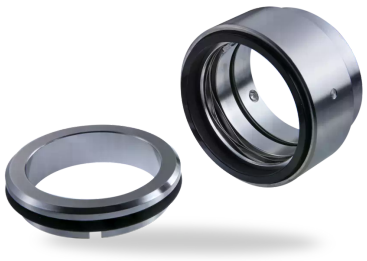
EagleBurgmann
a member of EKK and FREUDENBERG

RELY ON EXCELLENCE

# HJ92N

## Mechanical Seals | Mechanical seals for pumps | Pusher seals



### Features

- For unstepped shafts
- Single seal
- Balanced
- Independent of direction of rotation
- Encapsulated rotating spring

### Notes

Variant for sterile applications available. Please inquire.

### Advantages

- Especially designed for solids containing and highly viscous media
- Springs are protected from the product
- Rugged and reliable design
- No damage of the shaft by dynamically loaded O-Ring
- Universal application
- Variant for operation under vacuum available
- Variants for sterile operation available

### Operating range

Shaft diameter:
d1 = 18 ... 100 mm (0.625" ... 4")
Pressure:
p1*) = 0.8 abs.... 25 bar (12 abs. ... 363 PSI)
Temperature:
t = -50 °C ... +220 °C (-58 °F ... +430 °F)
Sliding velocity: vg = 20 m/s (66 ft/s)
Axial movement: ±0.5 mm

* An integral stationary seat lock is not needed within the permissible low pressure range. For prolonged operation under vacuum it is necessary to arrange for quenching on the atmospheric side.

### Materials

Seal face: Carbon graphite antimony impregnated (A),
Carbon graphite resin impregnated (B)
Seat G16: Silicon carbide (Q1)

### Standards and approvals

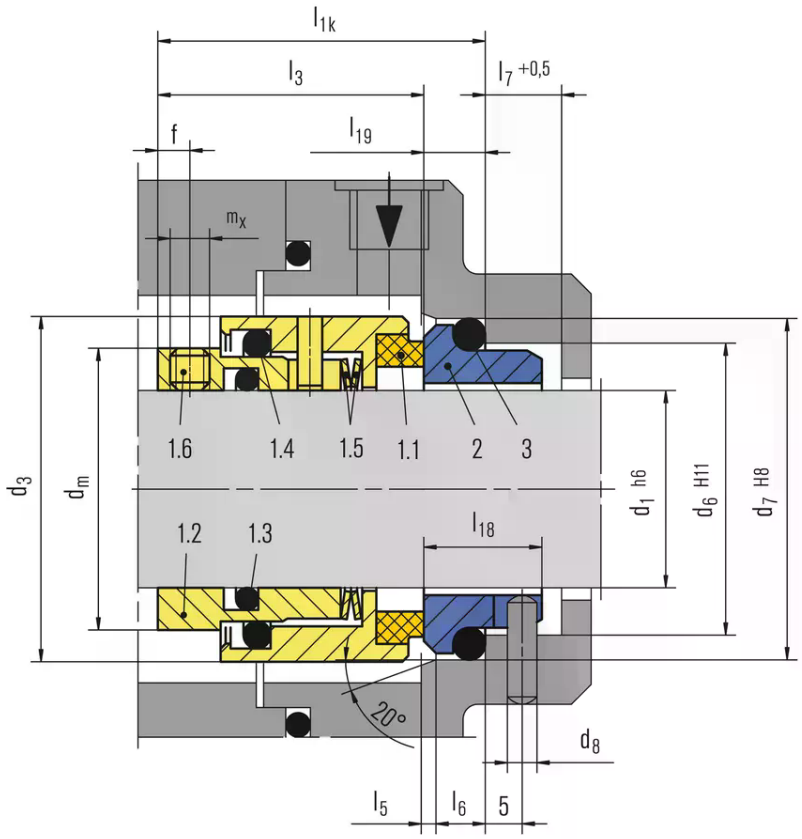
- EN 12756

### Recommended applications

- Dirty, abrasive and solids containing media
- Thick juice (70 ... 75 % sugar content)
- Raw sludge, sewage slurries
- Pharmaceutical industry
- Power plant technology
- Pulp and paper industry
- Water and waste water technology
- Mining industry
- Food and beverage industry
- Sugar industry
- Raw sludge pumps
- Thick juice pumps
- Conveying and bottling of dairy product



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.



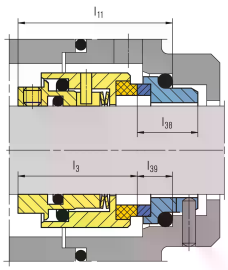

| Item | Part no. toDIN 24250 | Description |
|---|---|---|
| 1.1 | 472/473 | Seal face |
| 1.2 | 485 | Drive collar |
| 1.3 | 412.2 | O-Ring |
| 1.4 | 412.1 | O-Ring |
| 1.5 | 477 | Spring |
| 1.6 | 904 | Set screw |
| 2 | 475 | Seat (G16) |
| 3 | 412.3 | O-Ring |



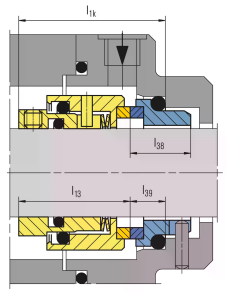
All technical specifications are based on extensive tests and our many years of experience. The diversity of possible applications means, however, that they can serve only as guide values.
We must be notified of the exact conditions of application before we can provide any guarantee for a specific case.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

## Product variants

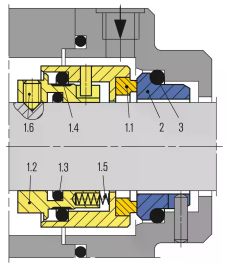
**HJ97GN5**
Items and description as HJ92N.
Seal face: Silicon carbide (Q12)
Seat G16: Silicon carbide (Q1)
Installations length l12 (= l13 + l19) is shorter than l1k.




**HJ927GN**
Items and description as HJ92N.
Seal face: Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B)
Seat G46: Silicon carbide (Q12)
Installations length l11 (= l3 + l39) is longer than l1k.




**HJ977GN**
Items and description as HJ92N.
Seal face: Silicon carbide (Q12)
Seat G46: Silicon carbide (Q12)
Installation length l1k
Operating range:
Temperature: t = –20 °C ... +180 °C (-4 °F ... +356 °F)
Sliding velocity: vg = 10 m/s (33 ft/s)




**HJ4...**
Mechanical seals with product-protected multiple springs, for high pressure applications.
Pressure: p = max. 50 bar (725 PSI)
Shaft diameter: d1 > 100 mm (3.94").
Smaller diameters and higher pressures on request.



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.

## Dimensions

| $d_1$ | $d_3$ | $d_6$ | $d_7$ | $d_8$ | $d_m$ | $l_{1K}$ | $l_3$ | $l_5$ | $l_6$ | $l_7$ | $l_{18}$ | $l_{19}$ | $l_{11}$1) | $l_{12}$2) | $l_{13}$ | $l_{38}$ | $l_{39}$ | f | $m_x$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18 | 32 | 27 | 33 | 3 | 26.0 | 37.5 | 30.5 | 2.0 | 5 | 9 | 15.0 | 7.0 | 39.5 | 35.5 | 28.5 | 17.0 | 9.0 | 3.0 | M4 |
| 20 | 34 | 29 | 35 | 3 | 28.0 | 37.5 | 30.5 | 2.0 | 5 | 9 | 15.0 | 7.0 | 39.5 | 35.5 | 28.5 | 17.0 | 9.0 | 3.0 | M4 |
| 22 | 36 | 31 | 37 | 3 | 30.0 | 37.5 | 30.5 | 2.0 | 5 | 9 | 15.0 | 7.0 | 39.5 | 35.5 | 28.5 | 17.0 | 9.0 | 3.0 | M4 |
| 24 | 38 | 33 | 39 | 3 | 32.5 | 40.0 | 33.0 | 2.0 | 5 | 9 | 15.0 | 7.0 | 42.0 | 38.0 | 31.0 | 17.0 | 9.0 | 3.5 | M5 |
| 25 | 39 | 34 | 40 | 3 | 33.5 | 40.0 | 33.0 | 2.0 | 5 | 9 | 15.0 | 7.0 | 42.0 | 38.0 | 31.0 | 17.0 | 9.0 | 3.5 | M5 |
| 28 | 42 | 37 | 43 | 3 | 36.5 | 42.5 | 35.5 | 2.0 | 5 | 9 | 15.0 | 7.0 | 45.0 | 40.0 | 33.0 | 17.5 | 9.5 | 3.5 | M5 |
| 30 | 44 | 39 | 45 | 3 | 38.5 | 42.5 | 35.5 | 2.0 | 5 | 9 | 15.0 | 7.0 | 45.0 | 40.0 | 33.0 | 17.5 | 9.5 | 3.5 | M5 |
| 32 | 47 | 42 | 48 | 3 | 41.5 | 42.5 | 35.5 | 2.0 | 5 | 9 | 15.0 | 7.0 | 45.0 | 40.0 | 33.0 | 17.5 | 9.5 | 3.5 | M5 |
| 33 | 47 | 42 | 48 | 3 | 41.5 | 42.5 | 35.5 | 2.0 | 5 | 9 | 15.0 | 7.0 | 45.0 | 40.0 | 33.0 | 17.5 | 9.5 | 3.5 | M5 |
| 35 | 49 | 44 | 50 | 3 | 43.5 | 42.5 | 35.5 | 2.0 | 5 | 9 | 15.0 | 7.0 | 45.0 | 40.0 | 33.0 | 17.5 | 9.5 | 3.5 | M5 |
| 38 | 54 | 49 | 56 | 4 | 47.5 | 45.0 | 37.0 | 2.0 | 6 | 9 | 16.0 | 8.0 | 47.5 | 42.5 | 34.5 | 18.5 | 10.5 | 4.0 | M5 |
| 40 | 56 | 51 | 58 | 4 | 49.5 | 45.0 | 37.0 | 2.0 | 6 | 9 | 16.0 | 8.0 | 47.5 | 42.5 | 34.5 | 18.5 | 10.5 | 4.0 | M5 |
| 43 | 59 | 54 | 61 | 4 | 52.5 | 45.0 | 37.0 | 2.0 | 6 | 9 | 16.0 | 8.0 | 47.5 | 42.5 | 34.5 | 18.5 | 10.5 | 4.0 | M5 |
| 45 | 61 | 56 | 63 | 4 | 54.5 | 45.0 | 37.0 | 2.0 | 6 | 9 | 16.0 | 8.0 | 47.5 | 42.5 | 34.5 | 18.5 | 10.5 | 4.0 | M5 |
| 48 | 64 | 59 | 66 | 4 | 57.5 | 45.0 | 37.0 | 2.0 | 6 | 9 | 16.0 | 8.0 | 47.5 | 42.5 | 34.5 | 18.5 | 10.5 | 4.0 | M5 |
| 50 | 66 | 62 | 70 | 4 | 59.5 | 47.5 | 38.0 | 2.5 | 6 | 9 | 17.0 | 9.5 | 50.0 | 45.0 | 35.5 | 19.5 | 12.0 | 4.5 | M6 |
| 53 | 69 | 65 | 73 | 4 | 62.5 | 47.5 | 38.0 | 2.5 | 6 | 9 | 17.0 | 9.5 | 50.0 | 45.0 | 35.5 | 19.5 | 12.0 | 4.5 | M6 |
| 55 | 71 | 67 | 75 | 4 | 64.5 | 47.5 | 38.0 | 2.5 | 6 | 9 | 17.0 | 9.5 | 50.0 | 45.0 | 35.5 | 19.5 | 12.0 | 4.5 | M6 |
| 58 | 78 | 70 | 78 | 4 | 68.5 | 52.5 | 42.0 | 2.5 | 6 | 9 | 18.0 | 10.5 | 55.0 | 50.0 | 39.5 | 20.5 | 13.0 | 4.5 | M6 |
| 60 | 80 | 72 | 80 | 4 | 70.5 | 52.5 | 42.0 | 2.5 | 6 | 9 | 18.0 | 10.5 | 55.0 | 50.0 | 39.5 | 20.5 | 13.0 | 4.5 | M6 |
| 63 | 83 | 75 | 83 | 4 | 73.5 | 52.5 | 42.0 | 2.5 | 6 | 9 | 18.0 | 10.5 | 55.0 | 50.0 | 39.5 | 20.5 | 13.0 | 4.5 | M6 |
| 65 | 85 | 77 | 85 | 4 | 75.5 | 52.5 | 42.0 | 2.5 | 6 | 9 | 18.0 | 10.5 | 55.0 | 50.0 | 39.5 | 20.5 | 13.0 | 4.5 | M6 |
| 68 | 88 | 81 | 90 | 4 | 78.5 | 52.5 | 41.5 | 2.5 | 7 | 9 | 18.5 | 11.0 | 55.0 | 50.0 | 39.0 | 21.0 | 13.5 | 4.5 | M6 |
| 70 | 90 | 83 | 92 | 4 | 80.5 | 60.0 | 48.5 | 2.5 | 7 | 9 | 19.0 | 11.5 | 62.5 | 57.5 | 46.0 | 21.5 | 14.0 | 5.0 | M6 |
| 75 | 99 | 88 | 97 | 4 | 89.0 | 60.0 | 48.5 | 2.5 | 7 | 9 | 19.0 | 11.5 | 62.5 | 57.5 | 46.0 | 21.5 | 14.0 | 5.5 | M8 |
| 80 | 104 | 95 | 105 | 4 | 94.0 | 60.0 | 48.5 | 3.0 | 7 | 9 | 19.0 | 11.5 | 62.5 | 57.5 | 46.0 | 21.5 | 14.0 | 5.5 | M8 |
| 85 | 109 | 100 | 110 | 4 | 99.0 | 60.0 | 48.5 | 3.0 | 7 | 9 | 19.0 | 11.5 | 62.5 | 57.5 | 46.0 | 21.5 | 14.0 | 5.5 | M8 |
| 90 | 114 | 105 | 115 | 4 | 104.0 | 65.0 | 52.0 | 3.0 | 7 | 9 | 20.5 | 13.0 | 67.5 | 62.5 | 49.5 | 23.0 | 15.5 | 5.5 | M8 |
| 95 | 119 | 110 | 120 | 4 | 109.0 | 65.0 | 52.0 | 3.0 | 7 | 9 | 20.5 | 13.0 | 67.5 | 62.5 | 49.5 | 23.0 | 15.5 | 5.5 | M8 |
| 100 | 124 | 115 | 125 | 4 | 114.0 | 65.0 | 52.0 | 3.0 | 7 | 9 | 20.5 | 13.0 | 67.5 | 62.5 | 49.5 | 23.0 | 15.5 | 5.5 | M8 |

Dimensions in millimeter

eagleburgmann.com
info@eagleburgmann.com

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.