

### **D-RING SEAL**

# High-performance polyurethane solution extends seal life with one-piece design For hydraulic valves

The unique shape of the D-Ring 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. It's 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.

# **High-performance 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 FPM 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.



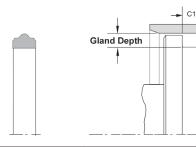
# **D-Ring Solution**

## **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     | Temperature                          |  |  |
|--------------|--------------------------------------|--|--|
| Material     | Range                                |  |  |
| Polyurethane | -65°F to +275°F<br>(-54°C to +135°C) |  |  |

|             | Piston                |                         |                         | Groove Width      |                            |
|-------------|-----------------------|-------------------------|-------------------------|-------------------|----------------------------|
| Part Number | A<br>Bore<br>Diameter | B<br>Groove<br>Diameter | D<br>Piston<br>Diameter | C1<br>One Back-up | O'Ring<br>2-Size<br>AS568A |
|             | +.002/000             | +.000/002               | +.000/002               | +.005/000         |                            |
| DG12-010    | 0.374                 | 0.264                   | 0.372                   | 0.138             | -010                       |
| DG12-011    | 0.436                 | 0.326                   | 0.434                   | 0.138             | -011                       |
| DG12-012    | 0.499                 | 0.389                   | 0.497                   | 0.138             | -012                       |
| DG12-013    | 0.561                 | 0.451                   | 0.559                   | 0.138             | -013                       |
| DG12-014    | 0.624                 | 0.514                   | 0.622                   | 0.138             | -014                       |
| DG12-015    | 0.686                 | 0.576                   | 0.684                   | 0.138             | -015                       |
| DG12-016    | 0.749                 | 0.639                   | 0.747                   | 0.138             | -016                       |
| DG12-017    | 0.811                 | 0.701                   | 0.809                   | 0.138             | -017                       |
| DG12-018    | 0.874                 | 0.764                   | 0.872                   | 0.138             | -018                       |
| DG12-019    | 0.936                 | 0.826                   | 0.934                   | 0.138             | -019                       |
| DG12-020    | 0.999                 | 0.889                   | 0.997                   | 0.138             | -020                       |
| DG12-021    | 1.061                 | 0.951                   | 1.059                   | 0.138             | -021                       |



Reduce down time with immediate availability with our D-Ring kit Ask for your ORK-DRK-AU today!