EagleBurgmann
a member of EKK and FREUDENBERG

RELY ON EXCELLENCE

HRGS-D

Mechanical Seals | Mechanical seals for pumps | Gas-lubricated seals

Features

- Double seal
- Balanced
- Standard version with U-grooves (bi-directional)
- Gas-lubricated

Advantages

- Contact-free operation
- Suitable for solids containing media
- Internally pressurized
- Cartridge unit
- Does not open in the event of buffer pressure failure, self closing at pressure reversal
- HR principle with rotating seat
- No friction on the seal faces, no heat generated at the seal or in the medium

Operating range

Shaft diameter: ±dw = 20 ... 200 mm (0.787"... 7.874")
Pressure HRGS-DC: p1 = ... 22 bar (319 PSI)
p3 = ... 25 bar (363 PSI)
Pressure HRGS-DD: p1 = ... 40 bar (580 PSI)
p3 = ... 43 bar (624 PSI)
Operating temperature limits for:
EPDM -20 °C ... +140 °C (-4 °F ... +284 °F)
FFKM -20 °C ... +120 °C (-4 °F ... 248 °F)
FKM -20 °C ... +170 °C (-4 °F ... 338 °F)
Sliding velocity: vg = 4 ... 25 m/s (13 ... 82 ft/s)
Differential pressure Δp = min. 3 bar (44 PSI), max. 16 bar (232 PSI) (internal pressure)

Materials

Product side (HRGS-DC, HRGS-DD):
Seal face: Silicon carbide (Q19, Q29)
Seat: Silicon carbide (Q1, Q2)

Atmosphere side HRGS-DC:
Seal face: Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B)
Seat: Silicon carbide (Q1, Q2)

Atmosphere side HRGS-DD:
Seal face: Silicon carbide (Q19, Q29)
Seat: Silicon carbide (Q1, Q2)

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

Recommended applications

- Gases and liquids
- Media which require high purity
- Environmental harmful media
- Chemical industry
- Refining technology
- Pumps

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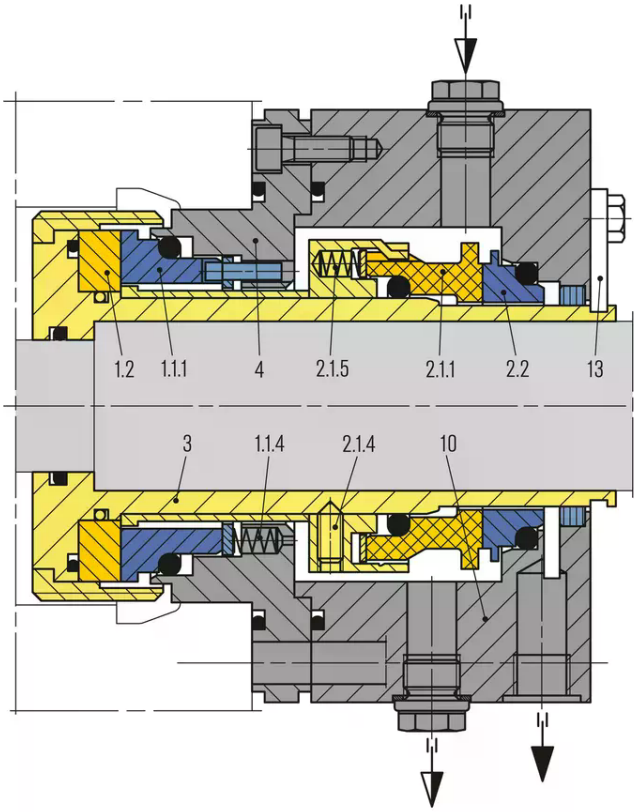
All technical specifications are based on extensive tests and our many years of experience. The diversity of possible applications means, however, that they can serve only as guide values.
We must be notified of the exact conditions of application before we can provide any guarantee for a specific case.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



Item	Part no.DIN 24250	Description
1.1.1	472.1	Seal face
1.1.4	477	Spring
1.2	475.1	Seat
2.1.1	472.2	Seal face
2.1.4	485	Drive collar
2.1.5	477	Spring
2.2	475.2	Seat
3	523	Shaft sleeve
4	513	Insert
10	441	Housing
13		Assembly fixture

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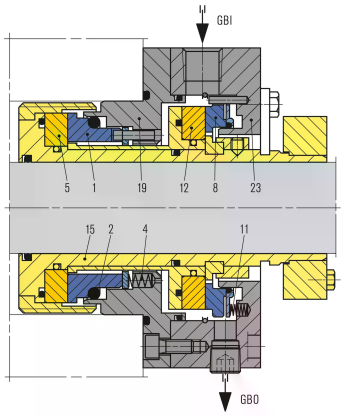
Product variants

HRGS-DC
Gas-buffered double seal. The HRGS-DC is designed for applications involving fitting dimensions in line with DIN 24960 C or ANSI Big Bore standard, but can also be used even when the fitting dimensions are not of standardized nature if large, open spaces are available for installation. The CGSH is used as outboard seal up to nominal width 125.



HRGS-DD
Acc. to API 682 configuration 3NC-FB, API Plan 74. The HRGS-DD corresponds to the HRGS-DC in terms of design principal and materials. It is designed for applications involving large shaft diameters of up to 200 mm (7.87") or fairly high pressure levels of up to 40 bar (580 PSI). The outboard seal used in such cases is the DGS.

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