EagleBurgmann
a member of EKK and FREUDENBERG

RELY ON EXCELLENCE

# MA250 / MA251

## Mechanical Seals | Mechanical seals for pumps | Standard cartridge seals

### Features

- Cartridge design
- Balanced
- Independent of direction of rotation
- Stationary, inside mounted type
- Springs do not contact the liquid

### Advantages

- Equipped with flushing, quenching, and drainports as standard
- PTFE backup ring as standard

### Operating range

**MA250:**
Pressure: p = 0 ... 16 bar (232 PSI)
Temperature:
t = -20 °C ... 160 °C (-4 °F ... 320 °F) (oil),
0 °C ... 60 °C (32 °F ... 140 °F) (water)
Sliding velocity: vg = 20 m/s (66 ft/s)
Viscosity: ... 0.5 Pa·s
Solids content: ... 0.3 %

**MA251:**
Pressure: p = 0 ... 16 bar (232 PSI)
Temperature:
t = -20 °C ... 160 °C (-4 °F ... 320 °F) (oil),
0 °C ... 60 °C (32 °F ... 140 °F) (water)
Sliding velocity: vg = 20 m/s (66 ft/s)
Viscosity: ... 1 Pa·s
Solids content: ... 7 %

### Materials

Seal face (MA250): High density carbon graphite
Seal face (MA251): Silicon carbide (Q1)
Seat (MA250/MA251): Silicon carbide (Q1)
Metal parts: CrNiMo steel (G)
Secondary seals: FKM (V)

### Recommended applications

- Acids
- Alkaline solutions
- Salt solutions
- Low viscosity oils
- Monomers
- Hydrocarbons
- Water
- Seawater
- Process industry
- Refining technology
- Petrochemical industry
- Chemical industry
- Pharmaceutical industry
- Power plant technology
- Pulp and paper industry
- Water and waste water technology
- Food and beverage industry
- Metal production and processing

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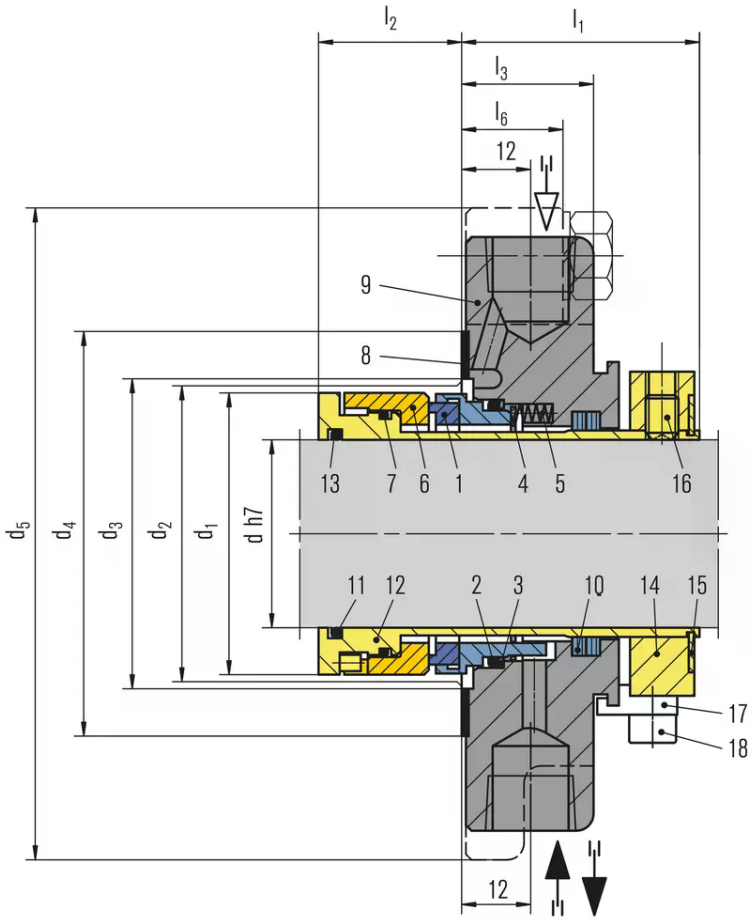
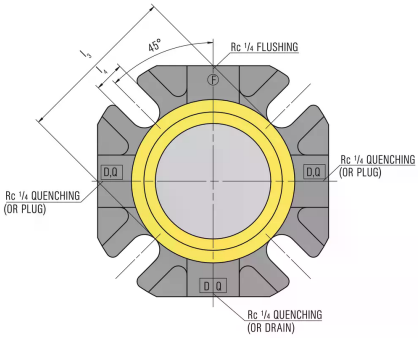
All technical specifications are based on extensive tests and our many years of experience. The diversity of possible applications means, however, that they can serve only as guide values.
We must be notified of the exact conditions of application before we can provide any guarantee for a specific case. Subject to change.




| Item | Description |
|---|---|
| 1 | Seal face |
| 2, 7, 11 | O-Ring |
| 3 | Spacer |
| 4 | Thrust ring |
| 5 | Spring |
| 6 | Seat |
| 8 | Gasket |
| 9 | Seal cover |
| 10 | Bushing |
| 12 | Shaft sleeve |
| 13 | Pin |
| 14 | Drive collar |
| 15 | Retaining ring |
| 16 | Set screw |
| 17 | Assembly fixture |
| 18 | HSH cap screw |

## Installation, details, options



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## Dimensions

| d | d1 | d~2 min.~ | d~2 max.~ | $d_3$ | $d_4$ | $d_5$ | $l_1$ | $l_2$ | $l_3$ | $l_4$ | $l_5$ | $l_6$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | 34 | 36 | 51 | 38 | 58 | 104 | 40 | 25 | 23 | 60 | 12 | 18 |
| 25 | 39 | 41 | 51 | 43 | 58 | 104 | 40 | 25 | 23 | 60 | 12 | 18 |
| 30 | 44 | 46 | 56 | 48 | 63 | 108 | 40 | 27 | 23 | 65 | 12 | 18 |
| 35 | 49 | 51 | 66 | 53 | 73 | 118 | 40 | 27 | 23 | 75 | 14 | 16 |
| 40 | 56 | 58 | 66 | 60 | 73 | 118 | 40 | 27 | 23 | 75 | 14 | 16 |
| 45 | 61 | 63 | 71 | 65 | 78 | 128 | 40 | 27 | 23 | 80 | 14 | 16 |
| 50 | 68 | 70 | 81 | 72 | 88 | 138 | 40 | 27 | 23 | 90 | 14 | 16 |
| 55 | 73 | 75 | 81 | 77 | 88 | 138 | 40 | 27 | 23 | 90 | 14 | 16 |
| 60 | 78 | 80 | 96 | 82 | 103 | 164 | 43 | 31 | 23 | 105 | 18 | 14 |
| 65 | 84 | 86 | 96 | 88 | 103 | 164 | 43 | 31 | 23 | 105 | 18 | 14 |
| 70 | 90 | 92 | 102 | 94 | 109 | 178 | 43 | 31 | 23 | 111 | 18 | 14 |
| 75 | 99 | 102 | 114 | 104 | 121 | 193 | 45 | 31 | 23 | 123 | 18 | 14 |
| 80 | 104 | 107 | 114 | 109 | 121 | 193 | 45 | 31 | 23 | 123 | 18 | 14 |
| 85 | 109 | 112 | 124 | 114 | 131 | 208 | 45 | 31 | 23 | 133 | 20 | 13 |
| 90 | 114 | 117 | 124 | 119 | 131 | 208 | 45 | 31 | 23 | 133 | 20 | 13 |
| 95 | 119 | 122 | 134 | 124 | 141 | 218 | 45 | 31 | 23 | 143 | 20 | 13 |
| 100 | 124 | 127 | 134 | 129 | 141 | 218 | 45 | 31 | 23 | 143 | 20 | 13 |

Dimensions in Millimeter



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