

RELY ON EXCELLENCE

## SHPV / SHFV

Mechanical seals | Mechanical seals for pumps | Engineered seals



### Features

- Cartridge design
- Single seal
- Balanced
- Dependent of direction of rotation
- Integrated pumping device
- Stationary spring loaded unit
- Multiple springs
- Shrink-fitted seal face

### Advantages

- Deformation-optimized seal for highest pressure levels
- Economical due to standardized inner components
- High flexibility due to adaptation of the connection parts to the pump seal chamber
- Optimum heat dissipation due to integrated pumping device and optimized seat design
- Insensitive to shaft deflections due to stationary design
- Pre-assembled unit for quick and easy installation
- Only small number of components

### Operating range

Shaft diameter:  
 $d1^* = 40 \dots 250 \text{ mm} (1.57'' \dots 9.84'')$   
Pressure:  $p1 = 150 \text{ bar} (2,175 \text{ PSI})$   
Temperature:  $t = +350 \text{ }^\circ\text{C} (+662 \text{ }^\circ\text{F})$   
Sliding velocity:  $vg = 60 \text{ m/s} (197 \text{ ft/s})$   
Axial movement:  $\pm 3 \text{ mm}$

\* Other sizes on request

### Materials

Seal face: Carbon graphite antimony impregnated (A)  
Seat: Silicon carbide (Q)  
Secondary seals: EPDM (E), FFKM (K)  
Springs: CrNiMo steel (G)  
Metal parts: CrNiMo steel (G)

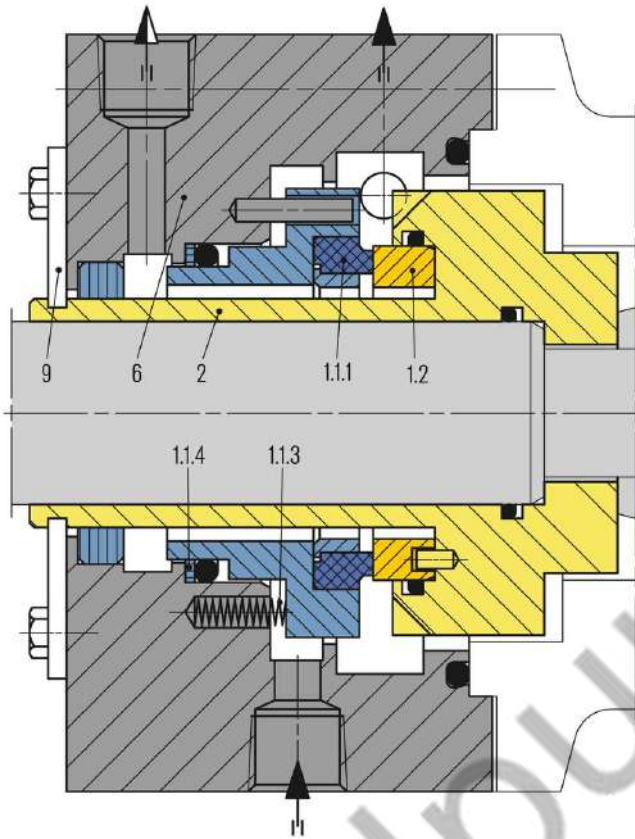
### Recommended applications

- Oil and gas industry
- Refining technology
- Petrochemical industry
- Chemical industry
- Power plant technology
- Boiler feed water
- Boiler circulation pumps

### Recommended piping plans

[API Plan 23](#)

## RELY ON EXCELLENCE



### 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

## Product variants

### SHFV

Same design as SHPV but with pumping screw.

