

# HBrinker Mechanical Seal

Elastomer Bellows Mechanical Seal HBG12



## Mechanical Seal HBG12

### Operating range

- Shaft diameter:  $d_1 = 10 \dots 100 \text{ mm}$  (0.39" ... 3.94")
- Pressure:  $p_1 = 16 \text{ bar}$  (230 PSI), vacuum ... 0.5 bar (7.25 PSI), up to 1 bar (14.5 PSI) with seat locking
- Temperature:  $t = -20 \text{ }^\circ\text{C} \dots +140 \text{ }^\circ\text{C}$  (-4 °F ... +284 °F)
- Sliding velocity:  $v_g = 10 \text{ m/s}$  (33 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)

### Features

- For plain shafts
- Single and dual seal
- Elastomer bellows rotating
- Balanced
- 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

### Recommended applications

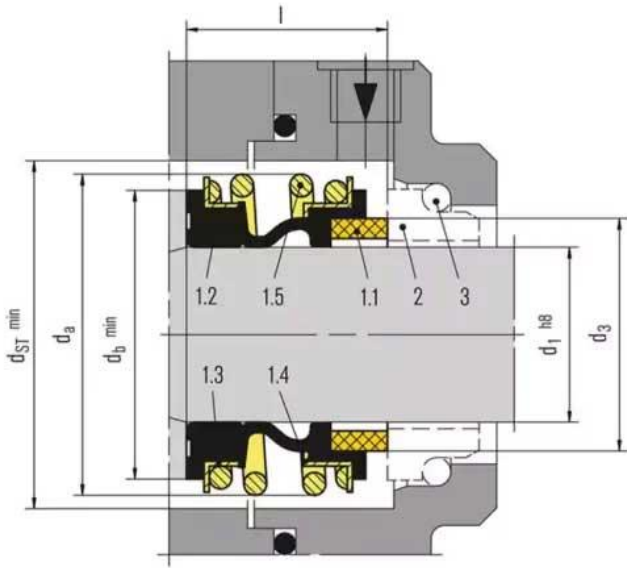
- Fresh water supply
- Building services engineering
- Waste water technology
- Food technology
- Sugar production
- Pulp and paper industry
- Oil industry
- Petrochemical industry
- Chemical industry
- Water, waste water, slurries (solids up to 5 % by weight)
- Pulp (up to 4 % otro)
- Latex

### Recommended applications

- 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

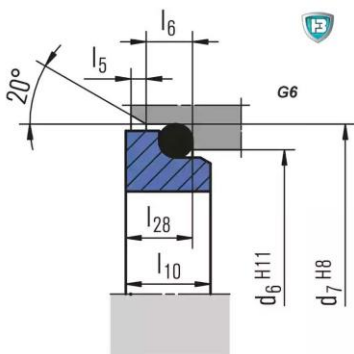
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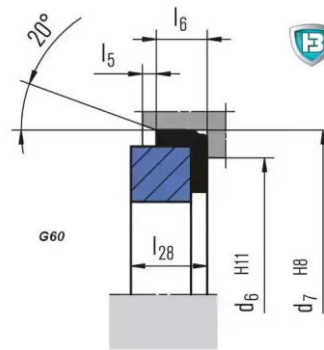


Item	Part no to DIN 24250	Description
1.1	472	Seal face
1.2	481	Bellows
1.3	484.2	L-ring
1.4	484.1	L-ring
1.5	477	Spring
2	475	Seat
3	412	O-ring

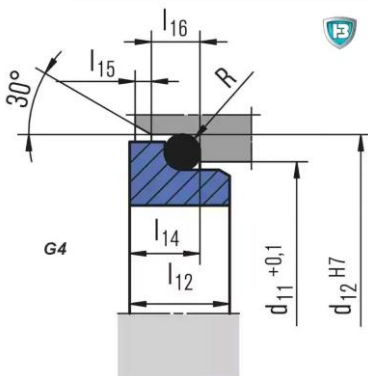
## Seat alternatives



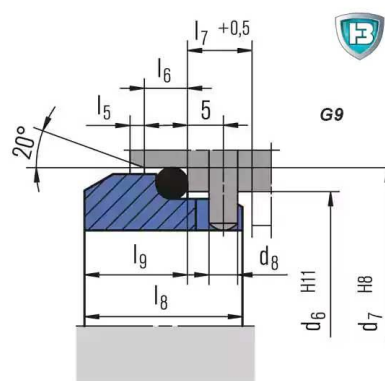
Seat G6



Seat G60



Seat G4



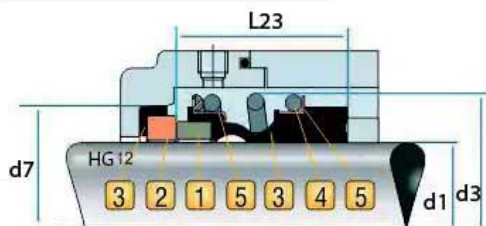
Seat G9

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Dimension Table in millimeter



d1 (h6)	d3 (Max)	d7 (H8)	L23 ( $\pm 0.5$ )	L4	d12 (H8)	L14
10	22,5	21,0	25,9	6,6	19,2	6,6
12	25,0	23,0	25,9	6,6	21,6	5,6
14	28,5	25,0	28,4	6,6	24,6	5,6
15	28,5	27,0	28,4	6,6	24,6	6,6
16	28,5	27,0	28,4	6,6	28,0	7,5
18	32,0	33,0	30,0	7,5	30,0	8,0
19	36,5	35,0	30,0	7,5	35,0	7,5
20	37,0	35,0	30,0	7,5	35,0	7,5
22	37,0	37,0	30,0	7,5	35,0	7,5
24	42,5	39,0	32,5	7,5	38,0	7,5
25	42,5	40,0	32,5	7,5	38,0	7,5
28	49,0	43,0	35,0	7,5	42,0	9,0
30	49,0	45,0	35,0	7,5	45,0	10,5
32	53,5	48,0	35,0	7,5	48,0	10,5
33	53,5	48,0	35,0	7,5	50,0	11,0
35	57,0	50,0	35,0	7,5	52,0	11,0
38	59,0	56,0	36,0	9,0	55,0	10,3
40	62,0	58,0	36,0	9,0	58,0	10,8
42	65,5	61,0	36,0	9,0	62,0	12,0
43	65,5	61,0	36,0	9,0	62,0	12,0
45	68,0	63,0	36,0	9,0	64,0	11,6
48	70,5	66,0	36,0	9,0	68,4	11,6
50	74,0	70,0	38,0	9,5	69,3	11,6
53	78,5	73,0	36,5	11,0	72,3	12,3
55	81,0	75,0	36,5	11,0	75,4	13,3
58	85,5	78,0	41,5	11,0	78,4	13,3
60	88,5	80,0	41,5	11,0	80,4	13,3
65	93,5	85,0	41,5	11,0	85,4	13,0
68	96,5	90,0	41,2	11,3	91,5	13,7
70	99,5	92,0	48,7	11,3	92,0	13,0
75	107,0	97,0	48,7	11,3	99,0	14,0
80	112,0	105,0	48,0	12,0	104,0	15,0
85	120,0	110,0	46,0	14,0	109,0	14,8
90	127,0	115,0	51,0	14,0	114,0	14,8
95	132,0	120,0	51,0	14,0	120,3	15,8
100	137,0	125,0	51,0	14,0	123,3	15,8