

# Fluidseal AB

## RESILON® D-RING SEAL

**High-performance polyurethane solution extends seal life with one-piece design for hydraulic valves**

The unique shape of the Parker D-Ring also provides a variety of design advantages. The molded "D" shape which is higher in the middle and lower on the ends, provides sealing in critical areas while reducing the chance of a seal being cut during installation. Its sealing lip is minimized thus reducing the amount of friction between seal and bore while providing expected sealing performance. The "D" shape is symmetrical so there is no performance degradation as the valve cycles in the reverse direction or concern of backward installation of the seal. The design also incorporates "pressure pedestals" to eliminate the potential for "blow-by," common in reverse cycling.



### **No Back-up Rings**

The increased wear resistance and strength of polyurethane eliminates the need for back-up rings, thus minimizing installation issues.

### **Resilon® 4300 Polyurethane Material**

Specially formulated Parker exclusive Resilon 4300 polyurethane for long life and wear resistance.

### **"D" Shape**

Unique "D" shape provides sealing in the critical areas while reducing the chance of a seal being cut during installation.

### **Reduced Lip**

The unique shape reduces the lip and thus the amount of wear due to friction.

## **Your Problem: Back-up and O'Ring Seal Failure**

### **Back-up and O'Ring seal failure**

- Back-up pinches during installation
- Nitrile and FKM seals wear out quickly
- O'Ring rolls in the groove/spiral failure

### **Pesky back-ups and hard to install multi-piece seal**

- Multi-component O'Ring/back-up
- Worrisome placement of the O'Ring and back-up.  
Is it on the pressure side? Tank side?
- Inelastic PTFE back-ups are difficult to re-seat



PTFE back-ups are pinched and broken during installation; leading to seal failure.

**Sealing Solutions** Group

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## Problem Solved : Parker's Resilon® D-Ring Solution

### Resilon 4300 Polyurethane D-Ring

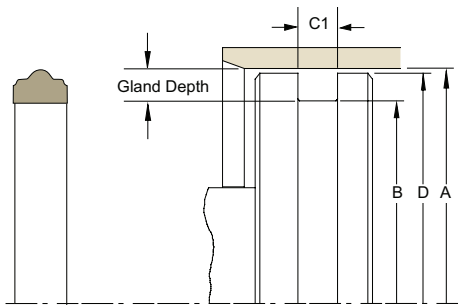
- Extrusion resistant polyurethane
- Improved strength & wear resistance
- Compression set resistant
- Longer life reduces warranty costs
- Also available in water-resistant 4301

### Single Piece Solution

- Easy Installation
- High strength material + D-Ring design eliminates need for back-ups
- Will not roll in the groove



## Gland Dimensions — DG Profile — Dynamic



Standard Material	Temperature Range
Polyurethane	-65°F to +275°F (-54°C to +135°C)

Part Number	Piston			Groove Width	O'Ring 2-Size AS568A
	A Bore Diameter	B Groove Diameter	D Piston Diameter	C1 One Back-up	
	+ .002 / - .000	+ .000 / - .002	+ .000 / - .002	+ .005 / - .000	
DG12-010/4300	0.374	0.264	0.372	0.138	010
DG12-011/4300	0.436	0.326	0.434	0.138	011
DG12-012/4300	0.499	0.389	0.497	0.138	012
DG12-013/4300	0.561	0.451	0.559	0.138	013
DG12-014/4300	0.624	0.514	0.622	0.138	014
DG12-015/4300	0.686	0.576	0.684	0.138	015
DG12-016/4300	0.749	0.639	0.747	0.138	016
DG12-017/4300	0.811	0.701	0.809	0.138	017
DG12-018/4300	0.874	0.764	0.872	0.138	018
DG12-019/4300	0.936	0.826	0.934	0.138	019
DG12-021/4300	1.061	0.951	1.059	0.138	021

