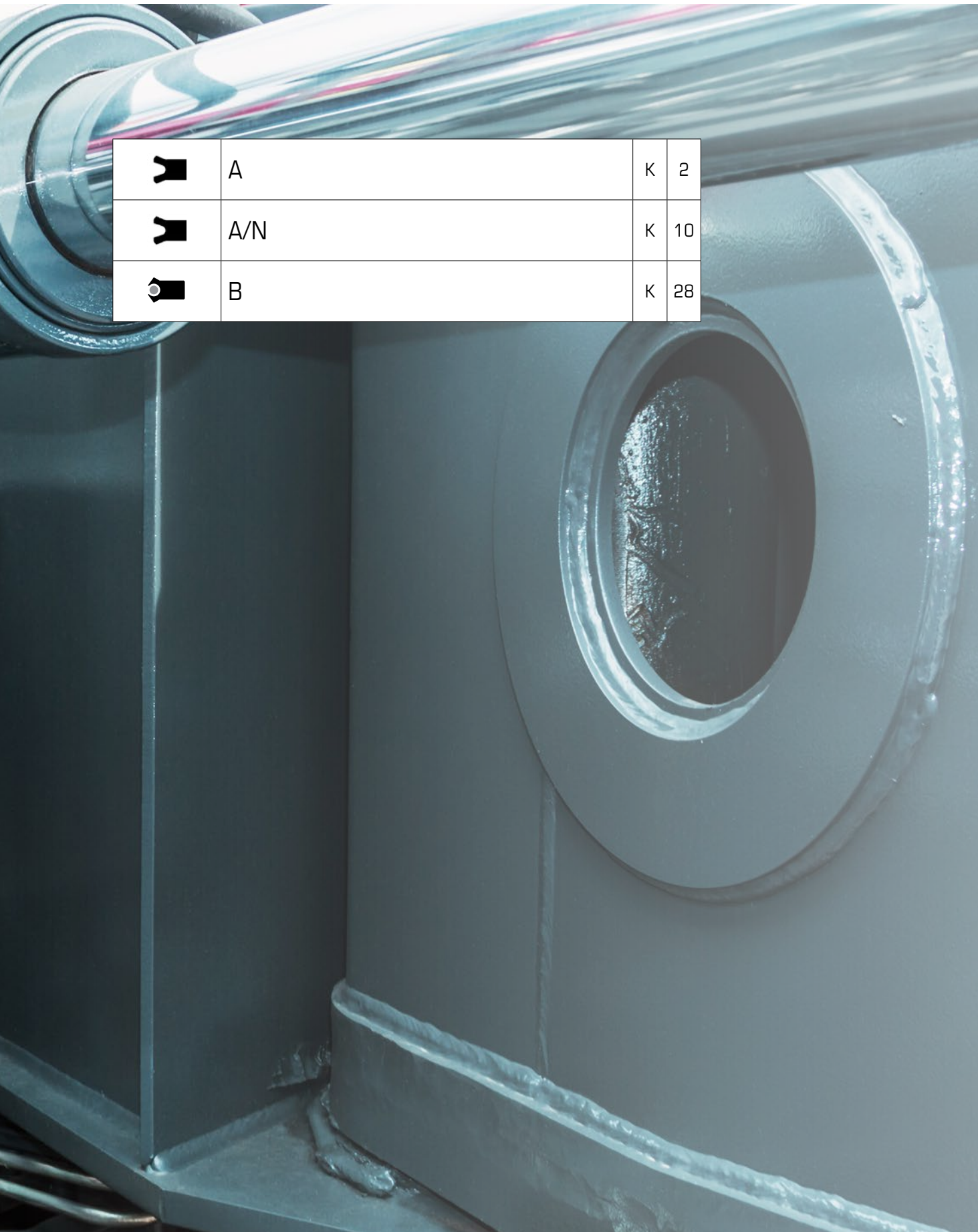



# ROD SEALS



# ROD SEALS



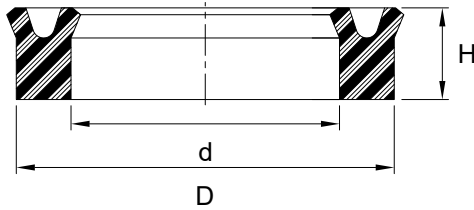


	A	K	2
	A/N	K	10
	B	K	28

# 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
RPO36044057A	36.00	44.00	5.70
RPO36044060A	36.00	44.00	6.00
RPO36044070A	36.00	44.00	7.00
RPO36044080A	36.00	44.00	8.00
RPO36045100A	36.00	45.00	10.00
RPO36046070A	36.00	46.00	7.00
RPO36046080A	36.00	46.00	8.00
RPO36046100A	36.00	46.00	10.00
RPO36048080A	36.00	48.00	8.00
RPO36050080A	36.00	50.00	8.00
RPO36051100A	36.00	51.00	10.00
RPO36052100A	36.00	52.00	10.00
RPO36055100A	36.00	55.00	10.00
RPO36070100A	36.00	70.00	10.00
RPO38040080A	38.00	40.00	8.00
RPO38045050A	38.00	45.00	5.00
RPO38045060A	38.00	45.00	6.00
RPO38045080A	38.00	45.00	8.00
RPO38045100A	38.00	45.00	10.00
RPO38046060A	38.00	46.00	6.00
RPO38046065A	38.00	46.00	6.50
RPO38050060A	38.00	50.00	6.00
RPO38050090A	38.00	50.00	9.00
RPO38050100A	38.00	50.00	10.00
RPO38052095A	38.00	52.50	9.50
RPO38055100A	38.00	55.00	10.00
RPO38055120A	38.00	55.00	12.00
RPO38058100A	38.00	58.00	10.00
RPO38060120A	38.00	60.00	12.00
RPO40048050A	40.00	48.00	5.00
RPO40048057A	40.00	48.00	5.70
RPO40048060A	40.00	48.00	6.00
RPO40048080A	40.00	48.00	8.00
RPO40048110A	40.00	48.00	11.00
RPO40049095A	40.00	49.50	9.50
RPO40050050A	40.00	50.00	5.00
RPO40050060A	40.00	50.00	6.00
RPO40050065A	40.00	50.00	6.50
RPO40050070A	40.00	50.00	7.00
RPO40050075A	40.00	50.00	7.50
RPO40050080A	40.00	50.00	8.00
RPO40050100A	40.00	50.00	10.00
RPO40052080A	40.00	52.00	8.00
RPO40052090A	40.00	52.00	9.00
RPO40055075A	40.00	55.00	7.50
RPO40055100A	40.00	55.00	10.00

Ref.Number	Nominal Seal Dimensions		
	d	D	H
RPO40056080A	40.00	56.00	8.00
RPO40056100A	40.00	56.00	10.00
RPO40060100A	40.00	60.00	10.00
RPO40060120A	40.00	60.00	12.00
RPO40060130A	40.00	60.00	13.00
RPO40060180A	40.00	60.00	18.00
RPO40064120A	40.00	64.00	12.00
RPO40065100A	40.00	65.00	10.00
RPO40065120A	40.00	65.00	12.00
RPO40065130A	40.00	65.00	13.00
RPO40070150A	40.00	70.00	15.00
RPO40075100A	40.00	75.00	10.00
RPO40080100A	40.00	80.00	10.00
RPO42050050A	42.00	50.00	5.00
RPO42050060A	42.00	50.00	6.00
RPO42050080A	42.00	50.00	8.00
RPO42050090A	42.00	50.00	9.00
RPO42050100A	42.00	50.00	10.00
RPO42052060A	42.00	52.00	6.00
RPO42052085A	42.00	52.00	8.50
RPO42052090A	42.00	52.00	9.00
RPO42052100A	42.00	52.00	10.00
RPO42053090A	42.00	53.00	9.00
RPO42062120A	42.00	62.00	12.00
RPO44054060A	44.00	54.00	6.00
RPO44064100A	44.00	64.00	10.00
RPO45053055A	45.00	53.00	5.50
RPO45053057A	45.00	53.00	5.70
RPO45053058A	45.00	53.00	5.80
RPO45053060A	45.00	53.00	6.00
RPO45053065A	45.00	53.00	6.50
RPO45053080A	45.00	53.00	8.00
RPO45053100A	45.00	53.00	10.00
RPO45053120A	45.00	53.00	12.00
RPO45055050A	45.00	55.00	5.00
RPO45055058A	45.00	55.00	5.80
RPO45055060A	45.00	55.00	6.00
RPO45055065A	45.00	55.00	6.50
RPO45055070A	45.00	55.00	7.00
RPO45055075A	45.00	55.00	7.50
RPO45055100A	45.00	55.00	10.00
RPO45055110A	45.00	55.00	11.00
RPO45055120A	45.00	55.00	12.00
RPO45056070A	45.00	56.00	7.00
RPO45057060A	45.00	57.00	6.00
RPO45057095A	45.00	57.70	9.50

# A series - AU 93A



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

**SYMMETRICAL SEALS**



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

**SYMMETRICAL SEALS**



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

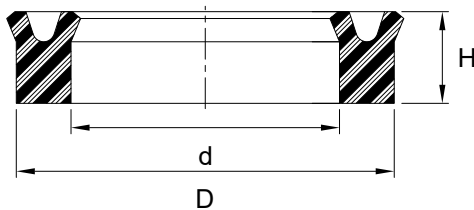
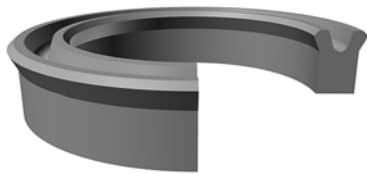
# A series - AU 93A



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
RPO38055110A/N	38.00	55.00	11.00
RPO38056090A/N	38.00	56.00	9.00
RPO38058100A/N	38.00	58.00	10.00
RPO38058110A/N	38.00	58.00	11.00
RPO38058120A/N	38.00	58.00	12.00
RPO38060120A/N	38.00	60.00	12.00
RPO38074060A/N	38.00	74.00	6.00
RPO39045040A/N	39.00	45.00	4.00
RPO40046040A/N	40.00	46.00	4.00
RPO40048050A/N	40.00	48.00	5.00
RPO40048080A/N	40.00	48.00	8.00
RPO40048110A/N	40.00	48.00	11.00
RPO40048120A/N	40.00	48.00	12.00
RPO40050050A/N	40.00	50.00	5.00
RPO40050060A/N	40.00	50.00	6.00
RPO40050065A/N	40.00	50.00	6.50
RPO40050070A/N	40.00	50.00	7.00
RPO40050075A/N	40.00	50.00	7.50
RPO40050090A/N	40.00	50.00	9.00
RPO40050100A/N	40.00	50.00	10.00
RPO40050110A/N	40.00	50.00	11.00
RPO40052060A/N	40.00	52.00	6.00
RPO40052070A/N	40.00	52.00	7.00
RPO40052075A/N	40.00	52.00	7.50
RPO40052080A/N	40.00	52.00	8.00
RPO40052100A/N	40.00	52.00	10.00
RPO40052120A/N	40.00	52.00	12.00
RPO40055075A/N	40.00	55.00	7.50
RPO40055095A/N	40.00	55.00	9.50
RPO40055100A/N	40.00	55.00	10.00
RPO40055110A/N	40.00	55.00	11.00
RPO40056080A/N	40.00	56.00	8.00
RPO40056100A/N	40.00	56.00	10.00
RPO40056110A/N	40.00	56.00	11.00
RPO40058100A/N	40.00	58.00	10.00
RPO40060100A/N	40.00	60.00	10.00
RPO40060110A/N	40.00	60.00	11.00
RPO40060120A/N	40.00	60.00	12.00
RPO40060130A/N	40.00	60.00	13.00
RPO40060140A/N	40.00	60.00	14.00
RPO40060180A/N	40.00	60.00	18.00
RPO40062120A/N	40.00	62.00	12.00
RPO40064120A/N	40.00	64.00	12.00
RPO40065120A/N	40.00	65.00	12.00
RPO40065130A/N	40.00	65.00	13.00
RPO40065150A/N	40.00	65.00	15.00

Ref.Number	Nominal Seal Dimensions		
	d	D	H
RPO40070150A/N	40.00	70.00	15.00
RPO40070160A/N	40.00	70.00	16.00
RPO40076120A/N	40.00	76.00	12.00
RPO41056085A/N	41.00	56.00	8.50
RPO41056100A/N	41.00	56.00	10.00
RPO42050050A/N	42.00	50.00	5.00
RPO42050060A/N	42.00	50.00	6.00
RPO42050080A/N	42.00	50.00	8.00
RPO42050090A/N	42.00	50.00	9.00
RPO42050100A/N	42.00	50.00	10.00
RPO42052050A/N	42.00	52.00	5.00
RPO42052060A/N	42.00	52.00	6.00
RPO42052090A/N	42.00	52.00	9.00
RPO42052100A/N	42.00	52.00	10.00
RPO42054060A/N	42.00	54.00	6.00
RPO42055065A/N	42.00	55.00	6.50
RPO42055080A/N	42.00	55.00	8.00
RPO42057100A/N	42.00	57.00	10.00
RPO42062100A/N	42.00	62.00	10.00
RPO42062120A/N	42.00	62.00	12.00
RPO42062150A/N	42.00	62.00	15.00
RPO42062180A/N	42.00	62.00	18.00
RPO43050120A/N	43.00	50.00	12.00
RPO43055060A/N	43.00	55.00	6.00
RPO43063100A/N	43.00	63.00	10.00
RPO44054040A/N	44.00	54.00	4.00
RPO44055060A/N	44.00	55.00	6.00
RPO44056060A/N	44.00	56.00	6.00
RPO44056075A/N	44.00	56.00	7.50
RPO44057090A/N	44.00	57.00	9.00
RPO44064100A/N	44.00	64.00	10.00
RPO45052080A/N	45.00	52.00	8.00
RPO45053120A/N	45.00	53.00	12.00
RPO45055050A/N	45.00	55.00	5.00
RPO45055060A/N	45.00	55.00	6.00
RPO45055065A/N	45.00	55.00	6.50
RPO45055075A/N	45.00	55.00	7.50
RPO45055100A/N	45.00	55.00	10.00
RPO45055110A/N	45.00	55.00	11.00
RPO45056070A/N	45.00	56.00	7.00
RPO45057060A/N	45.00	57.00	6.00
RPO45058065A/N	45.00	58.00	6.50
RPO45058100A/N	45.00	58.00	10.00
RPO45058120A/N	45.00	58.00	12.00
RPO45060070A/N	45.00	60.00	7.00
RPO45060075A/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

**SYMMETRICAL SEALS**



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



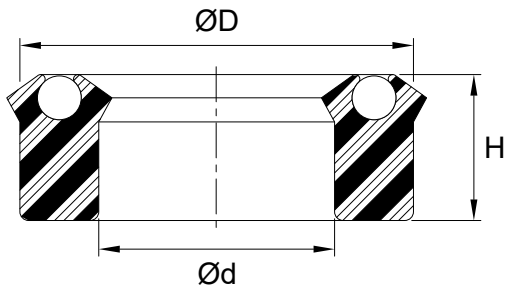
Ref.Number	Nominal Seal Dimensions		
	d	D	H
RP145175150A/N	145.00	175.00	15.00
RP145175180A/N	145.00	175.00	18.00
RP150165160A/N	150.00	165.00	16.00
RP150170100A/N	150.00	170.00	10.00
RP150170150A/N	150.00	170.00	15.00
RP150170180A/N	150.00	170.00	18.00
RP150180150A/N	150.00	180.00	15.00
RP150180180A/N	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**


















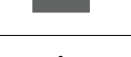


# SYMMETRICAL SEALS





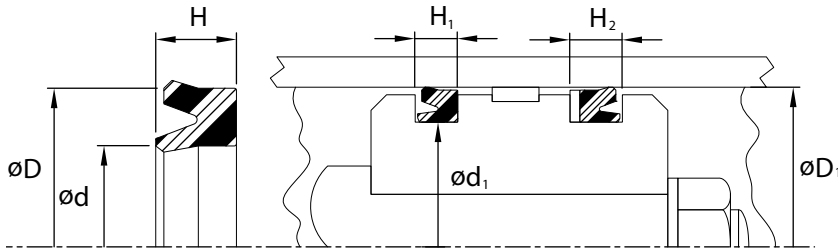


	PB	L	2
	PB-1	L	9
	PB/N	L	11
	PH	L	17
	PR	L	18
	KR	L	20
	PZ	L	21
	PZ/B	L	22
	P1B	L	24
	P1B-1	L	25
	P2B	L	27
	ST/N - BACK-UP RINGS	L	30
	P2B/U	L	31
	P2E	L	33
	P2G	L	34
	P3C	L	36
	P4A	L	37
	P5B, P5B-1	L	39

# 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	<b>125.00</b>	$\begin{matrix} +.160 \\ -.000 \end{matrix}$	125.00	110.00	10.00	110.00	$\begin{matrix} +.000 \\ -.220 \end{matrix}$	11.00	$\begin{matrix} +.250 \\ -.000 \end{matrix}$
P125112090PB	<b>125.00</b>		125.00	112.00	9.00	112.00		10.00	
P130100120PB	<b>130.00</b>		130.00	100.00	12.00	100.00		13.00	
P130110150PB	<b>130.00</b>		130.00	110.00	15.00	110.00		16.00	
P130110160PB	<b>130.00</b>		130.00	110.00	16.00	110.00		17.00	
P130115090PB	<b>130.00</b>		130.00	115.00	9.00	115.00		10.00	
P130115100PB	<b>130.00</b>		130.00	115.00	10.00	115.00		11.00	
P132112150PB	<b>132.00</b>		132.00	112.00	15.00	112.00		16.00	
P135115130PB	<b>135.00</b>		135.00	115.00	13.00	115.00		14.00	
P140120120PB	<b>140.00</b>		140.00	120.00	12.00	120.00		13.00	
P140120150PB	<b>140.00</b>		140.00	120.00	15.00	120.00		16.00	
P140120160PB	<b>140.00</b>		140.00	120.00	16.00	120.00	▼	17.00	
P140125090PB	<b>140.00</b>		140.00	125.00	9.00	125.00	$\begin{matrix} +.000 \\ -.250 \end{matrix}$	10.00	
P140125100PB	<b>140.00</b>		140.00	125.00	10.00	125.00		11.00	
P145130090PB	<b>145.00</b>		145.00	130.00	9.00	130.00		10.00	
P150125190PB	<b>150.00</b>		150.00	125.00	19.00	125.00		20.00	
P150125200PB	<b>150.00</b>		150.00	125.00	20.00	125.00		21.00	
P150130120PB	<b>150.00</b>		150.00	130.00	12.00	130.00		13.00	
P150130160PB	<b>150.00</b>		150.00	130.00	16.00	130.00		17.00	
P150135090PB	<b>150.00</b>		150.00	135.00	9.00	135.00		10.00	
P150135100PB	<b>150.00</b>		150.00	135.00	10.00	135.00		11.00	
P150136085PB	<b>150.00</b>		150.00	136.00	8.50	136.00		9.50	
P155140090PB	<b>155.00</b>		155.00	140.00	9.00	140.00		10.00	
P157132200PB	<b>157.00</b>		157.00	132.00	20.00	132.00		21.00	
P160135160PB	<b>160.00</b>		160.00	135.00	16.00	135.00		17.00	
P160135190PB	<b>160.00</b>		160.00	135.00	19.00	135.00		20.00	
P160135200PB	<b>160.00</b>		160.00	135.00	20.00	135.00		21.00	
P160140120PB	<b>160.00</b>		160.00	140.00	12.00	140.00		13.00	
P160140160PB	<b>160.00</b>		160.00	140.00	16.00	140.00		17.00	
P160145090PB	<b>160.00</b>		160.00	145.00	9.00	145.00		10.00	
P160145100PB	<b>160.00</b>		160.00	145.00	10.00	145.00		11.00	
P165140190PB	<b>165.00</b>		165.00	140.00	19.00	140.00		20.00	
P165140200PB	<b>165.00</b>		165.00	140.00	20.00	140.00		21.00	
P165145090PB	<b>165.00</b>		165.00	145.00	9.00	145.00		10.00	
P170145190PB	<b>170.00</b>		170.00	145.00	19.00	145.00		20.00	
P170145200PB	<b>170.00</b>		170.00	145.00	20.00	145.00		21.00	
P170150120PB	<b>170.00</b>		170.00	150.00	12.00	150.00		13.00	
P170150160PB	<b>170.00</b>		170.00	150.00	16.00	150.00		17.00	
P170155090PB	<b>170.00</b>		170.00	155.00	9.00	155.00		10.00	
P170155100PB	<b>170.00</b>		170.00	155.00	10.00	155.00		11.00	
P175150200PB	<b>175.00</b>		175.00	150.00	20.00	150.00		21.00	
P175155120PB	<b>175.00</b>		175.00	155.00	12.00	155.00		13.00	
P175160090PB	<b>175.00</b>		175.00	160.00	9.00	160.00		10.00	
P180155160PB	<b>180.00</b>		180.00	155.00	16.00	155.00		17.00	
P180155190PB	<b>180.00</b>		180.00	155.00	19.00	155.00		20.00	
P180155200PB	<b>180.00</b>	▼	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	+ .160 - .000	180.00	160.00	12.00	160.00	+ .000 - .250	13.00	+ .250 - .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	+ .185 - .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	+ .000 - .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

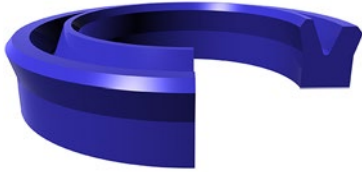
## PISTON SEALS



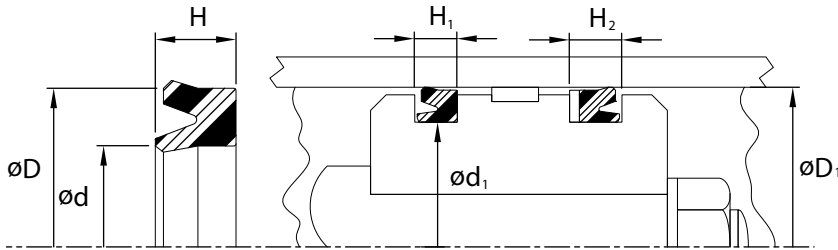
Ref.Number	Bore Diameter		Nominal Seal Dimensions			Housing Dimensions			
	D1	Tol.	D	d	H	d1	Tol.	H1	Tol.
P235210200PB	235.00	+ .185 - .000	235.00	210.00	20.00	210.00	+ .000 - .290	21.00	+ .250 - .000
P240215160PB	240.00		240.00	215.00	16.00	215.00		17.00	
P240215190PB	240.00		240.00	215.00	19.00	215.00		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 -0.000
P008004030PB-1	8.00	+0.058 -0.000	8.00	4.00	3.00	4.00	+0.000 -0.030	3.00	+0.200 -0.000
P008005027PB-1	8.00		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 -0.000	12.00	7.00	2.55	7.00	+0.000 -0.036	3.00	
P013008030PB-1	13.00		13.00	8.00	2.55	8.00		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 -0.043	3.00	
P018012030PB-1	18.00	▼	18.00	12.00	2.55	12.00		3.00	
P020014030PB-1	20.00	+0.084 -0.000	20.00	14.00	2.55	14.00		3.00	
P022016030PB-1	22.00		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 -0.052	3.50	
P030022035PB-1	30.00	▼	30.00	22.00	3.25	22.00		3.50	
P032024035PB-1	32.00	+0.100 -0.000	32.00	24.00	3.50	24.00		3.50	
P032024055PB-1	32.00		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	▼



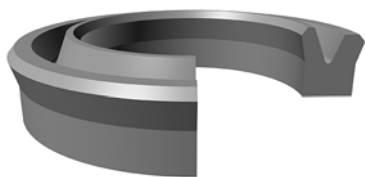
# PB-1 series - AU 93A

## PISTON SEALS

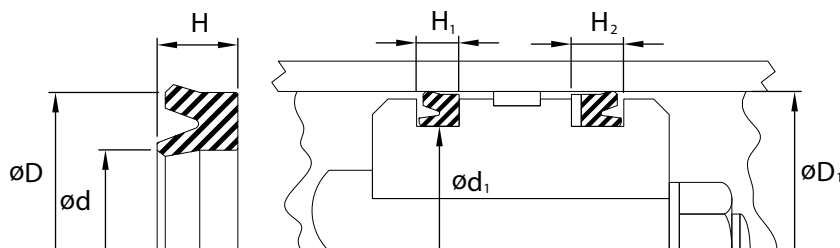


Ref.Number	Bore Diameter		Nominal Seal Dimensions			Housing Dimensions			
	D1	Tol.	D	d	H	d1	Tol.	H1	Tol.
P040030075PB-1	40.00	+0.100 -0.000	40.00	30.00	7.00	30.00	+0.000/-0.052	7.50	+0.200 -0.000
P040032035PB-1	40.00		40.00	32.00	3.25	32.00	+0.000 -0.062	3.50	
P042030065PB-1	42.00		42.00	30.00	6.00	30.00		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



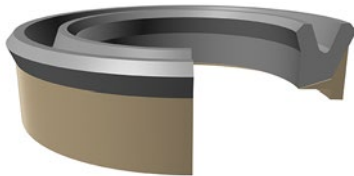
Ref. Number	Bore Diameter		Nominal Seal Dimensions			Housing Dimensions			
	D1	Tol.	D	d	H	d1	Tol.	H1	Tol.
P130110150PB/N	130.00	+ .250 - .000	130.00	110.00	15.00	110.00	+ .000 - .087	16.00	+ .200 - .000
P130115100PB/N	130.00		130.00	115.00	10.00	115.00		11.00	
P135115140PB/N	135.00		135.00	115.00	14.00	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	+ .000 - .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	+ .290 - .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	+ .000 - .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	+ .320 - .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	+ .000/- .130	15.00	▼



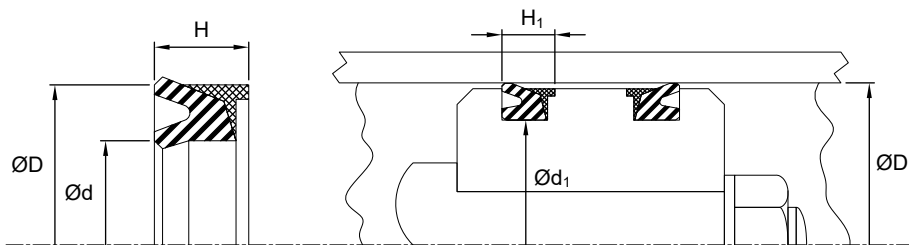
# PB/N series - NBR 90A

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	↓



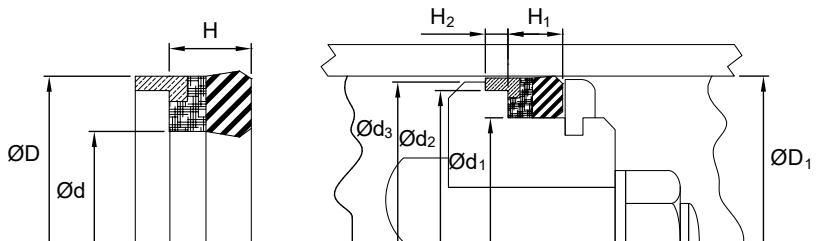
# PH series - NBR/NYLON

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**



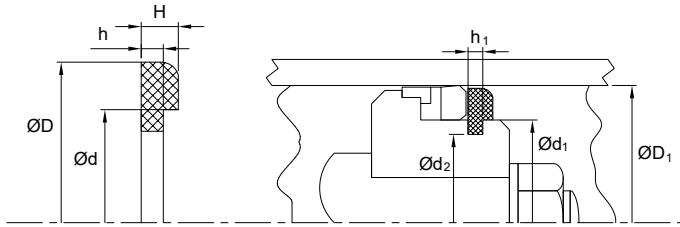
Ref.Number	Bore Diameter		Nominal Seal Dimensions			Housing Dimensions					
	D1	Tol.	D	d	H	d1	Tol.	d2 +.050/-050	d3 +.100/-100	H1 +.400/-600	H2 +.100/-000
P025012095PR	25.00	+ .130 - .000	25.00	12.00	9.50	12.00	+.055 - .055	21.50	24.10	10.00	6.40
P040028090PR	40.00	+ .160 - .000	40.00	28.00	9.00	28.00	+.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.

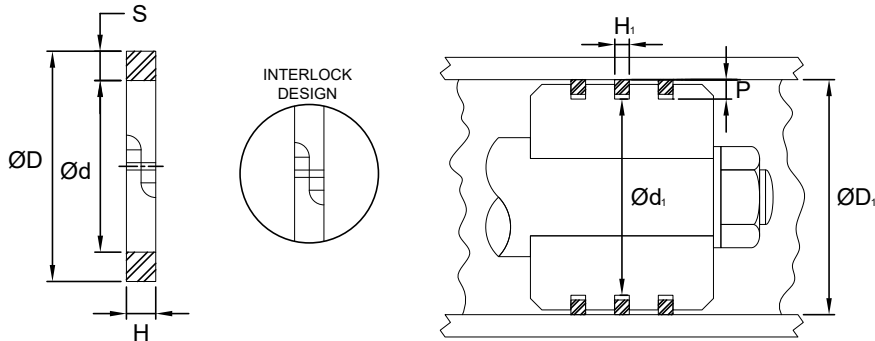
Ref. Number	Bore Diameter		Nominal Seal Dimensions				Housing Dimensions				
	D1	Tol.	D	d	h	H	d1	d2	Tol.	h1	Tol.
KR034022	34.00	+ .160 - .000	34.00	22.00	22.00		6.00	17.60	+ .025 - .025	2.60	+ .020 + .010
KR040026	40.00		40.00	26.00	26.00		6.00	21.60		3.10	
KR045035	45.00		45.00	35.00	35.00		5.00	30.60		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

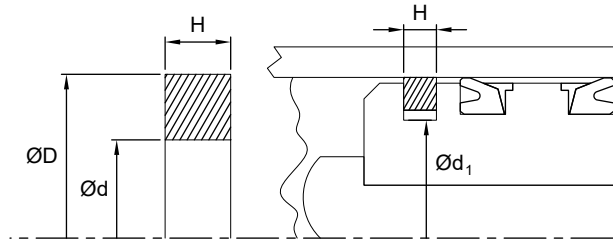
Ref.Number	Bore Diameter		Housing Dimensions	
	D1	Tol.	d1 + .000/- .050	H1 + .130/- .000
P135127063PZ	135.00	+ .100 - .000	127.50	6.30
P140128040PZ	140.00		128.60	4.00
P140129040PZ	140.00		128.60	4.00
P145133040PZ	145.00		133.00	4.00
P150136050PZ	150.00		136.00	5.04
P150137040PZ	150.00		137.40	4.00
P160146040PZ	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



# PZ/B - Piston seals - Metric



Standard Material	Temperature Range
Brass	-450 °F to +450 °F (-268 °C to +232 °C)



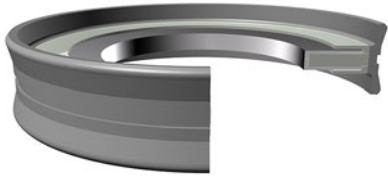
SAE 660 split piston rings for high shock / high load applications, commonly used in conjunction with **PH-style** piston seals.

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

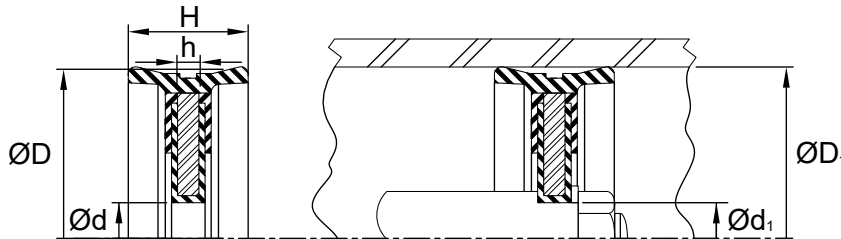
Ref.Number	Bore Diameter		Nominal Seal Dimensions			Housing Dimensions			
	D1	Tol.	D	d	H	d1	Tol.	H1	Tol.
P125113060PZ/B	125.00	+ .100 - .000				112.00	+ .000 - .500	6.00	+ .500 - .000
P130118060PZ/B	130.00					117.00		6.00	
P140128060PZ/B	140.00					127.00		6.00	
P150138060PZ/B	150.00					137.00		6.00	
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	+0.070 -0.000



# 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	▼

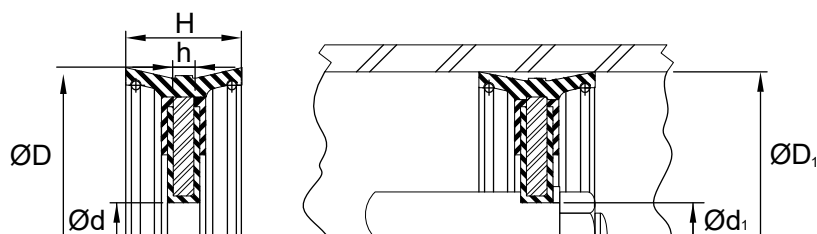




# P1B-1 Piston seals - Metric



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 -0.130
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 -0.130
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 -0.130
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 -0.130
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

PISTON SEALS



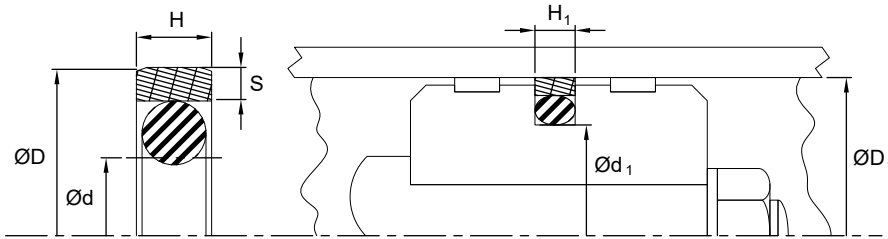
Ref.Number	Bore Diameter		Nominal Seal Dimensions				Housing Dimensions			
	D1	Tol.	D	d	h	H	D1	Tol.	d1	Tol.
P150020400P1B-1	150.00	+ .250 - .000	150.00	20.00	10.00	40.00	150.00	+ .250 - .000	20.00	+ .130 - .000
P160020400P1B-1	160.00		160.00	20.00	10.00	40.00	160.00		20.00	
P175020400P1B-1	175.00		175.00	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	+ .290 - .000	200.00	20.00	10.00	40.00	200.00	+ .290 - .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	+ .320/- .000	300.00	60.00	12.00	40.00	300.00	+ .320/- .000	60.00	+ .000/- .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

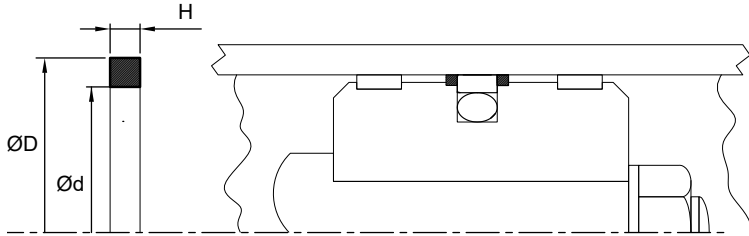


Ref.Number	Bore Diameter		Nominal Seal Dimensions				Housing Dimensions			
	D1	Tol.	D	S	H	EXP.	d1	Tol.	H1	Tol.
P140124063P2B	140.00	+0.100 -0.000	140.00	3.50	6.05	-352	124.50	+0.000 -0.100	6.30	+0.200 -0.000
P145124081P2B	145.00		145.00	4.90	7.75	-428	124.00		8.10	
P150129081P2B	150.00		150.00	4.90	7.75	-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

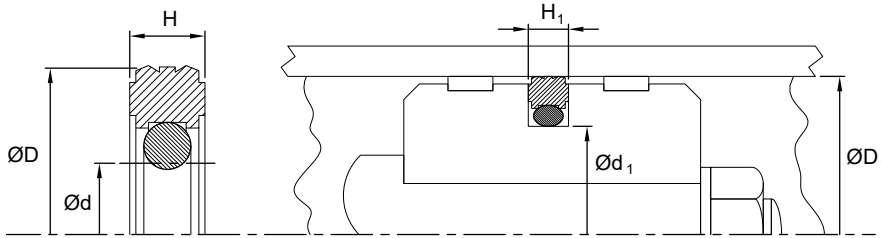
Ref.Number	Nominal Seal Dimensions		
	d	D	H
BU114120030ST/N	114.00	120.00	3.00
BU119125030ST/N	119.00	125.00	3.00
BU124130030ST/N	124.00	130.00	3.00
BU129135030ST/N	129.00	135.00	3.00
BU134140030ST/N	134.00	140.00	3.00
BU139145030ST/N	139.00	145.00	3.00
BU144150030ST/N	144.00	150.00	3.00
BU154160030ST/N	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.
PO15007032P2B/U	15.00	+0.070 -0.000	15.00	2.95	-108	7.50	+0.100 -0.000	3.20	+0.200 -0.000
PO16008032P2B/U	16.00		16.00	2.95	-109	8.50		3.20	
PO16011022P2B/U	16.00	▼	16.00	2.00	-013	11.10		2.20	
PO20012032P2B/U	20.00	+0.084 -0.000	20.00	2.95	-112	12.50		3.20	
PO22014032P2B/U	22.00		22.00	2.95	-113	14.50		3.20	
PO25014042P2B/U	25.00		25.00	3.95	-207	14.00		4.20	
PO25017032P2B/U	25.00		25.00	2.95	-115	17.50		3.20	
PO30022032P2B/U	30.00		30.00	2.95	-118	22.50		3.20	
PO30025022P2B/U	30.00		30.00	2.00	-021	25.10		2.20	
PO32021042P2B/U	32.00	▼	32.00	3.95	-211	21.00		4.20	
PO32024032P2B/U	32.00	+0.100 -0.000	32.00	2.95	-119	24.50		3.20	
PO35024042P2B/U	35.00		35.00	3.95	-213	24.00		4.20	
PO35027032P2B/U	35.00		35.00	2.95	-121	27.50		3.20	
PO38030032P2B/U	38.00		38.00	2.95	-123	30.50		3.20	
PO40024063P2B/U	40.00		40.00	6.05	-317	24.50		6.30	
PO40029042P2B/U	40.00		40.00	3.95	-216	29.00		4.20	
PO40032032P2B/U	40.00		40.00	2.95	-124	32.50		3.20	
PO42031042P2B/U	42.00		42.00	3.95	-217	31.00		4.20	
PO45029063P2B/U	45.00		45.00	6.05	-320	29.50		6.30	
PO45034042P2B/U	45.00		45.00	3.95	-219	34.00		4.20	
PO48037042P2B/U	48.00		48.00	3.95	-221	37.00		4.20	
PO49038042P2B/U	49.00	▼	49.00	3.95	-222	38.00	▼	4.20	▼



# P2B/U series - AU NBR

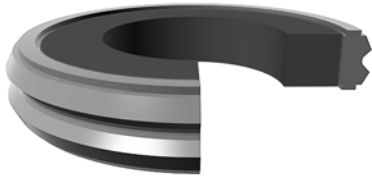
## PISTON SEALS



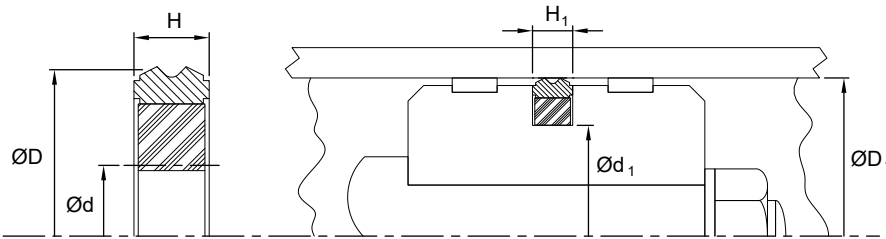
Ref.Number	Bore Diameter		Nominal Seal Dimensions			Housing Dimensions			
	D1	Tol.	D	H	EXP	d1	Tol.	H1	Tol.
P050034063P2B/U	50.00	+0.100 -0.000	50.00	6.05	-324	34.50	+0.100 -0.000	6.30	+0.200 -0.000
P050039042P2B/U	50.00		50.00	3.95	-222	39.00		4.20	
P052036063P2B/U	52.00	▼	52.00	6.05	-325	36.50		6.30	
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	▼

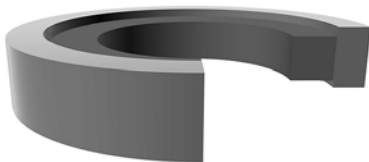


# P2E series - AU/NBR

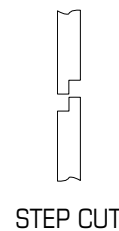
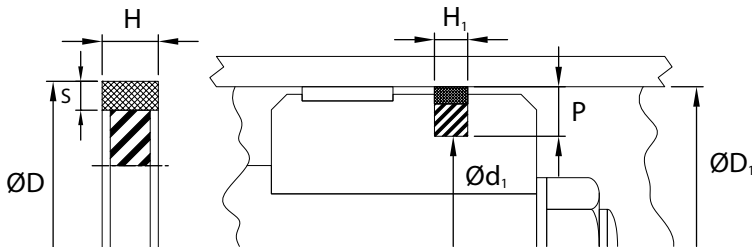
## PISTON SEALS

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.

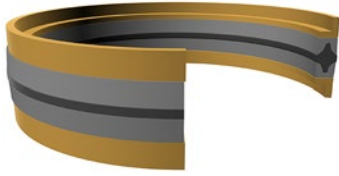
**Alternate Materials:** For applications that may require an alternate material, please contact our customer service department. Other size available on request.

# P2G series - NYLON/NBR

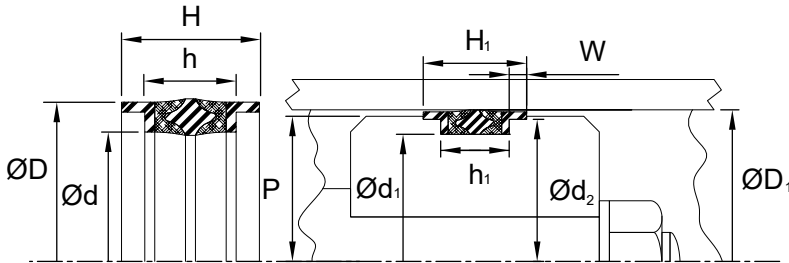


Ref.Number	Bore Diameter		Nominal Seal Dimensions				Housing Dimensions			
	D1	Tol.	D	S	H	EXP.	d1	Tol.	H1	Tol.
P032021042P2G	32.00	+0.062 -0.000	32.00				21.00	+0.000 -0.052	4.20	+0.200 -0.000
P040026058P2G	40.00		40.00				26.30		5.80	
P040029042P2G	40.00		40.00				29.00	▼	4.20	
P050034063P2G	50.00		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.

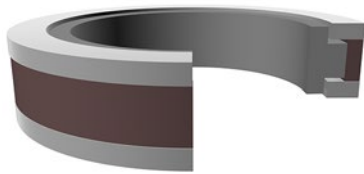
Ref. Number	Bore Diameter		Nominal Seal Dimensions				Housing Dimensions						
	D1	Tol.	D	d	h	H	d1	Tol.	d2	Tol.	P	h1	W
											+0.070/-0.070 +.200/-0.000 +.100/-0.000		
P030022135P3C	30.00	+0.160 -0.000	30.00	22.00	13.50	19.90	22.00	+0.000 -0.130	26.00	-0.020 -0.053	29.40	13.50	3.20
P032024155P3C	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	-0.025	34.40	15.50	3.20
P040032150P3C	40.00		40.00	32.00	15.00	23.40	32.00	+0.000 -0.160	36.00	-0.064	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	+0.190 -0.000	55.00	43.00	20.50	28.90	43.00		51.00	-0.030 -0.076	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	+0.000 -0.190	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	+0.220 -0.000	85.00	71.00	22.50	32.90	71.00		81.00	-0.036 -0.090	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	+0.000 -0.220	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	+0.250 -0.000	125.00	108.00	26.50	40.90	108.00		121.00	-0.043 -0.106	124.40	26.50	7.20
P140123265P3C	140.00		140.00	123.00	26.50	40.90	123.00	+0.000 -0.250	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



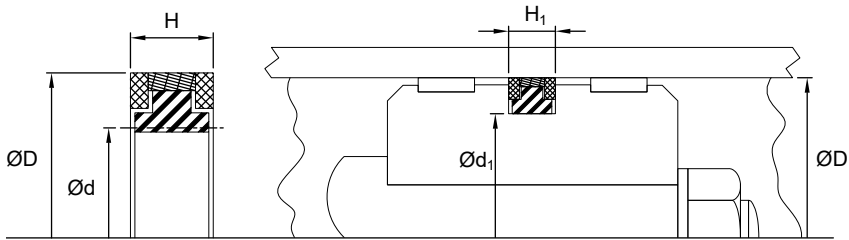
# P3C series - NEOFAB/PA

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	+ .250 - .000	160.00	143.00	26.50	40.90	143.00	+ .000 - .250	156.00	- .043 - .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	+ .290 - .000	200.00	180.00	31.50	49.90	180.00	↓	196.00	- .050 - .122	199.40	31.50	9.20
P220200315P3C	220.00		220.00	200.00	31.50	50.50	200.00	+ .000 - .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	+ .050 - .000	50.00	36.00	8.50	36.00	+ .000 - .050	9.00	+ .250 - .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	+ .080/- .000	63.00	48.00	10.50	48.00	+ .000/- .080	11.00	
P063053075P4A	63.00	+ .050/- .000	63.00	53.00	7.50	53.00	+ .000/- .050	8.00	
P065050105P4A	65.00	+ .080/- .000	65.00	50.00	10.50	50.00	+ .000/- .080	11.00	
P065051085P4A	65.00	+ .050/- .000	65.00	51.00	8.50	51.00	+ .000/- .050	9.00	
P070055105P4A	70.00	+ .080 - .000	70.00	55.00	10.50	55.00	+ .000 - .080	11.00	
P070055120P4A	70.00		70.00	55.00	12.00	55.00		12.50	
P070060075P4A	70.00	+ .050/- .000	70.00	60.00	7.50	60.00	+ .000/- .050	8.00	
P075060105P4A	75.00	+ .080/- .000	75.00	60.00	10.50	60.00	+ .000/- .080	11.00	↓



# P4A series - BR.PTFE/NBR/NYLON

## PISTON SEALS

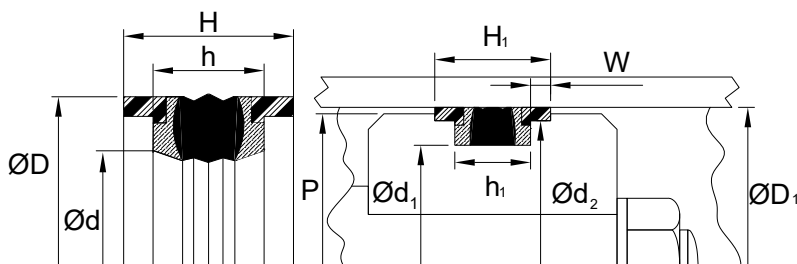


Ref.Number	Bore Diameter		Nominal Seal Dimensions			Housing Dimensions			
	D1	Tol.	D	d	H	d1	Tol.	H1	Tol.
P075063085P4A	75.00	+0.050/-0.000	75.00	63.00	8.50	63.00	+0.000/-0.050	9.00	+0.250/-0.000
P080065105P4A	80.00	+0.080/-0.000	80.00	65.00	10.50	65.00	+0.000/-0.080	11.00	
P080065115P4A	80.00		80.00	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	+0.000/-0.100	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
							+100/-.000	+000/-.050	+200/-.200	+200/-.000	+100/-.100
PO20011135P5B	20.00	+0.084 -.000	20.00	11.00	13.50	17.70	11.00	17.00	19.00	13.50	2.10
PO22013135P5B	22.00		22.00	13.00	13.50	17.70	13.00	19.00	21.00	13.50	2.10
PO25012120P5B	25.00		25.00	12.00	12.00	24.70	12.00	21.45	23.80	12.00	6.35
PO25015125P5B	25.00		25.00	15.00	12.50	20.50	15.00	22.00	24.00	12.50	4.00
PO25015164P5B	25.00		25.00	15.00	16.40	29.10	15.00	21.45	23.50	16.40	6.35
PO25016135P5B	25.00		25.00	16.00	13.50	17.70	16.00	22.00	24.00	13.50	2.10
PO25017088P5B	25.00		25.00	17.50	8.80	15.00	17.50	21.30	24.00	8.80	3.10
PO25017100P5B	25.00		25.00	17.00	10.00	18.00	17.00	22.00	24.00	10.00	4.00
PO25017135P5B	25.00		25.00	17.00	13.50	19.90	17.00	21.00	24.40	13.50	3.20
PO28019135P5B	28.00		28.00	19.00	13.50	17.70	19.00	25.00	27.00	13.50	2.10
PO30017154P5B	30.00		30.00	17.00	15.40	28.10	17.00	26.50	28.50	15.40	6.35
PO30021135P5B	30.00		30.00	21.00	13.50	17.70	21.00	27.00	29.00	13.50	2.10
PO30022125P5B	30.00	▼	30.00	22.00	12.50	18.90	22.00	26.00	29.40	13.50	3.20
PO32019154P5B	32.00	+0.100 -.000	32.00	19.00	15.40	28.10	19.00	28.50	30.70	15.40	6.35
PO32022125P5B	32.00		32.00	22.00	12.50	20.50	22.00	29.00	31.00	12.50	4.00
PO32022155P5B	32.00		32.00	22.00	15.50	20.70	22.00	28.00	31.00	15.50	2.60
PO32022164P5B	32.00		32.00	22.00	16.40	29.10	22.00	28.50	30.50	16.40	6.35
PO32024100P5B	32.00		32.00	24.00	10.00	18.00	24.00	29.00	31.00	10.00	4.00
PO32024155P5B	32.00		32.00	24.00	15.50	21.90	24.00	28.00	31.40	15.50	3.20
PO35025155P5B	35.00		35.00	25.00	15.50	20.70	25.00	31.00	34.00	15.50	2.60
PO35025164P5B	35.00	▼	35.00	25.00	16.40	29.10	25.00	31.40	33.50	16.40	6.35

PISTON SEALS



# 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 +0.100/-0.000	d2 +0.000/-0.050	P +0.200/-0.200	h1 +0.200/-0.000	W +0.100/-0.100
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



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	<b>70.00</b>	+ .120 - .000	70.00	55.00	20.00	30.00	55.00	66.00	68.50	20.00	5.00
P070058205P5B	<b>70.00</b>		70.00	58.00	20.50	28.90	58.00	66.00	69.40	20.50	4.20
P075055224P5B	<b>75.00</b>		75.00	55.00	22.40	35.10	55.00	69.20	73.30	22.40	6.35
P075055350P5B-1	<b>75.00</b>		75.00	55.00	35.00	54.00	55.00	67.70	72.54	35.00	9.50
P075059205P5B	<b>75.00</b>		75.00	59.00	20.50	26.70	59.00	71.00	74.00	20.50	3.10
P080060224P5B	<b>80.00</b>		80.00	60.00	22.40	35.10	60.00	74.20	78.30	22.40	6.35
P080060250P5B	<b>80.00</b>		80.00	60.00	25.00	37.70	60.00	75.00	78.00	25.00	6.35
P080060350P5B-1	<b>80.00</b>		80.00	60.00	35.00	54.00	60.00	72.62	77.54	35.00	9.50
P080062225P5B	<b>80.00</b>		80.00	62.00	22.50	29.70	62.00	76.00	79.00	22.50	3.60
P080064320P5B-1	<b>80.00</b>		80.00	64.00	32.00	51.00	64.00	72.62	77.52	32.00	9.50
P080065200P5B	<b>80.00</b>		80.00	65.00	20.00	30.00	65.00	76.00	78.50	20.00	5.00
P080066225P5B	<b>80.00</b>		80.00	66.00	22.50	32.90	66.00	76.00	79.40	22.50	5.20
P080070113P5B	<b>80.00</b>	▼	80.00	70.00	11.30	19.30	70.00	75.50	78.50	11.30	4.00
P085065224P5B	<b>85.00</b>	+ .140 - .000	85.00	65.00	22.40	35.10	65.00	79.20	88.30	22.40	6.35
P085065350P5B	<b>85.00</b>		85.00	65.00	35.00	54.00	65.00	77.62	82.54	35.00	9.50
P085065350P5B-1	<b>85.00</b>		85.00	65.00	35.00	54.00	65.00	77.62	82.54	35.00	9.50
P085075200P5B	<b>85.00</b>		85.00	75.00	20.00	28.00	75.00	81.00	83.34	20.00	4.00
P090070220P5B	<b>90.00</b>		90.00	70.00	22.00	34.70	70.00	84.15	88.31	22.00	6.35
P090070224P5B	<b>90.00</b>		90.00	70.00	22.40	35.10	70.00	84.20	88.30	22.40	6.35
P090070350P5B	<b>90.00</b>		90.00	70.00	35.00	54.00	70.00	82.58	87.55	35.00	9.50
P090070350P5B-1	<b>90.00</b>		90.00	70.00	35.00	54.00	70.00	82.58	87.55	35.00	9.50
P090072225P5B	<b>90.00</b>		90.00	72.00	22.50	29.70	72.00	86.00	89.00	22.50	3.60
P090074320P5B	<b>90.00</b>		90.00	74.00	32.00	51.00	74.00	82.87	87.79	32.00	9.50
P090074320P5B-1	<b>90.00</b>		90.00	74.00	32.00	51.00	74.00	82.87	87.79	32.00	9.50
P090075200P5B	<b>90.00</b>		90.00	75.00	20.00	30.00	75.00	86.00	88.50	20.00	5.00
P090076225P5B	<b>90.00</b>		90.00	76.00	22.50	32.90	76.00	86.00	89.40	22.50	5.20
P092082125P5B	<b>92.00</b>		92.00	82.00	12.50	25.20	82.00	88.04	90.80	12.50	6.35
P095075224P5B	<b>95.00</b>		95.00	75.00	22.40	35.10	75.00	89.00	93.30	22.40	6.35
P095075350P5B-1	<b>95.00</b>		95.00	75.00	35.00	54.00	75.00	87.60	92.50	35.00	9.50
P100075220P5B	<b>100.00</b>		100.00	75.00	22.00	34.70	75.00	93.13	98.05	22.00	6.35
P100075224P5B	<b>100.00</b>		100.00	75.00	22.40	35.10	75.00	93.20	98.00	22.40	6.35
P100080250P5B	<b>100.00</b>		100.00	80.00	25.00	37.60	80.00	95.00	98.00	25.00	6.30
P100080350P5B-1	<b>100.00</b>		100.00	80.00	35.00	54.00	80.00	92.61	97.51	35.00	9.50
P100082225P5B	<b>100.00</b>		100.00	82.00	22.50	29.70	82.00	96.00	99.00	22.50	3.60
P100085200P5B	<b>100.00</b>		100.00	85.00	20.00	30.00	85.00	96.00	98.50	20.00	5.00
P100086200P5B	<b>100.00</b>		100.00	86.00	20.00	30.00	86.00	96.00	99.40	20.00	5.00
P100086225P5B	<b>100.00</b>		100.00	86.00	22.50	32.90	86.00	96.00	99.40	22.50	5.20
P100087142P5B	<b>100.00</b>		100.00	87.00	14.20	26.20	87.00	93.80	98.50	14.20	6.00
P105080224P5B	<b>105.00</b>		105.00	80.00	22.40	35.10	80.00	98.10	103.00	22.40	6.35
P105092143P5B	<b>105.00</b>		105.00	92.50	14.30	25.00	92.50	98.80	103.40	14.30	5.35
P110085254P5B	<b>110.00</b>		110.00	85.00	25.40	38.10	85.00	103.10	108.00	25.40	6.35
P110085450P5B-1	<b>110.00</b>		110.00	85.00	45.00	70.40	85.00	101.78	107.31	45.00	12.70
P110090254P5B	<b>110.00</b>		110.00	90.00	25.40	38.10	90.00	104.10	108.30	25.30	6.35
P110090350P5B-1	<b>110.00</b>		110.00	90.00	35.00	54.00	90.00	102.70	107.51	35.00	9.50
P110092225P5B	<b>110.00</b>		110.00	92.00	22.50	29.70	92.00	106.00	109.00	22.50	3.60
P110095200P5B	<b>110.00</b>	▼	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

**PISTON SEALS**



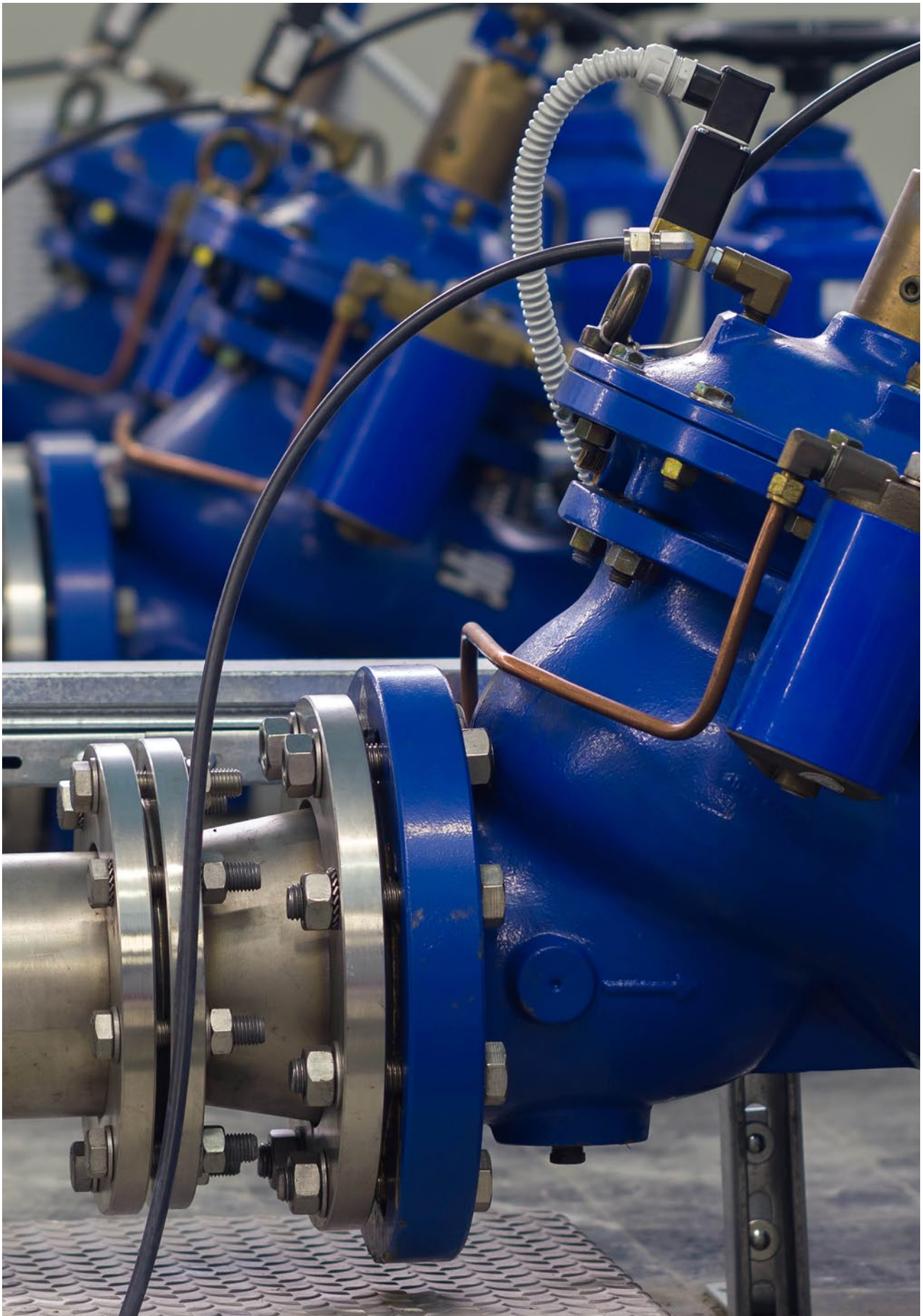
Ref.Number	Bore Diameter		Nominal Seal Dimensions				Housing Dimensions				
	D1	Tol.	D	d	h	H	d1	d2	P	h1	W
							+ .100/- .000	+ .000/- .050	+ .200/- .200	+ .200/- .000	+ .100/- .100
P230205450P5B-1	230.00	+ .185 - .000	230.00	205.00	45.00	70.40	205.00	221.72	227.10	45.00	12.70
P240215254P5B	240.00		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

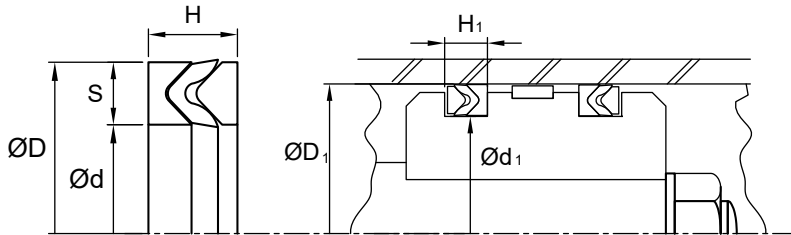
# VEE PACKINGS



# 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.

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	<b>110.00</b>	+0.087 - .000	110.00	90.00	20.50	90.00	-0.036 -0.090	21.20	+0.200 -0.000
V100125258V1	<b>125.00</b>	+0.100 -0.000	125.00	100.00	25.10	100.00	-0.036 -0.090	25.80	+0.200 -0.000
V115140258V1	<b>140.00</b>	+0.100 -0.000	140.00	115.00	25.10	115.00	-0.036 -0.090	25.80	+0.200 -0.000
V120150290V1	<b>150.00</b>		150.00	120.00	28.00	120.00	▼	29.00	
V130160290V1	<b>160.00</b>		160.00	130.00	28.00	130.00	-0.043 -0.106	29.00	
V150180315V1	<b>180.00</b>	▼	180.00	150.00	30.50	150.00	-0.043 -0.106	31.50	
V165195335V1	<b>195.00</b>	+0.115 -0.000	195.00	165.00	32.50	165.00	-0.043 -0.106	33.50	
V170200335V1	<b>200.00</b>	+0.115 -0.000	200.00	170.00	32.50	170.00	-0.043 -0.106	33.50	
V180210335V1	<b>210.00</b>		210.00	180.00	32.50	180.00	▼	33.50	
V190220335V1	<b>220.00</b>		220.00	190.00	32.50	190.00	-0.050 -0.122	33.50	
V195225335V1	<b>225.00</b>		225.00	195.00	32.50	195.00	-0.050 -0.122	33.50	
V210240335V1	<b>240.00</b>		240.00	210.00	32.50	210.00	-0.050 -0.122	33.50	
V220250335V1	<b>250.00</b>		250.00	220.00	32.50	220.00	-0.050 -0.122	33.50	
V230260360V1	<b>260.00</b>	▼	260.00	230.00	35.00	230.00	-0.050 -0.122	36.00	
V240270335V1	<b>270.00</b>	+0.130 -0.000	270.00	240.00	32.50	240.00	-0.050 -0.122	33.50	
V245275335V1	<b>275.00</b>	+0.130 -0.000	275.00	245.00	32.50	245.00	-0.050 -0.122	33.50	
V250280335V1	<b>280.00</b>		280.00	250.00	32.50	280.00	▼	33.50	
V270300335V1	<b>300.00</b>	▼	300.00	270.00	32.50	270.00	-0.056 -0.137	33.50	
V280320415V1	<b>320.00</b>	+0.140 -0.000	320.00	280.00	40.30	280.00	-0.056 -0.137	41.50	
V290320335V1	<b>320.00</b>	+0.140 -0.000	320.00	290.00	32.50	290.00	▼	33.50	
V330360415V1	<b>330.00</b>		330.00	360.00	40.30	360.00	-0.062 -0.151	41.50	
V320360415V1	<b>360.00</b>		360.00	320.00	40.30	320.00	-0.062 -0.151	41.50	
V350380335V1	<b>380.00</b>		380.00	350.00	32.50	350.00	-0.062 -0.151	33.50	
V350390415V1	<b>390.00</b>		390.00	350.00	40.30	350.00	-0.062 -0.151	41.50	
V360400415V1	<b>400.00</b>	▼	400.00	360.00	40.30	360.00	▼	41.50	
V410450415V1	<b>450.00</b>	+0.155 -0.000	450.00	410.00	40.30	410.00	-0.068 -0.165	41.50	
V460500415V1	<b>500.00</b>	+0.155 -0.000	500.00	460.00	40.30	460.00	-0.068 -0.165	41.50	▼

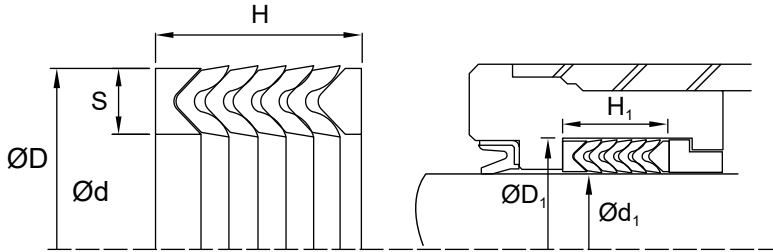
**VEE PACKINGS**



# 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	-0.020 -0.053	22.00	32.00	20.00	32.00	+0.062 -0.000	20.00	+0.200 -0.000
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	-0.025 -0.064	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	+0.074 -0.000	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	+0.062 -0.000	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	+0.074 -0.000	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	- .076	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

VEE PACKINGS



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	+.100 -.000	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	+.115 -.000	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	200.00	230.00	33.00	230.00	+ .115	33.00	+ .200
V200230450V3	200.00	- .122	200.00	230.00	45.00	230.00	- .000	45.00	- .000
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	33.00	
V225255330V3	225.00		225.00	255.00	33.00	255.00	- .000	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	260.00	290.00	60.00	290.00		60.00	
V270300600V3	270.00	- .137	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	80.00	
V290320500V3	290.00		290.00	320.00	50.00	320.00	- .000	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	320.00	350.00	60.00	350.00		60.00	
V320360600V3	320.00	- .151	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	<b>320.00</b>	- .062 - .151	320.00	360.00	63.00	360.00	+.140 -.000	63.00	+.200 -.000
V320360800V3	<b>320.00</b>		320.00	360.00	80.00	360.00		80.00	
V320365550V3	<b>320.00</b>		320.00	365.00	55.00	365.00		55.00	
V330360600V3	<b>330.00</b>		330.00	360.00	60.00	360.00		60.00	
V330370800V3	<b>330.00</b>		330.00	370.00	80.00	370.00		80.00	
V340370600V3	<b>340.00</b>		340.00	370.00	60.00	370.00		60.00	
V340380540V3	<b>340.00</b>		340.00	380.00	54.00	380.00		54.00	
V340380600V3	<b>340.00</b>		340.00	380.00	60.00	380.00		60.00	
V340380800V3	<b>340.00</b>		340.00	380.00	80.00	380.00		80.00	
V350380600V3	<b>350.00</b>		350.00	380.00	60.00	380.00		60.00	
V350390600V3	<b>350.00</b>		350.00	390.00	60.00	390.00		60.00	
V350390800V3	<b>350.00</b>		350.00	390.00	80.00	390.00		80.00	
V360390470V3	<b>360.00</b>		360.00	390.00	47.00	390.00		47.00	
V360390600V3	<b>360.00</b>		360.00	390.00	60.00	390.00		60.00	
V360400600V3	<b>360.00</b>		360.00	400.00	60.00	400.00		60.00	
V360400630V3	<b>360.00</b>		360.00	400.00	63.00	400.00		63.00	
V360400800V3	<b>360.00</b>		360.00	400.00	80.00	400.00		80.00	
V369400450V3	<b>369.00</b>		369.00	400.00	45.00	400.00	↓	45.00	
V400450650V3	<b>400.00</b>	↓	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.

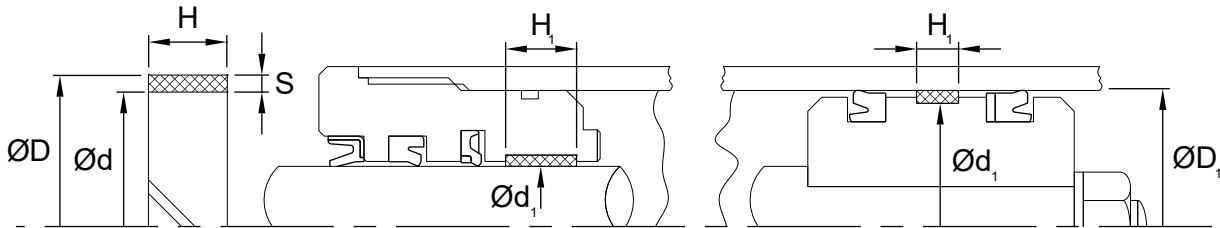


**VEE PACKINGS**



<b>INFO</b>	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
<b>INFO</b>	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 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 size will occur if the groove design is not compensated.

## Formula for calculating piston wear ring grooves

$$d1 \text{ Max. Groove Dia.} = D1 \text{ Min. Bore Dia.} \\ - 2 \text{ (Max. Wear Ring C/S)} \\ d1 \text{ tolerance} = +.000/-0.130$$

$$P \text{ Max. Piston Dia.} = [d1 \text{ Min. Groove Dia.} \\ + 2(\text{Min. Wear Ring C/S})] - 2(\text{Min. Radial Clearance of .13}). \\ P \text{ tolerance} = +.000/-0.130$$

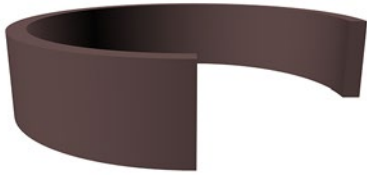
$$H1 \text{ Groove Length} = \text{Actual Part Height} + .25 \\ H1 \text{ tolerance} = +.100/-0.000$$

### NOTES:

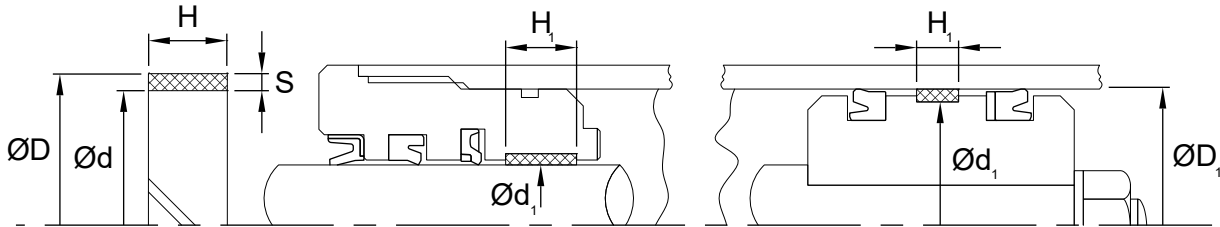
1. The piston diameter P will not correspond to diameters called out for the piston seals. Additional clearances are required for wear ring use. Be sure the entire outside diameter of the piston is no larger than P. Be sure the piston seal compound is considered to prevent extrusion of the piston seal 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	<b>90.00</b>	<b>85.00</b>	90.00	6.00	4.00
G090085200GB	<b>90.00</b>	<b>85.00</b>	90.00	20.00	2.50
G090085950GB	<b>90.00</b>	<b>85.00</b>	90.00	9.50	4.00
G095087060GB	<b>95.00</b>	<b>87.00</b>	95.00	6.00	4.00
G095087080GB	<b>95.00</b>	<b>87.00</b>	95.00	8.00	4.00
G095087148GB	<b>95.00</b>	<b>87.00</b>	95.00	14.80	4.00
G095087950GB	<b>95.00</b>	<b>87.00</b>	95.00	9.50	4.00
G095090950GB	<b>95.00</b>	<b>90.00</b>	95.00	9.50	2.50
G100092060GB	<b>100.00</b>	<b>92.00</b>	100.00	6.00	4.00
G100092080GB	<b>100.00</b>	<b>92.00</b>	100.00	8.00	4.00
G100092148GB	<b>100.00</b>	<b>92.00</b>	100.00	14.80	4.00
G100092950GB	<b>100.00</b>	<b>92.00</b>	100.00	9.50	4.00
G100095060GB	<b>100.00</b>	<b>95.00</b>	100.00	6.00	2.50
G100095200GB	<b>100.00</b>	<b>95.00</b>	100.00	20.00	2.50
G100095950GB	<b>100.00</b>	<b>95.00</b>	100.00	9.50	2.50
G105097060GB	<b>105.00</b>	<b>97.00</b>	105.00	6.00	4.00
G105097080GB	<b>105.00</b>	<b>97.00</b>	105.00	8.00	4.00
G105097148GB	<b>105.00</b>	<b>97.00</b>	105.00	14.80	4.00
G105097950GB	<b>105.00</b>	<b>97.00</b>	105.00	9.50	4.00
G105100060GB	<b>105.00</b>	<b>100.00</b>	105.00	6.00	2.50
G108100950GB	<b>108.00</b>	<b>100.00</b>	108.00	9.50	4.00
G110102060GB	<b>110.00</b>	<b>102.00</b>	110.00	6.00	4.00
G110102080GB	<b>110.00</b>	<b>102.00</b>	110.00	8.00	4.00
G110102148GB	<b>110.00</b>	<b>102.00</b>	110.00	14.80	4.00
G110102950GB	<b>110.00</b>	<b>102.00</b>	110.00	9.50	4.00
G115107060GB	<b>115.00</b>	<b>107.00</b>	115.00	6.00	4.00
G115107080GB	<b>115.00</b>	<b>107.00</b>	115.00	8.00	4.00
G115107148GB	<b>115.00</b>	<b>107.00</b>	115.00	14.80	4.00
G115107950GB	<b>115.00</b>	<b>107.00</b>	115.00	9.50	4.00
G120112060GB	<b>120.00</b>	<b>112.00</b>	120.00	6.00	4.00
G120112080GB	<b>120.00</b>	<b>112.00</b>	120.00	8.00	4.00
G120112148GB	<b>120.00</b>	<b>112.00</b>	120.00	14.80	4.00
G120112950GB	<b>120.00</b>	<b>112.00</b>	120.00	9.50	4.00
G120115080GB	<b>120.00</b>	<b>115.00</b>	120.00	8.00	2.50
G120115950GB	<b>120.00</b>	<b>115.00</b>	120.00	9.50	2.50
G125117060GB	<b>125.00</b>	<b>117.00</b>	125.00	6.00	4.00
G125117080GB	<b>125.00</b>	<b>117.00</b>	125.00	8.00	4.00
G125117148GB	<b>125.00</b>	<b>117.00</b>	125.00	14.80	4.00
G125117950GB	<b>125.00</b>	<b>117.00</b>	125.00	9.50	4.00
G130122060GB	<b>130.00</b>	<b>122.00</b>	130.00	6.00	4.00
G130122080GB	<b>130.00</b>	<b>122.00</b>	130.00	8.00	4.00
G130122148GB	<b>130.00</b>	<b>122.00</b>	130.00	14.80	4.00
G130122950GB	<b>130.00</b>	<b>122.00</b>	130.00	9.50	4.00
G130125950GB	<b>130.00</b>	<b>125.00</b>	130.00	9.50	2.50
G135127060GB	<b>135.00</b>	<b>127.00</b>	135.00	6.00	4.00
G135127080GB	<b>135.00</b>	<b>127.00</b>	135.00	8.00	4.00

Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
G135127148GB	<b>135.00</b>	<b>127.00</b>	135.00	14.80	4.00
G135127950GB	<b>135.00</b>	<b>127.00</b>	135.00	9.50	4.00
G135128060GB	<b>135.00</b>	<b>128.00</b>	138.00	6.00	3.50
G140132060GB	<b>140.00</b>	<b>132.00</b>	140.00	6.00	4.00
G140132080GB	<b>140.00</b>	<b>132.00</b>	140.00	8.00	4.00
G140132095GB	<b>140.00</b>	<b>132.00</b>	140.00	9.50	4.00
G140132148GB	<b>140.00</b>	<b>132.00</b>	140.00	14.80	4.00
G140135080GB	<b>140.00</b>	<b>135.00</b>	140.00	8.00	2.50
G140135095GB	<b>140.00</b>	<b>135.00</b>	140.00	9.50	2.50
G145137060GB	<b>145.00</b>	<b>137.00</b>	145.00	6.00	4.00
G145137080GB	<b>145.00</b>	<b>137.00</b>	145.00	8.00	4.00
G145137095GB	<b>145.00</b>	<b>137.00</b>	145.00	9.50	4.00
G145137148GB	<b>145.00</b>	<b>137.00</b>	145.00	14.80	4.00
G145140095GB	<b>145.00</b>	<b>140.00</b>	145.00	9.50	2.50
G150142060GB	<b>150.00</b>	<b>142.00</b>	150.00	6.00	4.00
G150142080GB	<b>150.00</b>	<b>142.00</b>	150.00	8.00	4.00
G150142095GB	<b>150.00</b>	<b>142.00</b>	150.00	9.50	4.00
G150142148GB	<b>150.00</b>	<b>142.00</b>	150.00	14.80	4.00
G155147060GB	<b>155.00</b>	<b>147.00</b>	155.00	6.00	4.00
G155147080GB	<b>155.00</b>	<b>147.00</b>	155.00	8.00	4.00
G155147095GB	<b>155.00</b>	<b>147.00</b>	155.00	9.50	4.00
G155147148GB	<b>155.00</b>	<b>147.00</b>	155.00	14.80	4.00
G160152060GB	<b>160.00</b>	<b>152.00</b>	160.00	6.00	4.00
G160152080GB	<b>160.00</b>	<b>152.00</b>	160.00	8.00	4.00
G160152095GB	<b>160.00</b>	<b>152.00</b>	160.00	9.50	4.00
G160152148GB	<b>160.00</b>	<b>152.00</b>	160.00	14.80	4.00
G165157060GB	<b>165.00</b>	<b>157.00</b>	165.00	6.00	4.00
G165157080GB	<b>165.00</b>	<b>157.00</b>	165.00	8.00	4.00
G165157095GB	<b>165.00</b>	<b>157.00</b>	165.00	9.50	4.00
G165157148GB	<b>165.00</b>	<b>157.00</b>	165.00	14.80	4.00
G170162060GB	<b>170.00</b>	<b>162.00</b>	170.00	6.00	4.00
G170162080GB	<b>170.00</b>	<b>162.00</b>	170.00	8.00	4.00
G170162095GB	<b>170.00</b>	<b>162.00</b>	170.00	9.50	4.00
G170162148GB	<b>170.00</b>	<b>162.00</b>	170.00	14.80	4.00
G175167060GB	<b>175.00</b>	<b>167.00</b>	175.00	6.00	4.00
G175167080GB	<b>175.00</b>	<b>167.00</b>	175.00	8.00	4.00
G175167095GB	<b>175.00</b>	<b>167.00</b>	175.00	9.50	4.00
G175167148GB	<b>175.00</b>	<b>167.00</b>	175.00	14.80	4.00
G180172060GB	<b>180.00</b>	<b>172.00</b>	180.00	6.00	4.00
G180172080GB	<b>180.00</b>	<b>172.00</b>	180.00	8.00	4.00
G180172095GB	<b>180.00</b>	<b>172.00</b>	180.00	9.50	4.00
G180172148GB	<b>180.00</b>	<b>172.00</b>	180.00	14.80	4.00
G185177060GB	<b>185.00</b>	<b>177.00</b>	185.00	6.00	4.00
G185177080GB	<b>185.00</b>	<b>177.00</b>	185.00	8.00	4.00
G185177095GB	<b>185.00</b>	<b>177.00</b>	185.00	9.50	4.00
G185177148GB	<b>185.00</b>	<b>177.00</b>	185.00	14.80	4.00

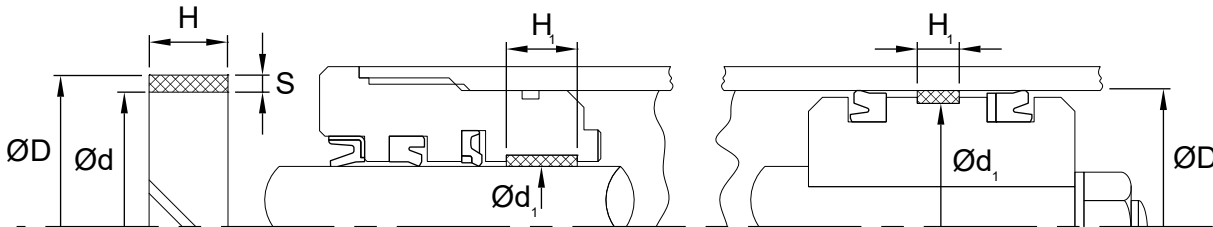
Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
G190182060GB	190.00	182.00	190.00	6.00	4.00
G190182080GB	190.00	182.00	190.00	8.00	4.00
G190182095GB	190.00	182.00	190.00	9.50	4.00
G190182148GB	190.00	182.00	190.00	14.80	4.00
G195187060GB	195.00	187.00	195.00	6.00	4.00
G195187080GB	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
GF.Nylon	-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

## G. ELEMENTS



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

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



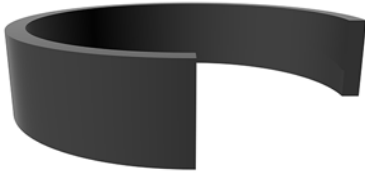
# GB/N series - GF.NYLON



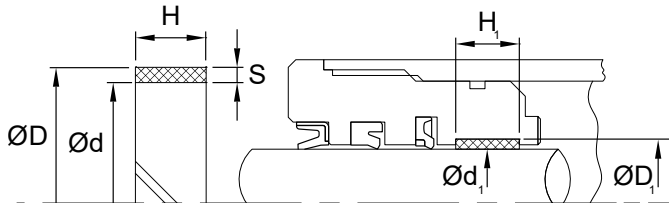
Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
G180175150GB/N	180.00	175.00	180.00	15.00	2.50
G180175160GB/N	180.00	175.00	180.00	16.00	2.50
G180175250GB/N	180.00	175.00	180.00	25.00	2.50
G180176250GB/N	180.00	176.00	180.00	25.00	2.00
G181175130GB/N	181.00	175.00	181.00	13.00	3.00
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	+0.100 -0.000	70.00	+0.020 -0.020	14.80	+0.050 -0.050
RCAT-1057252	80.00		71.98		6.15	
RCAT-0997002	80.00		73.98		30.10	
RCAT-1052630	90.00		81.98		6.15	
RCAT-0996976	90.00		83.98		30.10	
RCAT-0931628	100.00		91.93		6.25	
RCAT-0931605	100.00		93.87		30.30	
RCAT-1333096	100.76		91.93		6.25	
RCAT-1333097	100.76		93.87		30.30	
RCAT-0931629	110.00		101.98		6.25	
RCAT-0931603	110.00		103.87		30.30	
RCAT-1333100	110.76		101.98		6.25	
RCAT-1333101	110.76		103.87		30.30	
RCAT-0931630	120.00		111.93		6.25	
RCAT-0931604	120.00		113.87		30.30	
RCAT-0875505	120.00		113.87		35.30	
RCAT-1082888	120.76		111.93		6.25	
RCAT-1233153	120.76		113.87		30.30	
RCAT-1082885	120.76		113.87		35.30	
RCAT-7Y4632	130.00		121.93		8.25	
RCAT-1184019	130.00		122.87		40.30	
RCAT-1082890	130.76	↓	121.93	↓	8.25	↓

Ref.Number	Bore Diameter		Housing Dimensions			
	D1	Tol.	d1	Tol.	H1	Tol.
RCAT-1082884	130.76	+0.100 -0.000	122.87	+0.020 -0.020	40.30	+0.050 -0.050
RCAT-0961800	140.00		131.93		8.25	
RCAT-1076264	140.00		131.93		8.25	
RCAT-0875429	140.00		132.87		45.30	
RCAT-1076263	140.00		134.87		9.70	
RCAT-1333104	140.76		131.93		8.25	
RCAT-1356988	140.76		132.87		45.30	
RCAT-1333105	140.76		134.87		9.70	
RCAT-0961581	150.00		141.93		8.25	
RCAT-7Y4697	150.00		142.87		45.30	
RCAT-1082889	150.76		141.93		8.25	
RCAT-1082886	150.76		142.87		45.30	
RCAT-0963201	160.00		151.93		9.25	
RCAT-0875539	160.00		152.87		45.30	
RCAT-1333108	160.76		151.93		9.25	
RCAT-1333109	160.76		152.87		45.30	
RCAT-1057262	170.00		161.87		50.30	
RCAT-0965609	170.00		161.93		9.25	
RCAT-1333113	170.76		161.87		50.30	
RCAT-1333112	170.76	↓	161.93		9.25	
RCAT-1052653	180.00	+0.130 -0.000	171.86		55.30	
RCAT-0965167	180.00		171.93	↓	9.25	↓

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.



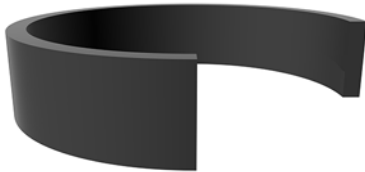
# WR-CAT series - NYLON

Ref.Number	Bore Diameter		Housing Dimensions			
	D1	Tol.	d1	Tol.	H1	Tol.
RCAT-1333117	180.76	+0.130 -.000	171.86	+0.020 -.020	55.30	+0.050 -.050
RCAT-1333116	180.76		171.93		9.25	
RCAT-0857248	200.00		191.93		9.25	
RCAT-9X3570	200.00		193.42		60.00	
RCAT-1334884	200.76		191.93		9.25	

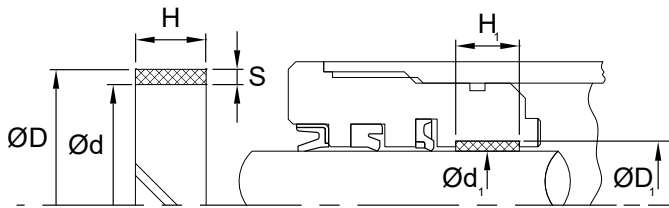
Ref.Number	Bore Diameter		Housing Dimensions			
	D1	Tol.	d1	Tol.	H1	Tol.
RCAT-1334885	200.76	+0.130 -.000	193.42	+0.020 -.020	60.00	+0.050 -.050
RCAT-1251204	220.00		213.42		38.00	
RCAT-416443	220.00		211.93		9.25	
RCAT-6E0496	220.00		213.42		60.00	

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.

## 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

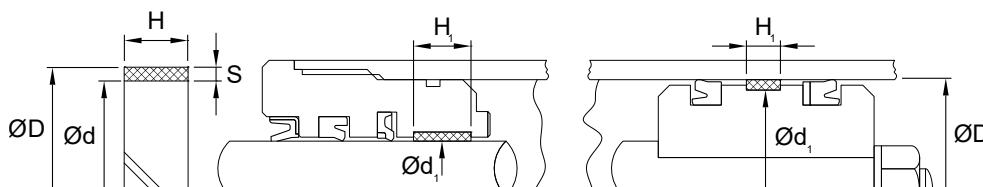
Ref.Number	Bore Diameter		Housing Dimensions			
	D1	Tol.	d1	Tol.	H1	Tol.
RCAT-6E0499	140.00	+0.043/-0.106	155.06	+0.025/-0.025	60.00	+0.076/-0.076

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

## G. ELEMENTS



Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
G031022080GC	<b>31.00</b>	<b>22.00</b>	31.00	8.00	4.50
G031022160GC	<b>31.00</b>	<b>22.00</b>	31.00	16.00	4.50
G031025100GC	<b>31.00</b>	<b>25.00</b>	31.00	10.00	3.00
G031025160GC	<b>31.00</b>	<b>25.00</b>	31.00	16.00	3.00
G031027155GC	<b>31.80</b>	<b>27.70</b>	31.80	15.50	2.05
G031028100GC	<b>31.00</b>	<b>28.00</b>	31.00	10.00	1.50
G031028160GC	<b>31.00</b>	<b>28.00</b>	31.00	16.00	1.50
G032022080GC	<b>32.00</b>	<b>22.00</b>	32.00	8.00	5.00
G032022200GC	<b>32.00</b>	<b>22.00</b>	32.00	20.00	5.00
G032025080GC	<b>32.00</b>	<b>25.00</b>	32.00	8.00	3.50
G032025200GC	<b>32.00</b>	<b>25.00</b>	32.00	20.00	3.50
G032027056GC	<b>32.00</b>	<b>27.00</b>	32.00	5.60	2.50
G032028080GC	<b>32.00</b>	<b>28.00</b>	32.00	8.00	2.00
G032028100GC	<b>32.00</b>	<b>28.00</b>	32.00	10.00	2.00
G032028200GC	<b>32.00</b>	<b>28.00</b>	32.00	20.00	2.00
G033022200GC	<b>33.00</b>	<b>22.00</b>	33.00	20.00	5.50
G033025200GC	<b>33.00</b>	<b>25.00</b>	33.00	20.00	4.00
G033028056GC	<b>33.00</b>	<b>28.00</b>	33.00	5.60	2.50
G033028063GC	<b>33.00</b>	<b>28.00</b>	33.00	6.30	2.50
G033028065GC	<b>33.00</b>	<b>28.00</b>	33.00	6.50	2.50
G033028200GC	<b>33.00</b>	<b>28.00</b>	33.00	20.00	2.50
G034028100GC	<b>34.00</b>	<b>28.00</b>	34.00	10.00	3.00
G034030080GC	<b>34.00</b>	<b>30.00</b>	34.00	8.00	2.00
G034030097GC	<b>34.00</b>	<b>30.00</b>	34.00	9.70	2.00
G034030100GC	<b>34.00</b>	<b>30.00</b>	34.00	10.00	2.00
G034030200GC	<b>34.00</b>	<b>30.00</b>	34.00	20.00	2.00
G034030250GC	<b>34.00</b>	<b>30.00</b>	34.00	25.00	2.00
G035029100GC	<b>35.00</b>	<b>29.00</b>	35.00	10.00	3.00
G035030056GC	<b>35.00</b>	<b>30.00</b>	35.00	5.60	2.50
G035030097GC	<b>35.00</b>	<b>30.00</b>	35.00	9.70	2.50
G035030100GC	<b>35.00</b>	<b>30.00</b>	35.00	10.00	2.50
G035030200GC	<b>35.00</b>	<b>30.00</b>	35.00	20.00	2.50
G035030250GC	<b>35.00</b>	<b>30.00</b>	35.00	25.00	2.50
G035030300GC	<b>35.00</b>	<b>30.00</b>	35.00	30.00	2.50
G035031100GC	<b>35.00</b>	<b>31.00</b>	35.00	10.00	2.00
G035032042GC	<b>35.10</b>	<b>32.00</b>	35.10	4.20	1.55
G036031056GC	<b>36.00</b>	<b>31.00</b>	36.00	5.60	2.50
G036031060GC	<b>36.00</b>	<b>31.00</b>	36.00	6.00	2.50
G036032100GC	<b>36.00</b>	<b>32.00</b>	36.00	10.00	2.00
G036032150GC	<b>36.00</b>	<b>32.00</b>	36.00	15.00	2.00
G036032200GC	<b>36.00</b>	<b>32.00</b>	36.00	20.00	2.00
G036033063GC	<b>36.00</b>	<b>33.00</b>	36.00	6.30	1.50
G037032056GC	<b>37.00</b>	<b>32.00</b>	37.00	5.60	2.50
G037032063GC	<b>37.00</b>	<b>32.00</b>	37.00	6.30	2.50
G037032065GC	<b>37.00</b>	<b>32.00</b>	37.00	6.50	2.50
G037032097GC	<b>37.00</b>	<b>32.00</b>	37.00	9.70	2.50

Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
G038032060GC	<b>38.00</b>	<b>32.00</b>	38.00	6.00	3.00
G038032100GC	<b>38.00</b>	<b>32.00</b>	38.00	10.00	3.00
G038032381GC	<b>38.00</b>	<b>32.00</b>	38.00	38.10	3.00
G038034040GC	<b>38.00</b>	<b>34.00</b>	38.00	4.00	2.00
G038035100GC	<b>38.00</b>	<b>35.00</b>	38.00	10.00	1.50
G039035100GC	<b>39.00</b>	<b>35.00</b>	39.00	10.00	2.00
G039035200GC	<b>39.00</b>	<b>35.00</b>	39.00	20.00	2.00
G039035250GC	<b>39.00</b>	<b>35.00</b>	39.00	25.00	2.00
G040030050GC	<b>40.00</b>	<b>30.00</b>	40.00	5.00	5.00
G040033100GC	<b>40.00</b>	<b>33.00</b>	40.00	10.00	3.50
G040034100GC	<b>40.00</b>	<b>34.00</b>	40.00	10.00	3.00
G040035056GC	<b>40.00</b>	<b>35.00</b>	40.00	5.60	2.50
G040035080GC	<b>40.00</b>	<b>35.00</b>	40.00	8.00	2.50
G040035095GC	<b>40.00</b>	<b>35.00</b>	40.00	9.50	2.50
G040035097GC	<b>40.00</b>	<b>35.00</b>	40.00	9.70	2.50
G040035100GC	<b>40.00</b>	<b>35.00</b>	40.00	10.00	2.50
G040035150GC	<b>40.00</b>	<b>35.00</b>	40.00	15.00	2.50
G040035200GC	<b>40.00</b>	<b>35.00</b>	40.00	20.00	2.50
G040036040GC	<b>40.00</b>	<b>36.00</b>	40.00	4.00	2.00
G040036050GC	<b>40.00</b>	<b>36.00</b>	40.00	5.00	2.00
G040036080GC	<b>40.00</b>	<b>36.00</b>	40.00	8.00	2.00
G040036081GC	<b>40.00</b>	<b>36.00</b>	40.00	8.10	2.00
G040036097GC	<b>40.00</b>	<b>36.00</b>	40.00	9.70	2.00
G040036100GC	<b>40.00</b>	<b>36.00</b>	40.00	10.00	2.00
G040036200GC	<b>40.00</b>	<b>36.00</b>	40.00	20.00	2.00
G040036300GC	<b>40.00</b>	<b>36.00</b>	40.00	30.00	2.00
G041035100GC	<b>41.00</b>	<b>35.00</b>	41.00	10.00	3.00
G041036056GC	<b>41.00</b>	<b>36.00</b>	41.00	5.60	2.50
G041036063GC	<b>41.00</b>	<b>36.00</b>	41.00	6.30	2.50
G041036097GC	<b>41.00</b>	<b>36.00</b>	41.00	9.70	2.50
G042036100GC	<b>42.00</b>	<b>36.00</b>	42.00	10.00	3.00
G044040063GC	<b>44.00</b>	<b>40.00</b>	44.00	6.30	2.00
G044040097GC	<b>44.00</b>	<b>40.00</b>	44.00	9.70	2.00
G044040100GC	<b>44.00</b>	<b>40.00</b>	44.00	10.00	2.00
G044040120GC	<b>44.00</b>	<b>40.00</b>	44.00	12.00	2.00
G044040200GC	<b>44.00</b>	<b>40.00</b>	44.00	20.00	2.00
G044040250GC	<b>44.00</b>	<b>40.00</b>	44.00	25.00	2.00
G044040350GC	<b>44.00</b>	<b>40.00</b>	44.00	35.00	2.00
G045039100GC	<b>45.00</b>	<b>39.00</b>	45.00	10.00	3.00
G045039140GC	<b>45.00</b>	<b>39.00</b>	45.00	14.00	3.00
G045039150GC	<b>45.00</b>	<b>39.00</b>	45.00	15.00	3.00
G045039200GC	<b>45.00</b>	<b>39.00</b>	45.00	20.00	3.00
G045040056GC	<b>45.00</b>	<b>40.00</b>	45.00	5.60	2.50
G045040080GC	<b>45.00</b>	<b>40.00</b>	45.00	8.00	2.50
G045040095GC	<b>45.00</b>	<b>40.00</b>	45.00	9.50	2.50
G045040097GC	<b>45.00</b>	<b>40.00</b>	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

## G. ELEMENTS

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



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



# 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

G. ELEMENTS



# GC series - Phenolic

G. ELEMENTS

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
G165160100GC	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	<b>166.00</b>	<b>160.00</b>	166.00	20.00	3.00
G166160250GC	<b>166.00</b>	<b>160.00</b>	166.00	25.00	3.00
G166160300GC	<b>166.00</b>	<b>160.00</b>	166.00	30.00	3.00
G168160200GC	<b>168.00</b>	<b>160.00</b>	168.00	20.00	4.00
G168160300GC	<b>168.00</b>	<b>160.00</b>	168.00	30.00	4.00
G168160400GC	<b>168.00</b>	<b>160.00</b>	168.00	40.00	4.00
G168160800GC	<b>168.00</b>	<b>160.00</b>	168.00	80.00	4.00
G170158200GC	<b>170.00</b>	<b>158.00</b>	170.00	20.00	6.00
G170160200GC	<b>170.00</b>	<b>160.00</b>	170.00	20.00	5.00
G170162045GC	<b>170.00</b>	<b>162.00</b>	170.00	4.50	4.00
G170162097GC	<b>170.00</b>	<b>162.00</b>	170.00	9.70	4.00
G170162100GC	<b>170.00</b>	<b>162.00</b>	170.00	10.00	4.00
G170162150GC	<b>170.00</b>	<b>162.00</b>	170.00	15.00	4.00
G170162200GC	<b>170.00</b>	<b>162.00</b>	170.00	20.00	4.00
G170162250GC	<b>170.00</b>	<b>162.00</b>	170.00	25.00	4.00
G170162300GC	<b>170.00</b>	<b>162.00</b>	170.00	30.00	4.00
G170162350GC	<b>170.00</b>	<b>162.00</b>	170.00	35.00	4.00
G170162400GC	<b>170.00</b>	<b>162.00</b>	170.00	40.00	4.00
G170162450GC	<b>170.00</b>	<b>162.00</b>	170.00	45.00	4.00
G170162500GC	<b>170.00</b>	<b>162.00</b>	170.00	50.00	4.00
G170163400GC	<b>170.00</b>	<b>163.00</b>	170.00	40.00	3.50
G170164095GC	<b>170.00</b>	<b>164.00</b>	170.00	9.50	3.00
G170164100GC	<b>170.00</b>	<b>164.00</b>	170.00	10.00	3.00
G170164150GC	<b>170.00</b>	<b>164.00</b>	170.00	15.00	3.00
G170164195GC	<b>170.00</b>	<b>164.00</b>	170.00	19.50	3.00
G170164200GC	<b>170.00</b>	<b>164.00</b>	170.00	20.00	3.00
G170164300GC	<b>170.00</b>	<b>164.00</b>	170.00	30.00	3.00
G170164350GC	<b>170.00</b>	<b>164.00</b>	170.00	35.00	3.00
G170164500GC	<b>170.00</b>	<b>164.00</b>	170.00	50.00	3.00
G170165080GC	<b>170.00</b>	<b>165.00</b>	170.00	8.00	2.50
G170165095GC	<b>170.00</b>	<b>165.00</b>	170.00	9.50	2.50
G170165097GC	<b>170.00</b>	<b>165.00</b>	170.00	9.70	2.50
G170165100GC	<b>170.00</b>	<b>165.00</b>	170.00	10.00	2.50
G170165150GC	<b>170.00</b>	<b>165.00</b>	170.00	15.00	2.50
G170165200GC	<b>170.00</b>	<b>165.00</b>	170.00	20.00	2.50
G170165250GC	<b>170.00</b>	<b>165.00</b>	170.00	25.00	2.50
G170165300GC	<b>170.00</b>	<b>165.00</b>	170.00	30.00	2.50
G170165350GC	<b>170.00</b>	<b>165.00</b>	170.00	35.00	2.50
G170165500GC	<b>170.00</b>	<b>165.00</b>	170.00	50.00	2.50
G173165200GC	<b>173.00</b>	<b>165.00</b>	173.00	20.00	4.00
G175165150GC	<b>175.00</b>	<b>165.00</b>	175.00	15.00	5.00
G175168150GC	<b>175.00</b>	<b>168.00</b>	175.00	15.00	3.50
G175169500GC	<b>175.00</b>	<b>169.00</b>	175.00	50.00	3.00
G175170097GC	<b>175.00</b>	<b>170.00</b>	175.00	9.70	2.50
G175170100GC	<b>175.00</b>	<b>170.00</b>	175.00	10.00	2.50
G175170150GC	<b>175.00</b>	<b>170.00</b>	175.00	15.00	2.50

Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
G175170200GC	<b>175.00</b>	<b>170.00</b>	175.00	20.00	2.50
G175170250GC	<b>175.00</b>	<b>170.00</b>	175.00	25.00	2.50
G176170400GC	<b>176.00</b>	<b>170.00</b>	176.00	40.00	3.00
G176170500GC	<b>176.00</b>	<b>170.00</b>	176.00	50.00	3.00
G180168220GC	<b>180.00</b>	<b>168.00</b>	180.00	22.00	6.00
G180168225GC	<b>180.00</b>	<b>168.00</b>	180.00	22.50	6.00
G180170080GC	<b>180.00</b>	<b>170.00</b>	180.00	8.00	5.00
G180170250GC	<b>180.00</b>	<b>170.00</b>	180.00	25.00	5.00
G180170460GC	<b>180.00</b>	<b>170.00</b>	180.00	46.00	5.00
G180170500GC	<b>180.00</b>	<b>170.00</b>	180.00	50.00	5.00
G180172100GC	<b>180.00</b>	<b>172.00</b>	180.00	10.00	4.00
G180172120GC	<b>180.00</b>	<b>172.00</b>	180.00	12.00	4.00
G180172125GC	<b>180.00</b>	<b>172.00</b>	180.00	12.50	4.00
G180172150GC	<b>180.00</b>	<b>172.00</b>	180.00	15.00	4.00
G180172200GC	<b>180.00</b>	<b>172.00</b>	180.00	20.00	4.00
G180172220GC	<b>180.00</b>	<b>172.00</b>	180.00	22.00	4.00
G180172225GC	<b>180.00</b>	<b>172.00</b>	180.00	22.50	4.00
G180172250GC	<b>180.00</b>	<b>172.00</b>	180.00	25.00	4.00
G180172300GC	<b>180.00</b>	<b>172.00</b>	180.00	30.00	4.00
G180172350GC	<b>180.00</b>	<b>172.00</b>	180.00	35.00	4.00
G180172400GC	<b>180.00</b>	<b>172.00</b>	180.00	40.00	4.00
G180172450GC	<b>180.00</b>	<b>172.00</b>	180.00	45.00	4.00
G180172500GC	<b>180.00</b>	<b>172.00</b>	180.00	50.00	4.00
G180172550GC	<b>180.00</b>	<b>172.00</b>	180.00	55.00	4.00
G180173250GC	<b>180.00</b>	<b>173.00</b>	180.00	25.00	3.50
G180173270GC	<b>180.00</b>	<b>173.00</b>	180.00	27.00	3.50
G180173450GC	<b>180.00</b>	<b>173.00</b>	180.00	45.00	3.50
G180173500GC	<b>180.00</b>	<b>173.00</b>	180.00	50.00	3.50
G180174100GC	<b>180.00</b>	<b>174.00</b>	180.00	10.00	3.00
G180174130GC	<b>180.00</b>	<b>174.00</b>	180.00	13.00	3.00
G180174195GC	<b>180.00</b>	<b>174.00</b>	180.00	19.50	3.00
G180174200GC	<b>180.00</b>	<b>174.00</b>	180.00	20.00	3.00
G180174300GC	<b>180.00</b>	<b>174.00</b>	180.00	30.00	3.00
G180174350GC	<b>180.00</b>	<b>174.00</b>	180.00	35.00	3.00
G180174400GC	<b>180.00</b>	<b>174.00</b>	180.00	40.00	3.00
G180174500GC	<b>180.00</b>	<b>174.00</b>	180.00	50.00	3.00
G180175080GC	<b>180.00</b>	<b>175.00</b>	180.00	8.00	2.50
G180175095GC	<b>180.00</b>	<b>175.00</b>	180.00	9.50	2.50
G180175097GC	<b>180.00</b>	<b>175.00</b>	180.00	9.70	2.50
G180175100GC	<b>180.00</b>	<b>175.00</b>	180.00	10.00	2.50
G180175120GC	<b>180.00</b>	<b>175.00</b>	180.00	12.00	2.50
G180175125GC	<b>180.00</b>	<b>175.00</b>	180.00	12.50	2.50
G180175150GC	<b>180.00</b>	<b>175.00</b>	180.00	15.00	2.50
G180175160GC	<b>180.00</b>	<b>175.00</b>	180.00	16.00	2.50
G180175200GC	<b>180.00</b>	<b>175.00</b>	180.00	20.00	2.50
G180175250GC	<b>180.00</b>	<b>175.00</b>	180.00	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

**G. ELEMENTS**



# GC series - Phenolic

**G. ELEMENTS**

Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
G385380250GC	<b>385.00</b>	<b>380.00</b>	385.00	25.00	2.50
G388380800GC	<b>388.00</b>	<b>380.00</b>	388.00	80.00	4.00
G390385250GC	<b>390.00</b>	<b>385.00</b>	390.00	25.00	2.50
G395390250GC	<b>395.00</b>	<b>390.00</b>	395.00	25.00	2.50
G400392250GC	<b>400.00</b>	<b>392.00</b>	400.00	25.00	4.00
G400392300GC	<b>400.00</b>	<b>392.00</b>	400.00	30.00	4.00
G400392400GC	<b>400.00</b>	<b>392.00</b>	400.00	40.00	4.00
G400392700GC	<b>400.00</b>	<b>392.00</b>	400.00	70.00	4.00
G400395150GC	<b>400.00</b>	<b>395.00</b>	400.00	15.00	2.50
G400395250GC	<b>400.00</b>	<b>395.00</b>	400.00	25.00	2.50
G405400250GC	<b>405.00</b>	<b>400.00</b>	405.00	25.00	2.50
G408400500GC	<b>408.00</b>	<b>400.00</b>	408.00	50.00	4.00
G410400300GC	<b>410.00</b>	<b>400.00</b>	410.00	30.00	5.00
G410404120GC	<b>410.00</b>	<b>404.00</b>	410.00	12.00	3.00
G410405250GC	<b>410.00</b>	<b>405.00</b>	410.00	25.00	2.50
G415410250GC	<b>415.00</b>	<b>410.00</b>	415.00	25.00	2.50
G420412450GC	<b>420.00</b>	<b>412.00</b>	420.00	45.00	4.00
G420415250GC	<b>420.00</b>	<b>415.00</b>	420.00	25.00	2.50
G425420250GC	<b>425.00</b>	<b>420.00</b>	425.00	25.00	2.50
G428420700GC	<b>428.00</b>	<b>420.00</b>	428.00	70.00	4.00
G430425250GC	<b>430.00</b>	<b>425.00</b>	430.00	25.00	2.50
G435430250GC	<b>435.00</b>	<b>430.00</b>	435.00	25.00	2.50
G440432400GC	<b>440.00</b>	<b>432.00</b>	440.00	40.00	4.00
G440435250GC	<b>440.00</b>	<b>435.00</b>	440.00	25.00	2.50
G445440250GC	<b>445.00</b>	<b>440.00</b>	445.00	25.00	2.50
G450442250GC	<b>450.00</b>	<b>442.00</b>	450.00	25.00	4.00
G450442300GC	<b>450.00</b>	<b>442.00</b>	450.00	30.00	4.00
G450445150GC	<b>450.00</b>	<b>445.00</b>	450.00	15.00	2.50
G450445250GC	<b>450.00</b>	<b>445.00</b>	450.00	25.00	2.50
G455450250GC	<b>455.00</b>	<b>450.00</b>	455.00	25.00	2.50
G460455250GC	<b>460.00</b>	<b>455.00</b>	460.00	25.00	2.50
G461456250GC	<b>461.00</b>	<b>456.00</b>	461.00	25.00	2.50
G465460250GC	<b>465.00</b>	<b>460.00</b>	465.00	25.00	2.50
G468460500GC	<b>468.00</b>	<b>460.00</b>	468.00	50.00	4.00
G470460650GC	<b>470.00</b>	<b>460.00</b>	470.00	65.00	5.00
G470460900GC	<b>470.00</b>	<b>460.00</b>	470.00	90.00	5.00
G470465250GC	<b>470.00</b>	<b>465.00</b>	470.00	25.00	2.50

Ref.Number	Bore Dia	Rod Dia	Nominal Wear Ring Dimensions		
			D	H	S
G475470250GC	<b>475.00</b>	<b>470.00</b>	475.00	25.00	2.50
G480470300GC	<b>480.00</b>	<b>470.00</b>	480.00	30.00	5.00
G480475250GC	<b>480.00</b>	<b>475.00</b>	480.00	25.00	2.50
G485480250GC	<b>485.00</b>	<b>480.00</b>	485.00	25.00	2.50
G490482450GC	<b>490.00</b>	<b>482.00</b>	490.00	45.00	4.00
G490485150GC	<b>490.00</b>	<b>485.00</b>	490.00	15.00	2.50
G490485250GC	<b>490.00</b>	<b>485.00</b>	490.00	25.00	2.50
G495490250GC	<b>495.00</b>	<b>490.00</b>	495.00	25.00	2.50
G496490300GC	<b>496.00</b>	<b>490.00</b>	496.00	30.00	3.00
G500492250GC	<b>500.00</b>	<b>492.00</b>	500.00	25.00	4.00
G500492500GC	<b>500.00</b>	<b>492.00</b>	500.00	50.00	4.00
G500495150GC	<b>500.00</b>	<b>495.00</b>	500.00	15.00	2.50
G500495250GC	<b>500.00</b>	<b>495.00</b>	500.00	25.00	2.50
G520510700GC	<b>520.00</b>	<b>510.00</b>	520.00	70.00	5.00
G520512400GC	<b>520.00</b>	<b>512.00</b>	520.00	40.00	4.00
G528520400GC	<b>528.00</b>	<b>520.00</b>	528.00	40.00	4.00
G530522700GC	<b>530.00</b>	<b>522.00</b>	530.00	70.00	4.00
G580570800GC	<b>580.00</b>	<b>570.00</b>	580.00	80.00	5.00
G600590350GC	<b>600.00</b>	<b>590.00</b>	600.00	35.00	5.00
G602592200GC	<b>602.00</b>	<b>592.00</b>	602.00	20.00	5.00
G602592800GC	<b>602.00</b>	<b>592.00</b>	602.00	80.00	5.00
G610600800GC	<b>610.00</b>	<b>600.00</b>	610.00	80.00	5.00
G650640300GC	<b>650.00</b>	<b>640.00</b>	650.00	30.00	5.00
G650640800GC	<b>650.00</b>	<b>640.00</b>	650.00	80.00	5.00
G650645150GC	<b>650.00</b>	<b>645.00</b>	650.00	15.00	2.50
G650645200GC	<b>650.00</b>	<b>645.00</b>	650.00	20.00	2.50
G660650750GC	<b>660.00</b>	<b>650.00</b>	660.00	75.00	5.00
G680670600GC	<b>680.00</b>	<b>670.00</b>	680.00	60.00	5.00
G680670800GC	<b>680.00</b>	<b>670.00</b>	680.00	80.00	5.00
G680675150GC	<b>680.00</b>	<b>675.00</b>	680.00	15.00	2.50
G680675200GC	<b>680.00</b>	<b>675.00</b>	680.00	20.00	2.50
G710700800GC	<b>710.00</b>	<b>700.00</b>	710.00	80.00	5.00
G740730800GC	<b>740.00</b>	<b>730.00</b>	740.00	80.00	5.00
G810800300GC	<b>810.00</b>	<b>800.00</b>	810.00	30.00	5.00
G830820800GC	<b>830.00</b>	<b>820.00</b>	830.00	80.00	5.00
G830820900GC	<b>830.00</b>	<b>820.00</b>	830.00	90.00	5.00
G860850850GC	<b>860.00</b>	<b>850.00</b>	860.00	85.00	5.00
G860855250GC	<b>860.00</b>	<b>855.00</b>	860.00	25.00	2.50

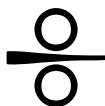
Markets segments we are servicing



Machine Tools



Material Handling



Metal Processing



Mining



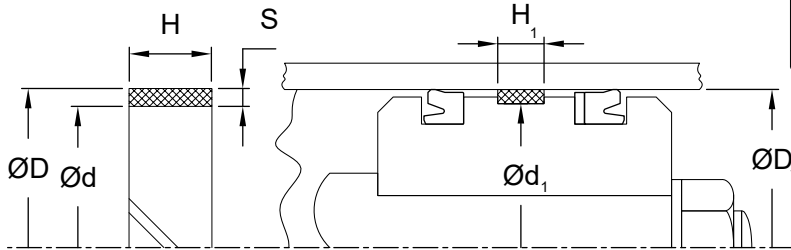
Pharmaceutical



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 -.250	1.50	+0.000/-0.080
WS0056020	5.60		2.00	+0.000/-0.100
WS0056025	5.60		2.50	+0.000 -.130
WS0056030	5.60		3.00	+0.000 -.150
WS0056035	5.60		3.50	+0.000 -.150
WS0056040	5.60		4.00	+0.000/-0.080
WS0060015	6.00		1.50	+0.000/-0.080
WS0060020	6.00		2.00	+0.000/-0.100
WS0060025	6.00		2.50	+0.000 -.130
WS0060030	6.00		3.00	+0.000 -.150
WS0060035	6.00		3.50	+0.000 -.150
WS0060040	6.00		4.00	+0.000/-0.080
WS0079015	7.90		1.50	+0.000/-0.080
WS0079020	7.90		2.00	+0.000/-0.100
WS0079025	7.90		2.50	+0.000 -.130
WS0079030	7.90		3.00	+0.000 -.150
WS0079035	7.90		3.50	+0.000 -.150
WS0079040	7.90		4.00	+0.000/-0.080
WS0095015	9.50		1.50	+0.000/-0.080
WS0095020	9.50		2.00	+0.000/-0.100

Increments of 1 ft

Ref.Number	Nominal Seal Dimensions			
	H	Tol.	S	Tol.
WS0095025	9.50	+0.000 -.250	2.50	+0.000 -.130
WS0095030	9.50		3.00	+0.000 -.150
WS0095035	9.50		3.50	+0.000 -.150
WS0095040	9.50		4.00	+0.000/-0.080
WS0097015	9.70		1.50	+0.000/-0.080
WS0097020	9.70		2.00	+0.000/-0.100
WS0097025	9.70		2.50	+0.000 -.130
WS0097030	9.70		3.00	+0.000 -.150
WS0097035	9.70		3.50	+0.000 -.150
WS0097040	9.70		4.00	+0.000/-0.080
WS0118015	11.80		1.50	+0.000/-0.080
WS0118020	11.80		2.00	+0.000/-0.100
WS0118025	11.80		2.50	+0.000 -.130
WS0118030	11.80		3.00	+0.000 -.150
WS0118035	11.80		3.50	+0.000 -.150
WS0118040	11.80		4.00	+0.000/-0.080
WS0130015	13.00		1.50	+0.000/-0.080
WS0130020	13.00		2.00	+0.000/-0.100
WS0130025	13.00		2.50	+0.000 -.130
WS0130030	13.00		3.00	+0.000 -.130

Increments of 1 ft



# WS series - BR.PTFE

G. ELEMENTS

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					
2	2.000 1.994	3.500 3.508	2.000 2.048	3 GMB 0203DU	5 GMB 0205DU										
3	3.000 2.994	4.500 4.508	3.000 3.048	3 GMB 0303DU	5 GMB 0305DU	6 GMB 0306DU									
4	4.000 3.992	5.500 5.508	4.000 4.048	3 GMB 0403DU	4 GMB 0404DU	6 GMB 0406DU	10 GMB 0410DU								
5	4.990 4.978	7.000 7.015	4.990 5.055	5 GMB 0505DU	8 GMB 0508DU	10 GMB 0510DU									
6	5.990 5.978	8.000 8.015	5.990 6.055	6 GMB 0606DU	8 GMB 0608DU	10 GMB 0610DU									
7	6.987 6.972	9.000 9.015	6.990 7.055	10 GMB 0710DU											
8	7.987 7.972	10.000 10.015	7.990 8.055	8 GMB 0808DU	10 GMB 0810DU	12 GMB 0812DU									
10	9.987 9.972	12.000 12.018	9.990 10.058	8 GMB 1008DU	10 GMB 1010DU	12 GMB 1012DU	15 GMB 1015DU	20 GMB 1020DU							
12	11.984 11.966	14.000 14.018	11.990 12.058	8 GMB 1208DU	10 GMB 1212DU	12 GMB 1212DU	15 GMB 1215DU	20 GMB 1220DU	25 GMB 1225DU						
13	12.984 12.966	15.000 15.018	12.990 13.058	10 GMB 1310DU	20 GMB 1320DU										
14	13.984 13.966	16.000 16.018	13.990 14.058	5 GMB 1405DU	10 GMB 1410DU	12 GMB 1412DU	15 GMB 1415DU	20 GMB 1402DU	25 GMB 1425DU						
15	14.984 14.966	17.000 17.018	14.990 15.058	10 GMB 1510DU	12 GMB 1512DU	15 GMB 1515DU	20 GMB 1520DU	25 GMB 1525DU							
16	15.984 15.966	18.000 18.018	15.990 16.058	10 GMB 1610DU	12 GMB 1612DU	15 GMB 1615DU	20 GMB 1620DU	25 GMB 1625DU							
17	16.984 16.966	19.000 19.021	16.990 17.061	20 GMB 1720DU											
18	17.984 17.966	20.000 20.021	17.990 18.061	15 GMB 1815DU	20 GMB 1820DU	25 GMB 1825DU									
20	19.980 19.959	23.000 23.021	19.990 20.062	10 GMB 2010DU	15 GMB 2015DU	20 GMB 2020DU	25 GMB 2025DU	30 GMB 2030DU							
22	21.980 21.959	25.000 25.021	21.990 22.071	15 GMB 2215DU	20 GMB 2220DU	25 GMB 2225DU	30 GMB 2230DU								
24	23.980 23.959	27.000 27.021	23.990 24.071	15 GMB 2415DU	20 GMB 2420DU	25 GMB 2425DU	30 GMB 2430DU								
25	24.980 24.959	28.000 28.021	24.990 25.071	15 GMB 2515DU	20 GMB 2520DU	25 GMB 2525DU	30 GMB 2530DU	50 GMB 2550DU							
28	27.980 27.959	32.000 32.025	27.990 28.085	15 GMB 2815DU	20 GMB 2820DU	25 GMB 2825DU	30 GMB 2830DU								
30	29.980 29.959	34.000 34.025	29.990 30.085	15 GMB 3015DU	20 GMB 3020DU	25 GMB 3025DU	30 GMB 3030DU	40 GMB 3040DU							
32	31.975 31.950	36.000 36.025	31.990 32.085	20 GMB 3220DU	20 GMB 3230DU	40 GMB 3240DU									
35	34.975 34.950	39.000 39.025	34.990 35.085	20 GMB 3520DU	20 GMB 3530DU	35 GMB 3535DU	40 GMB 3540DU	50 GMB 3550DU							
37	36.975 36.950	41.000 41.025	36.990 37.085	20 GMB 3720DU				GMB 4050DU							
40	39.975 39.950	44.000 44.025	39.990 40.085	20 GMB 4020DU	30	40 GMB 4040DU	50 GMB 4545DU								
45	44.975 44.950	50.000 50.025	44.990 45.105	20 GMB 4520DU	30	40 GMB 4540DU	45	50 GMB 4550DU							



# "DU" BEARING - OVER 45 MM

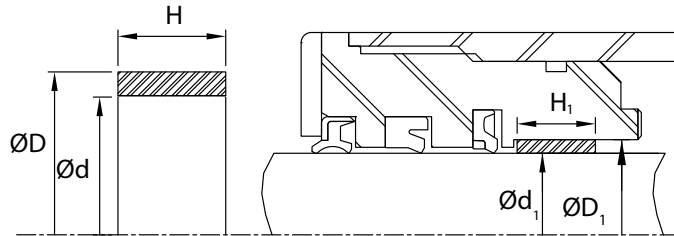
**G. ELEMENTS**

Nominal Bearing Bore	Recommended		Installed Bearing ID*	Bearing length and Part Number											
	Shaft Dia.	Housing Bore		20	30	40	50	60	70	80	90	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	<b>240.00</b>	245.00	140.00
GMB240150DU	<b>240.00</b>	245.00	150.00
GMB245060DU	<b>245.00</b>	250.00	60.00
GMB245070DU	<b>245.00</b>	250.00	70.00
GMB245080DU	<b>245.00</b>	250.00	80.00
GMB245090DU	<b>245.00</b>	250.00	90.00
GMB245100DU	<b>245.00</b>	250.00	100.00
GMB245110DU	<b>245.00</b>	250.00	110.00
GMB245120DU	<b>245.00</b>	250.00	120.00
GMB245130DU	<b>245.00</b>	250.00	130.00
GMB245140DU	<b>245.00</b>	250.00	140.00
GMB245150DU	<b>245.00</b>	250.00	150.00
GMB250060DU	<b>250.00</b>	255.00	60.00
GMB250070DU	<b>250.00</b>	255.00	70.00
GMB250080DU	<b>250.00</b>	255.00	80.00
GMB250090DU	<b>250.00</b>	255.00	90.00
GMB250100DU	<b>250.00</b>	255.00	100.00
GMB250110DU	<b>250.00</b>	255.00	110.00
GMB250120DU	<b>250.00</b>	255.00	120.00
GMB250130DU	<b>250.00</b>	255.00	130.00
GMB250140DU	<b>250.00</b>	255.00	140.00
GMB250150DU	<b>250.00</b>	255.00	150.00
GMB255060DU	<b>255.00</b>	260.00	60.00
GMB255070DU	<b>255.00</b>	260.00	70.00
GMB255080DU	<b>255.00</b>	260.00	80.00
GMB255090DU	<b>255.00</b>	260.00	90.00
GMB255100DU	<b>255.00</b>	260.00	100.00
GMB255110DU	<b>255.00</b>	260.00	110.00
GMB255120DU	<b>255.00</b>	260.00	120.00
GMB255130DU	<b>255.00</b>	260.00	130.00
GMB255140DU	<b>255.00</b>	260.00	140.00
GMB255150DU	<b>255.00</b>	260.00	150.00
GMB260060DU	<b>260.00</b>	265.00	60.00
GMB260070DU	<b>260.00</b>	265.00	70.00
GMB260080DU	<b>260.00</b>	265.00	80.00
GMB260090DU	<b>260.00</b>	265.00	90.00
GMB260100DU	<b>260.00</b>	265.00	100.00
GMB260110DU	<b>260.00</b>	265.00	110.00
GMB260120DU	<b>260.00</b>	265.00	120.00
GMB260130DU	<b>260.00</b>	265.00	130.00
GMB260140DU	<b>260.00</b>	265.00	140.00
GMB260150DU	<b>260.00</b>	265.00	150.00
GMB265060DU	<b>265.00</b>	270.00	60.00
GMB265070DU	<b>265.00</b>	270.00	70.00
GMB265080DU	<b>265.00</b>	270.00	80.00
GMB265090DU	<b>265.00</b>	270.00	90.00

Ref.Number	Nominal Seal Dimensions		
	d	D	H
GMB265100DU	<b>265.00</b>	270.00	100.00
GMB265110DU	<b>265.00</b>	270.00	110.00
GMB265120DU	<b>265.00</b>	270.00	120.00
GMB265130DU	<b>265.00</b>	270.00	130.00
GMB265140DU	<b>265.00</b>	270.00	140.00
GMB265150DU	<b>265.00</b>	270.00	150.00
GMB270060DU	<b>270.00</b>	275.00	60.00
GMB270070DU	<b>270.00</b>	275.00	70.00
GMB270080DU	<b>270.00</b>	275.00	80.00
GMB270090DU	<b>270.00</b>	275.00	90.00
GMB270100DU	<b>270.00</b>	275.00	100.00
GMB270110DU	<b>270.00</b>	275.00	110.00
GMB270120DU	<b>270.00</b>	275.00	120.00
GMB270130DU	<b>270.00</b>	275.00	130.00
GMB270140DU	<b>270.00</b>	275.00	140.00
GMB270150DU	<b>270.00</b>	275.00	150.00
GMB275060DU	<b>275.00</b>	280.00	60.00
GMB275070DU	<b>275.00</b>	280.00	70.00
GMB275080DU	<b>275.00</b>	280.00	80.00
GMB275090DU	<b>275.00</b>	280.00	90.00
GMB275100DU	<b>275.00</b>	280.00	100.00
GMB275110DU	<b>275.00</b>	280.00	110.00
GMB275120DU	<b>275.00</b>	280.00	120.00
GMB275130DU	<b>275.00</b>	280.00	130.00
GMB275140DU	<b>275.00</b>	280.00	140.00
GMB275150DU	<b>275.00</b>	280.00	150.00
GMB280060DU	<b>280.00</b>	285.00	60.00
GMB280070DU	<b>280.00</b>	285.00	70.00
GMB280080DU	<b>280.00</b>	285.00	80.00
GMB280090DU	<b>280.00</b>	285.00	90.00
GMB280100DU	<b>280.00</b>	285.00	100.00
GMB280110DU	<b>280.00</b>	285.00	110.00
GMB280120DU	<b>280.00</b>	285.00	120.00
GMB280130DU	<b>280.00</b>	285.00	130.00
GMB280140DU	<b>280.00</b>	285.00	140.00
GMB280150DU	<b>280.00</b>	285.00	150.00
GMB285060DU	<b>285.00</b>	290.00	60.00
GMB285070DU	<b>285.00</b>	290.00	70.00
GMB285080DU	<b>285.00</b>	290.00	80.00
GMB285090DU	<b>285.00</b>	290.00	90.00
GMB285100DU	<b>285.00</b>	290.00	100.00
GMB285110DU	<b>285.00</b>	290.00	110.00
GMB285120DU	<b>285.00</b>	290.00	120.00
GMB285130DU	<b>285.00</b>	290.00	130.00
GMB285140DU	<b>285.00</b>	290.00	140.00
GMB285150DU	<b>285.00</b>	290.00	150.00

# "DU" BEARING - BR.PTFE/STEEL

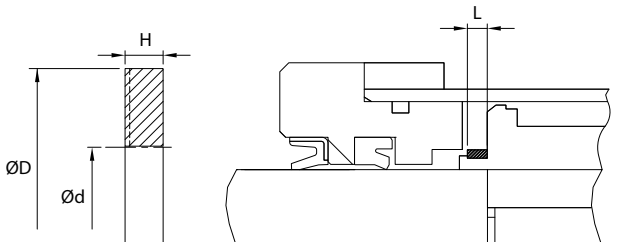
Ref.Number	Nominal Seal Dimensions		
	d	D	H
GMB290060DU	<b>290.00</b>	295.00	60.00
GMB290070DU	<b>290.00</b>	295.00	70.00
GMB290080DU	<b>290.00</b>	295.00	80.00
GMB290090DU	<b>290.00</b>	295.00	90.00
GMB290100DU	<b>290.00</b>	295.00	100.00
GMB290110DU	<b>290.00</b>	295.00	110.00
GMB290120DU	<b>290.00</b>	295.00	120.00
GMB290130DU	<b>290.00</b>	295.00	130.00
GMB290140DU	<b>290.00</b>	295.00	140.00
GMB290150DU	<b>290.00</b>	295.00	150.00
GMB295060DU	<b>295.00</b>	300.00	60.00
GMB295070DU	<b>295.00</b>	300.00	70.00
GMB295080DU	<b>295.00</b>	300.00	80.00
GMB295090DU	<b>295.00</b>	300.00	90.00
GMB295100DU	<b>295.00</b>	300.00	100.00

Ref.Number	Nominal Seal Dimensions		
	d	D	H
GMB295110DU	<b>295.00</b>	300.00	110.00
GMB295120DU	<b>295.00</b>	300.00	120.00
GMB295130DU	<b>295.00</b>	300.00	130.00
GMB295140DU	<b>295.00</b>	300.00	140.00
GMB295150DU	<b>295.00</b>	300.00	150.00
GMB300060DU	<b>300.00</b>	305.00	60.00
GMB300070DU	<b>300.00</b>	305.00	70.00
GMB300080DU	<b>300.00</b>	305.00	80.00
GMB300090DU	<b>300.00</b>	305.00	90.00
GMB300100DU	<b>300.00</b>	305.00	100.00
GMB300110DU	<b>300.00</b>	305.00	110.00
GMB300120DU	<b>300.00</b>	305.00	120.00
GMB300130DU	<b>300.00</b>	305.00	130.00
GMB300140DU	<b>300.00</b>	305.00	140.00
GMB300150DU	<b>300.00</b>	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 (≤344 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.

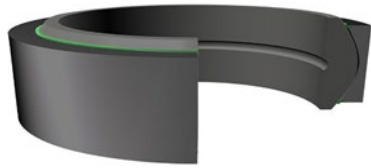
# GE series - NYLON

Ref.Number	Nominal Seal Dimensions		
	d	D	H
G025030050GE	<b>24.80</b>	30.00	5.00
G026030050GE	<b>25.80</b>	30.00	5.00
G032038060GE	<b>31.76</b>	38.00	6.00
G032038060GE-1	<b>31.80</b>	38.00	6.00
G033038060GE	<b>33.00</b>	38.00	6.00
G034039060GE	<b>33.65</b>	38.85	6.00
G041046060GE	<b>41.00</b>	46.00	6.00
G059065060GE	<b>58.80</b>	65.00	6.00
G060065060GE	<b>60.00</b>	65.00	6.00
G061064060GE	<b>61.05</b>	64.00	6.00
G063069060GE	<b>63.00</b>	69.00	6.00
G065070060GE	<b>65.00</b>	70.00	6.00
G065071060GE	<b>64.80</b>	70.80	6.00
G068074060GE	<b>68.00</b>	74.00	6.00
G069075060GE	<b>68.80</b>	75.00	6.00
G069079080GE	<b>68.85</b>	78.85	8.00
G070075060GE	<b>70.00</b>	75.00	6.00
G074080060GE	<b>73.80</b>	80.00	6.00
G074084080GE	<b>74.00</b>	84.00	8.00
G075080060GE	<b>75.00</b>	80.00	6.00

Ref.Number	Nominal Seal Dimensions		
	d	D	H
G079085060GE	<b>78.76</b>	85.00	6.00
G079089080GE	<b>79.00</b>	89.00	8.00
G080085060GE	<b>80.00</b>	85.00	6.00
G084090060GE	<b>83.80</b>	90.00	6.00
G084094080GE	<b>83.70</b>	93.70	8.00
G085090060GE	<b>85.00</b>	90.00	6.00
G089094060GE	<b>89.00</b>	94.00	6.00
G089095060GE	<b>88.80</b>	95.00	6.00
G089099080GE	<b>88.85</b>	98.85	8.00
G090095060GE	<b>90.00</b>	95.00	6.00
G094104080GE	<b>93.50</b>	103.50	8.00
G095100060GE	<b>95.00</b>	100.00	6.00
G102107060GE	<b>101.80</b>	107.00	6.00
G105110060GE	<b>105.00</b>	110.00	6.00
G109119080GE	<b>108.50</b>	118.50	8.00
G110115060GE	<b>109.80</b>	115.00	6.00
G115120060GE	<b>114.80</b>	120.00	6.00
G116128100GE	<b>116.00</b>	128.00	10.00
G117122060GE	<b>117.00</b>	122.00	6.00
G122134100GE	<b>122.00</b>	134.00	10.00
G126138100GE	<b>125.50</b>	137.50	10.00

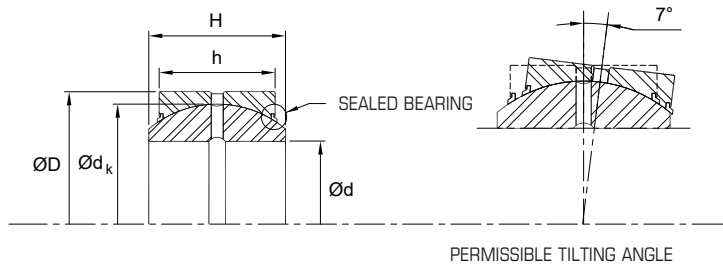


# GE-ES2RS - Spherical plain bearings - Metric



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

with seals



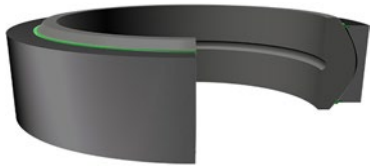
**Spherical plain bearings** are used to align movements between shaft and housing assemblies, where oscillating, tilting or slewing movements need to be accommodated for at slow sliding speeds.

**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

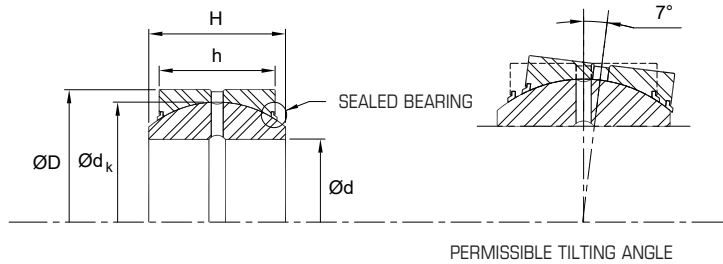


# GE - GS2RS - Spherical plain bearings - Metric



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.

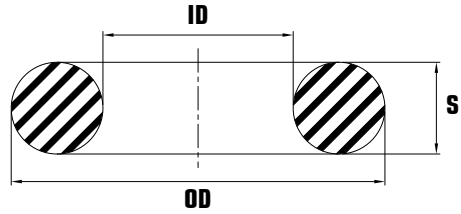






<b>INFO</b>	MATERIAL SELECTION	0	2
<b>INFO</b>	O'RING INSTALLATION DIMENSIONS	0	3
●	O'RINGS	0	10
●	O'RING CHART JIS B2401	0	83
●	O'RINGS JIS METRIC	0	85
⊗	QUAD RINGS	0	88
⬮	HEAD SEALS	0	91
●	O'RING CORD	0	94
●	VULC. O'RING (NBR)	0	94
●	VULC. O'RING (FPM)	0	94
	O'RING KITS	0	95
■	SD/T - BACK-UP RINGS	0	96
■	SD/U - BACK-UP RINGS	0	99
⬮	USIT RINGS	0	101
⬮	USIT RINGS SELF CENTERING	0	103
<b>INFO</b>	USIT RINGS REFERENCE TABLE	0	104

# Material selection



MOR **0 1 5 0** **0 2 0** /Material Identification

ID

S

Inside diameter  
ex: 15.00 mm

Cross section  
ex: 2.00 mm

**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)

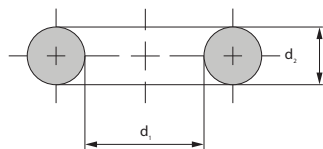
Please note that material choices are not necessarily available for all profiles and minimum purchases may apply. Other materials are available upon request.

\* 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

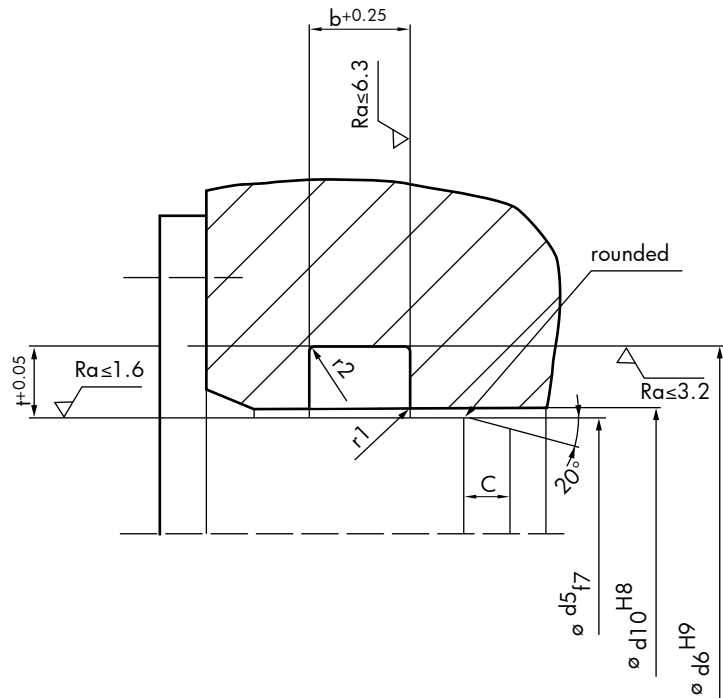
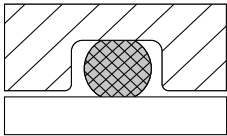
## Static Sealing

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

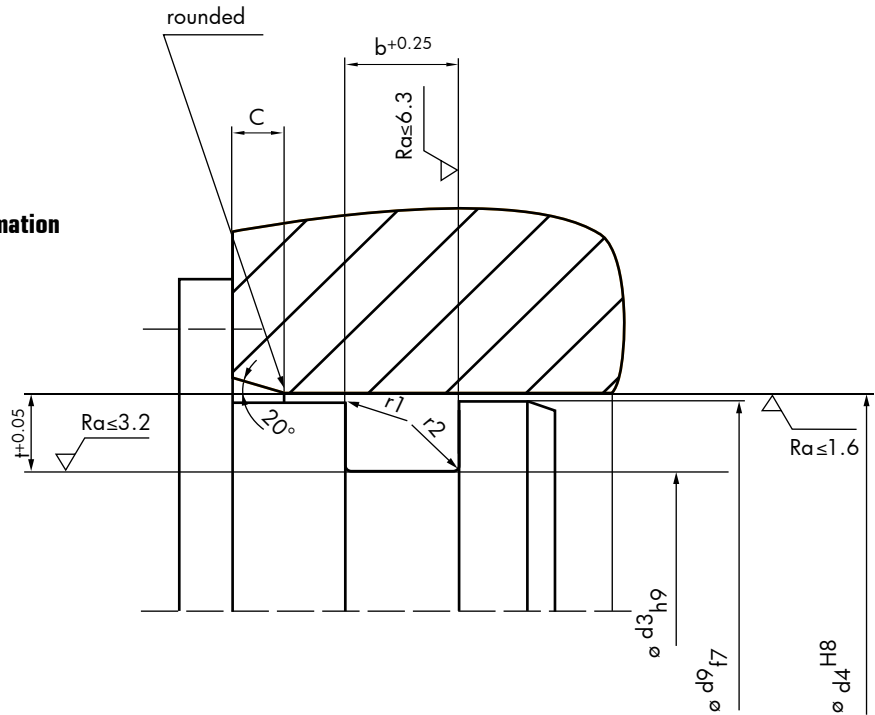
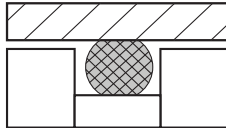
This type of sealing is the preferred choice for sealing pins, bolts, tube connections or cylindrical tubes. The O'Ring section is deformed radially on installation, i.e. in the direction of the centre of the bolt/ pipe. The position of the groove, whether on the inside or the outside, does not play 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

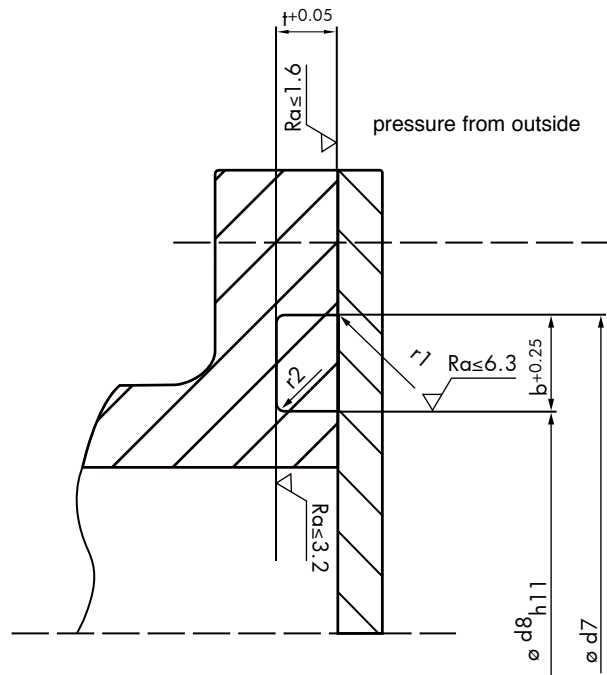
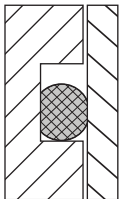
## Static Sealing

### 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.

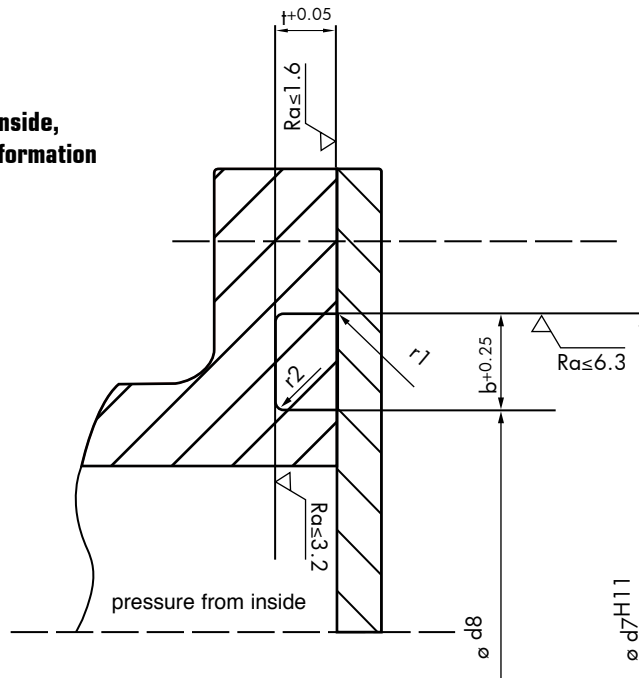
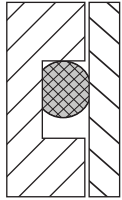
Static sealing, pressure from outside,  
rectangular groove by axial deformation





# O'RING INSTALLATION DIMENSIONS

Static sealing, pressure from inside,  
rectangular groove by axial deformation



## Groove dimensions

d2	Groove depth $t_{+0.05}$	Groove width $b_{+0.25}$	d2	Groove depth $t_{+0.05}$	Groove width $b_{+0.25}$	d2	Groove depth $t_{+0.05}$	Groove width $b_{+0.25}$
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

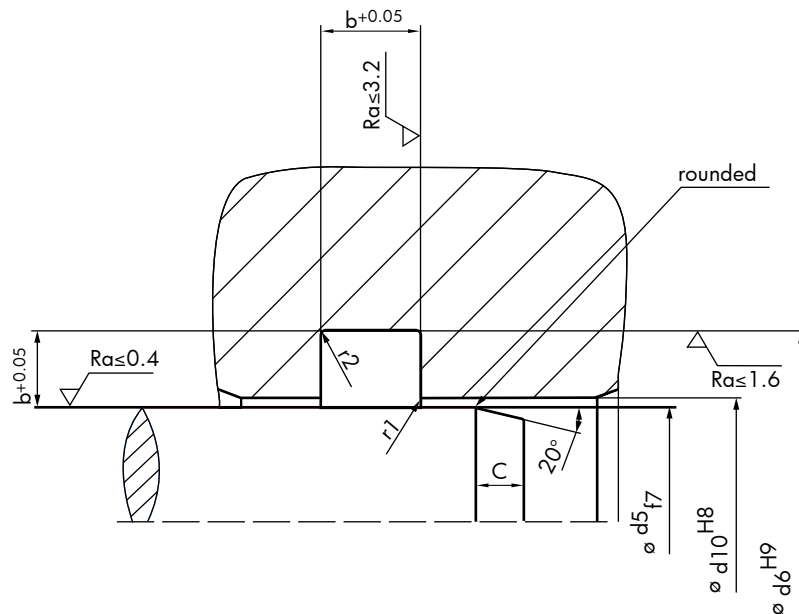
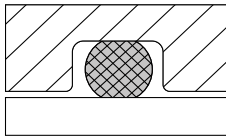
O'Rings are used successfully as sealing elements in dynamic applications. However, their use is limited to lower pressures and speeds, or to use in small installation housings. Because of the friction resistance in movement. e.g. in hydraulic or pneumatic components. A smaller O'Ring deformation is 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

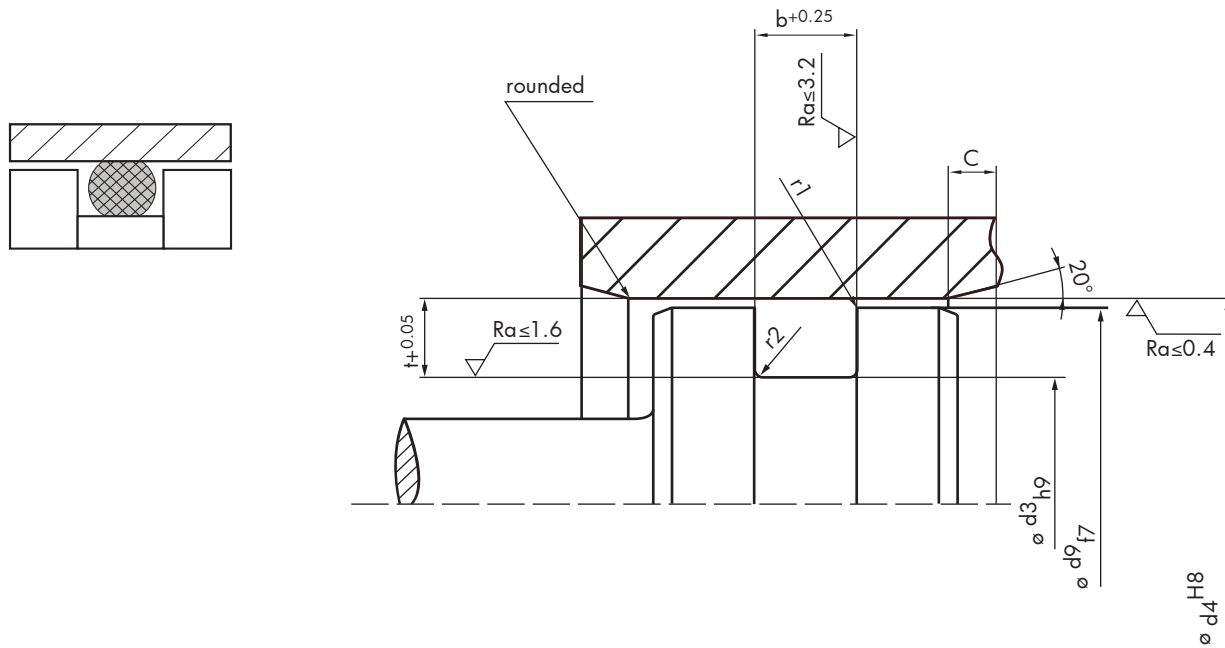
O'Rings should only be used to seal hydraulic pistons and rods if there is little space for the installation, or if the rod stroke is relatively short with a low frequency, and the seal does not have to be completely leak-proof. In fact, a tiny amount of leakage is desirable as it provides a lubricant 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

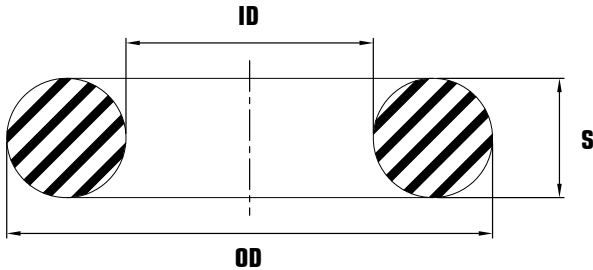
d2	Groove depth $t+0.05$	Groove width $b+0.25$	Lead-in chamfer C	d2	Groove depth $t+0.05$	Groove width $b+0.25$	Lead-in chamfer C	d2	Groove depth $t+0.05$	Groove width $b+0.25$	Lead-in chamfer C
1.00	0.90	1.30	1.00	2.70	2.40	3.40	1.50	5.70	5.10	7.20	3.00
1.20	1.00	1.60	1.00	2.80	2.40	3.60	1.60	6.00	5.40	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	<b>3.66</b>	6.86	1.60
MOR0036019-1	<b>3.66</b>	7.46	1.90
MOR0037010	<b>3.70</b>	5.70	1.00
MOR0037012	<b>3.70</b>	6.10	1.20
MOR0037018	<b>3.70</b>	7.30	1.80
MOR0037019	<b>3.70</b>	7.50	1.90
MOR0037020	<b>3.70</b>	7.70	2.00
MOR0037010-1	<b>3.71</b>	5.71	1.00
MOR0037018-1	<b>3.75</b>	7.35	1.80
MOR0038012	<b>3.80</b>	6.30	1.25
MOR0038015	<b>3.80</b>	6.80	1.50
MOR0038019	<b>3.80</b>	7.60	1.90
MOR0038024	<b>3.80</b>	8.60	2.40
MOR0039015	<b>3.90</b>	6.90	1.50
MOR0039018	<b>3.90</b>	7.50	1.80
MOR0040010	<b>4.00</b>	6.00	1.00
MOR0040011	<b>4.00</b>	6.20	1.10
MOR0040012	<b>4.00</b>	6.40	1.20
MOR0040015	<b>4.00</b>	7.00	1.50
MOR0040016	<b>4.00</b>	7.20	1.60
MOR0040017	<b>4.00</b>	7.50	1.75
MOR0040018	<b>4.00</b>	7.60	1.80
MOR0040020	<b>4.00</b>	8.00	2.00
MOR0040022	<b>4.00</b>	8.40	2.20
MOR0040025	<b>4.00</b>	9.00	2.50
MOR0040030	<b>4.00</b>	10.00	3.00
MOR0040040	<b>4.00</b>	12.00	4.00
MOR0040050	<b>4.00</b>	14.00	5.00
MOR0040058	<b>4.00</b>	15.60	5.80
MOR0041010	<b>4.10</b>	6.10	1.00
MOR0041016	<b>4.10</b>	7.30	1.60
MOR0042019	<b>4.20</b>	8.00	1.90
MOR0043013	<b>4.30</b>	6.90	1.30
MOR0043024	<b>4.30</b>	9.10	2.40
MOR0043010	<b>4.35</b>	6.35	1.00
MOR0044015	<b>4.40</b>	7.40	1.50
MOR0045010	<b>4.50</b>	6.50	1.00
MOR0045015	<b>4.50</b>	7.50	1.50
MOR0045018	<b>4.50</b>	8.10	1.80
MOR0045020	<b>4.50</b>	8.50	2.00
MOR0045024	<b>4.50</b>	9.30	2.40
MOR0045025	<b>4.50</b>	9.50	2.50
MOR0045030	<b>4.50</b>	10.50	3.00
MOR0045058	<b>4.50</b>	16.10	5.80
MOR0046016	<b>4.60</b>	7.80	1.60
MOR0046020	<b>4.60</b>	8.60	2.00

Ref.Number	Nominal Seal Dimensions		
	d	D	St
MOR0046023	<b>4.60</b>	9.20	2.30
MOR0046024	<b>4.60</b>	9.40	2.40
MOR0046025	<b>4.60</b>	9.60	2.50
MOR0047010	<b>4.70</b>	6.70	1.00
MOR0047015	<b>4.70</b>	7.70	1.50
MOR0047016	<b>4.70</b>	7.90	1.60
MOR0047019	<b>4.70</b>	8.50	1.90
MOR0047020	<b>4.70</b>	8.70	2.00
MOR0048013	<b>4.80</b>	7.40	1.30
MOR0048016	<b>4.80</b>	8.00	1.60
MOR0048018	<b>4.80</b>	8.40	1.80
MOR0048019	<b>4.80</b>	8.60	1.90
MOR0048020	<b>4.80</b>	8.80	2.00
MOR0048030	<b>4.80</b>	10.80	3.00
MOR0048018-1	<b>4.87</b>	8.47	1.80
MOR0049019	<b>4.90</b>	8.70	1.90
MOR0049019-1	<b>4.90</b>	8.80	1.95
MOR0049015	<b>4.93</b>	7.93	1.50
MOR0050010	<b>5.00</b>	7.00	1.00
MOR0050012	<b>5.00</b>	7.40	1.20
MOR0050012-1	<b>5.00</b>	7.50	1.25
MOR0050015	<b>5.00</b>	8.00	1.50
MOR0050016	<b>5.00</b>	8.20	1.60
MOR0050017	<b>5.00</b>	8.50	1.75
MOR0050018	<b>5.00</b>	8.60	1.80
MOR0050019	<b>5.00</b>	8.80	1.90
MOR0050020	<b>5.00</b>	9.00	2.00
MOR0050025	<b>5.00</b>	10.00	2.50
MOR0050030	<b>5.00</b>	11.00	3.00
MOR0050032	<b>5.00</b>	11.40	3.20
MOR0050035	<b>5.00</b>	12.00	3.50
MOR0050040	<b>5.00</b>	13.00	4.00
MOR0050050	<b>5.00</b>	15.00	5.00
MOR0051010	<b>5.10</b>	7.10	1.00
MOR0051011	<b>5.10</b>	7.30	1.10
MOR0051016	<b>5.10</b>	8.30	1.60
MOR0051018	<b>5.10</b>	8.70	1.80
MOR0051018-1	<b>5.15</b>	8.75	1.80
MOR0052022	<b>5.20</b>	9.60	2.20
MOR0053012	<b>5.30</b>	7.70	1.20
MOR0053018	<b>5.30</b>	8.90	1.80
MOR0053024	<b>5.30</b>	10.10	2.40
MOR0053035	<b>5.30</b>	12.30	3.50
MOR0055010	<b>5.50</b>	7.50	1.00
MOR0055012	<b>5.50</b>	7.90	1.20
MOR0055015	<b>5.50</b>	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
MOR0065040	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
MORO115024	11.50	16.30	2.40
MORO115025	11.50	16.50	2.50
MORO115026	11.50	16.70	2.60
MORO115028	11.50	17.10	2.80
MORO115030	11.50	17.50	3.00
MORO116012	11.60	14.00	1.20
MORO116016	11.60	14.80	1.60
MORO116019	11.60	15.40	1.90
MORO116023	11.60	16.20	2.30
MORO116024	11.60	16.40	2.40
MORO116028	11.60	17.20	2.80
MORO116029	11.60	17.40	2.90
MORO116063	11.60	24.30	6.35
MORO116013	11.63	14.33	1.35
MORO116015	11.65	14.65	1.50
MORO116018	11.65	15.35	1.85
MORO117020	11.70	15.70	2.00
MORO118015	11.80	14.80	1.50
MORO118018	11.80	15.40	1.80
MORO118019	11.80	15.60	1.90
MORO118020	11.80	15.80	2.00
MORO118024	11.80	16.60	2.40
MORO118026-1	11.80	17.10	2.65
MORO120010	12.00	14.00	1.00
MORO120012	12.00	14.40	1.20
MORO120015	12.00	15.00	1.50
MORO120017	12.00	15.40	1.70
MORO120019	12.00	15.80	1.90
MORO120020	12.00	16.00	2.00
MORO120022	12.00	16.40	2.20
MORO120022-1	12.00	16.50	2.25
MORO120025	12.00	17.00	2.50
MORO120030	12.00	18.00	3.00
MORO120032	12.00	18.40	3.20
MORO120035	12.00	19.00	3.50
MORO120040	12.00	20.00	4.00
MORO120045	12.00	21.00	4.50
MORO120050	12.00	22.00	5.00
MORO120055	12.00	23.00	5.50
MORO120060	12.00	24.00	6.00
MORO120070	12.00	26.00	7.00
MORO120080	12.00	28.00	8.00
MORO121014	12.10	15.00	1.45
MORO121016	12.10	15.30	1.60
MORO121017	12.10	15.50	1.70
MORO121019	12.10	15.90	1.90

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MORO121027	12.10	17.50	2.70
MORO121036	12.16	19.36	3.60
MORO121010	12.19	14.19	1.00
MORO122016	12.20	15.40	1.60
MORO122019	12.20	16.00	1.90
MORO122025	12.20	17.20	2.50
MORO123019	12.30	16.10	1.90
MORO123021	12.30	16.50	2.10
MORO123024	12.30	17.10	2.40
MORO123034	12.30	19.10	3.40
MORO123042	12.30	20.70	4.20
MORO124010	12.40	14.40	1.00
MORO124020	12.40	16.40	2.00
MORO124026	12.40	17.60	2.60
MORO124035	12.40	19.40	3.50
MORO125010	12.50	14.50	1.00
MORO125011	12.50	14.70	1.10
MORO125015	12.50	15.50	1.50
MORO125016	12.50	15.70	1.60
MORO125018	12.50	16.10	1.80
MORO125020	12.50	16.50	2.00
MORO125024	12.50	17.30	2.40
MORO125025	12.50	17.50	2.50
MORO125030	12.50	18.50	3.00
MORO125035	12.50	19.50	3.50
MORO126024	12.60	17.40	2.40
MORO126026	12.60	17.80	2.60
MORO126032	12.60	19.10	3.25
MORO126036	12.60	19.80	3.60
MORO128016	12.80	16.00	1.60
MORO128024	12.80	17.60	2.40
MORO130010	13.00	15.00	1.00
MORO130012	13.00	15.40	1.20
MORO130012-1	13.00	15.50	1.25
MORO130013	13.00	15.60	1.30
MORO130014	13.00	15.80	1.40
MORO130015	13.00	16.00	1.50
MORO130015-1	13.00	16.10	1.55
MORO130016	13.00	16.20	1.60
MORO130020	13.00	17.00	2.00
MORO130022	13.00	17.40	2.20
MORO130025	13.00	18.00	2.50
MORO130026	13.00	18.20	2.60
MORO130030	13.00	19.00	3.00
MORO130035	13.00	20.00	3.50
MORO130040	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	<b>23.50</b>	29.50	3.00
MOR0235035	<b>23.50</b>	30.50	3.50
MOR0235055	<b>23.50</b>	34.50	5.50
MOR0235060	<b>23.50</b>	35.50	6.00
MOR0235072	<b>23.50</b>	38.00	7.25
MOR0235010-1	<b>23.59</b>	25.59	1.00
MOR0236025	<b>23.60</b>	28.60	2.50
MOR0236026	<b>23.60</b>	28.90	2.65
MOR0236035	<b>23.60</b>	30.70	3.55
MOR0237028	<b>23.70</b>	29.30	2.80
MOR0237035	<b>23.70</b>	30.70	3.50
MOR0237050	<b>23.75</b>	33.75	5.00
MOR0237063	<b>23.79</b>	36.49	6.35
MOR0238013	<b>23.80</b>	26.40	1.30
MOR0240010	<b>24.00</b>	26.00	1.00
MOR0240012	<b>24.00</b>	26.40	1.20
MOR0240013	<b>24.00</b>	26.60	1.30
MOR0240015	<b>24.00</b>	27.00	1.50
MOR0240016	<b>24.00</b>	27.20	1.60
MOR0240016-1	<b>24.00</b>	27.30	1.65
MOR0240020	<b>24.00</b>	28.00	2.00
MOR0240021	<b>24.00</b>	28.20	2.10
MOR0240025	<b>24.00</b>	29.00	2.50
MOR0240026	<b>24.00</b>	29.20	2.60
MOR0240030	<b>24.00</b>	30.00	3.00
MOR0240035	<b>24.00</b>	31.00	3.50
MOR0240036	<b>24.00</b>	31.20	3.60
MOR0240038	<b>24.00</b>	31.60	3.80
MOR0240040	<b>24.00</b>	32.00	4.00
MOR0240042	<b>24.00</b>	32.40	4.20
MOR0240045	<b>24.00</b>	33.00	4.50
MOR0240048	<b>24.00</b>	33.60	4.80
MOR0240050	<b>24.00</b>	34.00	5.00
MOR0240055	<b>24.00</b>	35.00	5.50
MOR0240060	<b>24.00</b>	36.00	6.00
MOR0240080	<b>24.00</b>	40.00	8.00
MOR0240090	<b>24.00</b>	42.00	9.00
MOR0240100	<b>24.00</b>	44.00	10.00
MOR0241030	<b>24.10</b>	30.10	3.00
MOR0242030	<b>24.20</b>	30.20	3.00
MOR0242033	<b>24.20</b>	30.80	3.30
MOR0243024	<b>24.30</b>	29.10	2.40
MOR0243046	<b>24.30</b>	33.50	4.60
MOR0244030	<b>24.40</b>	30.40	3.00
MOR0244035	<b>24.40</b>	31.40	3.50
MOR0244012	<b>24.45</b>	26.85	1.20

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR0245010	<b>24.50</b>	26.50	1.00
MOR0245015	<b>24.50</b>	27.50	1.50
MOR0245018	<b>24.50</b>	28.10	1.80
MOR0245020	<b>24.50</b>	28.50	2.00
MOR0245024	<b>24.50</b>	29.30	2.40
MOR0245025	<b>24.50</b>	29.50	2.50
MOR0245027	<b>24.50</b>	29.90	2.70
MOR0245030	<b>24.50</b>	30.50	3.00
MOR0245035	<b>24.50</b>	31.50	3.50
MOR0245040	<b>24.50</b>	32.50	4.00
MOR0245045	<b>24.50</b>	33.50	4.50
MOR0245067	<b>24.50</b>	37.90	6.70
MOR0246018	<b>24.60</b>	28.20	1.80
MOR0246024	<b>24.60</b>	29.40	2.40
MOR0246030	<b>24.60</b>	30.60	3.00
MOR0246035	<b>24.60</b>	31.60	3.50
MOR0246036	<b>24.60</b>	31.80	3.60
MOR0247017	<b>24.70</b>	28.10	1.70
MOR0247035	<b>24.70</b>	31.70	3.50
MOR0247050	<b>24.77</b>	34.77	5.00
MOR0248010	<b>24.80</b>	26.80	1.00
MOR0248015	<b>24.80</b>	27.80	1.50
MOR0248019	<b>24.80</b>	28.60	1.90
MOR0250010	<b>25.00</b>	27.00	1.00
MOR0250012	<b>25.00</b>	27.40	1.20
MOR0250013	<b>25.00</b>	27.60	1.30
MOR0250015	<b>25.00</b>	28.00	1.50
MOR0250018	<b>25.00</b>	28.60	1.80
MOR0250020	<b>25.00</b>	29.00	2.00
MOR0250021	<b>25.00</b>	29.20	2.10
MOR0250024	<b>25.00</b>	29.80	2.40
MOR0250025	<b>25.00</b>	30.00	2.50
MOR0250026	<b>25.00</b>	30.20	2.60
MOR0250026-1	<b>25.00</b>	30.30	2.65
MOR0250030	<b>25.00</b>	31.00	3.00
MOR0250031	<b>25.00</b>	31.30	3.15
MOR0250035	<b>25.00</b>	32.00	3.50
MOR0250035-1	<b>25.00</b>	32.10	3.55
MOR0250040	<b>25.00</b>	33.00	4.00
MOR0250045	<b>25.00</b>	34.00	4.50
MOR0250046	<b>25.00</b>	34.20	4.60
MOR0250050	<b>25.00</b>	35.00	5.00
MOR0250055	<b>25.00</b>	36.00	5.50
MOR0250060	<b>25.00</b>	37.00	6.00
MOR0250080	<b>25.00</b>	41.00	8.00
MOR0250029	<b>25.04</b>	30.94	2.95

# O'Rings - NBR 70A, NBR 90A, FPM 80A

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR0251016	<b>25.10</b>	28.30	1.60
MOR0252012	<b>25.20</b>	27.60	1.20
MOR0252018	<b>25.20</b>	28.80	1.80
MOR0252030	<b>25.20</b>	31.20	3.00
MOR0253016	<b>25.30</b>	28.50	1.60
MOR0253024	<b>25.30</b>	30.10	2.40
MOR0253025	<b>25.30</b>	30.30	2.50
MOR0253030	<b>25.30</b>	31.30	3.00
MOR0254015	<b>25.40</b>	28.40	1.50
MOR0255010	<b>25.50</b>	27.50	1.00
MOR0255012	<b>25.50</b>	27.90	1.20
MOR0255015	<b>25.50</b>	28.50	1.50
MOR0255020	<b>25.50</b>	29.50	2.00
MOR0255025	<b>25.50</b>	30.50	2.50
MOR0255030	<b>25.50</b>	31.50	3.00
MOR0255032	<b>25.50</b>	31.90	3.20
MOR0255035	<b>25.50</b>	32.50	3.50
MOR0255040	<b>25.50</b>	33.50	4.00
MOR0256024	<b>25.60</b>	30.40	2.40
MOR0257015	<b>25.70</b>	28.70	1.50
MOR0257019	<b>25.70</b>	29.50	1.90
MOR0258026	<b>25.80</b>	31.10	2.65
MOR0258035-1	<b>25.80</b>	32.90	3.55
MOR0258069	<b>25.80</b>	39.60	6.90
MOR0259030	<b>25.98</b>	31.98	3.00
MOR0260010	<b>26.00</b>	28.00	1.00
MOR0260012	<b>26.00</b>	28.40	1.20
MOR0260015	<b>26.00</b>	29.00	1.50
MOR0260020	<b>26.00</b>	30.00	2.00
MOR0260021	<b>26.00</b>	30.30	2.15
MOR0260022	<b>26.00</b>	30.50	2.25
MOR0260025	<b>26.00</b>	31.00	2.50
MOR0260030	<b>26.00</b>	32.00	3.00
MOR0260035	<b>26.00</b>	33.00	3.50
MOR0260040	<b>26.00</b>	34.00	4.00
MOR0260045	<b>26.00</b>	35.00	4.50
MOR0260050	<b>26.00</b>	36.00	5.00
MOR0260060	<b>26.00</b>	38.00	6.00
MOR0260065	<b>26.00</b>	39.00	6.50
MOR0260070	<b>26.00</b>	40.00	7.00
MOR0260080	<b>26.00</b>	42.00	8.00
MOR0262024	<b>26.20</b>	31.00	2.40
MOR0262030	<b>26.20</b>	32.20	3.00
MOR0262030-1	<b>26.20</b>	32.30	3.05
MOR0262036	<b>26.20</b>	33.40	3.60
MOR0263024	<b>26.30</b>	31.10	2.40

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR0263046	<b>26.30</b>	35.50	4.60
MOR0263020	<b>26.33</b>	30.33	2.00
MOR0265010	<b>26.50</b>	28.50	1.00
MOR0265012	<b>26.50</b>	28.90	1.20
MOR0265015	<b>26.50</b>	29.50	1.50
MOR0265020	<b>26.50</b>	30.50	2.00
MOR0265022	<b>26.50</b>	30.90	2.20
MOR0265025	<b>26.50</b>	31.50	2.50
MOR0265026	<b>26.50</b>	31.80	2.65
MOR0265030	<b>26.50</b>	32.50	3.00
MOR0265035	<b>26.50</b>	33.50	3.50
MOR0265035-1	<b>26.50</b>	33.60	3.55
MOR0265050	<b>26.50</b>	36.50	5.00
MOR0265029	<b>26.59</b>	32.49	2.95
MOR0266035	<b>26.60</b>	33.60	3.50
MOR0267034	<b>26.70</b>	33.50	3.40
MOR0268025	<b>26.80</b>	31.80	2.50
MOR0268026	<b>26.80</b>	32.10	2.65
MOR0268030	<b>26.80</b>	32.80	3.00
MOR0270013	<b>27.00</b>	29.60	1.30
MOR0270014	<b>27.00</b>	29.80	1.40
MOR0270015	<b>27.00</b>	30.00	1.50
MOR0270020	<b>27.00</b>	31.00	2.00
MOR0270025	<b>27.00</b>	32.00	2.50
MOR0270030	<b>27.00</b>	33.00	3.00
MOR0270032	<b>27.00</b>	33.40	3.20
MOR0270035	<b>27.00</b>	34.00	3.50
MOR0270040	<b>27.00</b>	35.00	4.00
MOR0270045	<b>27.00</b>	36.00	4.50
MOR0270050	<b>27.00</b>	37.00	5.00
MOR0270060	<b>27.00</b>	39.00	6.00
MOR0270070	<b>27.00</b>	41.00	7.00
MOR0271016	<b>27.10</b>	30.30	1.60
MOR0272057	<b>27.20</b>	38.60	5.70
MOR0273024	<b>27.30</b>	32.10	2.40
MOR0273025	<b>27.30</b>	32.30	2.50
MOR0273027	<b>27.30</b>	32.70	2.70
MOR0273032	<b>27.30</b>	33.70	3.20
MOR0273046	<b>27.30</b>	36.50	4.60
MOR0274025	<b>27.40</b>	32.40	2.50
MOR0274027	<b>27.40</b>	32.80	2.70
MOR0274030	<b>27.40</b>	33.40	3.00
MOR0275010	<b>27.50</b>	29.50	1.00
MOR0275015	<b>27.50</b>	30.50	1.50
MOR0275020	<b>27.50</b>	31.50	2.00
MOR0275024	<b>27.50</b>	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	<b>34.50</b>	38.50	2.00
MOR0345025	<b>34.50</b>	39.50	2.50
MOR0345026	<b>34.50</b>	39.80	2.65
MOR0345030	<b>34.50</b>	40.50	3.00
MOR0345035	<b>34.50</b>	41.50	3.50
MOR0345035-1	<b>34.50</b>	41.60	3.55
MOR0345040	<b>34.50</b>	42.50	4.00
MOR0345045	<b>34.50</b>	43.50	4.50
MOR0346024	<b>34.60</b>	39.40	2.40
MOR0346026	<b>34.60</b>	39.80	2.60
MOR0346036	<b>34.60</b>	41.80	3.60
MOR0347028	<b>34.70</b>	40.30	2.80
MOR0348013	<b>34.80</b>	37.40	1.30
MOR0350010	<b>35.00</b>	37.00	1.00
MOR0350012	<b>35.00</b>	37.40	1.20
MOR0350012-1	<b>35.00</b>	37.50	1.25
MOR0350015	<b>35.00</b>	38.00	1.50
MOR0350020	<b>35.00</b>	39.00	2.00
MOR0350021	<b>35.00</b>	39.30	2.15
MOR0350022	<b>35.00</b>	39.40	2.20
MOR0350025	<b>35.00</b>	40.00	2.50
MOR0350028	<b>35.00</b>	40.60	2.80
MOR0350030	<b>35.00</b>	41.00	3.00
MOR0350032	<b>35.00</b>	41.40	3.20
MOR0350035	<b>35.00</b>	42.00	3.50
MOR0350040	<b>35.00</b>	43.00	4.00
MOR0350045	<b>35.00</b>	44.00	4.50
MOR0350050	<b>35.00</b>	45.00	5.00
MOR0350053	<b>35.00</b>	45.60	5.30
MOR0350060	<b>35.00</b>	47.00	6.00
MOR0350070	<b>35.00</b>	49.00	7.00
MOR0350075	<b>35.00</b>	50.00	7.50
MOR0350080	<b>35.00</b>	51.00	8.00
MOR0351010	<b>35.10</b>	37.10	1.00
MOR0351016	<b>35.10</b>	38.30	1.60
MOR0352010	<b>35.20</b>	37.20	1.00
MOR0352024	<b>35.20</b>	40.00	2.40
MOR0352025	<b>35.20</b>	40.20	2.50
MOR0352030	<b>35.20</b>	41.20	3.00
MOR0352035	<b>35.20</b>	42.20	3.50
MOR0352050	<b>35.20</b>	45.20	5.00
MOR0352057	<b>35.20</b>	46.60	5.70
MOR0353024	<b>35.30</b>	40.10	2.40
MOR0353025	<b>35.30</b>	40.30	2.50
MOR0353046	<b>35.30</b>	44.50	4.60
MOR0354030	<b>35.40</b>	41.40	3.00

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR0354031	<b>35.40</b>	41.60	3.10
MOR0354032	<b>35.40</b>	41.80	3.20
MOR0355010	<b>35.50</b>	37.50	1.00
MOR0355011	<b>35.50</b>	37.80	1.15
MOR0355015	<b>35.50</b>	38.50	1.50
MOR0355020	<b>35.50</b>	39.50	2.00
MOR0355025	<b>35.50</b>	40.50	2.50
MOR0355026-1	<b>35.50</b>	40.80	2.65
MOR0355030	<b>35.50</b>	41.50	3.00
MOR0355031	<b>35.50</b>	41.80	3.15
MOR0355035	<b>35.50</b>	42.60	3.55
MOR0355040	<b>35.50</b>	43.50	4.00
MOR0355045	<b>35.50</b>	44.50	4.50
MOR0355115	<b>35.50</b>	58.50	11.50
MOR0356036	<b>35.60</b>	42.80	3.60
MOR0358010	<b>35.80</b>	37.80	1.00
MOR0360010	<b>36.00</b>	38.00	1.00
MOR0360012	<b>36.00</b>	38.40	1.20
MOR0360015	<b>36.00</b>	39.00	1.50
MOR0360016	<b>36.00</b>	39.20	1.60
MOR0360018	<b>36.00</b>	39.60	1.80
MOR0360020	<b>36.00</b>	40.00	2.00
MOR0360025	<b>36.00</b>	41.00	2.50
MOR0360030	<b>36.00</b>	42.00	3.00
MOR0360031	<b>36.00</b>	42.20	3.10
MOR0360032	<b>36.00</b>	42.40	3.20
MOR0360035	<b>36.00</b>	43.00	3.50
MOR0360040	<b>36.00</b>	44.00	4.00
MOR0360045	<b>36.00</b>	45.00	4.50
MOR0360050	<b>36.00</b>	46.00	5.00
MOR0360060	<b>36.00</b>	48.00	6.00
MOR0360062	<b>36.00</b>	48.40	6.20
MOR0360070	<b>36.00</b>	50.00	7.00
MOR0360080	<b>36.00</b>	52.00	8.00
MOR0360090	<b>36.00</b>	54.00	9.00
MOR0361030	<b>36.10</b>	42.10	3.00
MOR0361035	<b>36.10</b>	43.10	3.50
MOR0362014	<b>36.20</b>	39.00	1.40
MOR0362018	<b>36.20</b>	39.80	1.80
MOR0362026	<b>36.20</b>	41.50	2.65
MOR0362030	<b>36.20</b>	42.20	3.00
MOR0362033	<b>36.20</b>	42.80	3.30
MOR0362057	<b>36.20</b>	47.60	5.70
MOR0363046	<b>36.30</b>	45.50	4.60
MOR0365010	<b>36.50</b>	38.50	1.00
MOR0365015	<b>36.50</b>	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	<b>52.20</b>	58.20	3.00
MOR0522057	<b>52.20</b>	63.60	5.70
MOR0523032	<b>52.30</b>	58.70	3.20
MOR0523057	<b>52.30</b>	63.70	5.70
MOR0524063	<b>52.40</b>	65.10	6.35
MOR0525018	<b>52.50</b>	56.10	1.80
MOR0525035	<b>52.50</b>	59.50	3.50
MOR0525050	<b>52.50</b>	62.50	5.00
MOR0525057	<b>52.50</b>	63.90	5.70
MOR0530015	<b>53.00</b>	56.00	1.50
MOR0530020	<b>53.00</b>	57.00	2.00
MOR0530025	<b>53.00</b>	58.00	2.50
MOR0530030	<b>53.00</b>	59.00	3.00
MOR0530035	<b>53.00</b>	60.00	3.50
MOR0530035-1	<b>53.00</b>	60.10	3.55
MOR0530040	<b>53.00</b>	61.00	4.00
MOR0530045	<b>53.00</b>	62.00	4.50
MOR0530050	<b>53.00</b>	63.00	5.00
MOR0530053	<b>53.00</b>	63.60	5.30
MOR0530055	<b>53.00</b>	64.00	5.50
MOR0530060	<b>53.00</b>	65.00	6.00
MOR0530065	<b>53.00</b>	66.00	6.50
MOR0530030-1	<b>53.09</b>	59.09	3.00
MOR0532015	<b>53.20</b>	56.20	1.50
MOR0535020	<b>53.50</b>	57.50	2.00
MOR0536026	<b>53.64</b>	58.94	2.65
MOR0539063	<b>53.98</b>	66.68	6.35
MOR0540015	<b>54.00</b>	57.00	1.50
MOR0540020	<b>54.00</b>	58.00	2.00
MOR0540025	<b>54.00</b>	59.00	2.50
MOR0540030	<b>54.00</b>	60.00	3.00
MOR0540035	<b>54.00</b>	61.00	3.50
MOR0540040	<b>54.00</b>	62.00	4.00
MOR0540050	<b>54.00</b>	64.00	5.00
MOR0540055	<b>54.00</b>	65.00	5.50
MOR0540060	<b>54.00</b>	66.00	6.00
MOR0540070	<b>54.00</b>	68.00	7.00
MOR0540080	<b>54.00</b>	70.00	8.00
MOR0542030	<b>54.20</b>	60.20	3.00
MOR0542057	<b>54.20</b>	65.60	5.70
MOR0543057	<b>54.30</b>	65.70	5.70
MOR0544053	<b>54.40</b>	65.00	5.30
MOR0545025	<b>54.50</b>	59.50	2.50
MOR0545030	<b>54.50</b>	60.50	3.00
MOR0545035	<b>54.50</b>	61.60	3.55
MOR0546024	<b>54.60</b>	59.40	2.40

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR0546057	<b>54.60</b>	66.00	5.70
MOR0547014	<b>54.70</b>	57.50	1.40
MOR0547020	<b>54.75</b>	58.75	2.00
MOR0550010	<b>55.00</b>	57.00	1.00
MOR0550012	<b>55.00</b>	57.40	1.20
MOR0550015	<b>55.00</b>	58.00	1.50
MOR0550020	<b>55.00</b>	59.00	2.00
MOR0550024	<b>55.00</b>	59.80	2.40
MOR0550025	<b>55.00</b>	60.00	2.50
MOR0550030	<b>55.00</b>	61.00	3.00
MOR0550032	<b>55.00</b>	61.40	3.20
MOR0550035	<b>55.00</b>	62.00	3.50
MOR0550040	<b>55.00</b>	63.00	4.00
MOR0550045	<b>55.00</b>	64.00	4.50
MOR0550050	<b>55.00</b>	65.00	5.00
MOR0550060	<b>55.00</b>	67.00	6.00
MOR0550065	<b>55.00</b>	68.00	6.50
MOR0550067	<b>55.00</b>	68.50	6.75
MOR0550080	<b>55.00</b>	71.00	8.00
MOR0550090	<b>55.00</b>	73.00	9.00
MOR0552030	<b>55.20</b>	61.20	3.00
MOR0552057	<b>55.20</b>	66.60	5.70
MOR0553057	<b>55.30</b>	66.70	5.70
MOR0555030	<b>55.50</b>	61.50	3.00
MOR0555050	<b>55.50</b>	65.50	5.00
MOR0556057	<b>55.60</b>	67.00	5.70
MOR0560015	<b>56.00</b>	59.00	1.50
MOR0560016	<b>56.00</b>	59.20	1.60
MOR0560020	<b>56.00</b>	60.00	2.00
MOR0560025	<b>56.00</b>	61.00	2.50
MOR0560030	<b>56.00</b>	62.00	3.00
MOR0560035	<b>56.00</b>	63.00	3.50
MOR0560035-1	<b>56.00</b>	63.10	3.55
MOR0560040	<b>56.00</b>	64.00	4.00
MOR0560045	<b>56.00</b>	65.00	4.50
MOR0560050	<b>56.00</b>	66.00	5.00
MOR0560052	<b>56.00</b>	66.40	5.20
MOR0560053	<b>56.00</b>	66.60	5.30
MOR0560058	<b>56.00</b>	67.60	5.80
MOR0560060	<b>56.00</b>	68.00	6.00
MOR0560065	<b>56.00</b>	69.00	6.50
MOR0560075	<b>56.00</b>	71.00	7.50
MOR0560080	<b>56.00</b>	72.00	8.00
MOR0560100	<b>56.00</b>	76.00	10.00
MOR0562030	<b>56.20</b>	62.20	3.00
MOR0565020	<b>56.50</b>	60.50	2.00

**O'RINGS**



# O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR0565023	<b>56.50</b>	61.10	2.30
MOR0565025	<b>56.50</b>	61.50	2.50
MOR0565072	<b>56.50</b>	70.90	7.20
MOR0566024	<b>56.60</b>	61.40	2.40
MOR0567028	<b>56.70</b>	62.30	2.80
MOR0570013	<b>57.00</b>	59.60	1.30
MOR0570015	<b>57.00</b>	60.00	1.50
MOR0570020	<b>57.00</b>	61.00	2.00
MOR0570025	<b>57.00</b>	62.00	2.50
MOR0570030	<b>57.00</b>	63.00	3.00
MOR0570035	<b>57.00</b>	64.00	3.50
MOR0570040	<b>57.00</b>	65.00	4.00
MOR0570045	<b>57.00</b>	66.00	4.50
MOR0570050	<b>57.00</b>	67.00	5.00
MOR0570060	<b>57.00</b>	69.00	6.00
MOR0570070	<b>57.00</b>	71.00	7.00
MOR0570016	<b>57.04</b>	60.24	1.60
MOR0571016	<b>57.15</b>	60.35	1.60
MOR0572030	<b>57.20</b>	63.20	3.00
MOR0572057	<b>57.20</b>	68.60	5.70
MOR0573015	<b>57.30</b>	60.30	1.50
MOR0573070	<b>57.35</b>	71.35	7.00
MOR0575020	<b>57.50</b>	61.50	2.00
MOR0575025	<b>57.50</b>	62.50	2.50
MOR0575053	<b>57.50</b>	68.10	5.30
MOR0575070	<b>57.50</b>	71.50	7.00
MOR0576014	<b>57.60</b>	60.40	1.40
MOR0576024	<b>57.60</b>	62.40	2.40
MOR0577040	<b>57.75</b>	65.75	4.00
MOR0580010	<b>58.00</b>	60.00	1.00
MOR0580015	<b>58.00</b>	61.00	1.50
MOR0580020	<b>58.00</b>	62.00	2.00
MOR0580025	<b>58.00</b>	63.00	2.50
MOR0580030	<b>58.00</b>	64.00	3.00
MOR0580035	<b>58.00</b>	65.00	3.50
MOR0580035-1	<b>58.00</b>	65.10	3.55
MOR0580040	<b>58.00</b>	66.00	4.00
MOR0580050	<b>58.00</b>	68.00	5.00
MOR0580053	<b>58.00</b>	68.60	5.30
MOR0580055	<b>58.00</b>	69.00	5.50
MOR0580060	<b>58.00</b>	70.00	6.00
MOR0580080	<b>58.00</b>	74.00	8.00
MOR0580100	<b>58.00</b>	78.00	10.00
MOR0584013	<b>58.40</b>	61.00	1.30
MOR0584025	<b>58.40</b>	63.40	2.50
MOR0585025	<b>58.50</b>	63.50	2.50

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR0585030	<b>58.50</b>	64.50	3.00
MOR0585040	<b>58.50</b>	66.50	4.00
MOR0585045	<b>58.50</b>	67.50	4.50
MOR0588042	<b>58.80</b>	67.20	4.20
MOR0588060	<b>58.80</b>	70.80	6.00
MOR0588069	<b>58.80</b>	72.60	6.90
MOR0590015	<b>59.00</b>	62.00	1.50
MOR0590020	<b>59.00</b>	63.00	2.00
MOR0590024	<b>59.00</b>	63.80	2.40
MOR0590025	<b>59.00</b>	64.00	2.50
MOR0590030	<b>59.00</b>	65.00	3.00
MOR0590035	<b>59.00</b>	66.00	3.50
MOR0590040	<b>59.00</b>	67.00	4.00
MOR0590050	<b>59.00</b>	69.00	5.00
MOR0590060	<b>59.00</b>	71.00	6.00
MOR0590065	<b>59.00</b>	72.00	6.50
MOR0590070	<b>59.00</b>	73.00	7.00
MOR0592020	<b>59.20</b>	63.20	2.00
MOR0592057	<b>59.20</b>	70.60	5.70
MOR0593050	<b>59.30</b>	69.30	5.00
MOR0593057	<b>59.30</b>	70.70	5.70
MOR0593030	<b>59.36</b>	65.36	3.00
MOR0594024	<b>59.40</b>	64.20	2.40
MOR0594028	<b>59.40</b>	65.00	2.80
MOR0594031	<b>59.40</b>	65.60	3.10
MOR0594038	<b>59.40</b>	67.00	3.80
MOR0594070	<b>59.40</b>	73.40	7.00
MOR0595020	<b>59.50</b>	63.50	2.00
MOR0595030	<b>59.50</b>	65.50	3.00
MOR0595035	<b>59.50</b>	66.50	3.50
MOR0595050	<b>59.50</b>	69.50	5.00
MOR0595060	<b>59.50</b>	71.50	6.00
MOR0596024	<b>59.60</b>	64.40	2.40
MOR0597070	<b>59.70</b>	73.70	7.00
MOR0600015	<b>60.00</b>	63.00	1.50
MOR0600020	<b>60.00</b>	64.00	2.00
MOR0600025	<b>60.00</b>	65.00	2.50
MOR0600030	<b>60.00</b>	66.00	3.00
MOR0600035	<b>60.00</b>	67.00	3.50
MOR0600035-1	<b>60.00</b>	67.10	3.55
MOR0600040	<b>60.00</b>	68.00	4.00
MOR0600042	<b>60.00</b>	68.40	4.20
MOR0600045	<b>60.00</b>	69.00	4.50
MOR0600046	<b>60.00</b>	69.20	4.60
MOR0600050	<b>60.00</b>	70.00	5.00
MOR0600053	<b>60.00</b>	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	<b>77.50</b>	84.60	3.55
MOR0775053	<b>77.50</b>	88.10	5.30
MOR0780012	<b>78.00</b>	80.40	1.20
MOR0780120	<b>78.00</b>	80.40	1.20
MOR0780015	<b>78.00</b>	81.00	1.50
MOR0780020	<b>78.00</b>	82.00	2.00
MOR0780025	<b>78.00</b>	83.00	2.50
MOR0780030	<b>78.00</b>	84.00	3.00
MOR0780035	<b>78.00</b>	85.00	3.50
MOR0780040	<b>78.00</b>	86.00	4.00
MOR0780043	<b>78.00</b>	86.60	4.30
MOR0780045	<b>78.00</b>	87.00	4.50
MOR0780050	<b>78.00</b>	88.00	5.00
MOR0780055	<b>78.00</b>	89.00	5.50
MOR0780060	<b>78.00</b>	90.00	6.00
MOR0785020	<b>78.50</b>	82.50	2.00
MOR0785035	<b>78.50</b>	85.50	3.50
MOR0785060	<b>78.50</b>	90.50	6.00
MOR0786010	<b>78.60</b>	80.60	1.00
MOR0790012	<b>79.00</b>	81.50	1.25
MOR0790015	<b>79.00</b>	82.00	1.50
MOR0790020	<b>79.00</b>	83.00	2.00
MOR0790021	<b>79.00</b>	83.20	2.10
MOR0790025	<b>79.00</b>	84.00	2.50
MOR0790026	<b>79.00</b>	84.20	2.60
MOR0790030	<b>79.00</b>	85.00	3.00
MOR0790032	<b>79.00</b>	85.40	3.20
MOR0790035	<b>79.00</b>	86.00	3.50
MOR0790040	<b>79.00</b>	87.00	4.00
MOR0790050	<b>79.00</b>	89.00	5.00
MOR0790057	<b>79.00</b>	90.40	5.70
MOR0790060	<b>79.00</b>	91.00	6.00
MOR0790063	<b>79.00</b>	91.60	6.30
MOR0790070	<b>79.00</b>	93.00	7.00
MOR0792027	<b>79.20</b>	84.60	2.70
MOR0792057	<b>79.20</b>	90.60	5.70
MOR0793024	<b>79.30</b>	84.10	2.40
MOR0793057	<b>79.30</b>	90.70	5.70
MOR0794010	<b>79.40</b>	81.40	1.00
MOR0794031	<b>79.40</b>	85.60	3.10
MOR0794061	<b>79.40</b>	91.60	6.10
MOR0795024	<b>79.50</b>	84.30	2.40
MOR0795025	<b>79.50</b>	84.50	2.50
MOR0795030	<b>79.50</b>	85.50	3.00
MOR0795052	<b>79.50</b>	89.90	5.20
MOR0795070	<b>79.50</b>	93.50	7.00

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR0796052	<b>79.60</b>	90.00	5.20
MOR0797030	<b>79.75</b>	85.75	3.00
MOR0798093	<b>79.80</b>	98.40	9.30
MOR0800015	<b>80.00</b>	83.00	1.50
MOR0800020	<b>80.00</b>	84.00	2.00
MOR0800025	<b>80.00</b>	85.00	2.50
MOR0800028	<b>80.00</b>	85.60	2.80
MOR0800030	<b>80.00</b>	86.00	3.00
MOR0800035	<b>80.00</b>	87.00	3.50
MOR0800035-1	<b>80.00</b>	87.10	3.55
MOR0800040	<b>80.00</b>	88.00	4.00
MOR0800043	<b>80.00</b>	88.60	4.30
MOR0800045	<b>80.00</b>	89.00	4.50
MOR0800050	<b>80.00</b>	90.00	5.00
MOR0800053	<b>80.00</b>	90.60	5.30
MOR0800055	<b>80.00</b>	91.00	5.50
MOR0800060	<b>80.00</b>	92.00	6.00
MOR0800065	<b>80.00</b>	93.00	6.50
MOR0800080	<b>80.00</b>	96.00	8.00
MOR0800100	<b>80.00</b>	100.00	10.00
MOR0805015	<b>80.50</b>	83.50	1.50
MOR0805020	<b>80.50</b>	84.50	2.00
MOR0805024	<b>80.50</b>	85.30	2.40
MOR0805030	<b>80.50</b>	86.50	3.00
MOR0808026	<b>80.80</b>	86.00	2.60
MOR0810011	<b>81.00</b>	83.20	1.10
MOR0810015	<b>81.00</b>	84.00	1.50
MOR0810020	<b>81.00</b>	85.00	2.00
MOR0810025	<b>81.00</b>	86.00	2.50
MOR0810030	<b>81.00</b>	87.00	3.00
MOR0810035	<b>81.00</b>	88.00	3.50
MOR0810040	<b>81.00</b>	89.00	4.00
MOR0810045	<b>81.00</b>	90.00	4.50
MOR0810050	<b>81.00</b>	91.00	5.00
MOR0810051	<b>81.00</b>	91.20	5.10
MOR0810060	<b>81.00</b>	93.00	6.00
MOR0810070	<b>81.00</b>	95.00	7.00
MOR0812057	<b>81.20</b>	92.60	5.70
MOR0815012	<b>81.50</b>	84.00	1.25
MOR0815040	<b>81.50</b>	89.50	4.00
MOR0815060	<b>81.50</b>	93.50	6.00
MOR0815025	<b>81.51</b>	86.51	2.50
MOR0816022	<b>81.60</b>	86.00	2.20
MOR0817070	<b>81.70</b>	95.70	7.00
MOR0820015	<b>82.00</b>	85.00	1.50
MOR0820020	<b>82.00</b>	86.00	2.00

**O'RINGS**



# 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	<b>86.70</b>	92.70	3.00
MOR0870015	<b>87.00</b>	90.00	1.50
MOR0870020	<b>87.00</b>	91.00	2.00
MOR0870025	<b>87.00</b>	92.00	2.50
MOR0870030	<b>87.00</b>	93.00	3.00
MOR0870035	<b>87.00</b>	94.00	3.50
MOR0870040	<b>87.00</b>	95.00	4.00
MOR0870050	<b>87.00</b>	97.00	5.00
MOR0870060	<b>87.00</b>	99.00	6.00
MOR0870070	<b>87.00</b>	101.00	7.00
MOR0870090	<b>87.00</b>	105.00	9.00
MOR0870100	<b>87.00</b>	107.00	10.00
MOR0871024	<b>87.10</b>	91.90	2.40
MOR0872025	<b>87.20</b>	92.20	2.50
MOR0872028	<b>87.20</b>	92.80	2.80
MOR0872057	<b>87.20</b>	98.60	5.70
MOR0875035	<b>87.50</b>	94.50	3.50
MOR0875035-1	<b>87.50</b>	94.60	3.55
MOR0875050	<b>87.50</b>	97.50	5.00
MOR0875053	<b>87.50</b>	98.10	5.30
MOR0880015	<b>88.00</b>	91.00	1.50
MOR0880020	<b>88.00</b>	92.00	2.00
MOR0880022	<b>88.00</b>	92.40	2.20
MOR0880025	<b>88.00</b>	93.00	2.50
MOR0880030	<b>88.00</b>	94.00	3.00
MOR0880035	<b>88.00</b>	95.00	3.50
MOR0880040	<b>88.00</b>	96.00	4.00
MOR0880050	<b>88.00</b>	98.00	5.00
MOR0880055	<b>88.00</b>	99.00	5.50
MOR0880060	<b>88.00</b>	100.00	6.00
MOR0880070	<b>88.00</b>	102.00	7.00
MOR0880085	<b>88.00</b>	105.00	8.50
MOR0883070	<b>88.30</b>	102.30	7.00
MOR0890015	<b>89.00</b>	92.00	1.50
MOR0890020	<b>89.00</b>	93.00	2.00
MOR0890025	<b>89.00</b>	94.00	2.50
MOR0890030	<b>89.00</b>	95.00	3.00
MOR0890035	<b>89.00</b>	96.00	3.50
MOR0890040	<b>89.00</b>	97.00	4.00
MOR0890045	<b>89.00</b>	98.00	4.50
MOR0890049	<b>89.00</b>	98.80	4.90
MOR0890050	<b>89.00</b>	99.00	5.00
MOR0890057	<b>89.00</b>	100.40	5.70
MOR0890060	<b>89.00</b>	101.00	6.00
MOR0890070	<b>89.00</b>	103.00	7.00
MOR0892030	<b>89.20</b>	95.20	3.00

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR0892057	<b>89.20</b>	100.60	5.70
MOR0893057	<b>89.30</b>	100.70	5.70
MOR0894020	<b>89.40</b>	93.40	2.00
MOR0894031	<b>89.40</b>	95.60	3.10
MOR0894033	<b>89.40</b>	96.00	3.30
MOR0895020	<b>89.50</b>	93.50	2.00
MOR0895025	<b>89.50</b>	94.50	2.50
MOR0895030	<b>89.50</b>	95.50	3.00
MOR0896057	<b>89.60</b>	101.00	5.70
MOR0900011	<b>90.00</b>	92.20	1.10
MOR0900015	<b>90.00</b>	93.00	1.50
MOR0900020	<b>90.00</b>	94.00	2.00
MOR0900025	<b>90.00</b>	95.00	2.50
MOR0900030	<b>90.00</b>	96.00	3.00
MOR0900035	<b>90.00</b>	97.00	3.50
MOR0900035-1	<b>90.00</b>	97.10	3.55
MOR0900040	<b>90.00</b>	98.00	4.00
MOR0900045	<b>90.00</b>	99.00	4.50
MOR0900050	<b>90.00</b>	100.00	5.00
MOR0900053	<b>90.00</b>	100.60	5.30
MOR0900055	<b>90.00</b>	101.00	5.50
MOR0900060	<b>90.00</b>	102.00	6.00
MOR0900070	<b>90.00</b>	104.00	7.00
MOR0900080	<b>90.00</b>	106.00	8.00
MOR0900090	<b>90.00</b>	108.00	9.00
MOR0900100	<b>90.00</b>	110.00	10.00
MOR0903040	<b>90.30</b>	98.30	4.00
MOR0905015	<b>90.50</b>	93.50	1.50
MOR0905025	<b>90.50</b>	95.50	2.50
MOR0907040	<b>90.77</b>	98.77	4.00
MOR0907063	<b>90.78</b>	103.48	6.35
MOR0908012	<b>90.80</b>	93.30	1.25
MOR0910015	<b>91.00</b>	94.00	1.50
MOR0910020	<b>91.00</b>	95.00	2.00
MOR0910025	<b>91.00</b>	96.00	2.50
MOR0910030	<b>91.00</b>	97.00	3.00
MOR0910035	<b>91.00</b>	98.00	3.50
MOR0910040	<b>91.00</b>	99.00	4.00
MOR0910050	<b>91.00</b>	101.00	5.00
MOR0912057	<b>91.20</b>	102.60	5.70
MOR0915025	<b>91.50</b>	96.50	2.50
MOR0915030	<b>91.50</b>	97.50	3.00
MOR0920015	<b>92.00</b>	95.00	1.50
MOR0920020	<b>92.00</b>	96.00	2.00
MOR0920025	<b>92.00</b>	97.00	2.50
MOR0920030	<b>92.00</b>	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



# 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	<b>107.00</b>	116.00	4.50
MOR1070050	<b>107.00</b>	117.00	5.00
MOR1070058	<b>107.00</b>	118.60	5.80
MOR1070060	<b>107.00</b>	119.00	6.00
MOR1070070	<b>107.00</b>	121.00	7.00
MOR1070080	<b>107.00</b>	123.00	8.00
MOR1070100	<b>107.00</b>	127.00	10.00
MOR1076058	<b>107.60</b>	119.20	5.80
MOR1080025	<b>108.00</b>	113.00	2.50
MOR1080030	<b>108.00</b>	114.00	3.00
MOR1080032	<b>108.00</b>	114.40	3.20
MOR1080035	<b>108.00</b>	115.00	3.50
MOR1080040	<b>108.00</b>	116.00	4.00
MOR1080045	<b>108.00</b>	117.00	4.50
MOR1080047	<b>108.00</b>	117.50	4.75
MOR1080050	<b>108.00</b>	118.00	5.00
MOR1080053	<b>108.00</b>	118.60	5.30
MOR1080058	<b>108.00</b>	119.60	5.80
MOR1080060	<b>108.00</b>	120.00	6.00
MOR1080070	<b>108.00</b>	122.00	7.00
MOR1080080	<b>108.00</b>	124.00	8.00
MOR1080090	<b>108.00</b>	126.00	9.00
MOR1080100	<b>108.00</b>	128.00	10.00
MOR1088058	<b>108.80</b>	120.40	5.80
MOR1088084	<b>108.80</b>	125.60	8.40
MOR1090020	<b>109.00</b>	113.00	2.00
MOR1090024	<b>109.00</b>	113.80	2.40
MOR1090025	<b>109.00</b>	114.00	2.50
MOR1090028	<b>109.00</b>	114.60	2.80
MOR1090030	<b>109.00</b>	115.00	3.00
MOR1090035	<b>109.00</b>	116.00	3.50
MOR1090035-1	<b>109.00</b>	116.10	3.55
MOR1090040	<b>109.00</b>	117.00	4.00
MOR1090045	<b>109.00</b>	118.00	4.50
MOR1090050	<b>109.00</b>	119.00	5.00
MOR1090053	<b>109.00</b>	119.60	5.30
MOR1090055	<b>109.00</b>	120.00	5.50
MOR1090057	<b>109.00</b>	120.40	5.70
MOR1090058	<b>109.00</b>	120.60	5.80
MOR1090070	<b>109.00</b>	123.00	7.00
MOR1091024	<b>109.10</b>	113.90	2.40
MOR1091047	<b>109.16</b>	118.66	4.75
MOR1091050	<b>109.16</b>	119.16	5.00
MOR1092057	<b>109.20</b>	120.60	5.70
MOR1093057	<b>109.30</b>	120.70	5.70
MOR1094031	<b>109.40</b>	115.60	3.10

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR1095030	<b>109.50</b>	115.50	3.00
MOR1096057	<b>109.60</b>	121.00	5.70
MOR1097048	<b>109.75</b>	119.35	4.80
MOR1097048-2	<b>109.78</b>	119.48	4.85
MOR1100015	<b>110.00</b>	113.00	1.50
MOR1100020	<b>110.00</b>	114.00	2.00
MOR1100025	<b>110.00</b>	115.00	2.50
MOR1100030	<b>110.00</b>	116.00	3.00
MOR1100035	<b>110.00</b>	117.00	3.50
MOR1100040	<b>110.00</b>	118.00	4.00
MOR1100045	<b>110.00</b>	119.00	4.50
MOR1100047	<b>110.00</b>	119.50	4.75
MOR1100050	<b>110.00</b>	120.00	5.00
MOR1100055	<b>110.00</b>	121.00	5.50
MOR1100060	<b>110.00</b>	122.00	6.00
MOR1100070	<b>110.00</b>	124.00	7.00
MOR1100080	<b>110.00</b>	126.00	8.00
MOR1100100	<b>110.00</b>	130.00	10.00
MOR1103051	<b>110.34</b>	120.64	5.15
MOR1105024	<b>110.50</b>	115.30	2.40
MOR1110025	<b>111.00</b>	116.00	2.50
MOR1110030	<b>111.00</b>	117.00	3.00
MOR1110035	<b>111.00</b>	118.00	3.50
MOR1110040	<b>111.00</b>	119.00	4.00
MOR1110050	<b>111.00</b>	121.00	5.00
MOR1110060	<b>111.00</b>	123.00	6.00
MOR1110080	<b>111.00</b>	127.00	8.00
MOR1112057	<b>111.20</b>	122.60	5.70
MOR1115024	<b>111.50</b>	116.30	2.40
MOR1115025	<b>111.50</b>	116.50	2.50
MOR1115030	<b>111.50</b>	117.50	3.00
MOR1115050	<b>111.50</b>	121.50	5.00
MOR1116057	<b>111.60</b>	123.00	5.70
MOR1120015	<b>112.00</b>	115.00	1.50
MOR1120020	<b>112.00</b>	116.00	2.00
MOR1120025	<b>112.00</b>	117.00	2.50
MOR1120030	<b>112.00</b>	118.00	3.00
MOR1120035	<b>112.00</b>	119.00	3.50
MOR1120035-1	<b>112.00</b>	119.10	3.55
MOR1120040	<b>112.00</b>	120.00	4.00
MOR1120050	<b>112.00</b>	122.00	5.00
MOR1120053	<b>112.00</b>	122.60	5.30
MOR1120060	<b>112.00</b>	124.00	6.00
MOR1120063	<b>112.00</b>	124.60	6.30
MOR1120070	<b>112.00</b>	126.00	7.00
MOR1120080	<b>112.00</b>	128.00	8.00



# O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR1125100	<b>112.50</b>	132.50	10.00
MOR1130015	<b>113.00</b>	116.00	1.50
MOR1130025	<b>113.00</b>	118.00	2.50
MOR1130030	<b>113.00</b>	119.00	3.00
MOR1130035	<b>113.00</b>	120.00	3.50
MOR1130040	<b>113.00</b>	121.00	4.00
MOR1130050	<b>113.00</b>	123.00	5.00
MOR1135020	<b>113.50</b>	117.50	2.00
MOR1140016	<b>114.00</b>	117.20	1.60
MOR1140020	<b>114.00</b>	118.00	2.00
MOR1140025	<b>114.00</b>	119.00	2.50
MOR1140030	<b>114.00</b>	120.00	3.00
MOR1140035	<b>114.00</b>	121.00	3.50
MOR1140040	<b>114.00</b>	122.00	4.00
MOR1140042	<b>114.00</b>	122.40	4.20
MOR1140046	<b>114.00</b>	123.20	4.60
MOR1140050	<b>114.00</b>	124.00	5.00
MOR1140057	<b>114.00</b>	125.40	5.70
MOR1140058	<b>114.00</b>	125.60	5.80
MOR1140060	<b>114.00</b>	126.00	6.00
MOR1140070	<b>114.00</b>	128.00	7.00
MOR1140090	<b>114.00</b>	132.00	9.00
MOR1140100	<b>114.00</b>	134.00	10.00
MOR1142057	<b>114.20</b>	125.60	5.70
MOR1143057	<b>114.30</b>	125.70	5.70
MOR1145025	<b>114.50</b>	119.50	2.50
MOR1145030	<b>114.50</b>	120.50	3.00
MOR1145033	<b>114.50</b>	121.10	3.30
MOR1145040	<b>114.50</b>	122.50	4.00
MOR1145060	<b>114.50</b>	126.50	6.00
MOR1146057	<b>114.60</b>	126.00	5.70
MOR1150016	<b>115.00</b>	118.20	1.60
MOR1150020	<b>115.00</b>	119.00	2.00
MOR1150025	<b>115.00</b>	120.00	2.50
MOR1150030	<b>115.00</b>	121.00	3.00
MOR1150031	<b>115.00</b>	121.20	3.10
MOR1150035	<b>115.00</b>	122.00	3.50
MOR1150035-1	<b>115.00</b>	122.10	3.55
MOR1150040	<b>115.00</b>	123.00	4.00
MOR1150041	<b>115.00</b>	123.20	4.10
MOR1150045	<b>115.00</b>	124.00	4.50
MOR1150050	<b>115.00</b>	125.00	5.00
MOR1150051	<b>115.00</b>	125.20	5.10
MOR1150053	<b>115.00</b>	125.60	5.30
MOR1150055	<b>115.00</b>	126.00	5.50
MOR1150060	<b>115.00</b>	127.00	6.00

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR1150070	<b>115.00</b>	129.00	7.00
MOR1150080	<b>115.00</b>	131.00	8.00
MOR1150090	<b>115.00</b>	133.00	9.00
MOR1150091	<b>115.00</b>	133.20	9.10
MOR1150100	<b>115.00</b>	135.00	10.00
MOR1152025	<b>115.20</b>	120.20	2.50
MOR1155035	<b>115.50</b>	122.50	3.50
MOR1157057	<b>115.70</b>	127.10	5.70
MOR1158058	<b>115.80</b>	127.40	5.80
MOR1160015	<b>116.00</b>	119.00	1.50
MOR1160020	<b>116.00</b>	120.00	2.00
MOR1160025	<b>116.00</b>	121.00	2.50
MOR1160030	<b>116.00</b>	122.00	3.00
MOR1160035	<b>116.00</b>	123.00	3.50
MOR1160040	<b>116.00</b>	124.00	4.00
MOR1160050	<b>116.00</b>	126.00	5.00
MOR1160055	<b>116.00</b>	127.00	5.50
MOR1160070	<b>116.00</b>	130.00	7.00
MOR1160100	<b>116.00</b>	136.00	10.00
MOR1163057	<b>116.30</b>	127.70	5.70
MOR1165045	<b>116.50</b>	125.50	4.50
MOR1170025	<b>117.00</b>	122.00	2.50
MOR1170030	<b>117.00</b>	123.00	3.00
MOR1170035	<b>117.00</b>	124.00	3.50
MOR1170040	<b>117.00</b>	125.00	4.00
MOR1170042	<b>117.00</b>	125.40	4.20
MOR1170044	<b>117.00</b>	125.80	4.40
MOR1170050	<b>117.00</b>	127.00	5.00
MOR1170057	<b>117.00</b>	128.40	5.70
MOR1170070	<b>117.00</b>	131.00	7.00
MOR1174027	<b>117.40</b>	122.80	2.70
MOR1175040	<b>117.50</b>	125.50	4.00
MOR1175050	<b>117.50</b>	127.50	5.00
MOR1180020	<b>118.00</b>	122.00	2.00
MOR1180025	<b>118.00</b>	123.00	2.50
MOR1180027	<b>118.00</b>	123.40	2.70
MOR1180030	<b>118.00</b>	124.00	3.00
MOR1180035	<b>118.00</b>	125.00	3.50
MOR1180035-1	<b>118.00</b>	125.10	3.55
MOR1180040	<b>118.00</b>	126.00	4.00
MOR1180045	<b>118.00</b>	127.00	4.50
MOR1180050	<b>118.00</b>	128.00	5.00
MOR1180053	<b>118.00</b>	128.60	5.30
MOR1180060	<b>118.00</b>	130.00	6.00
MOR1180100	<b>118.00</b>	138.00	10.00
MOR1180120	<b>118.00</b>	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	<b>129.50</b>	137.50	4.00
MOR1295050	<b>129.50</b>	139.50	5.00
MOR1295055	<b>129.50</b>	140.50	5.50
MOR1295016	<b>129.54</b>	132.84	1.65
MOR1296057	<b>129.60</b>	141.00	5.70
MOR1300015	<b>130.00</b>	133.00	1.50
MOR1300020	<b>130.00</b>	134.00	2.00
MOR1300025	<b>130.00</b>	135.00	2.50
MOR1300030	<b>130.00</b>	136.00	3.00
MOR1300031	<b>130.00</b>	136.30	3.15
MOR1300035	<b>130.00</b>	137.00	3.50
MOR1300040	<b>130.00</b>	138.00	4.00
MOR1300043	<b>130.00</b>	138.60	4.30
MOR1300045	<b>130.00</b>	139.00	4.50
MOR1300050	<b>130.00</b>	140.00	5.00
MOR1300060	<b>130.00</b>	142.00	6.00
MOR1300065	<b>130.00</b>	143.00	6.50
MOR1300070	<b>130.00</b>	144.00	7.00
MOR1300075	<b>130.00</b>	145.00	7.50
MOR1300080	<b>130.00</b>	146.00	8.00
MOR1300095	<b>130.00</b>	149.00	9.50
MOR1300100	<b>130.00</b>	150.00	10.00
MOR1300150	<b>130.00</b>	160.00	15.00
MOR1304028	<b>130.40</b>	136.00	2.80
MOR1305025	<b>130.50</b>	135.50	2.50
MOR1305035	<b>130.50</b>	137.50	3.50
MOR1305040	<b>130.50</b>	138.50	4.00
MOR1310015	<b>131.00</b>	134.00	1.50
MOR1310017	<b>131.00</b>	134.40	1.70
MOR1310024	<b>131.00</b>	135.80	2.40
MOR1310025	<b>131.00</b>	136.00	2.50
MOR1310030	<b>131.00</b>	137.00	3.00
MOR1310035	<b>131.00</b>	138.00	3.50
MOR1310040	<b>131.00</b>	139.00	4.00
MOR1310045	<b>131.00</b>	140.00	4.50
MOR1310050	<b>131.00</b>	141.00	5.00
MOR1312057	<b>131.20</b>	142.60	5.70
MOR1315045	<b>131.50</b>	140.50	4.50
MOR1316057	<b>131.60</b>	143.00	5.70
MOR1320015	<b>132.00</b>	135.00	1.50
MOR1320016	<b>132.00</b>	135.20	1.60
MOR1320017	<b>132.00</b>	135.40	1.70
MOR1320020	<b>132.00</b>	136.00	2.00
MOR1320024	<b>132.00</b>	136.80	2.40
MOR1320025	<b>132.00</b>	137.00	2.50
MOR1320030	<b>132.00</b>	138.00	3.00

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR1320035	<b>132.00</b>	139.00	3.50
MOR1320035-1	<b>132.00</b>	139.10	3.55
MOR1320040	<b>132.00</b>	140.00	4.00
MOR1320045	<b>132.00</b>	141.00	4.50
MOR1320050	<b>132.00</b>	142.00	5.00
MOR1320053	<b>132.00</b>	142.60	5.30
MOR1320056	<b>132.00</b>	143.30	5.65
MOR1320058	<b>132.00</b>	143.60	5.80
MOR1320060	<b>132.00</b>	144.00	6.00
MOR1320070	<b>132.00</b>	146.00	7.00
MOR1320080	<b>132.00</b>	148.00	8.00
MOR1322057	<b>132.20</b>	143.60	5.70
MOR1325016	<b>132.50</b>	135.70	1.60
MOR1325030	<b>132.50</b>	138.50	3.00
MOR1325035	<b>132.50</b>	139.50	3.50
MOR1328058	<b>132.80</b>	144.40	5.80
MOR1329025	<b>132.90</b>	137.90	2.50
MOR1330015	<b>133.00</b>	136.00	1.50
MOR1330020	<b>133.00</b>	137.00	2.00
MOR1330025	<b>133.00</b>	138.00	2.50
MOR1330030	<b>133.00</b>	139.00	3.00
MOR1330035	<b>133.00</b>	140.00	3.50
MOR1330037	<b>133.00</b>	140.40	3.70
MOR1330040	<b>133.00</b>	141.00	4.00
MOR1330044	<b>133.00</b>	141.80	4.40
MOR1330050	<b>133.00</b>	143.00	5.00
MOR1330070	<b>133.00</b>	147.00	7.00
MOR1332057	<b>133.20</b>	144.60	5.70
MOR1335040	<b>133.50</b>	141.50	4.00
MOR1336022	<b>133.60</b>	138.00	2.20
MOR1336058	<b>133.60</b>	145.20	5.80
MOR1340015	<b>134.00</b>	137.00	1.50
MOR1340016	<b>134.00</b>	137.20	1.60
MOR1340025	<b>134.00</b>	139.00	2.50
MOR1340030	<b>134.00</b>	140.00	3.00
MOR1340031	<b>134.00</b>	140.20	3.10
MOR1340032	<b>134.00</b>	140.40	3.20
MOR1340035	<b>134.00</b>	141.00	3.50
MOR1340040	<b>134.00</b>	142.00	4.00
MOR1340045	<b>134.00</b>	143.00	4.50
MOR1340050	<b>134.00</b>	144.00	5.00
MOR1340058	<b>134.00</b>	145.60	5.80
MOR1340060	<b>134.00</b>	146.00	6.00
MOR1340070	<b>134.00</b>	148.00	7.00
MOR1341084	<b>134.10</b>	150.90	8.40
MOR1342057	<b>134.20</b>	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	<b>134.30</b>	145.70	5.70
MOR1343060	<b>134.30</b>	146.30	6.00
MOR1345030	<b>134.50</b>	140.50	3.00
MOR1345040	<b>134.50</b>	142.50	4.00
MOR1345045	<b>134.50</b>	143.50	4.50
MOR1346057	<b>134.60</b>	146.00	5.70
MOR1350015	<b>135.00</b>	138.00	1.50
MOR1350019	<b>135.00</b>	138.80	1.90
MOR1350020	<b>135.00</b>	139.00	2.00
MOR1350025	<b>135.00</b>	140.00	2.50
MOR1350030	<b>135.00</b>	141.00	3.00
MOR1350035	<b>135.00</b>	142.00	3.50
MOR1350040	<b>135.00</b>	143.00	4.00
MOR1350041	<b>135.00</b>	143.20	4.10
MOR1350045	<b>135.00</b>	144.00	4.50
MOR1350050	<b>135.00</b>	145.00	5.00
MOR1350060	<b>135.00</b>	147.00	6.00
MOR1350070	<b>135.00</b>	149.00	7.00
MOR1350080	<b>135.00</b>	151.00	8.00
MOR1350090	<b>135.00</b>	153.00	9.00
MOR1350091	<b>135.00</b>	153.20	9.10
MOR1354042	<b>135.40</b>	143.80	4.20
MOR1360020	<b>136.00</b>	140.00	2.00
MOR1360025	<b>136.00</b>	141.00	2.50
MOR1360030	<b>136.00</b>	142.00	3.00
MOR1360035	<b>136.00</b>	143.00	3.50
MOR1360035-1	<b>136.00</b>	143.10	3.55
MOR1360038	<b>136.00</b>	143.60	3.80
MOR1360040	<b>136.00</b>	144.00	4.00
MOR1360050	<b>136.00</b>	146.00	5.00
MOR1360053	<b>136.00</b>	146.60	5.30
MOR1360055	<b>136.00</b>	147.00	5.50
MOR1360060	<b>136.00</b>	148.00	6.00
MOR1360070	<b>136.00</b>	150.00	7.00
MOR1360080	<b>136.00</b>	152.00	8.00
MOR1365040	<b>136.50</b>	144.50	4.00
MOR1370020	<b>137.00</b>	141.00	2.00
MOR1370025	<b>137.00</b>	142.00	2.50
MOR1370030	<b>137.00</b>	143.00	3.00
MOR1370034	<b>137.00</b>	143.80	3.40
MOR1370035	<b>137.00</b>	144.00	3.50
MOR1370040	<b>137.00</b>	145.00	4.00
MOR1370045	<b>137.00</b>	146.00	4.50
MOR1370050	<b>137.00</b>	147.00	5.00
MOR1370060	<b>137.00</b>	149.00	6.00
MOR1370065	<b>137.00</b>	150.00	6.50

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR1370072	<b>137.00</b>	151.40	7.20
MOR1375022	<b>137.50</b>	141.90	2.20
MOR1375030	<b>137.50</b>	143.50	3.00
MOR1380010	<b>138.00</b>	140.00	1.00
MOR1380019	<b>138.00</b>	141.80	1.90
MOR1380020	<b>138.00</b>	142.00	2.00
MOR1380021	<b>138.00</b>	142.20	2.10
MOR1380025	<b>138.00</b>	143.00	2.50
MOR1380030	<b>138.00</b>	144.00	3.00
MOR1380035	<b>138.00</b>	145.00	3.50
MOR1380040	<b>138.00</b>	146.00	4.00
MOR1380050	<b>138.00</b>	148.00	5.00
MOR1380060	<b>138.00</b>	150.00	6.00
MOR1380100	<b>138.00</b>	158.00	10.00
MOR1385065	<b>138.50</b>	151.60	6.55
MOR1390025	<b>139.00</b>	144.00	2.50
MOR1390030	<b>139.00</b>	145.00	3.00
MOR1390035	<b>139.00</b>	146.00	3.50
MOR1390040	<b>139.00</b>	147.00	4.00
MOR1390060	<b>139.00</b>	151.00	6.00
MOR1390070	<b>139.00</b>	153.00	7.00
MOR1392057	<b>139.20</b>	150.60	5.70
MOR1392060	<b>139.20</b>	151.20	6.00
MOR1393057	<b>139.30</b>	150.70	5.70
MOR1394031	<b>139.40</b>	145.60	3.10
MOR1395030	<b>139.50</b>	145.50	3.00
MOR1395040	<b>139.50</b>	147.50	4.00
MOR1396057	<b>139.60</b>	151.00	5.70
MOR1397047	<b>139.70</b>	149.20	4.75
MOR1400015	<b>140.00</b>	143.00	1.50
MOR1400020	<b>140.00</b>	144.00	2.00
MOR1400021	<b>140.00</b>	144.20	2.10
MOR1400025	<b>140.00</b>	145.00	2.50
MOR1400028	<b>140.00</b>	145.60	2.80
MOR1400030	<b>140.00</b>	146.00	3.00
MOR1400031	<b>140.00</b>	146.30	3.15
MOR1400035	<b>140.00</b>	147.00	3.50
MOR1400035-1	<b>140.00</b>	147.10	3.55
MOR1400038	<b>140.00</b>	147.60	3.80
MOR1400040	<b>140.00</b>	148.00	4.00
MOR1400043	<b>140.00</b>	148.60	4.30
MOR1400045	<b>140.00</b>	149.00	4.50
MOR1400050	<b>140.00</b>	150.00	5.00
MOR1400053	<b>140.00</b>	150.60	5.30
MOR1400060	<b>140.00</b>	152.00	6.00
MOR1400070	<b>140.00</b>	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	<b>154.30</b>	165.70	5.70
MOR1544031	<b>154.40</b>	160.60	3.10
MOR1544040	<b>154.40</b>	162.40	4.00
MOR1545030	<b>154.50</b>	160.50	3.00
MOR1550015	<b>155.00</b>	158.00	1.50
MOR1550020	<b>155.00</b>	159.00	2.00
MOR1550030	<b>155.00</b>	161.00	3.00
MOR1550032	<b>155.00</b>	161.40	3.20
MOR1550035	<b>155.00</b>	162.00	3.50
MOR1550040	<b>155.00</b>	163.00	4.00
MOR1550045	<b>155.00</b>	164.00	4.50
MOR1550050	<b>155.00</b>	165.00	5.00
MOR1550053	<b>155.00</b>	165.60	5.30
MOR1550055	<b>155.00</b>	166.00	5.50
MOR1550060	<b>155.00</b>	167.00	6.00
MOR1550064	<b>155.00</b>	167.80	6.40
MOR1550070	<b>155.00</b>	169.00	7.00
MOR1550080	<b>155.00</b>	171.00	8.00
MOR1550095	<b>155.00</b>	174.00	9.50
MOR1550100	<b>155.00</b>	175.00	10.00
MOR1550120	<b>155.00</b>	179.00	12.00
MOR1553030	<b>155.30</b>	161.30	3.00
MOR1555060	<b>155.50</b>	167.50	6.00
MOR1555070	<b>155.50</b>	169.50	7.00
MOR1560020	<b>156.00</b>	160.00	2.00
MOR1560025	<b>156.00</b>	161.00	2.50
MOR1560030	<b>156.00</b>	162.00	3.00
MOR1560035	<b>156.00</b>	163.00	3.50
MOR1560040	<b>156.00</b>	164.00	4.00
MOR1560048	<b>156.00</b>	165.60	4.80
MOR1560050	<b>156.00</b>	166.00	5.00
MOR1560058	<b>156.00</b>	167.60	5.80
MOR1560060	<b>156.00</b>	168.00	6.00
MOR1560065	<b>156.00</b>	169.00	6.50
MOR1560080	<b>156.00</b>	172.00	8.00
MOR1565070	<b>156.50</b>	170.50	7.00
MOR1570015	<b>157.00</b>	160.00	1.50
MOR1570030	<b>157.00</b>	163.00	3.00
MOR1570035	<b>157.00</b>	164.00	3.50
MOR1570040	<b>157.00</b>	165.00	4.00
MOR1570045	<b>157.00</b>	166.00	4.50
MOR1570050	<b>157.00</b>	167.00	5.00
MOR1570058	<b>157.00</b>	168.60	5.80
MOR1570060	<b>157.00</b>	169.00	6.00
MOR1570065	<b>157.00</b>	170.10	6.55
MOR1570070	<b>157.00</b>	171.00	7.00

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR1575050	<b>157.50</b>	167.50	5.00
MOR1580020	<b>158.00</b>	162.00	2.00
MOR1580030	<b>158.00</b>	164.00	3.00
MOR1580035	<b>158.00</b>	165.00	3.50
MOR1580040	<b>158.00</b>	166.00	4.00
MOR1580043	<b>158.00</b>	166.60	4.30
MOR1580050	<b>158.00</b>	168.00	5.00
MOR1580060	<b>158.00</b>	170.00	6.00
MOR1580070	<b>158.00</b>	172.00	7.00
MOR1580075	<b>158.00</b>	173.00	7.50
MOR1580080	<b>158.00</b>	174.00	8.00
MOR1585030	<b>158.50</b>	164.50	3.00
MOR1590030	<b>159.00</b>	165.00	3.00
MOR1590035	<b>159.00</b>	166.00	3.50
MOR1590040	<b>159.00</b>	167.00	4.00
MOR1590050	<b>159.00</b>	169.00	5.00
MOR1590060	<b>159.00</b>	171.00	6.00
MOR1590070	<b>159.00</b>	173.00	7.00
MOR1591084	<b>159.10</b>	175.90	8.40
MOR1592057	<b>159.20</b>	170.60	5.70
MOR1592070	<b>159.20</b>	173.20	7.00
MOR1593057	<b>159.30</b>	170.70	5.70
MOR1594031	<b>159.40</b>	165.60	3.10
MOR1595030	<b>159.50</b>	165.50	3.00
MOR1595070	<b>159.50</b>	173.50	7.00
MOR1597030	<b>159.70</b>	165.70	3.00
MOR1600020	<b>160.00</b>	164.00	2.00
MOR1600023	<b>160.00</b>	164.60	2.30
MOR1600025	<b>160.00</b>	165.00	2.50
MOR1600030	<b>160.00</b>	166.00	3.00
MOR1600035	<b>160.00</b>	167.00	3.50
MOR1600035-1	<b>160.00</b>	167.10	3.55
MOR1600040	<b>160.00</b>	168.00	4.00
MOR1600045	<b>160.00</b>	169.00	4.50
MOR1600050	<b>160.00</b>	170.00	5.00
MOR1600053	<b>160.00</b>	170.60	5.30
MOR1600055	<b>160.00</b>	171.00	5.50
MOR1600060	<b>160.00</b>	172.00	6.00
MOR1600070	<b>160.00</b>	174.00	7.00
MOR1600072	<b>160.00</b>	174.40	7.20
MOR1600080	<b>160.00</b>	176.00	8.00
MOR1600090	<b>160.00</b>	178.00	9.00
MOR1600100	<b>160.00</b>	180.00	10.00
MOR1600120	<b>160.00</b>	184.00	12.00
MOR1610024	<b>161.00</b>	165.80	2.40
MOR1610030	<b>161.00</b>	167.00	3.00



# O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR1610035	<b>161.00</b>	168.00	3.50
MOR1610040	<b>161.00</b>	169.00	4.00
MOR1610050	<b>161.00</b>	171.00	5.00
MOR1616024	<b>161.60</b>	166.40	2.40
MOR1620025	<b>162.00</b>	167.00	2.50
MOR1620030	<b>162.00</b>	168.00	3.00
MOR1620035	<b>162.00</b>	169.00	3.50
MOR1620040	<b>162.00</b>	170.00	4.00
MOR1620050	<b>162.00</b>	172.00	5.00
MOR1620060	<b>162.00</b>	174.00	6.00
MOR1620070	<b>162.00</b>	176.00	7.00
MOR1620080	<b>162.00</b>	178.00	8.00
MOR1620100	<b>162.00</b>	182.00	10.00
MOR1625040	<b>162.50</b>	170.50	4.00
MOR1630030	<b>163.00</b>	169.00	3.00
MOR1630035	<b>163.00</b>	170.00	3.50
MOR1630040	<b>163.00</b>	171.00	4.00
MOR1630050	<b>163.00</b>	173.00	5.00
MOR1630060	<b>163.00</b>	175.00	6.00
MOR1637086	<b>163.70</b>	180.90	8.60
MOR1640020	<b>164.00</b>	168.00	2.00
MOR1640030	<b>164.00</b>	170.00	3.00
MOR1640035	<b>164.00</b>	171.00	3.50
MOR1640040	<b>164.00</b>	172.00	4.00
MOR1640042	<b>164.00</b>	172.40	4.20
MOR1640050	<b>164.00</b>	174.00	5.00
MOR1640060	<b>164.00</b>	176.00	6.00
MOR1640070	<b>164.00</b>	178.00	7.00
MOR1641082	<b>164.10</b>	180.50	8.20
MOR1641084	<b>164.10</b>	180.90	8.40
MOR1642057	<b>164.20</b>	175.60	5.70
MOR1643057	<b>164.30</b>	175.70	5.70
MOR1644031	<b>164.40</b>	170.60	3.10
MOR1645020	<b>164.50</b>	168.50	2.00
MOR1645030	<b>164.50</b>	170.50	3.00
MOR1650020	<b>165.00</b>	169.00	2.00
MOR1650024	<b>165.00</b>	169.80	2.40
MOR1650030	<b>165.00</b>	171.00	3.00
MOR1650035	<b>165.00</b>	172.00	3.50
MOR1650035-1	<b>165.00</b>	172.10	3.55
MOR1650040	<b>165.00</b>	173.00	4.00
MOR1650045	<b>165.00</b>	174.00	4.50
MOR1650050	<b>165.00</b>	175.00	5.00
MOR1650053	<b>165.00</b>	175.60	5.30
MOR1650055	<b>165.00</b>	176.00	5.50
MOR1650060	<b>165.00</b>	177.00	6.00

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR1650065	<b>165.00</b>	178.00	6.50
MOR1650070	<b>165.00</b>	179.00	7.00
MOR1650080	<b>165.00</b>	181.00	8.00
MOR1650100	<b>165.00</b>	185.00	10.00
MOR1655040	<b>165.50</b>	173.50	4.00
MOR1660020	<b>166.00</b>	170.00	2.00
MOR1660030	<b>166.00</b>	172.00	3.00
MOR1660035	<b>166.00</b>	173.00	3.50
MOR1660040	<b>166.00</b>	174.00	4.00
MOR1660050	<b>166.00</b>	176.00	5.00
MOR1660060	<b>166.00</b>	178.00	6.00
MOR1670025	<b>167.00</b>	172.00	2.50
MOR1670030	<b>167.00</b>	173.00	3.00
MOR1670035	<b>167.00</b>	174.00	3.50
MOR1670040	<b>167.00</b>	175.00	4.00
MOR1670050	<b>167.00</b>	177.00	5.00
MOR1670060	<b>167.00</b>	179.00	6.00
MOR1670070	<b>167.00</b>	181.00	7.00
MOR1670080	<b>167.00</b>	183.00	8.00
MOR1674033	<b>167.40</b>	174.00	3.30
MOR1680024	<b>168.00</b>	172.80	2.40
MOR1680030	<b>168.00</b>	174.00	3.00
MOR1680035	<b>168.00</b>	175.00	3.50
MOR1680040	<b>168.00</b>	176.00	4.00
MOR1680045	<b>168.00</b>	177.00	4.50
MOR1680050	<b>168.00</b>	178.00	5.00
MOR1680060	<b>168.00</b>	180.00	6.00
MOR1680070	<b>168.00</b>	182.00	7.00
MOR1680080	<b>168.00</b>	184.00	8.00
MOR1680100	<b>168.00</b>	188.00	10.00
MOR1680127	<b>168.00</b>	193.40	12.70
MOR1683030	<b>168.30</b>	174.30	3.00
MOR1685030	<b>168.50</b>	174.50	3.00
MOR1690024	<b>169.00</b>	173.80	2.40
MOR1690030	<b>169.00</b>	175.00	3.00
MOR1690035	<b>169.00</b>	176.00	3.50
MOR1690040	<b>169.00</b>	177.00	4.00
MOR1690050	<b>169.00</b>	179.00	5.00
MOR1690057	<b>169.00</b>	180.40	5.70
MOR1690060	<b>169.00</b>	181.00	6.00
MOR1691084	<b>169.10</b>	185.90	8.40
MOR1692057	<b>169.20</b>	180.60	5.70
MOR1693057	<b>169.30</b>	180.70	5.70
MOR1695030	<b>169.50</b>	175.50	3.00
MOR1700024	<b>170.00</b>	174.80	2.40
MOR1700025	<b>170.00</b>	175.00	2.50

# O'Rings - NBR 70A, NBR 90A, FPM 80A

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR1700030	<b>170.00</b>	176.00	3.00
MOR1700032	<b>170.00</b>	176.40	3.20
MOR1700035	<b>170.00</b>	177.00	3.50
MOR1700035-1	<b>170.00</b>	177.10	3.55
MOR1700040	<b>170.00</b>	178.00	4.00
MOR1700045	<b>170.00</b>	179.00	4.50
MOR1700050	<b>170.00</b>	180.00	5.00
MOR1700053	<b>170.00</b>	180.60	5.30
MOR1700060	<b>170.00</b>	182.00	6.00
MOR1700075	<b>170.00</b>	185.00	7.50
MOR1700080	<b>170.00</b>	186.00	8.00
MOR1700100	<b>170.00</b>	190.00	10.00
MOR1700150	<b>170.00</b>	200.00	15.00
MOR1703047	<b>170.30</b>	179.70	4.70
MOR1704040	<b>170.40</b>	178.40	4.00
MOR1710030	<b>171.00</b>	177.00	3.00
MOR1710035	<b>171.00</b>	178.00	3.50
MOR1710040	<b>171.00</b>	179.00	4.00
MOR1710050	<b>171.00</b>	181.00	5.00
MOR1710070	<b>171.00</b>	185.00	7.00
MOR1720025	<b>172.00</b>	177.00	2.50
MOR1720030	<b>172.00</b>	178.00	3.00
MOR1720035	<b>172.00</b>	179.00	3.50
MOR1720040	<b>172.00</b>	180.00	4.00
MOR1720045	<b>172.00</b>	181.00	4.50
MOR1720050	<b>172.00</b>	182.00	5.00
MOR1720060	<b>172.00</b>	184.00	6.00
MOR1720075	<b>172.00</b>	187.00	7.50
MOR1720080	<b>172.00</b>	188.00	8.00
MOR1730020	<b>173.00</b>	177.00	2.00
MOR1730030	<b>173.00</b>	179.00	3.00
MOR1730035	<b>173.00</b>	180.00	3.50
MOR1730040	<b>173.00</b>	181.00	4.00
MOR1730050	<b>173.00</b>	183.00	5.00
MOR1730060	<b>173.00</b>	185.00	6.00
MOR1730070	<b>173.00</b>	187.00	7.00
MOR1735050	<b>173.50</b>	183.50	5.00
MOR1740030	<b>174.00</b>	180.00	3.00
MOR1740032	<b>174.00</b>	180.40	3.20
MOR1740035	<b>174.00</b>	181.00	3.50
MOR1740040	<b>174.00</b>	182.00	4.00
MOR1740050	<b>174.00</b>	184.00	5.00
MOR1740060	<b>174.00</b>	186.00	6.00
MOR1740070	<b>174.00</b>	188.00	7.00
MOR1741084	<b>174.10</b>	190.90	8.40
MOR1742057	<b>174.20</b>	185.60	5.70

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR1743057	<b>174.30</b>	185.70	5.70
MOR1745030	<b>174.50</b>	180.50	3.00
MOR1750024	<b>175.00</b>	179.80	2.40
MOR1750027	<b>175.00</b>	180.40	2.70
MOR1750030	<b>175.00</b>	181.00	3.00
MOR1750035	<b>175.00</b>	182.00	3.50
MOR1750035-1	<b>175.00</b>	182.10	3.55
MOR1750040	<b>175.00</b>	183.00	4.00
MOR1750050	<b>175.00</b>	185.00	5.00
MOR1750053	<b>175.00</b>	185.60	5.30
MOR1750060	<b>175.00</b>	187.00	6.00
MOR1750070	<b>175.00</b>	189.00	7.00
MOR1750095	<b>175.00</b>	194.00	9.50
MOR1750100	<b>175.00</b>	195.00	10.00
MOR1760027	<b>176.00</b>	181.40	2.70
MOR1760030	<b>176.00</b>	182.00	3.00
MOR1760035	<b>176.00</b>	183.00	3.50
MOR1760040	<b>176.00</b>	184.00	4.00
MOR1760045	<b>176.00</b>	185.00	4.50
MOR1760048	<b>176.00</b>	185.60	4.80
MOR1760050	<b>176.00</b>	186.00	5.00
MOR1760060	<b>176.00</b>	188.00	6.00
MOR1768035	<b>176.80</b>	183.80	3.50
MOR1770015	<b>177.00</b>	180.00	1.50
MOR1770030	<b>177.00</b>	183.00	3.00
MOR1770035	<b>177.00</b>	184.00	3.50
MOR1770040	<b>177.00</b>	185.00	4.00
MOR1770050	<b>177.00</b>	187.00	5.00
MOR1770070	<b>177.00</b>	191.00	7.00
MOR1779080	<b>177.90</b>	193.90	8.00
MOR1780025	<b>178.00</b>	183.00	2.50
MOR1780030	<b>178.00</b>	184.00	3.00
MOR1780035	<b>178.00</b>	185.00	3.50
MOR1780040	<b>178.00</b>	186.00	4.00
MOR1780045	<b>178.00</b>	187.00	4.50
MOR1780050	<b>178.00</b>	188.00	5.00
MOR1780060	<b>178.00</b>	190.00	6.00
MOR1780065	<b>178.00</b>	191.00	6.50
MOR1780070	<b>178.00</b>	192.00	7.00
MOR1780080	<b>178.00</b>	194.00	8.00
MOR1780085	<b>178.00</b>	195.00	8.50
MOR1780086	<b>178.00</b>	195.20	8.60
MOR1780090	<b>178.00</b>	196.00	9.00
MOR1780095	<b>178.00</b>	197.00	9.50
MOR1780100	<b>178.00</b>	198.00	10.00
MOR1790030	<b>179.00</b>	185.00	3.00

**O'RINGS**



# 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	<b>186.00</b>	200.00	7.00
MOR1865085	<b>186.50</b>	203.50	8.50
MOR1870030	<b>187.00</b>	193.00	3.00
MOR1870035	<b>187.00</b>	194.00	3.50
MOR1870040	<b>187.00</b>	195.00	4.00
MOR1870050	<b>187.00</b>	197.00	5.00
MOR1870070	<b>187.00</b>	201.00	7.00
MOR1875015	<b>187.50</b>	190.50	1.50
MOR1875040	<b>187.50</b>	195.50	4.00
MOR1880020	<b>188.00</b>	192.00	2.00
MOR1880030	<b>188.00</b>	194.00	3.00
MOR1880035	<b>188.00</b>	195.00	3.50
MOR1880040	<b>188.00</b>	196.00	4.00
MOR1880050	<b>188.00</b>	198.00	5.00
MOR1880060	<b>188.00</b>	200.00	6.00
MOR1890030	<b>189.00</b>	195.00	3.00
MOR1890035	<b>189.00</b>	196.00	3.50
MOR1890040	<b>189.00</b>	197.00	4.00
MOR1890045	<b>189.00</b>	198.00	4.50
MOR1890050	<b>189.00</b>	199.00	5.00
MOR1890080	<b>189.00</b>	205.00	8.00
MOR1890110	<b>189.00</b>	211.00	11.00
MOR1891084	<b>189.10</b>	205.90	8.40
MOR1892057	<b>189.20</b>	200.60	5.70
MOR1893057	<b>189.30</b>	200.70	5.70
MOR1895030	<b>189.50</b>	195.50	3.00
MOR1895045	<b>189.50</b>	198.50	4.50
MOR1900026	<b>190.00</b>	195.20	2.60
MOR1900030	<b>190.00</b>	196.00	3.00
MOR1900032	<b>190.00</b>	196.40	3.20
MOR1900035	<b>190.00</b>	197.00	3.50
MOR1900035-1	<b>190.00</b>	197.10	3.55
MOR1900040	<b>190.00</b>	198.00	4.00
MOR1900045	<b>190.00</b>	199.00	4.50
MOR1900050	<b>190.00</b>	200.00	5.00
MOR1900053	<b>190.00</b>	200.60	5.30
MOR1900055	<b>190.00</b>	201.00	5.50
MOR1900057	<b>190.00</b>	201.40	5.70
MOR1900060	<b>190.00</b>	202.00	6.00
MOR1900063	<b>190.00</b>	202.60	6.30
MOR1900070	<b>190.00</b>	204.00	7.00
MOR1900080	<b>190.00</b>	206.00	8.00
MOR1900100	<b>190.00</b>	210.00	10.00
MOR1910030	<b>191.00</b>	197.00	3.00
MOR1910035	<b>191.00</b>	198.00	3.50
MOR1910040	<b>191.00</b>	199.00	4.00

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR1910050	<b>191.00</b>	201.00	5.00
MOR1910060	<b>191.00</b>	203.00	6.00
MOR1910080	<b>191.00</b>	207.00	8.00
MOR1912060	<b>191.20</b>	203.20	6.00
MOR1920020	<b>192.00</b>	196.00	2.00
MOR1920025	<b>192.00</b>	197.00	2.50
MOR1920030	<b>192.00</b>	198.00	3.00
MOR1920035	<b>192.00</b>	199.00	3.50
MOR1920040	<b>192.00</b>	200.00	4.00
MOR1920045	<b>192.00</b>	201.00	4.50
MOR1920050	<b>192.00</b>	202.00	5.00
MOR1920070	<b>192.00</b>	206.00	7.00
MOR1920080	<b>192.00</b>	208.00	8.00
MOR1930020	<b>193.00</b>	197.00	2.00
MOR1930030	<b>193.00</b>	199.00	3.00
MOR1930035	<b>193.00</b>	200.00	3.50
MOR1930040	<b>193.00</b>	201.00	4.00
MOR1930050	<b>193.00</b>	203.00	5.00
MOR1930060	<b>193.00</b>	205.00	6.00
MOR1935030	<b>193.50</b>	199.50	3.00
MOR1935040	<b>193.50</b>	201.50	4.00
MOR1935050	<b>193.50</b>	203.50	5.00
MOR1940020	<b>194.00</b>	198.00	2.00
MOR1940022	<b>194.00</b>	198.40	2.20
MOR1940030	<b>194.00</b>	200.00	3.00
MOR1940035	<b>194.00</b>	201.00	3.50
MOR1940040	<b>194.00</b>	202.00	4.00
MOR1940050	<b>194.00</b>	204.00	5.00
MOR1940061	<b>194.00</b>	206.20	6.10
MOR1940070	<b>194.00</b>	208.00	7.00
MOR1941064	<b>194.10</b>	206.90	6.40
MOR1941084	<b>194.10</b>	210.90	8.40
MOR1942057	<b>194.20</b>	205.60	5.70
MOR1943057	<b>194.30</b>	205.70	5.70
MOR1945020	<b>194.50</b>	198.50	2.00
MOR1945030	<b>194.50</b>	200.50	3.00
MOR1950025	<b>195.00</b>	200.00	2.50
MOR1950030	<b>195.00</b>	201.00	3.00
MOR1950035	<b>195.00</b>	202.00	3.50
MOR1950035-1	<b>195.00</b>	202.10	3.55
MOR1950040	<b>195.00</b>	203.00	4.00
MOR1950043	<b>195.00</b>	203.60	4.30
MOR1950050	<b>195.00</b>	205.00	5.00
MOR1950053	<b>195.00</b>	205.60	5.30
MOR1950055	<b>195.00</b>	206.00	5.50
MOR1950060	<b>195.00</b>	207.00	6.00



# 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	<b>204.10</b>	220.90	8.40
MOR2042057	<b>204.20</b>	215.60	5.70
MOR2045030	<b>204.50</b>	210.50	3.00
MOR2050015	<b>205.00</b>	208.00	1.50
MOR2050020	<b>205.00</b>	209.00	2.00
MOR2050030	<b>205.00</b>	211.00	3.00
MOR2050035	<b>205.00</b>	212.00	3.50
MOR2050040	<b>205.00</b>	213.00	4.00
MOR2050050	<b>205.00</b>	215.00	5.00
MOR2050060	<b>205.00</b>	217.00	6.00
MOR2050070	<b>205.00</b>	219.00	7.00
MOR2050073	<b>205.00</b>	219.60	7.30
MOR2050080	<b>205.00</b>	221.00	8.00
MOR2050110	<b>205.00</b>	227.00	11.00
MOR2050150	<b>205.00</b>	235.00	15.00
MOR2053060	<b>205.30</b>	217.30	6.00
MOR2060030	<b>206.00</b>	212.00	3.00
MOR2060035	<b>206.00</b>	213.00	3.50
MOR2060040	<b>206.00</b>	214.00	4.00
MOR2060050	<b>206.00</b>	216.00	5.00
MOR2060060	<b>206.00</b>	218.00	6.00
MOR2060070	<b>206.00</b>	220.00	7.00
MOR2060080	<b>206.00</b>	222.00	8.00
MOR2065080	<b>206.50</b>	222.50	8.00
MOR2070030	<b>207.00</b>	213.00	3.00
MOR2070035	<b>207.00</b>	214.00	3.50
MOR2070040	<b>207.00</b>	215.00	4.00
MOR2070050	<b>207.00</b>	217.00	5.00
MOR2070070	<b>207.00</b>	221.00	7.00
MOR2070084	<b>207.00</b>	223.80	8.40
MOR2080030	<b>208.00</b>	214.00	3.00
MOR2080040	<b>208.00</b>	216.00	4.00
MOR2080045	<b>208.00</b>	217.00	4.50
MOR2080050	<b>208.00</b>	218.00	5.00
MOR2080060	<b>208.00</b>	220.00	6.00
MOR2080066	<b>208.00</b>	221.30	6.65
MOR2080075	<b>208.00</b>	223.00	7.50
MOR2080080	<b>208.00</b>	224.00	8.00
MOR2080085	<b>208.00</b>	225.00	8.50
MOR2090030	<b>209.00</b>	215.00	3.00
MOR2090035	<b>209.00</b>	216.00	3.50
MOR2090040	<b>209.00</b>	217.00	4.00
MOR2090050	<b>209.00</b>	219.00	5.00
MOR2090070	<b>209.00</b>	223.00	7.00
MOR2091084	<b>209.10</b>	225.90	8.40
MOR2092057	<b>209.20</b>	220.60	5.70

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR2093057	<b>209.30</b>	220.70	5.70
MOR2095030	<b>209.50</b>	215.50	3.00
MOR2100015	<b>210.00</b>	213.00	1.50
MOR2100020	<b>210.00</b>	214.00	2.00
MOR2100025	<b>210.00</b>	215.00	2.50
MOR2100030	<b>210.00</b>	216.00	3.00
MOR2100035	<b>210.00</b>	217.00	3.50
MOR2100040	<b>210.00</b>	218.00	4.00
MOR2100045	<b>210.00</b>	219.00	4.50
MOR2100050	<b>210.00</b>	220.00	5.00
MOR2100055	<b>210.00</b>	221.00	5.50
MOR2100058	<b>210.00</b>	221.60	5.80
MOR2100060	<b>210.00</b>	222.00	6.00
MOR2100064	<b>210.00</b>	222.80	6.40
MOR2100070	<b>210.00</b>	224.00	7.00
MOR2100080	<b>210.00</b>	226.00	8.00
MOR2100095	<b>210.00</b>	229.00	9.50
MOR2100100	<b>210.00</b>	230.00	10.00
MOR2110030	<b>211.00</b>	217.00	3.00
MOR2110035	<b>211.00</b>	218.00	3.50
MOR2110040	<b>211.00</b>	219.00	4.00
MOR2110050	<b>211.00</b>	221.00	5.00
MOR2110120	<b>211.00</b>	235.00	12.00
MOR2120030	<b>212.00</b>	218.00	3.00
MOR2120035	<b>212.00</b>	219.00	3.50
MOR2120040	<b>212.00</b>	220.00	4.00
MOR2120050	<b>212.00</b>	222.00	5.00
MOR2120060	<b>212.00</b>	224.00	6.00
MOR2120070	<b>212.00</b>	226.00	7.00
MOR2120080	<b>212.00</b>	228.00	8.00
MOR2124073	<b>212.40</b>	227.00	7.30
MOR2130030	<b>213.00</b>	219.00	3.00
MOR2130035	<b>213.00</b>	220.00	3.50
MOR2130040	<b>213.00</b>	221.00	4.00
MOR2130050	<b>213.00</b>	223.00	5.00
MOR2130054	<b>213.00</b>	223.80	5.40
MOR2140020	<b>214.00</b>	218.00	2.00
MOR2140030	<b>214.00</b>	220.00	3.00
MOR2140035	<b>214.00</b>	221.00	3.50
MOR2140040	<b>214.00</b>	222.00	4.00
MOR2140045	<b>214.00</b>	223.00	4.50
MOR2140050	<b>214.00</b>	224.00	5.00
MOR2140080	<b>214.00</b>	230.00	8.00
MOR2140084	<b>214.00</b>	230.80	8.40
MOR2141084	<b>214.10</b>	230.90	8.40
MOR2145030	<b>214.50</b>	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



# 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	<b>246.00</b>	256.00	5.00
MOR2460070	<b>246.00</b>	260.00	7.00
MOR2460150	<b>246.00</b>	276.00	15.00
MOR2470027	<b>247.00</b>	252.40	2.70
MOR2470030	<b>247.00</b>	253.00	3.00
MOR2470035	<b>247.00</b>	254.00	3.50
MOR2470040	<b>247.00</b>	255.00	4.00
MOR2470050	<b>247.00</b>	257.00	5.00
MOR2470060	<b>247.00</b>	259.00	6.00
MOR2470070	<b>247.00</b>	261.00	7.00
MOR2470120	<b>247.00</b>	271.00	12.00
MOR2470127	<b>247.00</b>	272.40	12.70
MOR2480020	<b>248.00</b>	252.00	2.00
MOR2480030	<b>248.00</b>	254.00	3.00
MOR2480032	<b>248.00</b>	254.40	3.20
MOR2480035	<b>248.00</b>	255.00	3.50
MOR2480040	<b>248.00</b>	256.00	4.00
MOR2480050	<b>248.00</b>	258.00	5.00
MOR2480070	<b>248.00</b>	262.00	7.00
MOR2480072	<b>248.00</b>	262.40	7.20
MOR2480090	<b>248.00</b>	266.00	9.00
MOR2480100	<b>248.00</b>	268.00	10.00
MOR2480130	<b>248.00</b>	274.00	13.00
MOR2490030	<b>249.00</b>	255.00	3.00
MOR2490035	<b>249.00</b>	256.00	3.50
MOR2490040	<b>249.00</b>	257.00	4.00
MOR2490050	<b>249.00</b>	259.00	5.00
MOR2490060	<b>249.00</b>	261.00	6.00
MOR2490090	<b>249.00</b>	267.00	9.00
MOR2490100	<b>249.00</b>	269.00	10.00
MOR2490110	<b>249.00</b>	271.00	11.00
MOR2491084	<b>249.10</b>	265.90	8.40
MOR2491030	<b>249.15</b>	255.15	3.00
MOR2492057	<b>249.20</b>	260.60	5.70
MOR2493057	<b>249.30</b>	260.70	5.70
MOR2495030	<b>249.50</b>	255.50	3.00
MOR2500020	<b>250.00</b>	254.00	2.00
MOR2500025	<b>250.00</b>	255.00	2.50
MOR2500030	<b>250.00</b>	256.00	3.00
MOR2500035	<b>250.00</b>	257.00	3.50
MOR2500040	<b>250.00</b>	258.00	4.00
MOR2500045	<b>250.00</b>	259.00	4.50
MOR2500046	<b>250.00</b>	259.20	4.60
MOR2500050	<b>250.00</b>	260.00	5.00
MOR2500060	<b>250.00</b>	262.00	6.00
MOR2500070	<b>250.00</b>	264.00	7.00

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR2500080	<b>250.00</b>	266.00	8.00
MOR2500090	<b>250.00</b>	268.00	9.00
MOR2500100	<b>250.00</b>	270.00	10.00
MOR2510030	<b>251.00</b>	257.00	3.00
MOR2510035	<b>251.00</b>	258.00	3.50
MOR2510040	<b>251.00</b>	259.00	4.00
MOR2510050	<b>251.00</b>	261.00	5.00
MOR2510070	<b>251.00</b>	265.00	7.00
MOR2510100	<b>251.00</b>	271.00	10.00
MOR2513070	<b>251.30</b>	265.30	7.00
MOR2520035	<b>252.00</b>	259.00	3.50
MOR2520040	<b>252.00</b>	260.00	4.00
MOR2520050	<b>252.00</b>	262.00	5.00
MOR2530035	<b>253.00</b>	260.00	3.50
MOR2530040	<b>253.00</b>	261.00	4.00
MOR2530050	<b>253.00</b>	263.00	5.00
MOR2530070	<b>253.00</b>	267.00	7.00
MOR2530080	<b>253.00</b>	269.00	8.00
MOR2530130	<b>253.00</b>	279.00	13.00
MOR2537070	<b>253.77</b>	267.77	7.00
MOR2540030	<b>254.00</b>	260.00	3.00
MOR2540035	<b>254.00</b>	261.00	3.50
MOR2540040	<b>254.00</b>	262.00	4.00
MOR2540050	<b>254.00</b>	264.00	5.00
MOR2540080	<b>254.00</b>	270.00	8.00
MOR2543057	<b>254.30</b>	265.70	5.70
MOR2545030	<b>254.50</b>	260.50	3.00
MOR2545084	<b>254.50</b>	271.30	8.40
MOR2550020	<b>255.00</b>	259.00	2.00
MOR2550030	<b>255.00</b>	261.00	3.00
MOR2550035	<b>255.00</b>	262.00	3.50
MOR2550040	<b>255.00</b>	263.00	4.00
MOR2550050	<b>255.00</b>	265.00	5.00
MOR2550057	<b>255.00</b>	266.40	5.70
MOR2550060	<b>255.00</b>	267.00	6.00
MOR2550070	<b>255.00</b>	269.00	7.00
MOR2550080	<b>255.00</b>	271.00	8.00
MOR2560035	<b>256.00</b>	263.00	3.50
MOR2560040	<b>256.00</b>	264.00	4.00
MOR2560050	<b>256.00</b>	266.00	5.00
MOR2570030	<b>257.00</b>	263.00	3.00
MOR2570035	<b>257.00</b>	264.00	3.50
MOR2570040	<b>257.00</b>	265.00	4.00
MOR2570050	<b>257.00</b>	267.00	5.00
MOR2575030	<b>257.50</b>	263.50	3.00
MOR2580035	<b>258.00</b>	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	<b>269.30</b>	280.70	5.70
MOR2695060	<b>269.50</b>	281.50	6.00
MOR2697063	<b>269.70</b>	282.40	6.35
MOR2700025	<b>270.00</b>	275.00	2.50
MOR2700030	<b>270.00</b>	276.00	3.00
MOR2700035	<b>270.00</b>	277.00	3.50
MOR2700040	<b>270.00</b>	278.00	4.00
MOR2700050	<b>270.00</b>	280.00	5.00
MOR2700055	<b>270.00</b>	281.00	5.50
MOR2700060	<b>270.00</b>	282.00	6.00
MOR2700063	<b>270.00</b>	282.60	6.30
MOR2700065	<b>270.00</b>	283.00	6.50
MOR2700070	<b>270.00</b>	284.00	7.00
MOR2700076	<b>270.00</b>	285.20	7.60
MOR2700080	<b>270.00</b>	286.00	8.00
MOR2700100	<b>270.00</b>	290.00	10.00
MOR2700140	<b>270.00</b>	298.00	14.00
MOR2710030	<b>271.00</b>	277.00	3.00
MOR2710035	<b>271.00</b>	278.00	3.50
MOR2710040	<b>271.00</b>	279.00	4.00
MOR2710050	<b>271.00</b>	281.00	5.00
MOR2720025	<b>272.00</b>	277.00	2.50
MOR2720035	<b>272.00</b>	279.00	3.50
MOR2720040	<b>272.00</b>	280.00	4.00
MOR2720050	<b>272.00</b>	282.00	5.00
MOR2720070	<b>272.00</b>	286.00	7.00
MOR2720080	<b>272.00</b>	288.00	8.00
MOR2730035	<b>273.00</b>	280.00	3.50
MOR2730040	<b>273.00</b>	281.00	4.00
MOR2730045	<b>273.00</b>	282.00	4.50
MOR2730050	<b>273.00</b>	283.00	5.00
MOR2730070	<b>273.00</b>	287.00	7.00
MOR2730080	<b>273.00</b>	289.00	8.00
MOR2730120	<b>273.00</b>	297.00	12.00
MOR2740030	<b>274.00</b>	280.00	3.00
MOR2740035	<b>274.00</b>	281.00	3.50
MOR2740040	<b>274.00</b>	282.00	4.00
MOR2740050	<b>274.00</b>	284.00	5.00
MOR2740065	<b>274.00</b>	287.00	6.50
MOR2740086	<b>274.00</b>	291.20	8.60
MOR2740130	<b>274.00</b>	300.00	13.00
MOR2742057	<b>274.20</b>	285.60	5.70
MOR2743057	<b>274.30</b>	285.70	5.70
MOR2745040	<b>274.50</b>	282.50	4.00
MOR2750025	<b>275.00</b>	280.00	2.50
MOR2750030	<b>275.00</b>	281.00	3.00

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR2750035	<b>275.00</b>	282.00	3.50
MOR2750040	<b>275.00</b>	283.00	4.00
MOR2750045	<b>275.00</b>	284.00	4.50
MOR2750050	<b>275.00</b>	285.00	5.00
MOR2750076	<b>275.00</b>	290.20	7.60
MOR2750080	<b>275.00</b>	291.00	8.00
MOR2750140	<b>275.00</b>	303.00	14.00
MOR2760035	<b>276.00</b>	283.00	3.50
MOR2760040	<b>276.00</b>	284.00	4.00
MOR2760050	<b>276.00</b>	286.00	5.00
MOR2760070	<b>276.00</b>	290.00	7.00
MOR2770033	<b>277.00</b>	283.60	3.30
MOR2770035	<b>277.00</b>	284.00	3.50
MOR2770040	<b>277.00</b>	285.00	4.00
MOR2770050	<b>277.00</b>	287.00	5.00
MOR2770065	<b>277.00</b>	290.00	6.50
MOR2770090	<b>277.00</b>	295.00	9.00
MOR2780032	<b>278.00</b>	284.40	3.20
MOR2780035	<b>278.00</b>	285.00	3.50
MOR2780040	<b>278.00</b>	286.00	4.00
MOR2780050	<b>278.00</b>	288.00	5.00
MOR2780060	<b>278.00</b>	290.00	6.00
MOR2780070	<b>278.00</b>	292.00	7.00
MOR2787074	<b>278.70</b>	293.50	7.40
MOR2787074-1	<b>278.77</b>	293.57	7.40
MOR2790030	<b>279.00</b>	285.00	3.00
MOR2790035	<b>279.00</b>	286.00	3.50
MOR2790040	<b>279.00</b>	287.00	4.00
MOR2790050	<b>279.00</b>	289.00	5.00
MOR2790070	<b>279.00</b>	293.00	7.00
MOR2791084	<b>279.10</b>	295.90	8.40
MOR2792057	<b>279.20</b>	290.60	5.70
MOR2793057	<b>279.30</b>	290.70	5.70
MOR2800025	<b>280.00</b>	285.00	2.50
MOR2800030	<b>280.00</b>	286.00	3.00
MOR2800035	<b>280.00</b>	287.00	3.50
MOR2800040	<b>280.00</b>	288.00	4.00
MOR2800045	<b>280.00</b>	289.00	4.50
MOR2800050	<b>280.00</b>	290.00	5.00
MOR2800060	<b>280.00</b>	292.00	6.00
MOR2800063	<b>280.00</b>	292.60	6.30
MOR2800070	<b>280.00</b>	294.00	7.00
MOR2800080	<b>280.00</b>	296.00	8.00
MOR2800090	<b>280.00</b>	298.00	9.00
MOR2800100	<b>280.00</b>	300.00	10.00
MOR2810035	<b>281.00</b>	288.00	3.50



# O'Rings - NBR 70A, NBR 90A, FPM 80A

O'RINGS



Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR2810040	<b>281.00</b>	289.00	4.00
MOR2810050	<b>281.00</b>	291.00	5.00
MOR2820025	<b>282.00</b>	287.00	2.50
MOR2820035	<b>282.00</b>	289.00	3.50
MOR2820040	<b>282.00</b>	290.00	4.00
MOR2820050	<b>282.00</b>	292.00	5.00
MOR2820057	<b>282.00</b>	293.40	5.70
MOR2820060	<b>282.00</b>	294.00	6.00
MOR2820140	<b>282.00</b>	310.00	14.00
MOR2830035	<b>283.00</b>	290.00	3.50
MOR2830040	<b>283.00</b>	291.00	4.00
MOR2830050	<b>283.00</b>	293.00	5.00
MOR2830070	<b>283.00</b>	297.00	7.00
MOR2833057	<b>283.30</b>	294.70	5.70
MOR2840035	<b>284.00</b>	291.00	3.50
MOR2840040	<b>284.00</b>	292.00	4.00
MOR2840050	<b>284.00</b>	294.00	5.00
MOR2840060	<b>284.00</b>	296.00	6.00
MOR2842057	<b>284.20</b>	295.60	5.70
MOR2845040	<b>284.50</b>	292.50	4.00
MOR2845084	<b>284.50</b>	301.30	8.40
MOR2850030	<b>285.00</b>	291.00	3.00
MOR2850035	<b>285.00</b>	292.00	3.50
MOR2850040	<b>285.00</b>	293.00	4.00
MOR2850050	<b>285.00</b>	295.00	5.00
MOR2850060	<b>285.00</b>	297.00	6.00
MOR2850070	<b>285.00</b>	299.00	7.00
MOR2860024	<b>286.00</b>	290.80	2.40
MOR2860035	<b>286.00</b>	293.00	3.50
MOR2860040	<b>286.00</b>	294.00	4.00
MOR2860050	<b>286.00</b>	296.00	5.00
MOR2860060	<b>286.00</b>	298.00	6.00
MOR2860070	<b>286.00</b>	300.00	7.00
MOR2860080	<b>286.00</b>	302.00	8.00
MOR2866080	<b>286.60</b>	302.70	8.05
MOR2868078	<b>286.82</b>	302.42	7.80
MOR2870035	<b>287.00</b>	294.00	3.50
MOR2870040	<b>287.00</b>	295.00	4.00
MOR2870050	<b>287.00</b>	297.00	5.00
MOR2870100	<b>287.00</b>	307.00	10.00
MOR2880030	<b>288.00</b>	294.00	3.00
MOR2880035	<b>288.00</b>	295.00	3.50
MOR2880040	<b>288.00</b>	296.00	4.00
MOR2880050	<b>288.00</b>	298.00	5.00
MOR2880060	<b>288.00</b>	300.00	6.00
MOR2880080	<b>288.00</b>	304.00	8.00

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR2890035	<b>289.00</b>	296.00	3.50
MOR2890040	<b>289.00</b>	297.00	4.00
MOR2890050	<b>289.00</b>	299.00	5.00
MOR2892057	<b>289.20</b>	300.60	5.70
MOR2893057	<b>289.30</b>	300.70	5.70
MOR2895084	<b>289.50</b>	306.30	8.40
MOR2900020	<b>290.00</b>	294.00	2.00
MOR2900030	<b>290.00</b>	296.00	3.00
MOR2900035	<b>290.00</b>	297.00	3.50
MOR2900040	<b>290.00</b>	298.00	4.00
MOR2900050	<b>290.00</b>	300.00	5.00
MOR2900060	<b>290.00</b>	302.00	6.00
MOR2900065	<b>290.00</b>	303.00	6.50
MOR2900070	<b>290.00</b>	304.00	7.00
MOR2900080	<b>290.00</b>	306.00	8.00
MOR2900100	<b>290.00</b>	310.00	10.00
MOR2910035	<b>291.00</b>	298.00	3.50
MOR2910040	<b>291.00</b>	299.00	4.00
MOR2910050	<b>291.00</b>	301.00	5.00
MOR2910062	<b>291.00</b>	303.40	6.20
MOR2910070	<b>291.00</b>	305.00	7.00
MOR2920015	<b>292.00</b>	295.00	1.50
MOR2920026	<b>292.00</b>	297.30	2.65
MOR2920030	<b>292.00</b>	298.00	3.00
MOR2920035	<b>292.00</b>	299.00	3.50
MOR2920040	<b>292.00</b>	300.00	4.00
MOR2920050	<b>292.00</b>	302.00	5.00
MOR2920070	<b>292.00</b>	306.00	7.00
MOR2920100	<b>292.00</b>	312.00	10.00
MOR2930035	<b>293.00</b>	300.00	3.50
MOR2930040	<b>293.00</b>	301.00	4.00
MOR2930050	<b>293.00</b>	303.00	5.00
MOR2940027	<b>294.00</b>	299.40	2.70
MOR2940035	<b>294.00</b>	301.00	3.50
MOR2940040	<b>294.00</b>	302.00	4.00
MOR2940050	<b>294.00</b>	304.00	5.00
MOR2940060	<b>294.00</b>	306.00	6.00
MOR2942057	<b>294.20</b>	305.60	5.70
MOR2945060	<b>294.50</b>	306.50	6.00
MOR2950030	<b>295.00</b>	301.00	3.00
MOR2950035	<b>295.00</b>	302.00	3.50
MOR2950040	<b>295.00</b>	303.00	4.00
MOR2950050	<b>295.00</b>	305.00	5.00
MOR2950053	<b>295.00</b>	305.60	5.30
MOR2950060	<b>295.00</b>	307.00	6.00
MOR2950100	<b>295.00</b>	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



# 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	<b>384.00</b>	394.00	5.00
MOR3840084	<b>384.00</b>	400.80	8.40
MOR3850030	<b>385.00</b>	391.00	3.00
MOR3850035	<b>385.00</b>	392.00	3.50
MOR3850040	<b>385.00</b>	393.00	4.00
MOR3850050	<b>385.00</b>	395.00	5.00
MOR3850060	<b>385.00</b>	397.00	6.00
MOR3850070	<b>385.00</b>	399.00	7.00
MOR3850075	<b>385.00</b>	400.00	7.50
MOR3850080	<b>385.00</b>	401.00	8.00
MOR3850140	<b>385.00</b>	413.00	14.00
MOR3855065	<b>385.50</b>	398.50	6.50
MOR3860035	<b>386.00</b>	393.00	3.50
MOR3860040	<b>386.00</b>	394.00	4.00
MOR3860050	<b>386.00</b>	396.00	5.00
MOR3860060	<b>386.00</b>	398.00	6.00
MOR3865050	<b>386.50</b>	396.50	5.00
MOR3870030	<b>387.00</b>	393.00	3.00
MOR3870035	<b>387.00</b>	394.00	3.50
MOR3870040	<b>387.00</b>	395.00	4.00
MOR3870050	<b>387.00</b>	397.00	5.00
MOR3870064	<b>387.00</b>	399.80	6.40
MOR3870070	<b>387.00</b>	401.00	7.00
MOR3880035	<b>388.00</b>	395.00	3.50
MOR3880040	<b>388.00</b>	396.00	4.00
MOR3880050	<b>388.00</b>	398.00	5.00
MOR3880060	<b>388.00</b>	400.00	6.00
MOR3880100	<b>388.00</b>	408.00	10.00
MOR3890035	<b>389.00</b>	396.00	3.50
MOR3890040	<b>389.00</b>	397.00	4.00
MOR3890050	<b>389.00</b>	399.00	5.00
MOR3890057	<b>389.00</b>	400.40	5.70
MOR3890060	<b>389.00</b>	401.00	6.00
MOR3890080	<b>389.00</b>	405.00	8.00
MOR3893057	<b>389.30</b>	400.70	5.70
MOR3900030	<b>390.00</b>	396.00	3.00
MOR3900035	<b>390.00</b>	397.00	3.50
MOR3900040	<b>390.00</b>	398.00	4.00
MOR3900050	<b>390.00</b>	400.00	5.00
MOR3900060	<b>390.00</b>	402.00	6.00
MOR3900065	<b>390.00</b>	403.10	6.55
MOR3900070	<b>390.00</b>	404.00	7.00
MOR3900072	<b>390.00</b>	404.40	7.20
MOR3900080	<b>390.00</b>	406.00	8.00
MOR3900084	<b>390.00</b>	406.80	8.40
MOR3900090	<b>390.00</b>	408.00	9.00

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR3900100	<b>390.00</b>	410.00	10.00
MOR3900150	<b>390.00</b>	420.00	15.00
MOR3905035	<b>390.50</b>	397.50	3.50
MOR3907067	<b>390.75</b>	404.15	6.70
MOR3910035	<b>391.00</b>	398.00	3.50
MOR3910040	<b>391.00</b>	399.00	4.00
MOR3910050	<b>391.00</b>	401.00	5.00
MOR3920035	<b>392.00</b>	399.00	3.50
MOR3920040	<b>392.00</b>	400.00	4.00
MOR3920050	<b>392.00</b>	402.00	5.00
MOR3920060	<b>392.00</b>	404.00	6.00
MOR3920070	<b>392.00</b>	406.00	7.00
MOR3930030	<b>393.00</b>	399.00	3.00
MOR3930035	<b>393.00</b>	400.00	3.50
MOR3930040	<b>393.00</b>	401.00	4.00
MOR3930050	<b>393.00</b>	403.00	5.00
MOR3930070	<b>393.00</b>	407.00	7.00
MOR3937063	<b>393.70</b>	406.40	6.35
MOR3940035	<b>394.00</b>	401.00	3.50
MOR3940040	<b>394.00</b>	402.00	4.00
MOR3940048	<b>394.00</b>	403.60	4.80
MOR3940050	<b>394.00</b>	404.00	5.00
MOR3940060	<b>394.00</b>	406.00	6.00
MOR3940080	<b>394.00</b>	410.00	8.00
MOR3950030	<b>395.00</b>	401.00	3.00
MOR3950035	<b>395.00</b>	402.00	3.50
MOR3950040	<b>395.00</b>	403.00	4.00
MOR3950050	<b>395.00</b>	405.00	5.00
MOR3950060	<b>395.00</b>	407.00	6.00
MOR3950080	<b>395.00</b>	411.00	8.00
MOR3950100	<b>395.00</b>	415.00	10.00
MOR3960035	<b>396.00</b>	403.00	3.50
MOR3960035-1	<b>396.00</b>	403.10	3.55
MOR3960040	<b>396.00</b>	404.00	4.00
MOR3960050	<b>396.00</b>	406.00	5.00
MOR3960120	<b>396.00</b>	420.00	12.00
MOR3970035	<b>397.00</b>	404.00	3.50
MOR3970040	<b>397.00</b>	405.00	4.00
MOR3970050	<b>397.00</b>	407.00	5.00
MOR3980035	<b>398.00</b>	405.00	3.50
MOR3980040	<b>398.00</b>	406.00	4.00
MOR3980050	<b>398.00</b>	408.00	5.00
MOR3980060	<b>398.00</b>	410.00	6.00
MOR3990035	<b>399.00</b>	406.00	3.50
MOR3990040	<b>399.00</b>	407.00	4.00
MOR3990041	<b>399.00</b>	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 - 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	<b>468.00</b>	482.00	7.00
MOR4680100	<b>468.00</b>	488.00	10.00
MOR4690040	<b>469.00</b>	477.00	4.00
MOR4690063	<b>469.00</b>	481.70	6.35
MOR4690070	<b>469.00</b>	483.00	7.00
MOR4693057	<b>469.30</b>	480.70	5.70
MOR4695064	<b>469.50</b>	482.30	6.40
MOR4700025	<b>470.00</b>	475.00	2.50
MOR4700030	<b>470.00</b>	476.00	3.00
MOR4700040	<b>470.00</b>	478.00	4.00
MOR4700050	<b>470.00</b>	480.00	5.00
MOR4700060	<b>470.00</b>	482.00	6.00
MOR4700070	<b>470.00</b>	484.00	7.00
MOR4700080	<b>470.00</b>	486.00	8.00
MOR4700100	<b>470.00</b>	490.00	10.00
MOR4710040	<b>471.00</b>	479.00	4.00
MOR4720040	<b>472.00</b>	480.00	4.00
MOR4720060	<b>472.00</b>	484.00	6.00
MOR4720100	<b>472.00</b>	492.00	10.00
MOR4730040	<b>473.00</b>	481.00	4.00
MOR4740040	<b>474.00</b>	482.00	4.00
MOR4740120	<b>474.00</b>	498.00	12.00
MOR4743057	<b>474.30</b>	485.70	5.70
MOR4750030	<b>475.00</b>	481.00	3.00
MOR4750040	<b>475.00</b>	483.00	4.00
MOR4750050	<b>475.00</b>	485.00	5.00
MOR4750060	<b>475.00</b>	487.00	6.00
MOR4750070	<b>475.00</b>	489.00	7.00
MOR4750075	<b>475.00</b>	490.00	7.50
MOR4750080	<b>475.00</b>	491.00	8.00
MOR4750100	<b>475.00</b>	495.00	10.00
MOR4750150	<b>475.00</b>	505.00	15.00
MOR4760040	<b>476.00</b>	484.00	4.00
MOR4760070	<b>476.00</b>	490.00	7.00
MOR4770040	<b>477.00</b>	485.00	4.00
MOR4770080	<b>477.00</b>	493.00	8.00
MOR4780040	<b>478.00</b>	486.00	4.00
MOR4780050	<b>478.00</b>	488.00	5.00
MOR4780060	<b>478.00</b>	490.00	6.00
MOR4790040	<b>479.00</b>	487.00	4.00
MOR4790100	<b>479.00</b>	499.00	10.00
MOR4792057	<b>479.20</b>	490.60	5.70
MOR4793057	<b>479.30</b>	490.70	5.70
MOR4794047	<b>479.42</b>	488.92	4.75
MOR4800040	<b>480.00</b>	488.00	4.00
MOR4800050	<b>480.00</b>	490.00	5.00

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR4800060	<b>480.00</b>	492.00	6.00
MOR4800070	<b>480.00</b>	494.00	7.00
MOR4800075	<b>480.00</b>	495.00	7.50
MOR4800080	<b>480.00</b>	496.00	8.00
MOR4800100	<b>480.00</b>	500.00	10.00
MOR4810035	<b>481.00</b>	488.10	3.55
MOR4810040	<b>481.00</b>	489.00	4.00
MOR4810070	<b>481.00</b>	495.00	7.00
MOR4810084	<b>481.00</b>	497.80	8.40
MOR4820040	<b>482.00</b>	490.00	4.00
MOR4820050	<b>482.00</b>	492.00	5.00
MOR4820070	<b>482.00</b>	496.00	7.00
MOR4830040	<b>483.00</b>	491.00	4.00
MOR4830060	<b>483.00</b>	495.00	6.00
MOR4830084	<b>483.00</b>	499.80	8.40
MOR4840040	<b>484.00</b>	492.00	4.00
MOR4840084	<b>484.00</b>	500.80	8.40
MOR4843057	<b>484.30</b>	495.70	5.70
MOR4850030	<b>485.00</b>	491.00	3.00
MOR4850040	<b>485.00</b>	493.00	4.00
MOR4850050	<b>485.00</b>	495.00	5.00
MOR4850100	<b>485.00</b>	505.00	10.00
MOR4860040	<b>486.00</b>	494.00	4.00
MOR4860060	<b>486.00</b>	498.00	6.00
MOR4870040	<b>487.00</b>	495.00	4.00
MOR4870070	<b>487.00</b>	501.00	7.00
MOR4880040	<b>488.00</b>	496.00	4.00
MOR4880060	<b>488.00</b>	500.00	6.00
MOR4890040	<b>489.00</b>	497.00	4.00
MOR4890060	<b>489.00</b>	501.00	6.00
MOR4892057	<b>489.20</b>	500.60	5.70
MOR4900040	<b>490.00</b>	498.00	4.00
MOR4900050	<b>490.00</b>	500.00	5.00
MOR4900067	<b>490.00</b>	503.40	6.70
MOR4900070	<b>490.00</b>	504.00	7.00
MOR4900080	<b>490.00</b>	506.00	8.00
MOR4900084	<b>490.00</b>	506.80	8.40
MOR4900090	<b>490.00</b>	508.00	9.00
MOR4900100	<b>490.00</b>	510.00	10.00
MOR4910040	<b>491.00</b>	499.00	4.00
MOR4915040	<b>491.50</b>	499.50	4.00
MOR4920040	<b>492.00</b>	500.00	4.00
MOR4930040	<b>493.00</b>	501.00	4.00
MOR4930100	<b>493.00</b>	513.00	10.00
MOR4930127	<b>493.00</b>	518.40	12.70
MOR4940040	<b>494.00</b>	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	<b>585.00</b>	595.00	5.00
MOR5850070	<b>585.00</b>	599.00	7.00
MOR5850080	<b>585.00</b>	601.00	8.00
MOR5860060	<b>586.00</b>	598.00	6.00
MOR5860100	<b>586.00</b>	606.00	10.00
MOR5880060	<b>588.00</b>	600.00	6.00
MOR5880063	<b>588.00</b>	600.70	6.35
MOR5890100	<b>589.00</b>	609.00	10.00
MOR5900030	<b>590.00</b>	596.00	3.00
MOR5900050	<b>590.00</b>	600.00	5.00
MOR5900085	<b>590.00</b>	607.00	8.50
MOR5900090	<b>590.00</b>	608.00	9.00
MOR5900120	<b>590.00</b>	614.00	12.00
MOR5920086	<b>592.00</b>	609.20	8.60
MOR5940057	<b>594.00</b>	605.40	5.70

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR5950060	<b>595.00</b>	607.00	6.00
MOR5950080	<b>595.00</b>	611.00	8.00
MOR5960070	<b>596.00</b>	610.00	7.00
MOR5960090	<b>596.00</b>	614.00	9.00
MOR5970045	<b>597.00</b>	606.00	4.50
MOR5970070	<b>597.00</b>	611.00	7.00
MOR5980055	<b>598.00</b>	609.00	5.50
MOR5990073	<b>599.00</b>	613.60	7.30
MOR6000030	<b>600.00</b>	606.00	3.00
MOR6000050	<b>600.00</b>	610.00	5.00
MOR6000065	<b>600.00</b>	613.00	6.50
MOR6000070	<b>600.00</b>	614.00	7.00
MOR6000080	<b>600.00</b>	616.00	8.00
MOR6000100	<b>600.00</b>	620.00	10.00
MOR6000120	<b>600.00</b>	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			33.70	±.330	P 175			174.50	±1.370	G 110			109.40	±.910
P 35	3.50	±.100	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	5.70	±.130	49.60	±.450	P 250			249.50	±1.880	G 190			189.30	±1.470
P 52			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



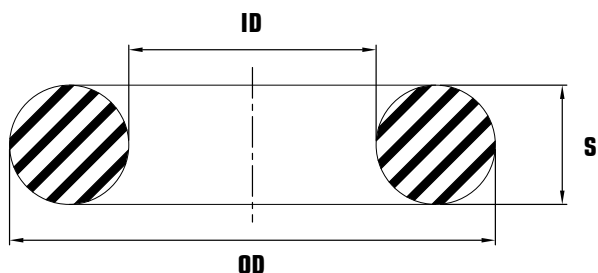
# JIS B 2401 Metric O'Ring size chart

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)	
<b>G 210</b>	↑	↑	209.30	±1.610	<b>G 275</b>	↑	↑	274.30	±2.040	<b>G 340</b>	↑	↑	339.30	±2.420
<b>G 215</b>	↑	↑	214.30	±1.640	<b>G 280</b>	↑	↑	279.30	±2.070	<b>G 345</b>	↑	↑	344.30	±2.480
<b>G 220</b>	↑	↑	219.30	±1.680	<b>G 285</b>	↑	↑	284.30	±2.100	<b>G 350</b>	↑	↑	349.30	±2.510
<b>G 225</b>	↑	↑	224.30	±1.710	<b>G 290</b>	↑	↑	289.30	±2.140	<b>G 355</b>	↑	↑	354.30	±2.540
<b>G 230</b>	↑	↑	229.30	±1.730	<b>G 295</b>	↑	↑	294.30	±2.170	<b>G 360</b>	↑	↑	359.30	±2.570
<b>G 235</b>	↑	↑	234.30	±1.770	<b>G 300</b>	↑	↑	299.30	±2.200	<b>G 365</b>	↑	↑	364.30	±2.600
<b>G 240</b>	5.70	±.130	239.30	±1.810	<b>G 305</b>	5.70	±.130	304.30	±2.200	<b>G 370</b>	5.70	±.130	369.30	±2.630
<b>G 245</b>	↓	↓	244.30	±1.840	<b>G 310</b>	↓	↓	309.30	±2.240	<b>G 375</b>	↓	↓	374.30	±2.670
<b>G 250</b>	↓	↓	249.30	±1.880	<b>G 315</b>	↓	↓	314.30	±2.270	<b>G 380</b>	↓	↓	379.30	±2.700
<b>G 255</b>	↓	↓	254.30	±1.910	<b>G 320</b>	↓	↓	319.30	±2.300	<b>G 385</b>	↓	↓	384.30	±2.730
<b>G 260</b>	↓	↓	259.30	±1.940	<b>G 325</b>	↓	↓	324.30	±2.330	<b>G 390</b>	↓	↓	389.30	±2.760
<b>G 265</b>	↓	↓	264.30	±1.970	<b>G 330</b>	↓	↓	329.30	±2.360	<b>G 395</b>	↓	↓	394.30	±2.790
<b>G 270</b>	↓	↓	269.30	±2.010	<b>G 335</b>	↓	↓	334.30	±2.390	<b>G 400</b>	↓	↓	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

O'RINGS



Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR0407035/N90	<b>40.70</b>	47.70	3.50
MOR0414031/N90	<b>41.40</b>	47.60	3.10
MOR0417035/N90	<b>41.70</b>	48.70	3.50
MOR0437035/N90	<b>43.70</b>	50.70	3.50
MOR0444031/N90	<b>44.40</b>	50.60	3.10
MOR0447035/N90	<b>44.70</b>	51.70	3.50
MOR0457035/N90	<b>45.70</b>	52.70	3.50
MOR0476057/N90	<b>47.60</b>	59.00	5.70
MOR0477035/N90	<b>47.70</b>	54.70	3.50
MOR0487035/N90	<b>48.70</b>	55.70	3.50
MOR0494031/N90	<b>49.40</b>	55.60	3.10
MOR0496057/N90	<b>49.60</b>	61.00	5.70
MOR0497035/N90	<b>49.70</b>	56.70	3.50
MOR0516057/N90	<b>51.60</b>	63.00	5.70
MOR0526057/N90	<b>52.60</b>	64.00	5.70
MOR0544031/N90	<b>54.40</b>	60.60	3.10
MOR0546057/N90	<b>54.60</b>	66.00	5.70
MOR0556057/N90	<b>55.60</b>	67.00	5.70
MOR0574031/N90	<b>57.40</b>	63.60	3.10
MOR0576057/N90	<b>57.60</b>	69.00	5.70
MOR0594031/N90	<b>59.40</b>	65.60	3.10
MOR0596057/N90	<b>59.60</b>	71.00	5.70
MOR0616057/N90	<b>61.60</b>	73.00	5.70
MOR0626057/N90	<b>62.60</b>	74.00	5.70
MOR0644031/N90	<b>64.40</b>	70.60	3.10
MOR0646057/N90	<b>64.60</b>	76.00	5.70
MOR0666057/N90	<b>66.60</b>	78.00	5.70
MOR0676057/N90	<b>67.60</b>	79.00	5.70
MOR0694031/N90	<b>69.40</b>	75.60	3.10
MOR0696057/N90	<b>69.60</b>	81.00	5.70
MOR0706057/N90	<b>70.60</b>	82.00	5.70
MOR0744031/N90	<b>74.40</b>	80.60	3.10
MOR0746057/N90	<b>74.60</b>	86.00	5.70
MOR0794031/N90	<b>79.40</b>	85.60	3.10
MOR0796057/N90	<b>79.60</b>	91.00	5.70
MOR0844031/N90	<b>84.40</b>	90.60	3.10
MOR0846057/N90	<b>84.60</b>	96.00	5.70
MOR0894031/N90	<b>89.40</b>	95.60	3.10
MOR0896057/N90	<b>89.60</b>	101.00	5.70
MOR0944031/N90	<b>94.40</b>	100.60	3.10
MOR0946057/N90	<b>94.60</b>	106.00	5.70
MOR0994031/N90	<b>99.40</b>	105.60	3.10
MOR0996057/N90	<b>99.60</b>	111.00	5.70
MOR1016057/N90	<b>101.60</b>	113.00	5.70
MOR1044031/N90	<b>104.40</b>	110.60	3.10
MOR1046057/N90	<b>104.60</b>	116.00	5.70

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR1094031/N90	<b>109.40</b>	115.60	3.10
MOR1096057/N90	<b>109.60</b>	121.00	5.70
MOR1116057/N90	<b>111.60</b>	123.00	5.70
MOR1144031/N90	<b>114.40</b>	120.60	3.10
MOR1146057/N90	<b>114.60</b>	126.00	5.70
MOR1194031/N90	<b>119.40</b>	125.60	3.10
MOR1196057/N90	<b>119.60</b>	131.00	5.70
MOR1244031/N90	<b>124.40</b>	130.60	3.10
MOR1246057/N90	<b>124.60</b>	136.00	5.70
MOR1294031/N90	<b>129.40</b>	135.60	3.10
MOR1296057/N90	<b>129.60</b>	141.00	5.70
MOR1316057/N90	<b>131.60</b>	143.00	5.70
MOR1344031/N90	<b>134.40</b>	140.60	3.10
MOR1346057/N90	<b>134.60</b>	146.00	5.70
MOR1394031/N90	<b>139.40</b>	145.60	3.10
MOR1396057/N90	<b>139.60</b>	151.00	5.70
MOR1444031/N90	<b>144.40</b>	150.60	3.10
MOR1446057/N90	<b>144.60</b>	156.00	5.70
MOR1493057/N90	<b>149.60</b>	161.00	5.70
MOR1494031/N90	<b>149.40</b>	155.60	3.10
MOR1495084/N90	<b>149.50</b>	166.30	8.40
MOR1543057/N90	<b>154.30</b>	165.70	5.70
MOR1544031/N90	<b>154.40</b>	160.60	3.10
MOR1545084/N90	<b>154.50</b>	171.30	8.40
MOR1593057/N90	<b>159.30</b>	170.70	5.70
MOR1594031/N90	<b>159.40</b>	165.60	3.10
MOR1595084/N90	<b>159.50</b>	176.30	8.40
MOR1643057/N90	<b>164.30</b>	175.70	5.70
MOR1644031/N90	<b>164.40</b>	170.60	3.10
MOR1645084/N90	<b>164.50</b>	181.30	8.40
MOR1693057/N90	<b>169.30</b>	180.70	5.70
MOR1694031/N90	<b>169.40</b>	175.60	3.10
MOR1695084/N90	<b>169.50</b>	186.30	8.40
MOR1743057/N90	<b>174.30</b>	185.70	5.70
MOR1744031/N90	<b>174.40</b>	180.60	3.10
MOR1745084/N90	<b>174.50</b>	191.30	8.40
MOR1793057/N90	<b>179.30</b>	190.70	5.70
MOR1794031/N90	<b>179.40</b>	185.60	3.10
MOR1795084/N90	<b>179.50</b>	196.30	8.40
MOR1843057/N90	<b>184.30</b>	195.70	5.70
MOR1844031/N90	<b>184.40</b>	190.60	3.10
MOR1845084/N90	<b>184.50</b>	201.30	8.40
MOR1893057/N90	<b>189.30</b>	200.70	5.70
MOR1894031/N90	<b>189.40</b>	195.60	3.10
MOR1895084/N90	<b>189.50</b>	206.30	8.40
MOR1943057/N90	<b>194.30</b>	205.70	5.70



# O'Rings - JIS - NBR 90A

Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR1944031/N90	<b>194.40</b>	200.60	3.10
MOR1945084/N90	<b>194.50</b>	211.30	8.40
MOR1993057/N90	<b>199.30</b>	210.70	5.70
MOR1994031/N90	<b>199.40</b>	205.60	3.10
MOR1995084/N90	<b>199.50</b>	216.30	8.40
MOR2044031/N90	<b>204.40</b>	210.60	3.10
MOR2045084/N90	<b>204.50</b>	221.30	8.40
MOR2085084/N90	<b>208.50</b>	225.30	8.40
MOR2093057/N90	<b>209.30</b>	220.70	5.70
MOR2094031/N90	<b>209.40</b>	215.60	3.10
MOR2095084/N90	<b>209.50</b>	226.30	8.40
MOR2143057/N90	<b>214.30</b>	225.70	5.70
MOR2144031/N90	<b>214.40</b>	220.60	3.10
MOR2145084/N90	<b>214.50</b>	231.30	8.40
MOR2193057/N90	<b>219.30</b>	230.70	5.70
MOR2194031/N90	<b>219.40</b>	225.60	3.10
MOR2195084/N90	<b>219.50</b>	236.30	8.40
MOR2243057/N90	<b>224.30</b>	235.70	5.70
MOR2244031/N90	<b>224.40</b>	230.60	3.10
MOR2245084/N90	<b>224.50</b>	241.30	8.40
MOR2293057/N90	<b>229.30</b>	240.70	5.70
MOR2294031/N90	<b>229.40</b>	235.60	3.10
MOR2295084/N90	<b>229.50</b>	246.30	8.40
MOR2343057/N90	<b>234.30</b>	245.70	5.70
MOR2344031/N90	<b>234.40</b>	240.60	3.10
MOR2345084/N90	<b>234.50</b>	251.30	8.40
MOR2393057/N90	<b>239.30</b>	250.70	5.70
MOR2394031/N90	<b>239.40</b>	245.60	3.10
MOR2395084/N90	<b>239.50</b>	256.30	8.40
MOR2444031/N90	<b>244.40</b>	250.60	3.10
MOR2445084/N90	<b>244.50</b>	261.30	8.40
MOR2493057/N90	<b>249.30</b>	260.70	5.70
MOR2494031/N90	<b>249.40</b>	255.60	3.10
MOR2495084/N90	<b>249.50</b>	266.30	8.40
MOR2543057/N90	<b>254.30</b>	265.70	5.70
MOR2544031/N90	<b>254.40</b>	260.60	3.10
MOR2545084/N90	<b>254.50</b>	271.30	8.40
MOR2593057/N90	<b>259.30</b>	270.70	5.70
MOR2594031/N90	<b>259.40</b>	265.60	3.10
MOR2595084/N90	<b>259.50</b>	276.30	8.40
MOR2644031/N90	<b>264.40</b>	270.60	3.10
MOR2645084/N90	<b>264.50</b>	281.30	8.40
MOR2693057/N90	<b>269.30</b>	280.70	5.70
MOR2694031/N90	<b>269.40</b>	275.60	3.10
MOR2695084/N90	<b>269.50</b>	286.30	8.40
MOR2744031/N90	<b>274.40</b>	280.60	3.10

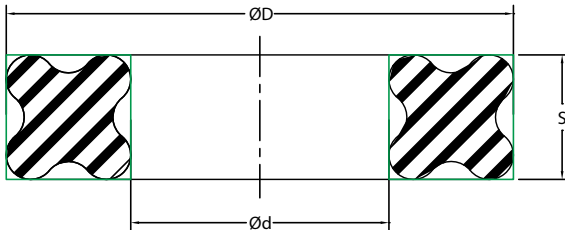
Ref.Number	Nominal Seal Dimensions		
	d	D	S
MOR2745084/N90	<b>274.50</b>	291.30	8.40
MOR2793057/N90	<b>279.30</b>	290.70	5.70
MOR2794031/N90	<b>279.40</b>	285.60	3.10
MOR2795084/N90	<b>279.50</b>	296.30	8.40
MOR2843057/N90	<b>284.30</b>	295.70	5.70
MOR2844031/N90	<b>284.40</b>	290.60	3.10
MOR2845084/N90	<b>284.50</b>	301.30	8.40
MOR2893057/N90	<b>289.30</b>	300.70	5.70
MOR2894031/N90	<b>289.40</b>	295.60	3.10
MOR2895084/N90	<b>289.50</b>	306.30	8.40
MOR2944031/N90	<b>294.40</b>	300.60	3.10
MOR2945084/N90	<b>294.50</b>	311.30	8.40
MOR2993057/N90	<b>299.30</b>	310.70	5.70
MOR2994031/N90	<b>299.40</b>	305.60	3.10
MOR2995084/N90	<b>299.50</b>	316.30	8.40
MOR3044031/N90	<b>304.40</b>	310.60	3.10
MOR3094031/N90	<b>309.40</b>	315.60	3.10
MOR3144031/N90	<b>314.40</b>	320.60	3.10
MOR3145084/N90	<b>314.50</b>	331.30	8.40
MOR3194031/N90	<b>319.40</b>	325.60	3.10
MOR3195084/N90	<b>319.50</b>	336.30	8.40
MOR3244031/N90	<b>324.40</b>	330.60	3.10
MOR3294031/N90	<b>329.40</b>	335.60	3.10
MOR3344031/N90	<b>334.40</b>	340.60	3.10
MOR3345084/N90	<b>334.50</b>	351.30	8.40
MOR3394031/N90	<b>339.40</b>	345.60	3.10
MOR3395084/N90	<b>339.50</b>	356.30	8.40
MOR3444031/N90	<b>344.40</b>	350.60	3.10
MOR3494031/N90	<b>349.40</b>	355.60	3.10
MOR3544031/N90	<b>354.40</b>	360.60	3.10
MOR3545084/N90	<b>354.50</b>	371.30	8.40
MOR3594031/N90	<b>359.40</b>	365.60	3.10
MOR3595084/N90	<b>359.50</b>	376.30	8.40
MOR3644031/N90	<b>364.40</b>	370.60	3.10
MOR3694031/N90	<b>369.40</b>	375.60	3.10
MOR3744031/N90	<b>374.40</b>	380.60	3.10
MOR3745084/N90	<b>374.50</b>	391.30	8.40
MOR3794031/N90	<b>379.40</b>	385.60	3.10
MOR3844031/N90	<b>384.40</b>	390.60	3.10
MOR3845084/N90	<b>384.50</b>	401.30	8.40
MOR3894031/N90	<b>389.40</b>	395.60	3.10
MOR3944031/N90	<b>394.40</b>	400.60	3.10
MOR3994031/N90	<b>399.40</b>	405.60	3.10
MOR3995084/N90	<b>399.50</b>	416.30	8.40
MOR4044031/N90	<b>404.40</b>	410.60	3.10



# 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		
		d	D	S
QR0029017/N	1	<b>2.90</b>	6.46	1.78
QR0036017/N	2	<b>3.68</b>	7.24	1.78
QR0044017/N	3	<b>4.47</b>	8.03	1.78
QR0046017/N	3A	<b>4.62</b>	8.18	1.78
QR0052017/N	4	<b>5.28</b>	8.84	1.78
QR0057017/N	4A	<b>5.70</b>	9.26	1.78
QR0060017/N	5	<b>6.07</b>	9.63	1.78
QR0066017/N	5A	<b>6.65</b>	10.21	1.78
QR0076017/N	6	<b>7.65</b>	11.21	1.78
QR0087017/N	6A	<b>8.70</b>	12.26	1.78
QR0092017/N	7	<b>9.25</b>	12.81	1.78
QR0097017/N	7A	<b>9.70</b>	13.26	1.78
QR0091026/N	8	<b>9.19</b>	14.43	2.62
QR0098026/N	8A	<b>9.80</b>	15.04	2.62
QR0107026/N	9	<b>10.77</b>	16.01	2.62
QR0117026/N	9A	<b>11.70</b>	16.94	2.62
QR0123026/N	10	<b>12.37</b>	17.61	2.62
QR0128026/N	10A	<b>12.80</b>	18.04	2.62
QR0137026/N	10B	<b>13.70</b>	18.94	2.62
QR0139026/N	11	<b>13.94</b>	19.18	2.62
QR0147026/N	11A	<b>14.70</b>	19.94	2.62
QR0155026/N	12	<b>15.54</b>	20.78	2.62

Ref.Number	JF4	Nominal Seal Dimensions		
		d	D	S
QR0171026/N	13	<b>17.12</b>	22.36	2.62
QR0177026/N	13A	<b>17.75</b>	22.99	2.62
QR0187026/N	14	<b>18.72</b>	23.96	2.62
QR0196026/N	14A	<b>19.60</b>	24.84	2.62
QR0186035/N	15	<b>18.64</b>	25.70	3.53
QR0202035/N	16	<b>20.22</b>	27.28	3.53
QR0209035/N	16A	<b>20.90</b>	27.96	3.53
QR0218035/N	17	<b>21.82</b>	28.88	3.53
QR0233035/N	18	<b>23.39</b>	30.45	3.53
QR0239035/N	18A	<b>23.99</b>	31.05	3.53
QR0249035/N	19	<b>24.99</b>	32.05	3.53
QR0259035/N	19A	<b>25.90</b>	32.96	3.53
QR0265035/N	20	<b>26.57</b>	33.63	3.53
QR0275035/N	20A	<b>27.57</b>	34.63	3.53
QR0281035/N	21	<b>28.17</b>	35.23	3.53
QR0297035/N	22	<b>29.74</b>	36.80	3.53
QR0313035/N	23	<b>31.34</b>	38.40	3.53
QR0320035/N	23A	<b>32.04</b>	39.10	3.53
QR0329035/N	24	<b>32.92</b>	39.98	3.53
QR0338035/N	24A	<b>33.80</b>	40.86	3.53
QR0345035/N	25	<b>34.52</b>	41.58	3.53
QR0360035/N	26	<b>36.09</b>	43.15	3.53



# Quad rings - NBR 70A



Ref.Number	JF4	Nominal Seal Dimensions		
		d	D	S
QR0376035/N	27	<b>37.69</b>	44.75	5.53
QR0374053/N	28	<b>37.47</b>	48.13	5.33
QR0396053/N	28A	<b>39.64</b>	50.30	5.33
QR0406053/N	29	<b>40.64</b>	51.30	5.33
QR0418053/N	29A	<b>41.80</b>	52.46	5.33
QR0438053/N	30	<b>43.82</b>	54.48	5.33
QR0450053/N	30A	<b>45.04</b>	55.70	5.33
QR0458053/N	30B	<b>45.84</b>	56.50	5.33
QR0469053/N	31	<b>46.99</b>	57.65	5.33
QR0478053/N	31A	<b>47.80</b>	58.46	5.33
QR0501053/N	32	<b>50.17</b>	60.83	5.33
QR0520053/N	32A	<b>52.00</b>	62.66	5.33
QR0533053/N	33	<b>53.34</b>	64.00	5.33
QR0545053/N	33A	<b>54.50</b>	65.16	5.33
QR0565053/N	34	<b>56.52</b>	67.18	5.33
QR0575053/N	34A	<b>57.52</b>	68.18	5.33
QR0596053/N	35	<b>59.69</b>	70.35	5.33
QR0615053/N	35A	<b>61.54</b>	72.20	5.33
QR0628053/N	36	<b>62.87</b>	73.53	5.33
QR0645053/N	36A	<b>64.59</b>	75.25	5.33
QR0660053/N	37	<b>66.04</b>	76.70	5.33
QR0676053/N	37A	<b>67.64</b>	78.30	5.33
QR0692053/N	38	<b>69.22</b>	79.88	5.33
QR0706053/N	38A	<b>70.64</b>	81.30	5.33
QR0723053/N	39	<b>72.39</b>	83.05	5.33
QR0738053/N	39A	<b>73.84</b>	84.50	5.33
QR0755053/N	40	<b>75.57</b>	86.23	5.33
QR0787053/N	41	<b>78.74</b>	89.40	5.33
QR0800053/N	41A	<b>80.09</b>	90.75	5.33
QR0819053/N	42	<b>81.92</b>	92.58	5.33
QR0833053/N	42A	<b>83.39</b>	94.05	5.33
QR0850053/N	43	<b>85.09</b>	95.75	5.33
QR0866053/N	43A	<b>86.64</b>	97.30	5.33
QR0882053/N	44	<b>88.27</b>	98.93	5.33
QR0895053/N	44A	<b>89.59</b>	100.25	5.33
QR0914053/N	45	<b>91.44</b>	102.10	5.33
QR0946053/N	46	<b>94.62</b>	105.28	5.33
QR0979053/N	47	<b>97.99</b>	108.65	5.33
QR1009053/N	48	<b>100.97</b>	111.63	5.33
QR1023053/N	48A	<b>102.34</b>	113.00	5.33
QR1041053/N	49	<b>104.14</b>	114.80	5.33
QR1058053/N	49A	<b>105.80</b>	116.46	5.33
QR1073053/N	50	<b>107.32</b>	117.98	5.33
QR1104053/N	51	<b>110.49</b>	121.15	5.33
QR1136069/N	52	<b>113.67</b>	124.33	6.99
QR1136069/N	88	<b>113.67</b>	127.65	6.99

Ref.Number	JF4	Nominal Seal Dimensions		
		d	D	S
QR1158069/N	52A	<b>115.84</b>	129.82	6.99
QR1168069/N	53	<b>116.84</b>	130.82	6.99
QR1200069/N	54	<b>120.02</b>	134.00	6.99
QR1231069/N	55	<b>123.19</b>	137.17	6.99
QR1263069/N	56	<b>126.37</b>	140.35	6.99
QR1295069/N	57	<b>129.54</b>	143.52	6.99
QR1327069/N	58	<b>132.72</b>	146.70	6.99
QR1358069/N	59	<b>135.89</b>	149.87	6.99
QR1390069/N	60	<b>139.07</b>	153.05	6.99
QR1422069/N	61	<b>142.24</b>	156.22	6.99
QR1454069/N	62	<b>145.42</b>	159.40	6.99
QR1485069/N	63	<b>148.59</b>	162.57	6.99
QR1517069/N	64	<b>151.77</b>	165.75	6.99
QR1550069/N	64A	<b>155.02</b>	169.00	6.99
QR1581069/N	65	<b>158.12</b>	172.10	6.99
QR1610069/N	65A	<b>161.02</b>	175.00	6.99
QR1644069/N	66	<b>164.47</b>	178.45	6.99
QR1670069/N	66A	<b>167.02</b>	181.00	6.99
QR1708069/N	67	<b>170.82</b>	184.80	6.99
QR1735069/N	67A	<b>173.52</b>	187.50	6.99
QR1771069/N	68	<b>177.17</b>	191.15	6.99
QR1805069/N	68A	<b>180.52</b>	194.50	6.99
QR1835069/N	69	<b>183.52</b>	197.50	6.99
QR1860069/N	69A	<b>186.02</b>	200.00	6.99
QR1898069/N	70	<b>189.87</b>	203.85	6.99
QR1920069/N	70A	<b>192.02</b>	206.00	6.99
QR1962069/N	71	<b>196.22</b>	210.20	6.99
QR1990069/N	71A	<b>199.02</b>	213.00	6.99
QR2025069/N	72	<b>202.57</b>	216.55	6.99
QR2068069/N	72A	<b>206.80</b>	220.78	6.99
QR2110069/N	72B	<b>211.02</b>	225.00	6.99
QR2152069/N	73	<b>215.27</b>	229.25	6.99
QR2190069/N	73A	<b>219.02</b>	233.00	6.99
QR2235069/N	73B	<b>223.50</b>	237.48	6.99
QR2279069/N	74	<b>227.97</b>	241.95	6.99
QR2310069/N	74A	<b>231.02</b>	245.00	6.99
QR2350069/N	74B	<b>235.00</b>	248.98	6.99
QR2406069/N	75	<b>240.67</b>	254.65	6.99
QR2430069/N	75A	<b>243.02</b>	257.00	6.99
QR2480069/N	75B	<b>248.00</b>	261.98	6.99
QR2533069/N	76	<b>253.37</b>	267.35	6.99
QR2590069/N	76A	<b>259.00</b>	272.98	6.99
QR2660069/N	77	<b>266.07</b>	280.05	6.99
QR2731069/N	77A	<b>273.10</b>	287.08	6.99
QR2787069/N	78	<b>278.77</b>	292.75	6.99
QR2840069/N	78A	<b>284.00</b>	297.98	6.99

# Quad rings - NBR 70A

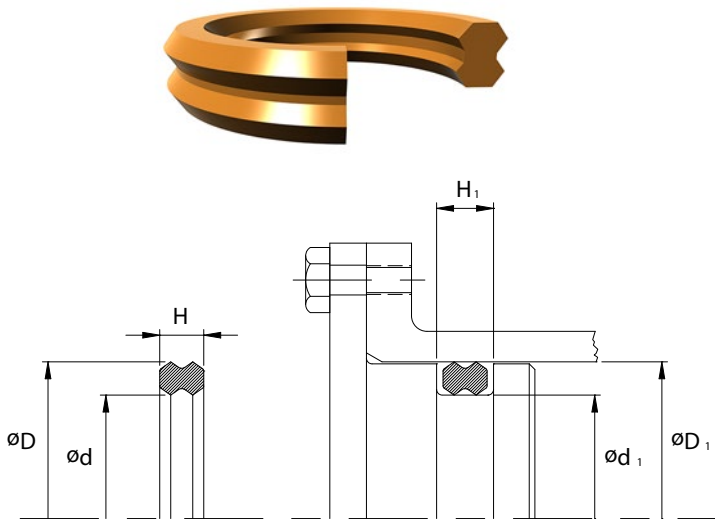
Ref.Number	JF4	Nominal Seal Dimensions		
		d	D	S
QR2875069/N	78B	<b>287.50</b>	301.48	6.99
QR2914069/N	79	<b>291.47</b>	305.45	6.99
QR2980069/N	79A	<b>298.00</b>	311.98	6.99
QR3041069/N	80	<b>304.17</b>	318.15	6.99
QR3100069/N	80A	<b>310.00</b>	323.98	6.99
QR3168069/N	81	<b>316.87</b>	330.85	6.99
QR3235069/N	81A	<b>323.50</b>	337.48	6.99
QR3295069/N	82	<b>329.57</b>	343.55	6.99
QR3365069/N	82A	<b>336.50</b>	350.48	6.99
QR3422069/N	83	<b>342.27</b>	356.25	6.99

Ref.Number	JF4	Nominal Seal Dimensions		
		d	D	S
QR3485069/N	83A	<b>348.50</b>	362.48	6.99
QR3549069/N	84	<b>354.97</b>	368.95	6.99
QR3625069/N	84A	<b>362.50</b>	376.48	6.99
QR3676069/N	85	<b>367.67</b>	381.65	6.99
QR3740069/N	85A	<b>374.00</b>	387.98	6.99
QR3803069/N	86	<b>380.37</b>	394.35	6.99
QR3875069/N	86A	<b>387.50</b>	401.48	6.99
QR3930069/N	87	<b>393.07</b>	407.05	6.99
QR4010069/N	87A	<b>401.00</b>	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.
HSM06004024	6.00	+0.18/-0.000	4.60	+0.00/-0.030	2.40	+0.200/-0.000
HSM010007036	10.00	+0.022/-0.000	7.60	+0.000/-0.036	3.60	
HSM011008026	11.00	+0.027/-0.000	8.60		2.60	
HSM014009031	13.80		9.20		3.10	
HSM012009036	12.00		9.60		3.60	
HSM017012031	16.60		12.00	+0.000/-0.043	3.10	
HSM015012036	15.00		12.60		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/-0.000	15.60		4.40	
HSM019015036	19.00		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/-0.052	4.40	
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/-0.000	26.40		5.00	
HSM032027054	32.00		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/-0.062	5.00	
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/-0.000	35.20	+0.000/-0.062	5.40	+0.200/-0.000
HSM040035054	40.00		35.40		5.40	
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/-0.000	49.60		6.20	
HSM055049053	55.00		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/-0.074	9.70	
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

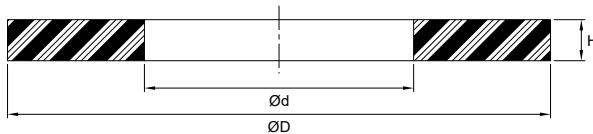
Ref. Number	Material	Total Qty	Sizes
ORK-100M-NBR	O'RING SPlicing KIT - NBR 70		
ORK-100M-FPM	O'RING SPlicing KIT - FPM 75		



# 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	<b>220.00</b>	230.00	1.90
BU225235019SD/T	<b>225.00</b>	235.00	1.90
BU230240019SD/T	<b>230.00</b>	240.00	1.90
BU235245019SD/T	<b>235.00</b>	245.00	1.90
BU240250019SD/T	<b>240.00</b>	250.00	1.90
BU245255019SD/T	<b>245.00</b>	255.00	1.90
BU250260019SD/T	<b>250.00</b>	260.00	1.90
BU255265019SD/T	<b>255.00</b>	265.00	1.90
BU260270019SD/T	<b>260.00</b>	270.00	1.90
BU265275019SD/T	<b>265.00</b>	275.00	1.90
BU270280019SD/T	<b>270.00</b>	280.00	1.90
BU275285019SD/T	<b>275.00</b>	285.00	1.90
BU280290019SD/T	<b>280.00</b>	290.00	1.90
BU285295019SD/T	<b>285.00</b>	295.00	1.90
BU290300019SD/T	<b>290.00</b>	300.00	1.90
BU295305019SD/T	<b>295.00</b>	305.00	1.90
BU300310019SD/T	<b>300.00</b>	310.00	1.90
BU150165027SD/T	<b>150.00</b>	165.00	2.75
BU155170027SD/T	<b>155.00</b>	170.00	2.75
BU160175027SD/T	<b>160.00</b>	175.00	2.75
BU165180027SD/T	<b>165.00</b>	180.00	2.75
BU170185027SD/T	<b>170.00</b>	185.00	2.75
BU175190027SD/T	<b>175.00</b>	190.00	2.75
BU180195027SD/T	<b>180.00</b>	195.00	2.75
BU185200027SD/T	<b>185.00</b>	200.00	2.75
BU190205027SD/T	<b>190.00</b>	205.00	2.75
BU195210027SD/T	<b>195.00</b>	210.00	2.75
BU200215027SD/T	<b>200.00</b>	215.00	2.75
BU205220027SD/T	<b>205.00</b>	220.00	2.75
BU209224027SD/T	<b>209.00</b>	224.00	2.75
BU210225027SD/T	<b>210.00</b>	225.00	2.75
BU215230027SD/T	<b>215.00</b>	230.00	2.75
BU220235027SD/T	<b>220.00</b>	235.00	2.75
BU225240027SD/T	<b>225.00</b>	240.00	2.75
BU230245027SD/T	<b>230.00</b>	245.00	2.75

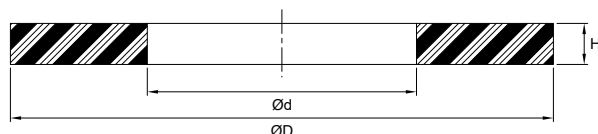
Ref.Number	Nominal Seal Dimensions		
	d	D	H
BU235250027SD/T	<b>235.00</b>	250.00	2.75
BU240255027SD/T	<b>240.00</b>	255.00	2.75
BU245260027SD/T	<b>245.00</b>	260.00	2.75
BU250265027SD/T	<b>250.00</b>	265.00	2.75
BU255270027SD/T	<b>255.00</b>	270.00	2.75
BU260275027SD/T	<b>260.00</b>	275.00	2.75
BU265280027SD/T	<b>265.00</b>	280.00	2.75
BU270285027SD/T	<b>270.00</b>	285.00	2.75
BU275290027SD/T	<b>275.00</b>	290.00	2.75
BU280295027SD/T	<b>280.00</b>	295.00	2.75
BU285300027SD/T	<b>285.00</b>	300.00	2.75
BU290305027SD/T	<b>290.00</b>	305.00	2.75
BU295310027SD/T	<b>295.00</b>	310.00	2.75
BU300315027SD/T	<b>300.00</b>	315.00	2.75
BU305320027SD/T	<b>305.00</b>	320.00	2.75
BU310325027SD/T	<b>310.00</b>	325.00	2.75
BU315330027SD/T	<b>315.00</b>	330.00	2.75
BU320335027SD/T	<b>320.00</b>	335.00	2.75
BU325340027SD/T	<b>325.00</b>	340.00	2.75
BU330345027SD/T	<b>330.00</b>	345.00	2.75
BU335350027SD/T	<b>335.00</b>	350.00	2.75
BU340355027SD/T	<b>340.00</b>	355.00	2.75
BU345360027SD/T	<b>345.00</b>	360.00	2.75
BU350365027SD/T	<b>350.00</b>	365.00	2.75
BU355370027SD/T	<b>355.00</b>	370.00	2.75
BU360375027SD/T	<b>360.00</b>	375.00	2.75
BU365380027SD/T	<b>365.00</b>	380.00	2.75
BU370385027SD/T	<b>370.00</b>	385.00	2.75
BU375390027SD/T	<b>375.00</b>	390.00	2.75
BU380395027SD/T	<b>380.00</b>	395.00	2.75
BU385400027SD/T	<b>385.00</b>	400.00	2.75
BU390405027SD/T	<b>390.00</b>	405.00	2.75
BU395410027SD/T	<b>395.00</b>	410.00	2.75
BU400415027SD/T	<b>400.00</b>	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

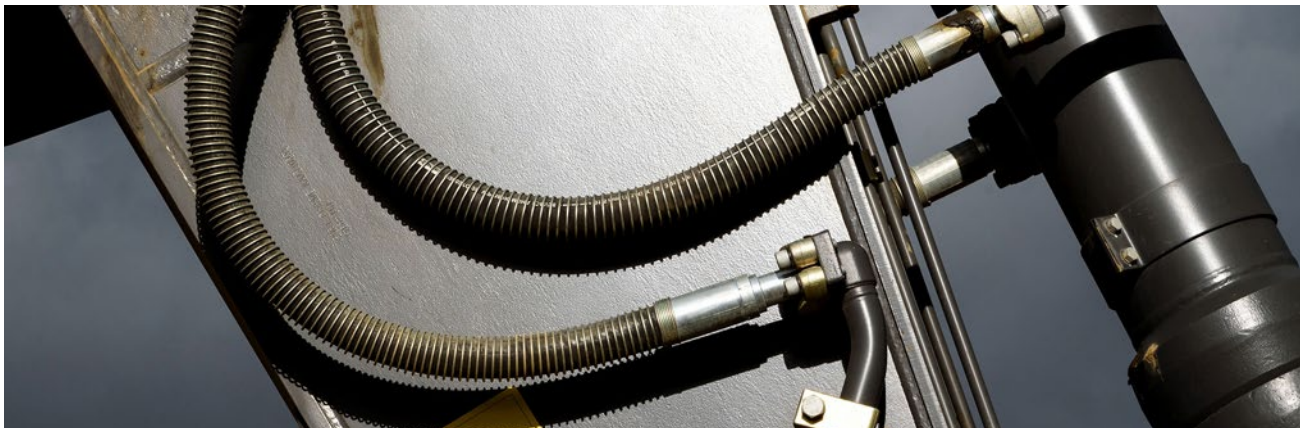


# SD/U series - AU

## O'RINGS

Ref.Number	Nominal Seal Dimensions		
	d	D	H
BU130140013SD/U	<b>130.00</b>	140.00	1.30
BU135140013SD/U	<b>135.00</b>	140.00	1.30
BU140145013SD/U	<b>140.00</b>	145.00	1.30
BU145150013SD/U	<b>145.00</b>	150.00	1.30
BU150155013SD/U	<b>150.00</b>	155.00	1.30
BU155160013SD/U	<b>155.00</b>	160.00	1.30
BU160165013SD/U	<b>160.00</b>	165.00	1.30
BU165170013SD/U	<b>165.00</b>	170.00	1.30
BU170175013SD/U	<b>170.00</b>	175.00	1.30
BU175180013SD/U	<b>175.00</b>	180.00	1.30
BU185190013SD/U	<b>185.00</b>	190.00	1.30
BU040050017SD/U	<b>40.00</b>	50.00	1.70
BU045055017SD/U	<b>45.00</b>	55.00	1.70
BU050060017SD/U	<b>50.00</b>	60.00	1.70
BU053063017SD/U	<b>53.00</b>	63.00	1.70
BU055065017SD/U	<b>55.00</b>	65.00	1.70
BU060070017SD/U	<b>60.00</b>	70.00	1.70
BU065075017SD/U	<b>65.00</b>	75.00	1.70
BU070080017SD/U	<b>70.00</b>	80.00	1.70
BU075085017SD/U	<b>75.00</b>	85.00	1.70
BU078088017SD/U	<b>78.00</b>	88.00	1.70
BU080090017SD/U	<b>80.00</b>	90.00	1.70
BU085095017SD/U	<b>85.00</b>	95.00	1.70
BU090100017SD/U	<b>90.00</b>	100.00	1.70
BU095105017SD/U	<b>95.00</b>	105.00	1.70
BU100110017SD/U	<b>100.00</b>	110.00	1.70
BU105115017SD/U	<b>105.00</b>	115.00	1.70
BU110120017SD/U	<b>110.00</b>	120.00	1.70
BU115125017SD/U	<b>115.00</b>	125.00	1.70
BU120130017SD/U	<b>120.00</b>	130.00	1.70
BU125135017SD/U	<b>125.00</b>	135.00	1.70

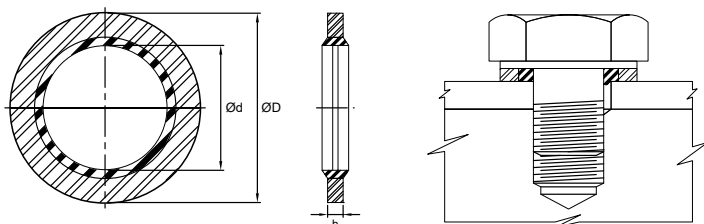
Ref.Number	Nominal Seal Dimensions		
	d	D	H
BU130140017SD/U	<b>130.00</b>	140.00	1.70
BU135145017SD/U	<b>135.00</b>	145.00	1.70
BU140150017SD/U	<b>140.00</b>	150.00	1.70
BU145155017SD/U	<b>145.00</b>	155.00	1.70
BU150160017SD/U	<b>150.00</b>	160.00	1.70
BU152162017SD/U	<b>152.00</b>	162.00	1.70
BU155165017SD/U	<b>155.00</b>	165.00	1.70
BU160170017SD/U	<b>160.00</b>	170.00	1.70
BU165175017SD/U	<b>165.00</b>	175.00	1.70
BU170180017SD/U	<b>170.00</b>	180.00	1.70
BU172182017SD/U	<b>172.00</b>	182.00	1.70
BU175185017SD/U	<b>175.00</b>	185.00	1.70
BU180190017SD/U	<b>180.00</b>	190.00	1.70
BU185195017SD/U	<b>185.00</b>	195.00	1.70
BU190200017SD/U	<b>190.00</b>	200.00	1.70
BU195205017SD/U	<b>195.00</b>	205.00	1.70
BU200210017SD/U	<b>200.00</b>	210.00	1.70
BU210220017SD/U	<b>210.00</b>	220.00	1.70
BU220230017SD/U	<b>220.00</b>	230.00	1.70
BU230240017SD/U	<b>230.00</b>	240.00	1.70
BU240250017SD/U	<b>240.00</b>	250.00	1.70
BU245255017SD/U	<b>245.00</b>	255.00	1.70
BU250260017SD/U	<b>250.00</b>	260.00	1.70
BU145160021SD/U	<b>145.00</b>	160.00	2.10
BU180195021SD/U	<b>180.00</b>	195.00	2.10
BU185200021SD/U	<b>185.00</b>	200.00	2.10
BU200215021SD/U	<b>200.00</b>	215.00	2.10
BU220235021SD/U	<b>220.00</b>	235.00	2.10
BU240255021SD/U	<b>240.00</b>	255.00	2.10
BU250265021SD/U	<b>250.00</b>	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	<b>16.70</b>	24.00	1.50
BS017023021	<b>17.20</b>	23.90	2.10
BS017022012	<b>17.35</b>	22.70	1.25
BS017023015	<b>17.40</b>	23.70	1.50
BS017024015	<b>17.40</b>	24.00	1.50
BS018024015	<b>18.00</b>	24.70	1.50
BS018026015	<b>18.70</b>	26.00	1.50
BS018027020	<b>18.70</b>	27.00	2.00
BS020028015	<b>20.70</b>	28.00	1.50
BS020029020	<b>20.70</b>	29.00	2.00
BS021028025	<b>21.50</b>	28.70	2.50
BS021026012	<b>21.65</b>	26.70	1.25
BS021030020	<b>21.70</b>	30.00	2.00
BS022028015	<b>22.50</b>	28.00	1.50
BS022030020	<b>22.70</b>	30.00	2.00
BS022030030	<b>22.70</b>	30.00	3.00
BS022031020	<b>22.70</b>	31.00	2.00
BS023032020	<b>23.70</b>	32.00	2.00
BS024032020	<b>24.70</b>	32.00	2.00
BS024033020	<b>24.70</b>	33.00	2.00
BS026035020	<b>26.70</b>	35.00	2.00
BS027035020	<b>27.00</b>	35.30	2.00
BS027036020	<b>27.20</b>	36.00	2.00
BS027032012	<b>27.30</b>	32.60	1.25
BS027032020	<b>27.30</b>	32.60	2.00
BS027036020-1	<b>27.70</b>	36.00	2.00

Ref.Number	Nominal Seal Dimensions		
	d	D	h
BS028036020	<b>28.60</b>	36.00	2.00
BS028037020	<b>28.70</b>	37.00	2.00
BS029037020	<b>29.20</b>	37.50	2.00
BS030039020	<b>30.70</b>	39.00	2.00
BS031039020	<b>31.00</b>	39.00	2.00
BS033042020	<b>33.70</b>	42.00	2.00
BS034039020	<b>34.20</b>	39.50	2.00
BS034043020	<b>34.30</b>	43.00	2.00
BS036046020	<b>36.70</b>	46.00	2.00
BS037048025	<b>37.00</b>	48.00	2.50
BS040051025	<b>40.00</b>	51.00	2.50
BS042053030	<b>42.70</b>	53.00	3.00
BS042049020	<b>42.80</b>	49.50	2.00
BS043054025	<b>43.00</b>	54.00	2.50
BS046057025	<b>46.00</b>	57.00	2.50
BS048055020	<b>48.70</b>	55.50	2.00
BS048059030	<b>48.70</b>	59.00	3.00
BS049060025	<b>49.00</b>	60.00	2.50
BS052060030	<b>52.00</b>	60.00	3.00
BS053064030	<b>53.30</b>	64.50	3.00
BS060068020	<b>60.50</b>	68.50	2.00
BS060073030	<b>60.70</b>	73.00	3.00
BS068079035	<b>68.60</b>	79.50	3.50
BS076090033	<b>76.08</b>	90.30	3.38
BS089101032	<b>89.09</b>	101.35	3.25
BS127143050	<b>127.00</b>	143.67	5.00

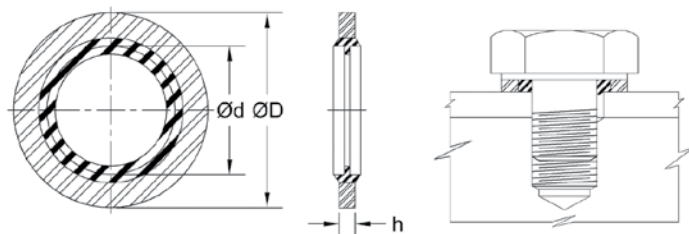




# Usit rings - Self centering - Metric



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	<b>4.50</b>	7.00	1.00
BS006011010SC	<b>6.60</b>	11.00	1.00
BS008014010SC	<b>8.70</b>	14.00	1.00
BS010015020SC	<b>10.37</b>	15.88	2.03
BS010016015SC	<b>10.70</b>	16.00	1.50
BS010016020SC	<b>10.35</b>	16.00	2.00
BS012018015SC	<b>12.70</b>	18.00	1.50
BS012019015SC	<b>12.70</b>	19.00	1.50
BS013020020SC	<b>13.74</b>	20.57	2.03
BS014022015SC	<b>14.70</b>	22.00	1.50
BS016024015SC	<b>16.70</b>	24.00	1.50
BS016025020SC	<b>16.51</b>	25.40	2.03
BS017023020SC	<b>17.28</b>	23.80	2.03
BS018025023SC	<b>18.16</b>	25.40	2.34
BS018026015SC	<b>18.70</b>	26.00	1.50
BS020028015SC	<b>20.70</b>	28.00	1.50

Ref.Number	Nominal Seal Dimensions		
	d	D	h
BS021028023SC	<b>21.54</b>	28.58	2.34
BS022030020SC	<b>22.70</b>	30.00	2.00
BS023031023SC	<b>23.49</b>	31.75	2.34
BS024032020SC	<b>24.70</b>	32.00	2.00
BS027034023SC	<b>27.05</b>	34.93	2.34
BS030038023SC	<b>30.81</b>	38.10	2.34
BS033042032SC	<b>33.89</b>	42.80	3.25
BS042052032SC	<b>42.93</b>	52.38	3.25
BS043054025SC	<b>43.00</b>	54.00	2.50
BS048058032SC	<b>48.44</b>	58.60	3.25
BS054069032SC	<b>54.89</b>	69.85	3.25
BS060073032SC	<b>60.58</b>	73.03	3.25
BS066079032SC	<b>66.68</b>	79.50	3.25
BS076090032SC	<b>76.08</b>	90.17	3.25
BS089101032SC	<b>89.09</b>	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)		
<b>Thermoplastic Elastomers — TPU, Polyurethanes</b>												
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
<b>Thermoplastic Elastomers — TPCE, Polymyte®</b>												
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)
<b>Nylons</b>						
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)
<b>UltraCOMP™ (PEEK)</b>						
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)
<b>Composite Resins</b>						
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 <sub>2</sub> 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							
<b>Nylons</b>									
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
<b>UltraCOMP™ (PEEK)</b>									
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
<b>Composite Resins</b>									
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)	
<b>Nitrile (NBR)</b>											
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
<b>Carboxylated Nitroxile® (XNBR)</b>											
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
<b>Hydrogenated Nitrile (HNBR)</b>											
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
<b>Ethylene Propylene (EPR)</b>											
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
<b>Fluorocarbon Elastomers (FPM)</b>											
V1238A95	Fluoro-elastomer	Black	Resistant to explosive decompression and extrusion. Shows no visual physical damage after prolonged exposure to 100% CO <sub>2</sub> 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)	
<b>Fluorocarbon Elastomers (FPM)</b>											
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"> <li>Petroleum oils and fluids</li> <li>Diesel fuel and fuel oils</li> <li>Cold water</li> <li>Silicone oil and grease</li> <li>Mineral oil and grease</li> </ul>	<ul style="list-style-type: none"> <li>Aromatic hydrocarbons</li> <li>Chlorinated hydrocarbons</li> <li>Polar solvents (MEK, ketone, acetone)</li> <li>Phosphate ester fluids</li> <li>Strong acids</li> <li>Automotive brake fluid</li> </ul>
B	Low Temperature Nitrile (NBR)	75	-65°F to +225°F (-55°C to +107°C)	<ul style="list-style-type: none"> <li>Vegetable oil</li> <li>HFA, HFB and HFC fluids</li> </ul>	
C	Clean Grade Nitrile (NBR)	70	-30°F to +250°F (-34°C to +121°C)	<ul style="list-style-type: none"> <li>Potable water</li> <li>Food service</li> </ul>	
D	Hydrogenated Nitrile (HNBR)	70	-23°F to +300°F (-32°C to +149°C)	<ul style="list-style-type: none"> <li>Diesel fuel and fuel oils</li> <li>Dilute acids and bases</li> </ul>	
F	Fluorocarbon (FKM)	70	-15°F to +400°F (-26°C to +205°C)	<ul style="list-style-type: none"> <li>Petroleum oils and fluids</li> <li>Cold water</li> <li>Silicone greases and oils</li> <li>Aliphatic hydrocarbons</li> <li>Aromatic hydrocarbons</li> <li>Fuels</li> <li>Fuels with methanol content</li> </ul>	<ul style="list-style-type: none"> <li>Glycol based brake fluids</li> <li>Ammonia gas, amines, alkalis</li> <li>Superheated steam</li> <li>Low molecular organic acids</li> </ul>
H	Silicone HT (VMQ)	70	-65°F to +450°F (-55°C to +232°C)	<ul style="list-style-type: none"> <li>Engine and transmission oil</li> <li>Animal and vegetable oil and grease</li> <li>Brake fluid</li> <li>Fire-resistant hydraulic fluid</li> <li>Ozone, aging and weather resistant</li> </ul>	<ul style="list-style-type: none"> <li>Superheated steam</li> <li>Acids and Alkalis</li> <li>Aromatic mineral oil</li> <li>Hydrocarbon-based fuels</li> <li>Aromatic hydrocarbons</li> </ul>
I	Silicone HT (VMQ) Food Grade				
K	Ethylene Propylene Rubber (EPDM)	70	-70°F to +250°F (-57°C to +121°C)	<ul style="list-style-type: none"> <li>Hot water</li> <li>Glycol based brake fluids</li> <li>Many organic and inorganic acids</li> <li>Cleaning agents</li> <li>Soda and potassium alkalis</li> <li>Phosphate ester based fluids</li> <li>Many polar solvents</li> </ul>	<ul style="list-style-type: none"> <li>Petroleum oils and fluids</li> <li>Mineral oil products</li> </ul>
L	Ethylene Propylene Rubber (EPDM)	80	-70°F to +250°F (-57°C to +121°C)		



# 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"> <li>Petroleum oils and fluids</li> <li>Diesel fuel and fuel oils</li> <li>Phosphate ester fluids</li> <li>Silicone oil and grease</li> <li>Mineral oil and grease</li> </ul>
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"> <li>Reduced water absorption</li> <li>Improved thermal stability</li> </ul>
C	Acetal	6,000 psi (414 bar)	-40°F to +250°F (-40°C to +121°C)	<ul style="list-style-type: none"> <li>HFA, HFB and HFC fluids</li> <li>Water</li> <li>Petroleum oils and fluids</li> <li>Diesel fuel and fuel oils</li> <li>Mineral oil and grease</li> </ul>
D	PTFE PPS Filled	5000 psi (345 bar)	-100°F to +450°F (-73°C to +232°C)	<ul style="list-style-type: none"> <li>Extended temperature, pressure and media resistance</li> </ul>
E	PEEK Virgin	10,000 psi (690 bar)	-65°F to +500°F (-54°C to +260°C)	<ul style="list-style-type: none"> <li>Extended temperature, pressure and media resistance</li> </ul>

**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**

<b>Seal Storage and Handling Guidelines</b>	
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
<b>Color</b>	Natural	Blue	Blue-Violet	Beige	Yellow	Yellow	Black	Black
<b>Hardness</b>	92 Shore A	94 Shore A	80 Shore A	80 Shore A	90 Shore A	90 Shore A	90 Shore	93 Shore A
<b>Tensile Strength</b>	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
<b>Elongation at break</b>	530 %	550 %	600 %	600 %	500 %	155 %	155 %	155 %
<b>Compression Set</b>	<b>Set</b>	25 %	20 %	15 %	15 %	43 %	27 %	25 %
	<b>°F</b>	158 °F	212 °F	158 °F	158 °F	212 °F	158 °F	212 °F
	<b>°C</b>	70 °C	100 °C	70 °C	70 °C	100 °C	70 °C	100 °C
<b>Temperature range</b>								

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
<b>Color</b>	Red	Blue	Blue	Yellowish white	Black	Dark - Blue	Green	Violet
<b>Hardness</b>	93 Shore A	94 Shore A	94 Shore A	94 Shore A	95 Shore A	95 Shore A	95 Shore A	95 Shore A
<b>Tensile Strength</b>	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
<b>Elongation at break</b>	360 %	530 %	420 %	480 %	450 %	155 %	442 %	440 %
<b>Compression Set</b>	<b>Set</b>	20 %	30 %	N/A	30 %	41 %	39 %	25 %
	<b>°F</b>	158 °F	212 °F	176 °F	N/A	158 °F	212 °F	158 °F
	<b>°C</b>	70 °C	100 °C	80 °C	N/A	70 °C	100 °C	70 °C
<b>Temperature range</b>								

# 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
<b>Color</b>	Blue	Black	Orange	Black	Black	Black	Red-Brown	Black
<b>Hardness</b>	98 Shore A	85 Shore A	55 Shore D	72 Shore A	80 Shore A	80 Shore A	80 Shore A	80 Shore A
<b>Tensile Strength</b>	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
<b>Elongation at break</b>	456 %	110 %	450 %	270 %	160 %	328 %	206 %	150 %
<b>Compression Set</b>	<b>Set</b>	35 %	—	0.2 %	25 %	20 %	16 %	—
	<b>°F</b>	212 °F	—	158 °F	212 °F	212 °F	212 °F	—
	<b>°C</b>	100 °C	—	70 °C	100 °C	100 °C	100 °C	—
<b>Temperature range</b>								

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
<b>Color</b>	Red	Blue	Black	Black	Blue	Black
<b>Hardness</b>	85 Shore A	85 Shore A	88 Shore A	90 Shore A	—	—
<b>Tensile Strength</b>	2320 psi 500 bar	3176 psi 219 bar	1958 psi 135 bar	1827 psi 126 bar	19500 psi 1344 bar	6671 psi 460 bar
<b>Elongation at break</b>	140 %	160 %	215 %	155 %	—	—
<b>Compression Set</b>	<b>Set</b>	—	25 %	43 %	25 %	—
	<b>°F</b>	—	158 °F	212 °F	212 °F	—
	<b>°C</b>	—	70 °C	100 °C	100 °C	—
<b>Temperature range</b>						

# 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	+320 +190	+400 +190	+510 +190	+191 +110	+240 +110	+88 +56	+108 +56	+137 +56
280	315	+1370 +1050	+621 +540	+860 +540	+650 +330								
315	355	+1560 +1200	+689 +600	+960 +600	+720 +360	+350 +210	+440 +210	+570 +210	+214 +125	+265 +125	+98 +62	+119 +62	+151 +62
355	400	+1710 +1350	+769 +680	+1040 +680	+760 +400								
400	450	+1900 +1500	+857 +760	+1160 +760	+840 +440	+385 +230	+480 +230	+630 +230	+232 +135	+290 +135	+108 +68	+131 +68	+165 +68
450	500	+2050 +1650	+937 +840	+1240 +840	+880 +480								

**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	-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	-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	-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	-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	-6
120	140	+39	+54	+18	+25	+40	+63	+100	+160	+250	+400	+630	+18										
140	160													+14	+14	0	0	0	0	0	0	0	-7
160	180																						
180	200	+44	+61	+20	+29	+46	+72	+115	+185	+290	+460	+720	+22										
200	225													+15	+15	0	0	0	0	0	0	0	-7
225	250																						
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	-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	-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	7

**NOMINAL SIZE RANGE**

# ISO Metric tolerance chart

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		<b>TOLERANCES FOR INSIDE DIMENSIONS (HOLES) (UNITS IN 0.001 MM)</b>											
<b>OVER</b>	<b>TO</b>	<b>J7</b>	<b>J8</b>	<b>K6</b>	<b>K7</b>	<b>K8</b>	<b>M6</b>	<b>M7</b>	<b>M8</b>	<b>N6</b>	<b>N7</b>	<b>N8</b>	<b>R7</b>

# 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	
<b>NOMINAL SIZE RANGE</b>	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	
<b>NOMINAL SIZE RANGE</b>	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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