

RELY ON EXCELLENCE

MG1

Mechanical seals | Mechanical seals for pumps | Elastomer bellows seals



Features

- For plain shafts
- Single and dual seal
- Elastomer bellows rotating
- Unbalanced
- Independent of direction of rotation
- No torsion on bellows

Advantages

- Shaft protection over entire seal length
- Protection of seal face during installation due to special bellows design
- Insensitive to shaft deflections due to large axial movement ability
- Universal application opportunities
- Important material certifications available
- High flexibility due to wide offer on materials
- Suitable for low-end sterile applications
- Special design for hot water pumps (RMG12) available
- Dimension adaptations and additional seats available

Operating range

Shaft diameter:

$d_1 = 10 \dots 100 \text{ mm} (0.39" \dots 3.94")$

Pressure: $p_1 = 16 \text{ bar} (230 \text{ PSI})$,

vacuum ... $0.5 \text{ bar} (7.25 \text{ PSI})$,

up to $1 \text{ bar} (14.5 \text{ PSI})$ with seat locking

Temperature: $t = -20 \text{ °C} \dots +140 \text{ °C}$

$(-4 \text{ °F} \dots +284 \text{ °F})$

Sliding velocity: $v_g = 10 \text{ m/s} (33 \text{ ft/s})$

Admissible axial movement: $\pm 2.0 \text{ mm} (\pm 0.08")$

Materials

Seal face: Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B), Silicon carbide (Q1, eSiC-Q7)

Seat: Silicon carbide (Q1, eSiC-Q7), Tungsten carbide (U3)

Elastomer: NBR (P), EPDM (E), FKM (V), HNBR (X4)

Metal parts: CrNiMo steel (G), Hastelloy® (M)

Further materials upon request.

Standards and approvals

- EN 12756 (MG12, MG13)

Various material approvals available (depending on type and material combinations).

Please inquire!

- FDA
- WRAS
- KTW
- ACS
- W270
- NSF

Notes

The MG1 can also be used as a multiple seal in tandem or in a back-to-back arrangement. Installation proposals available upon request.

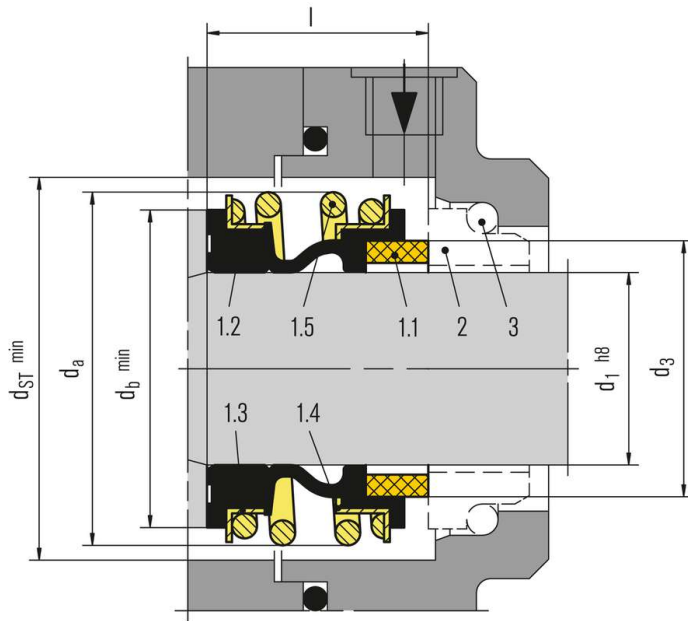
Dimension adaptations for specific conditions, e.g. shaft in inches or special seat dimensions are available upon request.

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Recommended applications

- Fresh water supply
- Building services engineering
- Waste water technology
- Food technology
- Sugar production
- Pulp and paper industry
- Oil industry
- Petrochemical industry
- Chemical industry
- Water, waste water, slurries
(solids up to 5 % by weight)
- Pulp (up to 4 % otro)
- Latex
- Dairies, beverages
- Sulfide slurries
- Chemicals
- Oils
- Chemical standard pumps
- Helical screw pumps
- Stock pumps
- Circulating pumps
- Submersible pumps
- Water and waste water pumps
- Oil applications

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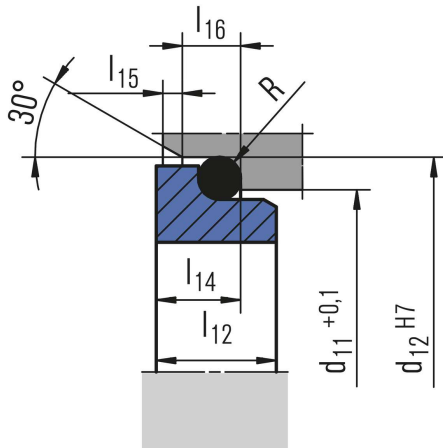


**Item Part no. to Description
DIN 24250**

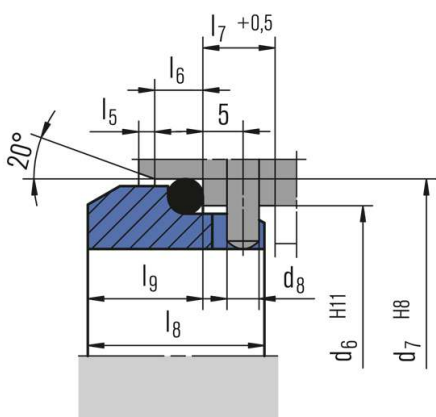
1.1	472	Seal face
1.2	481	Bellows
1.3	484.2	L-ring (spring collar)
1.4	484.1	L-ring (spring collar)
1.5	477	Spring
2	475	Seat
3	412	O-Ring or cup rubber

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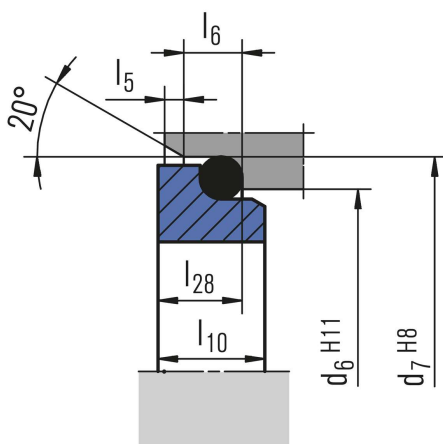
Seat alternatives



G4

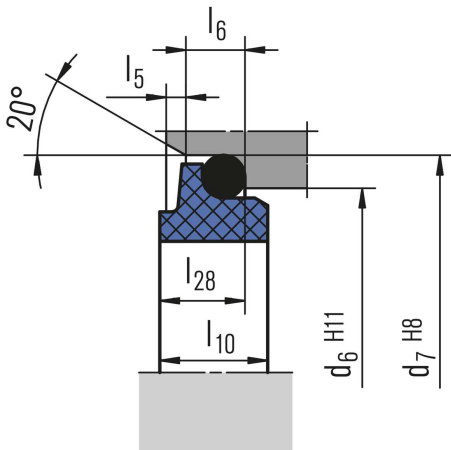


G9
EN 12756

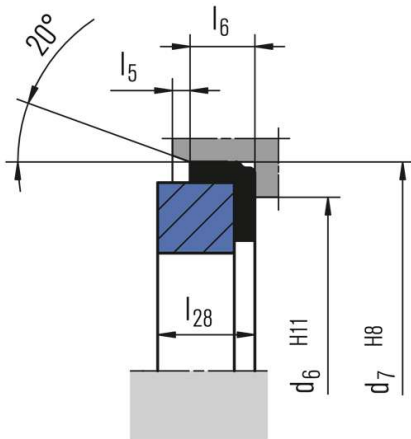


G6
EN 12756

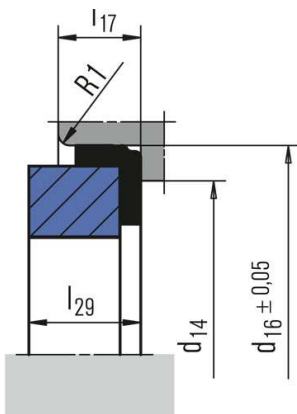
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G606
EN 12756
(for RMG12 only)



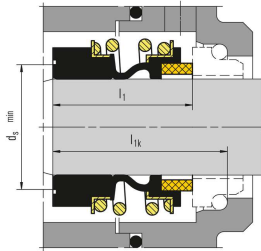
G60
EN 12756



G50
Euro-Standard

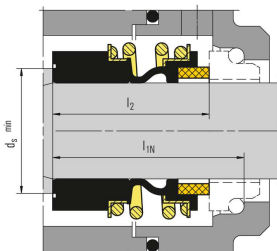
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Product variants



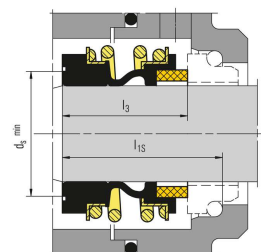
MG12

Dimensions, items and designations same as for MG1, but with an extended bellows tail to achieve the fitting length l_{1k} according to EN 12756 in combination with seat G6 or G60 (d_a exceeds EN 12756).



MG13

Dimensions, items and designations same as for MG1, but with an extended bellows tail to achieve the fitting length l_{1N} according to EN 12756 in combination with seat G6 or G60 (d_a exceeds EN 12756).



MG1S20

Dimensions, items and designations same as for MG1, but with an extended bellows tail to achieve the special fitting length l_{1S} in combination with seat G50.

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Dimensions in millimeter

Fitting length/axial movement tolerances: d_1 10 ... 12 mm ± 0.5 ; d_1 14 ... 18 mm ± 1.0 ; d_1 20 ... 26 mm ± 1.5 ; d_1 28 ... 100 mm ± 2.0

* Minimum diameter of the mating collar