



ENVIRONMENTAL TECHNOLOGY

## LSEAL™ Non-Metallic Cartridge Mechanical Seals

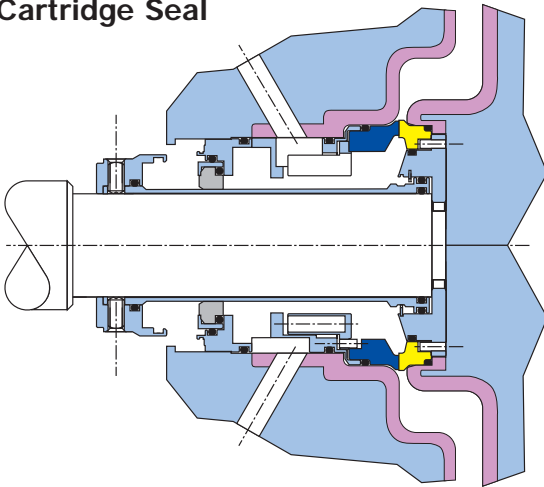


- DESIGNED TO FIT GROUP I & GROUP II, DURCO® POLYCHEM L-SERIES NON-METALLIC PUMPS
- PRE-SET AND FACTORY ASSEMBLED
- AVAILABLE IN A WIDE RANGE OF FACE AND ELASTOMER COMBINATIONS
- PATENTED DESIGN
- GENUINE ONE PIECE CARTRIDGE DESIGN FOR RELIABLE INSTALLATION

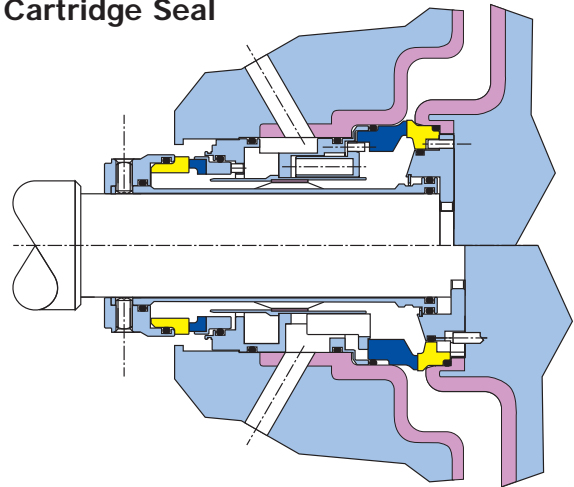
# LSEAL™ - design features

The AESSEAL® LSEAL™ is included amongst the standard and recommended seal arrangements for the Durco® PolyChem L-Series pumps.

## Single Cartridge Seal



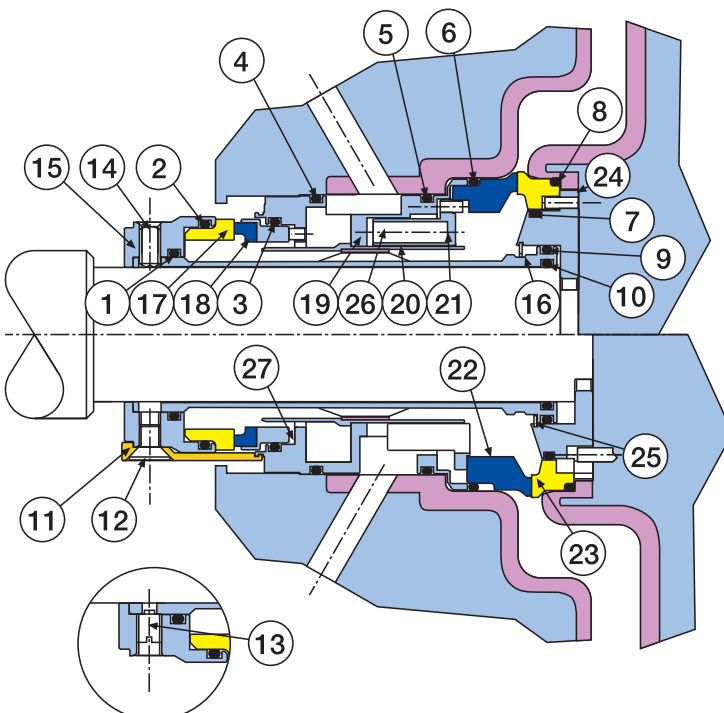
## Double Cartridge Seal



## Design Features

- Pre-set factory assembled and tested seal design
- Cartridge design
- Multi-spring design for even seal face loading
- Patented seal compensating device which accommodates pump assembly positional variance
- Directional barrier fluid flow path
- Double balanced inboard seal faces
- Elimination of the OEM hooked shaft sleeve
- Available in a wide range of inventoried face and elastomer combinations
- Cost effective wetted perfluoroelastomer options
- Customized plastic seal container

## Seal Construction - Double Cartridge Seal



Item	Description	Material
1	Clamp Ring O Ring	Viton® / EPR / Aflas® / Kalrez®
2	Outboard Rotary O Ring	Viton® / EPR / Aflas® / Kalrez®
3	Outboard Stationary O Ring	Viton® / EPR / Aflas® / Kalrez®
4	Gland O Ring	Viton® / EPR / Aflas® / Kalrez®
5	Gland O Ring	Viton® / EPR / Aflas® / Kalrez®
6	Inboard Stationary O Ring	Viton® / EPR / Aflas® / Kalrez®
7	Inboard Rotary O Ring	Viton® / EPR / Aflas® / Kalrez®
8	Inboard Rotary O Ring	Viton® / EPR / Aflas® / Kalrez®
9	Sleeve O Ring (outer)	Viton® / EPR / Aflas® / Kalrez®
10	Sleeve O Ring (inner)	Viton® / EPR / Aflas® / Kalrez®
11	Setting Clip	Brass
12	Clip Screw	Stainless Steel
13	Anti Tamper Screw	Stainless Steel
14	Drive Screw	Stainless Steel
15	Clamp Ring	316L Stainless Steel
16	Sleeve	316L Stainless Steel
17	External Rotary Face	SiC
18	External Stationary Face	316L Stainless Steel / Carbon / SiC
19	Gland	316L Stainless Steel
20	Shroud	316L Stainless Steel / Raztec™
21	Spring Plate	316L Stainless Steel
22	Internal Stationary Face	Carbon / SiC
23	Internal Rotary Face	SiC
24	Spacer Plate	316L Stainless Steel
25	Circlip	Stainless Steel
26	Internal Springs	Stainless Steel
27	External Springs	Hastelloy® C

Pump Group	Bare Shaft Size
GPI	0.812"
GPII	1.500"

**RELIABLE  
INSTALLATION  
IN MINUTES...**



**1** Lightly apply grease to the bare shaft and seal gland elastomers.



**2** Apply grease to the outboard stationary 'O' rings and inboard rotary 'O' rings.



**3** Apply grease to recess diameter of the impeller.



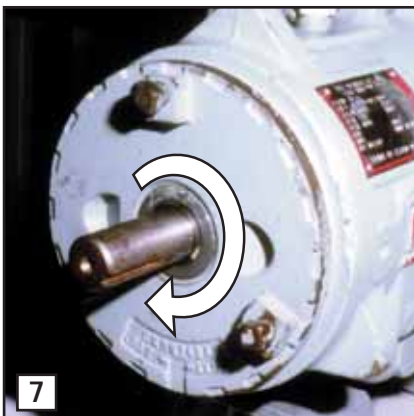
**4** Fit the seal inside the impeller, ensuring the impeller anti rotation pin locates in the recess in the seal.



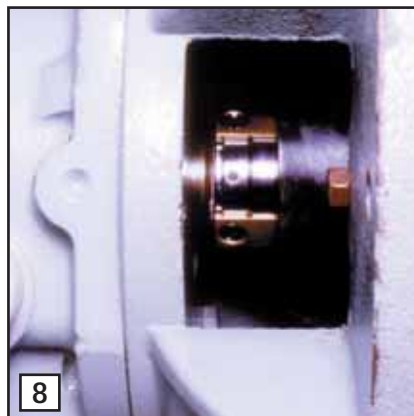
**5** Apply grease to the recess on the pump where the inboard stationary is seated.



**6** Ensure the anti-rotation lugs on the seal are aligned at 12 o'clock and 6 o'clock and the inlet port on the seal gland is at 6 o'clock, then slide the seal onto the pump shaft.



**7** Rotate the pump shaft at the coupling end in a clockwise direction whilst holding the impeller stationary.



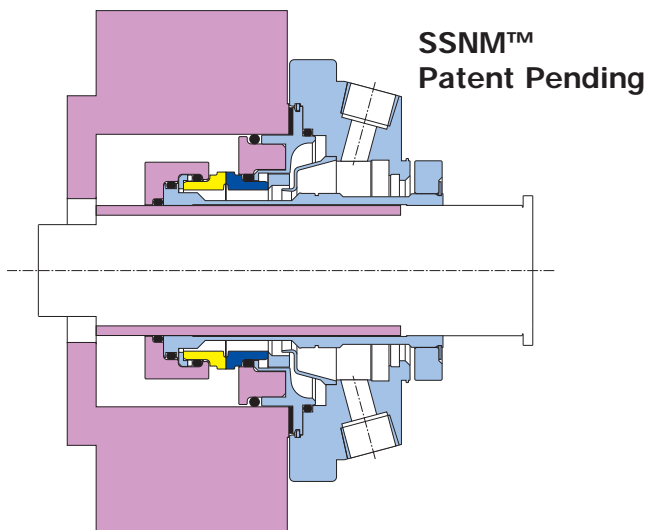
**8** Tighten the impeller to the shaft and the seal drive set screws down equally onto the shaft.



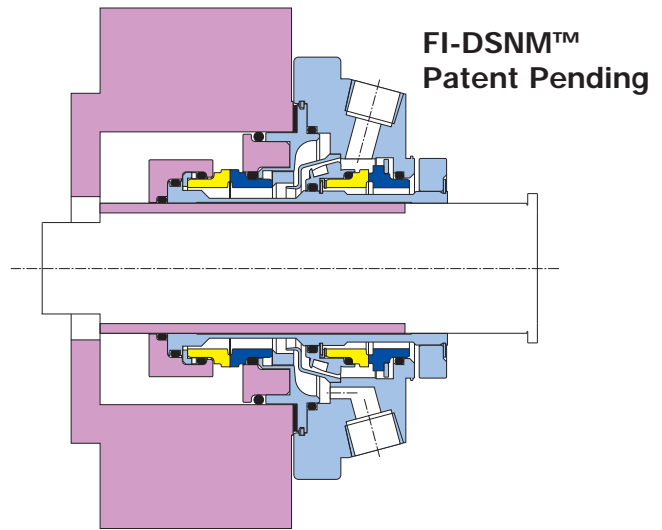
**9** Unscrew and remove the setting clips. Spin the shaft by hand, listening for shaft binding. Pipe up to inlet & outlet ports on the pump chamber. Ensure the barrier fluid is present and the seal is primed before start up.

## Additional Non-Metallic AESSEAL® Designs

Additional standard non-metallic AESSEAL® designs, which can be fitted to Durco® PolyChem S-Series and Mark III pumps.



Chemical cartridge single mechanical seal with non-metallic wetted components and available with optional wetted elastomers in Kalrez®.



Chemical cartridge double mechanical seal with non-metallic wetted components and optional pumping scroll and wetted elastomers in Kalrez®.

## LSEAL™ - elastomers



- High purity perfluoroelastomers to suit the requirements of the Chemical & Pharmaceutical Industries.
- Range of compounds available that provide comparable chemical resistance to PTFE.
- Excellent chemical resistance with high thermal stability.

## Support Systems



1. SSE10™ System 2. AS15™ System 3. SD™ System 4. PUMPPAC™ System

AESSEAL® has a specialized systems division, dedicated to the design and manufacture of all types of support packages for double mechanical seals.

## Contact AESSEAL® for further information

THIS DOCUMENT IS DESIGNED TO PROVIDE DIMENSIONAL INFORMATION AND AN INDICATION OF AVAILABILITY. FOR FURTHER INFORMATION AND SAFE OPERATING LIMITS CONTACT OUR TECHNICAL SPECIALISTS AT THE LOCATIONS BELOW.



INVESTOR IN PEOPLE

USE DOUBLE MECHANICAL SEALS WITH HAZARDOUS PRODUCTS. ALWAYS TAKE SAFETY PRECAUTIONS:

- GUARD YOUR EQUIPMENT
- WEAR PROTECTIVE CLOTHING



WARNING

AESSEAL plc  
Mill Close  
Templeborough  
Rotherham  
S60 1BZ  
United Kingdom

Telephone:  
Fax:  
E-mail:  
Internet:

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WINNER OF THE  
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+44 (0) 1709 369966  
+44 (0) 1709 720788  
seals@aes seal.com  
http://www.aes seal.com

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USA Sales & Technical advice:  
AESSEAL Inc.  
10231 Cogdill Road  
Suite 105  
Knoxville, TN 37932  
USA

Telephone: 865 531 0192  
Fax: 865 531 0571

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