

RELY ON EXCELLENCE

## SH

Mechanical seals | Mechanical seals for pumps | Engineered seals



### Features

- Single seal
- Balanced
- Cartridge unit
- Stationary multiple springs
- Shrink-fitted seal ring
- Solid mating ring

### Advantages

- Engineered seal for extended requirements
- Deformation-optimized seal for high pressure and high sliding velocity
- Insensitive to shaft deflections due to stationary design
- Version for extreme applications available

### Operating range

Shaft diameter:  
 $d_1 = 40 \dots 110 \text{ (250) mm (1.57" \dots 4.33 (9.84)"}$   
 Pressure:  
 $p_1 = 42 \text{ (150) bar (609 (2,175) PSI)}$   
 Temperature:  
 $t = -40 \text{ }^\circ\text{C} \dots +176 \text{ (+200) }^\circ\text{C} (-40 \text{ }^\circ\text{F} \dots +350 \text{ (+394) }^\circ\text{F})$   
 Sliding velocity:  
 $v_g = 23 \text{ (60) m/s (76 (197) ft/s)}$   
 Axial movement:  $\pm 3,0 \text{ mm}$

### Materials

Seal ring: Blister resistant carbon, Silicon carbide SSiC (Q1), RBSiC (Q2, Q3)  
 Mating ring: Silicon carbide SSiC (Q1), RBSiC (Q2)  
 Secondary seals: EPDM (E), NBR (P), FKM (V), FFKM (K)  
 Springs: Hastelloy® C-4 (M)\* and C-276 (M5)  
 Metal parts: CrNiMo steel 316 (G) or equivalent, optional materials on request.

\* EagleBurgmann standard

### Standards and approvals

Following the API 682 / ISO 21049; following the API 682 4th ed. Cat 2/3 - 1CW-FL

### Recommended applications

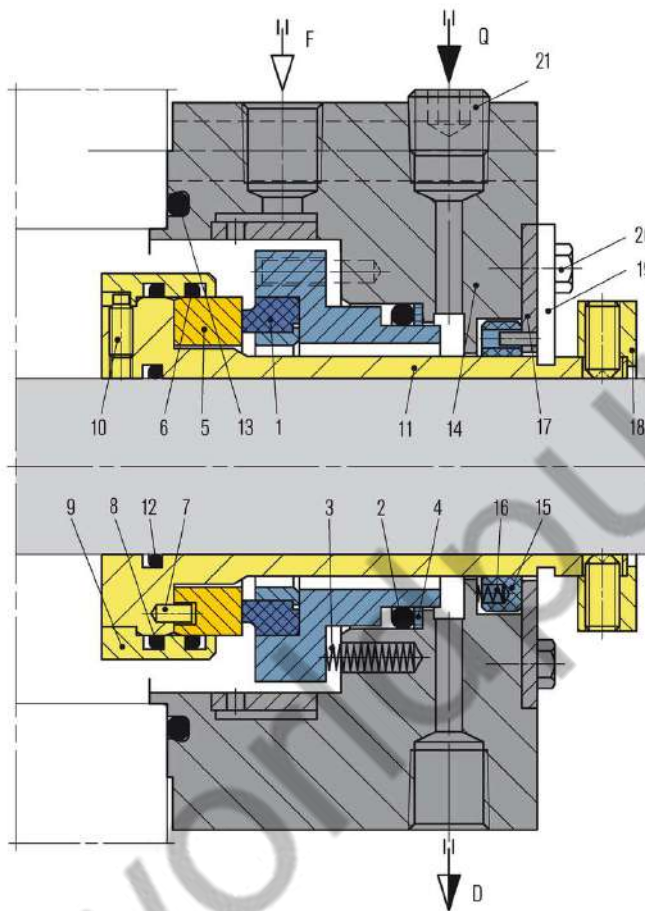
- Oil and gas industry
- Refining technology
- Chemical industry
- Crude oil feed pumps
- Injection pumps
- Multiphase pumps

### Recommended piping plans

Process side:

[API Plan 01](#)  
[API Plan 02](#)  
[API Plan 03](#)  
[API Plan 11](#)  
[API Plan 12](#)  
[API Plan 13](#)  
[API Plan 14](#)  
[API Plan 21](#)  
[API Plan 22](#)  
[API Plan 23](#)  
[API Plan 31](#)  
[API Plan 32](#)  
[API Plan 41](#)

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Atmospheric side:

- [API Plan 51](#)
- [API Plan 61](#)
- [API Plan 62](#)
- [API Plan 65A](#)
- [API Plan 65B](#)
- [API Plan 66A](#)
- [API Plan 66B](#)

Item	Description
1	Seal ring
2, 6, 8, 12, 13	O-Ring
3, 16	Spring
4	Thrust ring
5	Mating ring
7, 10	Set screw
9	Sleeve
11	Seal sleeve
14	Gland plate
15	Throttle ring
17	Disk
18	Set ring
19	Setting device
20	Hexagon bolt
21	Plug

F Flush  
Q Quench  
D Drain

Drawing shows type SHV

### Dimensions

Dimensions on request.