

# HBrinker Mechanical Seal

Agitator seal Mechanical Seal HBM481C



## Mechanical Seal HBM481C

### Operating range

Shaft diameter:  $d_1 = 40 \dots 125 \text{ mm}$  (1.57" .... 4.92")

Pressure:

$p_1 = \text{vacuum} \dots 10 \text{ bar}$  (145 PSI),

$p_3 = \text{max. } 12 \text{ bar}$  (174 PSI)

Temperature:  $t_1 = -40 \text{ }^\circ\text{C} \dots +200 \text{ }^\circ\text{C}$  (-40 °F ... +392 °F)

Sliding velocity:  $v_g = 0 \dots 3 \text{ m/s}$  (0 ... 16 ft/s)

### Materials

- Seal faces: Carbon graphite or Silicon carbide, FDA conform
- Seats: Silicon carbide, FDA conform
- Secondary seals and metallic parts acc. to application and customers' requirement.

### Features

- Liquid-lubricated double seal for topenry drives
- Cartridge unit
- Self-closing on the product side
- For stepped and unstepped shafts
- Unbalanced
- Independent of direction of rotation
- Multiple springs rotating

### Advantages

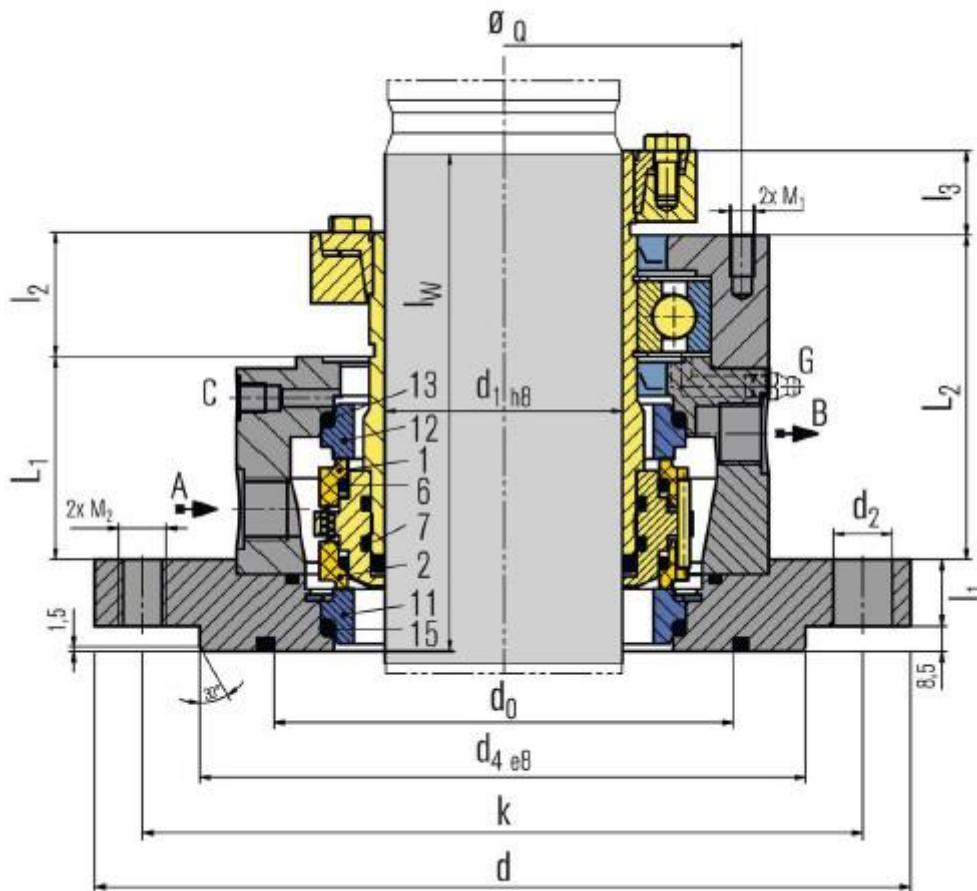
- Ready-to-fit and factory-tested units
- The M481C and its variants will remain closed even during pressure variations or pressure reversal. Operation is possible with buffer fluid ( $p_{1\text{max}} = 6 \text{ bar}$  (87 PSI)) or pressurized with barrier fluid as double seal
- Available with or without bearing
- Metal-free on product side as option
- Suitable for standardizations
- Seal can be applied at higher pressure and rotating speed than specified by DIN

### Recommended applications

- Refining technology
- Petrochemical industry
- Chemical industry
- Pharmaceutical industry
- Food and beverage industry
- Agitators
- Reactors

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| Item      | Description                |
|-----------|----------------------------|
| 1         | Seal face, atmosphere side |
| 2         | Seal face, product side    |
| 6,7,13,15 | O-Ring                     |
| 11        | Seat, product side         |
| 12        | Seat, atmosphere side      |

Dimension Table

| $d_1^{1)}$ | $d^{1)}$ | $n \times d_2$ | $d_4$ | $d_0$ | $k$ | $L_1$ | $L_2$ | $L_w^{2)}$ | $l_1$ | $l_2$ | $l_3$ | $a$ | $M_1$ | $M_2$ | A,B  | C    | G    |
|------------|----------|----------------|-------|-------|-----|-------|-------|------------|-------|-------|-------|-----|-------|-------|------|------|------|
| 40         | 175      | 4×18           | 110   | 90    | 145 | 60.5  | 93.5  | 143        | 18.5  | 32.5  | 22.5  | 105 | M8    | M16   | G3/8 | G1/8 | M6   |
| 50         | 240      | 8×18           | 176   | 159   | 210 | 63    | 101.5 | 148        | 17.5  | 26    | 22    | 143 | M8    | M16   | G3/8 | G1/8 | M8X1 |
| 60         | 240      | 8×18           | 176   | 159   | 210 | 63    | 101.5 | 158        | 17.5  | 27    | 25    | 143 | M8    | M16   | G3/8 | G1/8 | M8X1 |
| 80         | 275      | 8×22           | 204   | 155   | 240 | 68.5  | 109.5 | 168        | 22.5  | 42    | 28.5  | 161 | M8    | M20   | G1/2 | G1/8 | M8X1 |
| 100        | 305      | 8×22           | 234   | 190   | 270 | 73.5  | 119   | 178        | 20    | 32    | 30.5  | 195 | M10   | M20   | G1/2 | G1/8 | M8X1 |
| 125        | 330      | 8×22           | 260   | 215   | 295 | 80.5  | 134   | 203        | 22.5  | 39    | 38    | 231 | M10   | M20   | G1/2 | G1/8 | M8X1 |