

H75VN

Mechanical seals | Mechanical seals for pumps | Pusher seals



Features

- Single seal
- Cartridge unit
- Design acc. to API 682 / ISO 21049
- Category 2 and 3, Type A, Arrangement 1
- Independent of direction of rotation
- Rotating multiple springs
- Integrated pumping device available (H75VP)

Advantages

- "Low-Emission-Seal" acc. to the American STLE-limits
- 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:

$d = 20 \dots 110 \text{ mm } (0.79 \dots 4.33")^*$

Pressure: $p_1 = 40 \text{ bar } (580 \text{ PSI})$

Temperature:

$t = -40 \text{ }^\circ\text{C} \dots +220 \text{ }^\circ\text{C } (-40 \text{ }^\circ\text{F} \dots 428 \text{ }^\circ\text{F})$

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

Axial movement: $\pm 2.0 \dots 4.0 \text{ mm}$
depending on diameter and installation situation

* Other sizes on request

Materials

Seal face: Carbon graphite antimony impregnated (A)

Seat: Silicon carbide (Q1, Q2)

Secondary seals: EPDM (E), NBR (P), FKM (V), FFKM (K)

Springs: Hastelloy® C-4 (M)

Metal parts: CrNiMo steel (G), Duplex (G1), Hastelloy® C-4 (M)

Standards and approvals

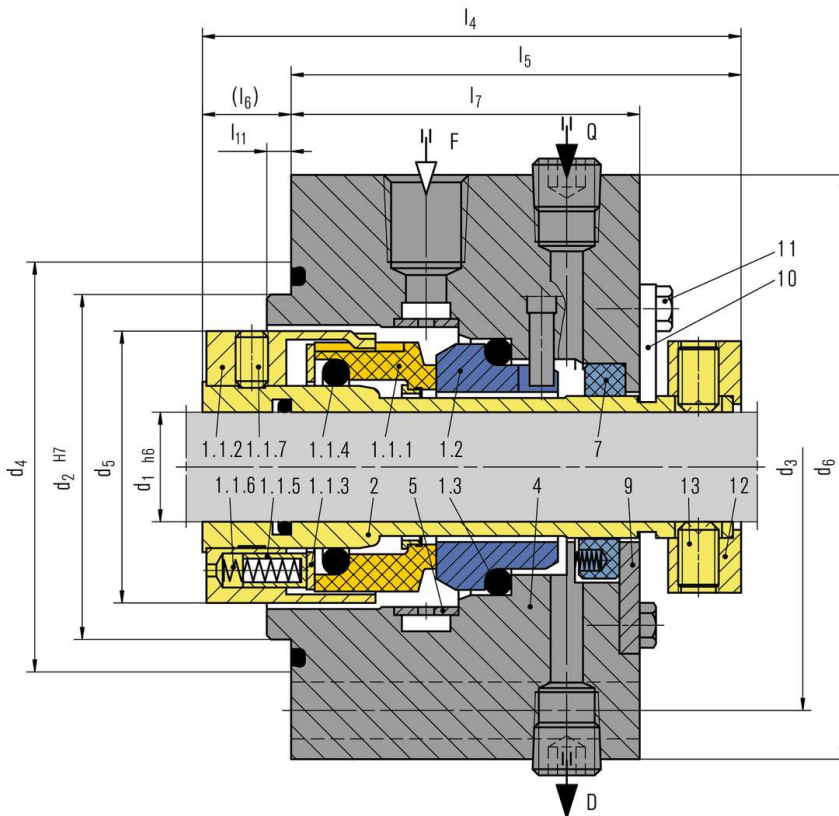
- API 682 / ISO 21049

Recommended applications

- Process industry
- Oil and gas industry
- Refining technology
- Petrochemical industry
- Power plant technology
- Light hydrocarbons
- Hot water
- API 610 / ISO 13709 pumps
- Process pumps



RELY ON EXCELLENCE



| Item | Description |
|------------|------------------|
| 1.1.1 | Seal face |
| 1.1.2 | Driver |
| 1.1.3 | Thrust ring |
| 1.1.4, 1.3 | O-Ring |
| 1.1.5 | Sleeve |
| 1.1.6 | Spring |
| 1.1.7 | Set screw |
| 1.2 | Seat |
| 2 | Shaft sleeve |
| 4 | Housing |
| 5 | Insert |
| 7 | Throttle ring |
| 9 | Washer |
| 10 | Assembly fixture |
| 11 | Hexagon bolt |
| 12 | Set ring |
| 13 | Set screw |

Product variants

H75VP

Dimensions, items and descriptions as H75VN, but with pumping ring. Shorter installation length possible.

H75N

Dimensions, items and description as H75VN.

Seal face: Silicon carbide (Q1, Q2)

Seat: Silicon carbide (Q1, Q2)

RELY ON EXCELLENCE

Dimensions

| API/d ₁ | API/d ₂ | API/d ₃ | API/d ₄ | d ₅ | d ₆ | L ₄ | L ₅ | L ₆ | L ₇ | L ₁₁ | Overall length |
|--------------------|--------------------|--------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|----------------|
| 0.787 | 2.756 | 4.134 | 3.346 | 1.969 | 5.433 | 3.74 | 3.701 | 0.039 | 2.992 | 0.236 | 3.937 |
| 1.181 | 3.15 | 4.528 | 3.74 | 2.441 | 5.827 | 3.957 | 3.858 | 0.098 | 3.031 | 0.236 | 4.094 |
| 1.575 | 3.543 | 4.921 | 4.134 | 2.835 | 6.22 | 4.154 | 3.878 | 0.276 | 3.051 | 0.236 | 4.921 |
| 1.969 | 3.937 | 5.512 | 4.528 | 3.386 | 6.614 | 4.39 | 3.917 | 0.472 | 3.091 | 0.236 | 5.512 |
| 2.362 | 4.724 | 6.299 | 5.315 | 3.898 | 7.402 | 4.744 | 4.016 | 0.728 | 3.189 | 0.236 | 6.299 |
| 2.756 | 5.118 | 6.693 | 5.709 | 4.291 | 7.795 | 4.902 | 4.173 | 0.709 | 3.189 | 0.236 | 6.693 |
| 3.543 | 5.512 | 7.087 | 6.102 | 4.685 | 8.189 | 5.079 | 4.173 | 0.906 | 3.189 | 0.236 | 7.087 |
| 3.543 | 6.299 | 8.071 | 6.89 | 5.079 | 9.37 | 5.079 | 4.173 | 0.906 | 3.189 | 0.236 | 8.071 |
| 3.937 | 6.693 | 8.465 | 7.283 | 6.024 | 9.764 | 5.236 | 4.291 | 0.945 | 3.189 | 0.236 | 8.465 |
| 4.331 | 7.087 | 8.858 | 7.677 | 6.614 | 10.157 | 5.236 | 4.291 | 0.945 | 3.189 | 0.236 | 8.858 |

Dimensions in inch

Dimensions

| API/d ₁ | API/d ₂ | API/d ₃ | API/d ₄ | d ₅ | d ₆ | L ₄ | L ₅ | L ₆ | L ₇ | L ₁₁ | Overall length |
|--------------------|--------------------|--------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|----------------|
| 20 | 70 | 105 | 85 | 50 | 138 | 95.0 | 94.00 | 1.0 | 76.0 | 6 | 100 |
| 30 | 80 | 115 | 95 | 62 | 148 | 100.5 | 98.0 | 2.5 | 77.0 | 6 | 104 |
| 40 | 90 | 125 | 105 | 72 | 158 | 105.5 | 98.5 | 7.0 | 77.5 | 6 | 125 |
| 50 | 100 | 140 | 115 | 86 | 168 | 111.5 | 99.5 | 12.0 | 78.5 | 6 | 140 |
| 60 | 120 | 160 | 135 | 99 | 188 | 120.5 | 102.0 | 18.5 | 81.0 | 6 | 160 |
| 70 | 130 | 170 | 145 | 109 | 198 | 124.5 | 106.0 | 18.0 | 81.0 | 6 | 170 |
| 80 | 140 | 180 | 155 | 119 | 208 | 129.0 | 106.0 | 23.0 | 81.0 | 6 | 180 |
| 90 | 160 | 205 | 175 | 129 | 238 | 129.0 | 106.0 | 23.0 | 81.0 | 6 | 205 |
| 100 | 170 | 215 | 185 | 153 | 248 | 133.0 | 109.0 | 24.0 | 81.0 | 6 | 215 |
| 110 | 180 | 225 | 195 | 168 | 258 | 133.0 | 109.0 | 24.0 | 81.0 | 6 | 225 |

Dimensions in millimeter

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All technical specifications are based on extensive tests and our many years of experience. The diversity of possible applications, however, means that they can serve only as guide values.

We must be notified of the exact conditions of application before we can provide any guarantee for a specific case. This is subject to change.