

MFLCT8

Mechanical seals | Mechanical seals for pumps | Metal bellows seals



Features

- For unstepped shafts
- Single seal
- Balanced
- Independent of direction of rotation
- Metal bellows rotating

Advantages

- For extreme cold temperature ranges
- No dynamically loaded O-Ring
- Self cleaning effect
- Short installation length possible
- Pumping screw for highly viscous media available (dependant on direction of rotation).

Operating range

Shaft diameter:
 $d_1 = 24 \dots 150 \text{ mm (0.94" } \dots 6\text{")}$
 Externally pressurized:
 $p_1 = \dots 25 \text{ bar (363 PSI)}$
 Internally pressurized:
 $p_1 = 10 \text{ bar (145 PSI)}$,
 stationary seat lock necessary.
 Temperature:
 $t = -100 \text{ }^\circ\text{C } \dots +100 \text{ }^\circ\text{C (-148 }^\circ\text{F } \dots 212)^\circ\text{F}$
 Sliding velocity: $v_g = 20 \text{ m/s (66 ft/s)}$

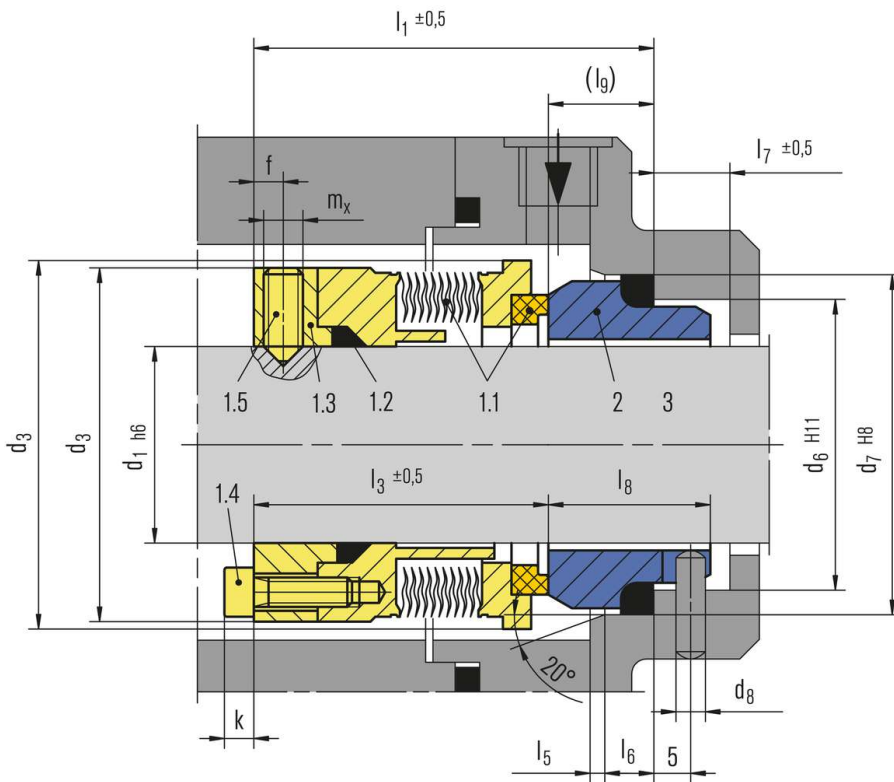
Materials

Seal face: Carbon graphite antimony impregnated (A), Silicon carbide (Q12)
 Seat: Silicon carbide (Q1)
 Bellows: Inconel® 718 hardened (M6), Hastelloy® C-276 (M5)
 Metal parts: CrNiMo steel (G), Hastelloy® C-4 (M)

Recommended applications

- Process industry
- Oil and gas industry
- Refining technology
- Petrochemical industry
- Chemical industry
- Cold media
- Highly viscous media
- Pumps
- Special rotating equipment

RELY ON EXCELLENCE



| Item | Part no. | Description |
|------------------|----------|-----------------------------|
| DIN 24250 | | |
| 1.1 | 472/481 | Seal face with bellows unit |
| 1.2 | 410 | Sealing ring |
| 1.3 | 474 | Drive collar |
| 1.4 | | Socket head screw |
| 1.5 | 904 | Set screw |
| 2 | 475 | Seat |
| 3 | 412 | Sealing ring |

Product variants

MFLCT9

Shaft diameter:

d1 = 20 ... 150 mm (0.64" ... 6")

Intenally pressurized:

p1 = ... 16 bar (232 PSI),

stationary seat lock necessary.

Externally pressurized:

p1 = 10 bar (145 PSI)

Temperature:

t = -100 °C ... +100 °C

(-148 °F ... +212 °F)

Sliding velocity: vg = 20 m/s (66 ft/s)

RELY ON EXCELLENCE

Dimensions

| d ₁ | d ₃ | d ₃ ²⁾ | d ₆ | d ₇ | d ₈ | l ₁ | l ₃ | l ₅ | l ₆ | l ₇ | l ₈ | l ₉ | f | k | m _x |
|----------------|----------------|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---|---|----------------|
| 16 | 38 | - | 29.0 | 35.0 | 3 | 58.0 | 46.5 | 2.0 | 5 | 9 | 19.5 | 11.5 | 5 | 5 | M5 |
| 18 | 40 | - | 31.0 | 37.0 | 3 | 58.0 | 46.5 | 2.0 | 5 | 9 | 19.5 | 11.5 | 5 | 5 | M5 |
| 20 | 42 | - | 34.0 | 40.0 | 3 | 58.0 | 46.5 | 2.0 | 5 | 9 | 19.5 | 11.5 | 5 | 5 | M5 |
| 22 | 44 | - | 37.0 | 43.0 | 3 | 58.0 | 46.5 | 2.0 | 5 | 9 | 19.5 | 11.5 | 5 | 5 | M5 |
| 24 | 46 | 49.8 | 37.0 | 43.0 | 3 | 58.0 | 46.5 | 2.0 | 5 | 9 | 19.5 | 11.5 | 5 | 5 | M5 |
| 25 | 47 | 51.7 | 39.0 | 45.0 | 3 | 58.0 | 46.5 | 2.0 | 5 | 9 | 19.5 | 11.5 | 5 | 5 | M5 |
| 28 | 50 | 54.5 | 42.0 | 48.0 | 3 | 58.0 | 46.5 | 2.0 | 5 | 9 | 19.5 | 11.5 | 5 | 5 | M6 |
| 30 | 52 | 56.6 | 44.0 | 50.0 | 3 | 58.0 | 46.5 | 2.0 | 5 | 9 | 19.5 | 11.5 | 5 | 5 | M6 |
| 32 | 54 | 59.5 | 49.0 | 56.0 | 4 | 60.5 | 46.5 | 2.0 | 6 | 9 | 22.0 | 14.0 | 5 | 5 | M6 |
| 33 | 55 | 59.5 | 49.0 | 56.0 | 4 | 60.5 | 46.5 | 2.0 | 6 | 9 | 22.0 | 14.0 | 5 | 5 | M6 |
| 35 | 57 | 62.5 | 51.0 | 58.0 | 4 | 60.5 | 46.5 | 2.0 | 6 | 9 | 22.0 | 14.0 | 5 | 5 | M6 |
| 38 | 60 | 65.7 | 54.0 | 61.0 | 4 | 60.5 | 46.5 | 2.0 | 6 | 9 | 22.0 | 14.0 | 5 | 5 | M6 |
| 40 | 66 | 65.7 | 56.0 | 63.0 | 4 | 61.5 | 47.5 | 2.0 | 6 | 9 | 22.0 | 14.0 | 5 | 6 | M6 |
| 43 | 69 | 68.6 | 59.0 | 66.0 | 4 | 61.5 | 47.5 | 2.0 | 6 | 9 | 22.0 | 14.0 | 5 | 6 | M6 |
| 45 | 71 | 71.5 | 62.0 | 70.0 | 4 | 62.5 | 47.5 | 2.5 | 6 | 9 | 23.0 | 15.0 | 5 | 6 | M6 |
| 48 | 74 | 75.1 | 65.0 | 73.0 | 4 | 62.5 | 47.5 | 2.5 | 6 | 9 | 23.0 | 15.0 | 5 | 6 | M6 |
| 50 | 76 | 76.1 | 67.0 | 75.0 | 4 | 62.5 | 47.5 | 2.5 | 6 | 9 | 23.0 | 15.0 | 5 | 6 | M6 |
| 53 | 79 | 80.8 | 70.0 | 78.0 | 4 | 62.5 | 47.5 | 2.5 | 6 | 9 | 23.0 | 15.0 | 5 | 6 | M6 |
| 55 | 81 | 80.8 | 72.0 | 80.0 | 4 | 62.5 | 47.5 | 2.5 | 6 | 9 | 23.0 | 15.0 | 5 | 6 | M6 |
| 58 | 85 | 84.0 | 75.0 | 83.0 | 4 | 68.0 | 53.0 | 2.5 | 6 | 9 | 23.0 | 15.0 | 5 | 6 | M6 |
| 60 | 87 | 92.3 | 77.0 | 85.0 | 4 | 68.0 | 53.0 | 2.5 | 6 | 9 | 23.0 | 15.0 | 6 | 6 | M8 |
| 63 | 90 | 95.5 | 81.0 | 90.0 | 4 | 71.0 | 53.0 | 2.5 | 7 | 9 | 26.0 | 18.0 | 6 | 6 | M8 |
| 65 | 92 | 95.5 | 83.0 | 92.0 | 4 | 71.0 | 53.0 | 2.5 | 7 | 9 | 26.0 | 18.0 | 6 | 6 | M8 |
| 68 | 95 | 101.3 | 88.0 | 97.0 | 4 | 71.0 | 53.0 | 2.5 | 7 | 9 | 26.0 | 18.0 | 6 | 6 | M8 |
| 70 | 97 | 101.3 | 88.0 | 97.0 | 4 | 71.0 | 53.0 | 2.5 | 7 | 9 | 26.0 | 18.0 | 6 | 6 | M8 |
| 75 | 102 | 105.0 | 95.0 | 105.0 | 4 | 71.0 | 52.8 | 3.0 | 7 | 9 | 26.2 | 18.2 | 6 | 6 | M8 |
| 80 | 107 | 110.6 | 100.0 | 110.0 | 4 | 71.0 | 52.8 | 3.0 | 7 | 9 | 26.2 | 18.2 | 6 | 6 | M8 |
| 85 | 112 | 117.0 | 105.0 | 115.0 | 4 | 71.0 | 52.8 | 3.0 | 7 | 9 | 26.2 | 18.2 | 6 | 6 | M8 |
| 90 | 117 | 120.2 | 110.0 | 120.0 | 4 | 71.0 | 53.8 | 3.0 | 7 | 9 | 25.2 | 17.2 | 6 | 6 | M8 |
| 95 | 122 | 125.2 | 115.0 | 125.0 | 4 | 71.0 | 53.8 | 3.0 | 7 | 9 | 25.2 | 17.2 | 6 | 6 | M8 |
| 100 | 127 | 130.2 | 122.2 | 134.3 | 5 | 74.0 | 54.0 | 3.0 | 9 | 11 | 30.0 | 20.0 | 6 | 6 | M8 |

Dimensions in millimeter
2) d₃ executed in Hastelloy®