## **PP-D Dual Seals**

# **Mechanical Seals For Pumps - Engineered Seals**

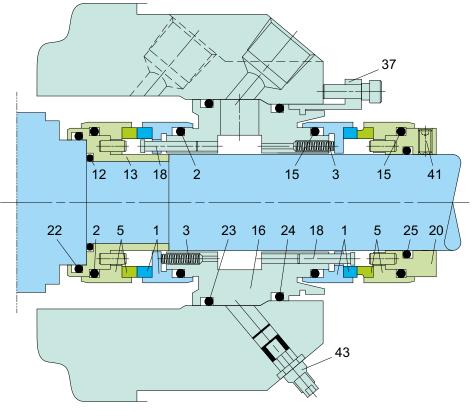


## **Product Description**

- 1. Dual seal configuration
- 2. Balanced design
- 3. Independent of direction of rotation
- 4. Semi-Cartridge construction
- 5. Double pressure balanced design
- 6. Designed with provision for internal barrier fluid circulation
- 7. No dynamic O-ring on the shaft
- 8. Robust construction with shrink-fitted seal faces
- 9. Seal faces have a large clearance to the shaft
- 10. Static springs on both the sides

#### **Technical Features**

- 1. Seals can be operated with pressurized barrier fluid or with quench
- 2. O-rings are dynamically loaded to prevent shaft damage
- 3. Easy and trouble-free installation
- 4. Due to large radial clearance, the damage to the seal faces are avoided, in addition to the seal faces being protected by strong steel parts
- 5. Misalignment during installation and operations is reduced due to the static springs on both the faces
- Dual seal can also be used as a single seal by removing the atmospheric seal parts



Note: The item numbers as depicted above are based on our technical experience and knowledge and are placed in the chronological order of their assembly procedure.

Item	Description
1	Seal face
5	Seat
13	Sleeve
16	Housing
18	Pin
37	Assembly fixture
2, 12, 15,	O-ring
22, 23, 24, 25	
43	Plug

## Typical Industrial Applications

Chemical	Large solids containing
Clean liquids	liquids
Corrosive liquids	Lightly contaminated
Crystallization	liquids
applications	Self-priming

applications

Fibrous slurries

Sliding

velocity

Gas containing liquids Stocks

Performance Capabilities		
Temperature	t = -20 °C +140 °C (-4 °F + 284 °F) (180 °C (356 °F) with FFKM elastomers)	
Pressure	p <sub>1</sub> 25 bar (363 PSI), p <sub>3</sub> < 12 bar (174 PSI)	
Speed	20 m/s (66 ft/s)	
Non-flow operation:		
Temperature	t = +5 °C +100 °C (+41 °F +212 °F)	
Pressure	p <sub>1</sub> max 10 bar (145 PSI), p3>p1	

Materials		
Seal face	Silicon carbide (Q12), Carbon (A)	
Secondary seals	FKM (V), EPDM (E), FFKM (K)	
Metal parts	CrNiMo steel (G), Grade 5A (4T), SMO 654 (4U)	

 $v_a < 10 \text{ m/s} (33 \text{ ft/s})$ 

## Suitable for following equipments

Ahlstar UP A MS21 range of pumps Sulzer A, APP/APT pumps Sulzer SL mixers Metso conical refiners Stock pumps

The specifications, drawings, images etc included in this catalogue are intended to be generic and must be interpreted as equivalent or functionally equivalent, more specifically the performance capabilities mentioned in this catalogue is based on optimum values, however the performance of the product is dependent on size, material of construction, media, pressure, temperature, sliding velocity etc and it shall vary from size to size or application to application. Customers are requested to consult with Sealmatic before employing the product from this catalogue for any application.