

RELY ON EXCELLENCE

H75A4-B

API 682 4th edition product range | 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:
 $d_1 = 20 \dots 110 \text{ mm (0.79" } \dots 4.33\text{")}$
 Pressure: $p_1 = 42 \text{ bar (609 PSI)}$
 Temperature:
 $t = -40 \text{ }^\circ\text{C } \dots +176 \text{ }^\circ\text{C (-40 }^\circ\text{F } \dots +350 \text{ }^\circ\text{F)}^*$
 Sliding velocity: $v_g = 23 \text{ m/s (76 ft/s)}$
 Axial movement:
 $d \leq 50 \text{ mm } \pm 1.0 \text{ mm}$
 $d > 50 \text{ mm } \pm 1.5 \text{ mm}$

* Engineered up to $260 \text{ }^\circ\text{C (500 }^\circ\text{F)}$ 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

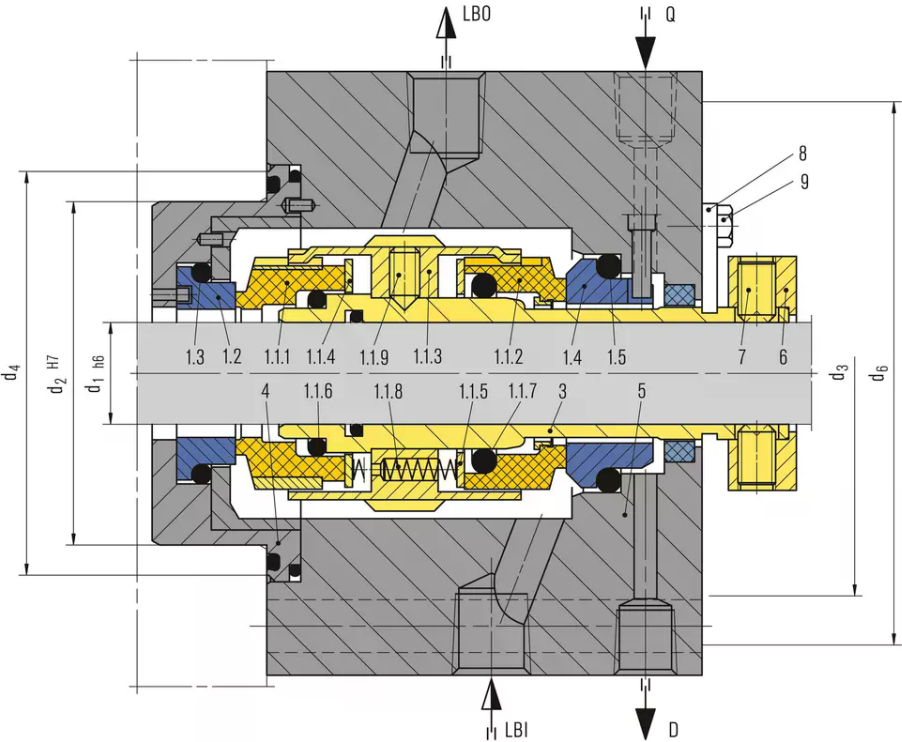
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API Plan 31
 API Plan 32
 API Plan 41

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