

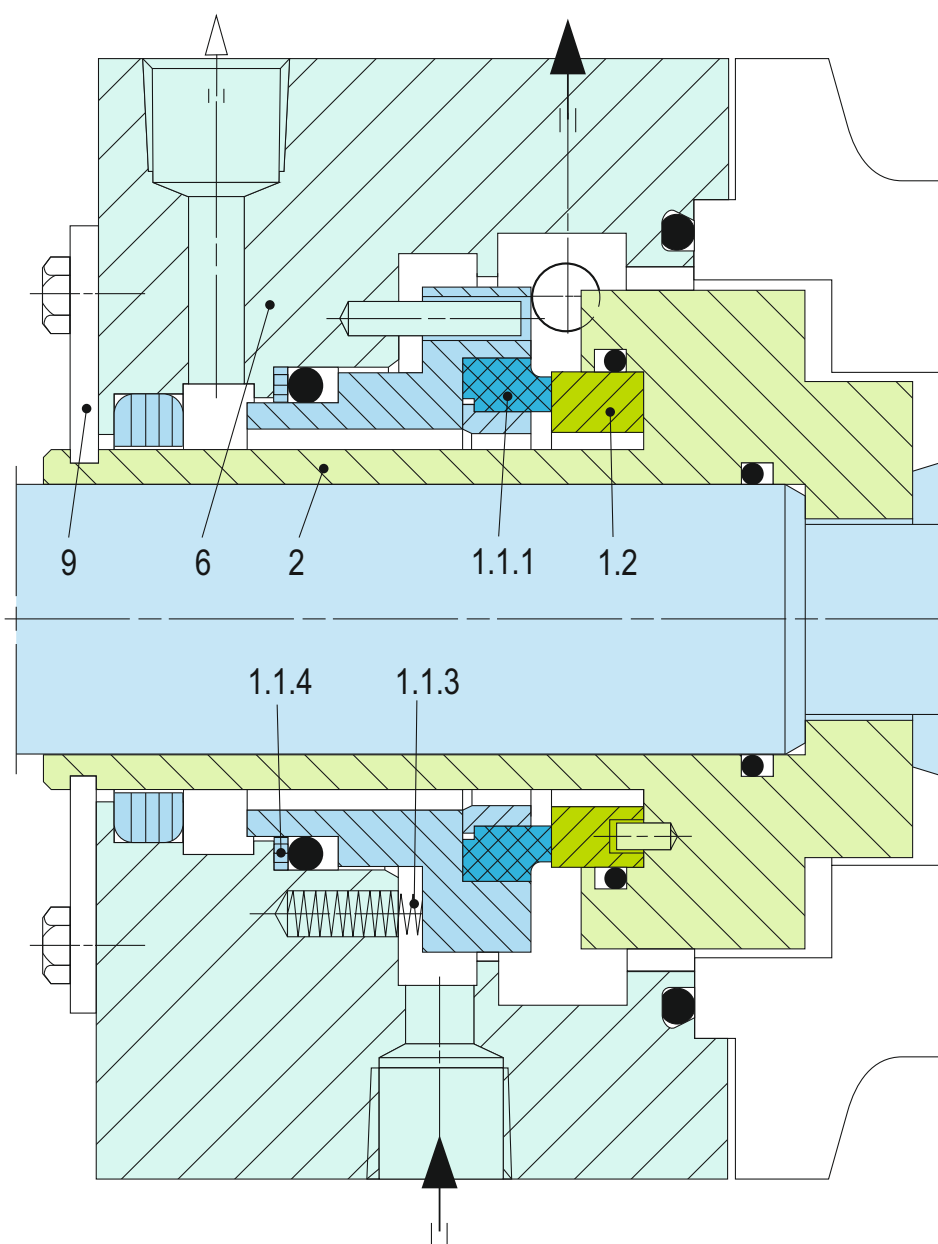


Product Description

1. Single seal configuration
2. Balanced design
3. Independent of direction of rotation
4. Cartridge construction
5. Stationary design with multiple springs
6. Designed with integrated pumping device for increased efficiency in circulation
7. Robust construction with shrink-fitted seal face
8. Heavy duty design of solid stationary seat

Technical Features

1. Accommodates shaft deflections due to stationary design
2. Can be designed for individual pump application with corresponding connection parts to be adopted to the pump seal chamber
3. Optimum heat dissipation due to integrated pumping device available for increased efficiency in circulation and optimized seat design
4. Cartridge unit factory assembled for easy installation, which reduces downtime
5. Trouble-free long-term operation due to heavy duty single seat design with bandage
6. Can operate under high sliding velocities and high pressures



Typical Industrial Applications

| | |
|----------------------|----------------------|
| Amines | Injection pumps |
| Caustic soda | Multi-phase pumps |
| Chemical industry | Oil and gas industry |
| Crude oil | Process water |
| Crystallizing media | Refining technology |
| Crude oil feed pumps | Sour water |
| Hot water | |

Standards

API 682 / ISO 21049

Performance Capabilities

Sizes: d_1^* = Upto 250 mm (Upto 10.000")
 Pressure: p_1 = 150 bar (2,175 PSI)
 Temperature: t = 300 °C (572 °F)
 Speed = 60 m/s (197 ft/s)
 Permissible axial movement: \pm 3 mm
 * Other sizes on request

Materials

Seal face: SiC-C-Si Silicon impregnated carbon (Q3), Carbon graphite antimony impregnated (A)
 Seat: Silicon carbide (Q)
 Secondary seals: FKM (V), EPDM (E), FFKM (K)
 Springs: Hastelloy® C-4 (M)
 Metal parts: CrNiMo steel (G), Duplex (G1), Super Duplex (G4), Titanium (T2), Hastelloy® C-4 (M)

Design Variations

SBFV

Same design as SBPV but with pumping screw

| Item | Description |
|-------|---|
| 1.1.1 | Seal face pressure-stabilized |
| 1.1.3 | Spring |
| 1.1.4 | Back-up ring |
| 1.2 | Seat |
| 2 | Seat housing with pumping screw (F) or pumping ring (P) |
| 6 | Cover |
| 9 | Assembly fixture |