

RELY ON EXCELLENCE

## H75VA4-S

API 682 4th edition | Mechanical seals | Balanced pusher seals



### Features

- API 682 Category 2 and 3, Type A, Arrangement 1 seal
- Single seal
- Balanced
- Cartridge unit
- Bi-directional design
- Rotating multiple springs
- Integrated pumping device available
- Replaces the H75VN seal

### Advantages

- Compact design
- Universally applicable both for retrofits or original equipment
- Efficient stock-keeping due to standardized components
- Extended selection of materials
- Extended field of operation in terms of temperature and pressure
- Metal parts also in special materials available

### Operating range

Shaft diameter:

$d_1 = 20 \dots 110 \text{ mm (0.79" ... 4.33")}$

Pressure:  $p_1 = \dots 42 \text{ bar (609 PSI)}$

Temperature:

$t = -40 \text{ °C ... } +176 \text{ °C (-40 °F ... } +349 \text{ °F)}^*$

Sliding velocity:  $v_g = 23 \text{ m/s (75 ft/s)}$

Axial movement:

$d < 50 \text{ mm } \pm 1,0 \text{ mm}$

$d \geq 50 \text{ mm } \pm 1,5 \text{ mm}$

\* Engineered up to 260 °C (500 °F) with FFKM (K) secondary seals.

### Materials

Seal ring: Blister resistant carbon, Silicon carbide SSiC (Q1), RBSiC (Q2)

Mating ring:

Silicon carbide SSiC (Q1), RBSiC (Q2)

Secondary seals:

EPDM (E), NBR (P), FKM (V), FFKM (K)

Springs: Hastelloy® C-276 (M5)

Metal parts: CrNiMo steel 316 (G) or equivalent, optional materials on request.

### Standards and approvals

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

### Recommended applications

- Highly volatile hydrocarbons
- Refining technology
- Oil and gas industry
- Petrochemical industry
- Chemical industry
- Power plant technology
- CCUS
- Hydrogen
- Sustainable plastics production
- Alternative fuels production
- Nuclear power technology
- LPG plants
- API 610 / ISO 13709 pumps
- Process 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](#)

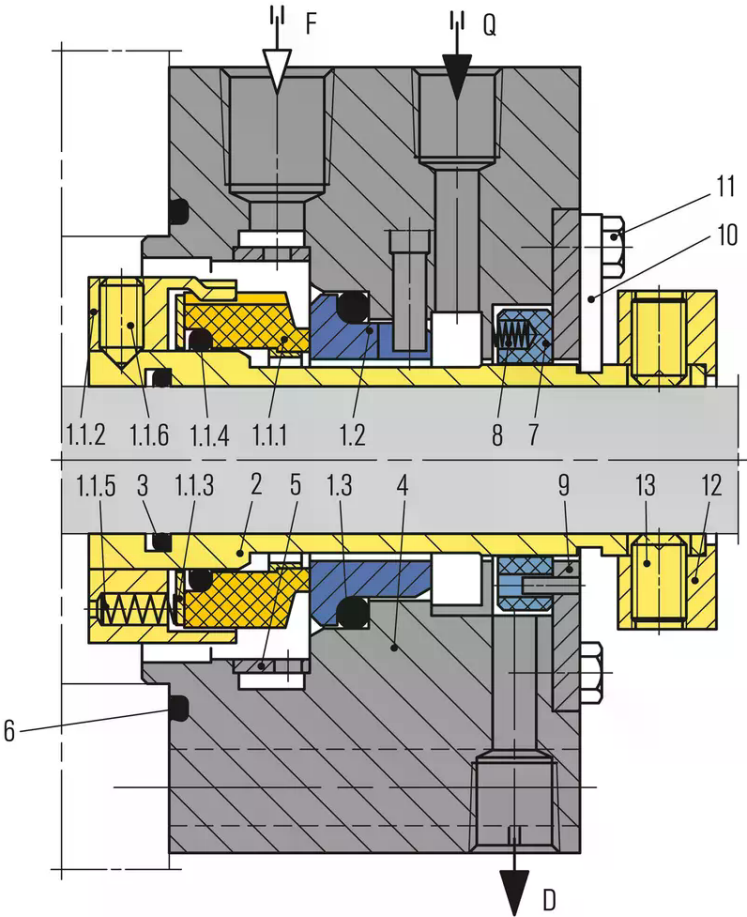
[API Plan 22](#)

[API Plan 23](#)

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API Plan 31  
 API Plan 32  
 API Plan 41

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
1.1.1	Seal ring
1.1.2	Driver
1.1.3	Thrust ring
1.1.4, 1.3, 3, 6	O-Ring
1.1.5, 8	Spring
1.1.6, 13	Set screw
1.2	Mating ring
2	Seal sleeve
4	Gland plate
5	Flow distributor
7	Throttle ring
9	Disc
10	Setting device
11	Hexagon bolt
12	Set ring

F Flush  
 Q Quench  
 D Drain