

RELY ON EXCELLENCE

## H75A4-B

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



### Features

- API 682 Category 2 and 3, Type A, Arrangement 3 seal
- Dual seal in back-to-back arrangement
- Balanced
- Cartridge unit
- Rotating multiple springs
- Integrated pumping device
- Suitable for pressure reversals
- Replaces the H75VK seal

### Advantages

- 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
- Safe operation due to metal torque transmission at the rotating carbon seal rings

### Operating range

Shaft diameter:  
 $d_1 = 20 \dots 110 \text{ mm} (0.79" \dots 4.33")$   
 Pressure:  $p_1 = 42 \text{ bar} (609 \text{ PSI})$   
 Temperature:  
 $t = -40 \text{ °C} \dots +176 \text{ °C} (-40 \text{ °F} \dots +350 \text{ °F})^*$   
 Sliding velocity:  $v_g = 23 \text{ m/s} (76 \text{ ft/s})$   
 Axial movement:  
 $d \leq 50 \text{ mm} \pm 1.0 \text{ mm}$   
 $d > 50 \text{ mm} \pm 1.5 \text{ mm}$

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

### Materials

Seal rings: Blister resistant carbon, Silicon carbide SSiC (Q1), RBSiC (Q2)  
 Mating rings:  
 Silicon carbide SSiC (Q1), RBSiC (Q2)  
 Secondary seals:  
 EPDM (E), NBR (P), FKM (V), FFKM (K)  
 Springs: 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 - 3CW-BB
- Compliant to TA Luft (German Clean Air Act)

### 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](#)

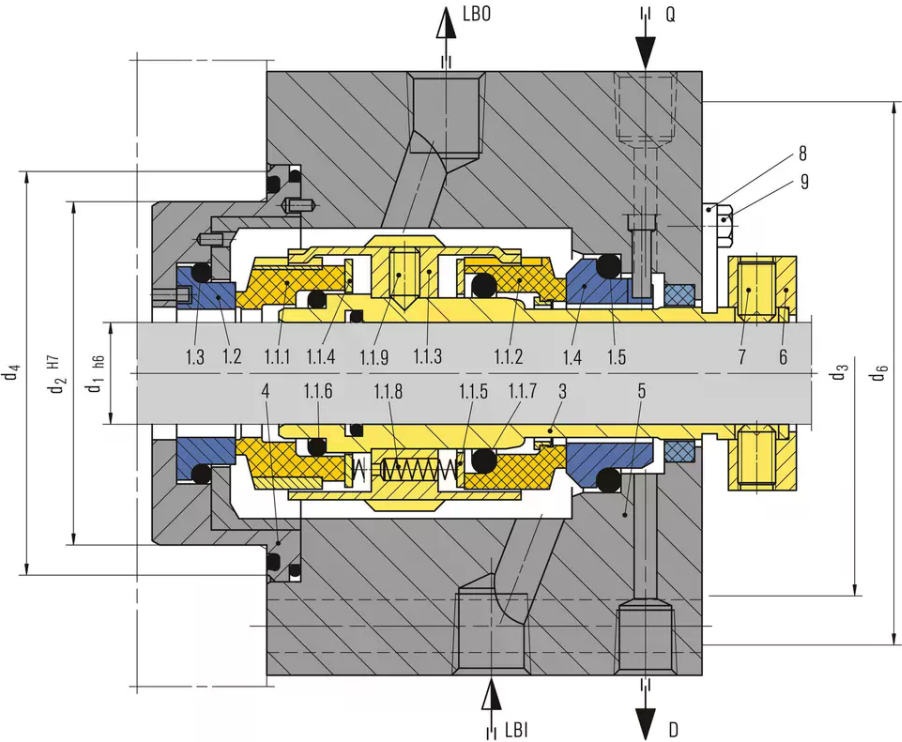
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API Plan 31  
 API Plan 32  
 API Plan 41

Between seals:  
 API Plan 53A  
 API Plan 53B  
 API Plan 53C  
 API Plan 54

Atmospheric side\*\*:  
 API Plan 61  
 API Plan 62  
 API Plan 65A  
 API Plan 65B

\* Piping plans 11 ... 41: Integration in seal to be dimensionally checked.  
 \*\* Throttle bushing on request.



Item	Description
1.1.1, 1.1.2	Seal ring
1.1.3	Driver
1.1.4, 1.1.5	Thrust ring
1.1.6, 1.1.7, 1.3, 1.5	O-Ring
1.1.8	Spring
1.1.9, 7	Set screw
1.2, 1.4	Mating ring
3	Seal sleeve
4, 5	Gland plate
6	Set ring
8	Setting device
9	Hexagon bolt

LBO Liquid barrier OUT  
 Q Quench  
 LBI Liquid barrier IN  
 D Drain