

HBrinker Mechanical Seal

Pusher seals Mechanical Seal HB74D



Mechanical Seal HB74D

Operating range

- Shaft diameter: $d_1 = 14 \dots 200 \text{ mm}$ (0.55" ... 7.87")
- Pressure:
 - $p_1 = 80 \text{ bar}$ (1,160 PSI) for $d_1 = 14 \dots 100 \text{ mm}$,
 - $p_1 = 25 \text{ bar}$ (363 PSI) for $d_1 = 100 \dots 200 \text{ mm}$,
 - $p_1 = 16 \text{ bar}$ (232 PSI) for $d_1 > 200 \text{ mm}$
- Temperature: $t = -50 \text{ }^\circ\text{C} \dots 220 \text{ }^\circ\text{C}$ (-58 °F ... 428 °F)
- Sliding velocity: $v_g = 20 \text{ m/s}$ (66 ft/s)
- Axial movement:
 - d_1 up to 100 mm: $\pm 0.5 \text{ mm}$
 - d_1 from 100 mm: $\pm 2.0 \text{ mm}$

Materials

- Seal face: Silicon carbide (Q1, Q2), Carbon graphite antimony impregnated (A), Aluminium oxide (V), Special cast CrMo steel (S)
- Seat G9: Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B), Silicon carbide (Q1*, Q2*)
- Secondary seals: EPDM (E), NBR (P), FKM (V), FFKM (K)
- Springs: CrNiMo steel (G)
- Metal parts: CrNiMo steel (G), Duplex (G1)

Features

- For stepped shafts Recommended applications
- Dual seal
- Balanced
- Rotating multiple springs
- Independent of direction of rotation
- Seal concept based on the H7 range
- Variant with pumping screw available (H74F-D)

Advantages

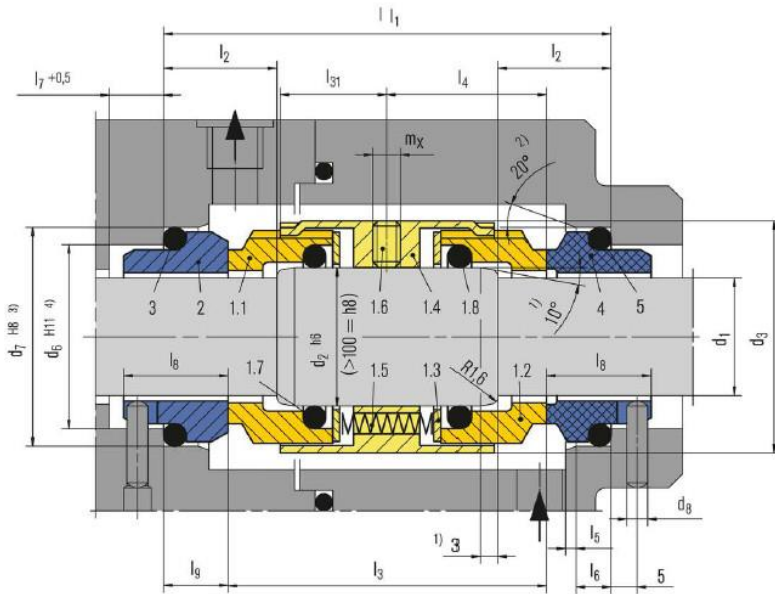
- Efficient stock keeping due to easily interchangeable faces
- Extended selection of materials
- Flexibility in torque transmissions
- Insensitive to low solids contents
- EN 12756 (For connection dimensions d_1 up to 100 mm (3.94"))

Recommended applications

- Process industry
- Oil and gas industry
- Refining technology
- Petrochemical industry
- Chemical industry
- Power plant technology
- Pulp and paper industry
- Low solids content and low abrasive media
- Toxic and hazardous media
- Media with poor lubrication properties
- Adhesives
- Chemical standard pumps

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Item	Part no. To DIN 24250	Description
1.1	472.1	Seal face
1.2	472.2	Seal face
1.3	474	Thrust ring
1.4	485	Drive collar
1.5	477	Spring
1.6	904	Set screw
1.7	412.1	O-Ring
1.8	412.2	O-Ring
2	475.1	Seat (G9)
3	412.3	O-Ring
4	475.2	Seat (G9)
5	412.4	O-Ring

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Dimension Table in millimeter

d ₁	d ₂	d ₃	d ₆	d ₇	d ₈	d ₁₁	d ₁₂	d _s	l ₁	l ₂	l ₃	l ₄	l ₅
14	18	33	21	25	3	24	30	–	73	18	53	26.5	1.5
16	20	35	23	27	3	29.5	35	–	73	18	53	26.5	1.5
18	22	37	27	33	3	29.5	35	42	76	20	53	26.5	2
20	24	39	29	35	3	32	38	44	76	20	53	26.5	2
22	26	41	31	37	3	32	38	45	76	20	53	26.5	2
24	28	43	33	39	3	36	42	47	77	20	54	27	2
25	30	45	34	40	3	39.2	45	49	77	20	54	27	2
28	33	48	37	43	3	42.2	48	51	77	20	54	27	2
30	35	50	39	45	3	44.2	50	54	77	20	54	27	2
32	38	55	42	48	3	46.2	52	59	79	20	56	28	2
33	38	55	42	48	3	49.2	55	59	79	20	56	28	2
35	40	57	44	50	3	52.2	58	61	80	20	57	28.5	2
38	43	60	49	56	4	53.3	62	65	85	23	57	28.5	2
40	45	62	51	58	4	55.3	64	66	85	23	57	28.5	2
43	48	65	54	61	4	59.7	68.4	69	85	23	57	28.5	2
45	50	67	56	63	4	60.8	69.3	71	84	23	56	28	2
48	53	70	59	66	4	63.8	72.3	75	84	23	56	28	2
50	55	72	62	70	4	66.5	75.4	76	93	25	63	31.5	2.5
53	58	79	65	73	4	69.5	78.4	83	97	25	67	33.5	2.5
55	60	81	67	75	4	71.5	80.4	85	97	25	67	33.5	2.5
58	63	84	70	78	4	74.5	83.4	88	104	25	74	37	2.5
60	65	86	72	80	4	76.5	85.4	95	104	25	74	37	2.5
63	68	89	75	83	4	82.7	91.5	93	109	25	79	39.5	2.5
65	70	91	77	85	4	83	92	95	98	25	68	34	2.5
70	75	99	83	92	4	90.2	99	105	112.5	28	76.4	38.2	2.5
75	80	104	88	97	4	95.2	104	109	112.5	28	76.4	38.2	2.5
80	85	109	95	105	4	100.2	109	114	112.5	28	76	38	3
85	90	114	100	110	4	105.2	114	119	112.5	28	76	38	3
90	95	119	105	115	4	111.6	120.3	124	112.5	28	76	38	3
95	100	124	110	120	4	114.5	123.3	129	110.5	28	76	38	3
100	105	129	115	125	4	–	–	134	110.5	28	76	38	3
105	115	148	122.2	134.3	5	–	–	153	122	32	82	41	2
110	120	153	128.2	140.3	5	–	–	158	122	32	82	41	2
115	125	158	136.2	148.3	5	–	–	163	122	32	82	41	2
120	130	163	138.2	150.3	5	–	–	168	122	32	82	41	2
125	135	168	142.2	154.3	5	–	–	173	122	32	82	41	2
130	140	173	146.2	158.3	5	–	–	178	122	32	82	41	2
135	145	178	152.2	164.3	5	–	–	183	122	32	82	41	2
140	150	183	156.2	168.3	5	–	–	188	122	32	82	41	2
145	155	191	161.2	173.3	5	–	–	196	133	34	93	46.5	2
150	160	196	168.2	180.3	5	–	–	201	137	36	93	46.5	2
155	165	201	173.2	185.3	5	–	–	206	141	38	93	46.5	2
160	170	206	178.2	190.3	5	–	–	211	141	38	93	46.5	2
165	175	211	183.2	195.3	5	–	–	216	141	38	93	46.5	2
170	180	216	188.2	200.3	5	–	–	221	141	38	93	46.5	2
175	185	221	193.2	205.3	5	–	–	226	141	38	93	46.5	2
180	190	226	207.5	219.3	5	–	–	231	149	42	93	46.5	2
185	195	231	212.5	224.3	5	–	–	236	149	42	93	46.5	2
190	200	236	217.5	229.3	5	–	–	241	149	42	93	46.5	2
195	205	245	222.5	234.3	5	–	–	250	151	43	95	47.5	2
200	210	250	227.5	239.3	5	–	–	255	151	43	95	47.5	2

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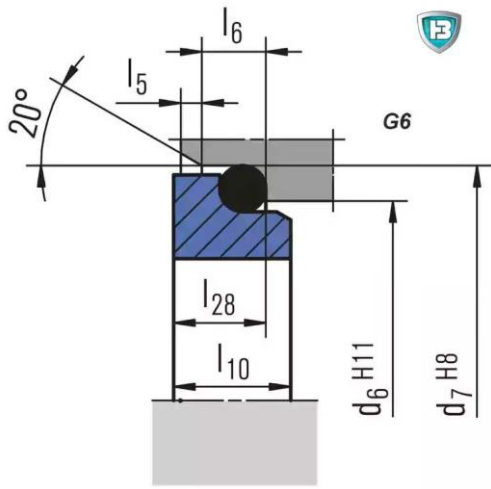
l ₆	l ₇	l ₈	l ₉	l ₁₂	l ₁₄	l ₁₀	l ₁₅	l ₂₈	l ₁₆	l ₃₁	m _x	R
4	8.5	17.5	10	6.5	5.6	7.5	1.5	6.6	5	17	M5	1.2
4	8.5	17.5	10	8.5	7.5	7.5	1.5	6.6	5	17	M5	1.5
5	9	19.5	11.5	9	8	8.5	1.5	7.5	5	17	M5	1.5
5	9	19.5	11.5	8.5	7.5	8.5	1.5	7.5	5	17	M5	1.5
5	9	19.5	11.5	8.5	7.5	8.5	1.5	7.5	5	17	M5	1.5
5	9	19.5	11.5	8.5	7.5	8.5	1.5	7.5	5	17.5	M6	1.5
5	9	19.5	11.5	8.5	7.5	8.5	1.5	7.5	5	17.5	M6	1.5
5	9	19.5	11.5	10	9	8.5	1.5	7.5	5	17.5	M6	1.5
5	9	19.5	11.5	11.5	10.5	8.5	1.5	7.5	5	17.5	M6	1.5
5	9	19.5	11.5	11.5	10.5	8.5	1.5	7.5	5	18.5	M6	1.5
5	9	19.5	11.5	12	10.5	8.5	1.5	7.5	5	18.5	M6	1.5
5	9	19.5	11.5	12	11	8.5	1.5	7.5	5	19	M6	1.5
6	9	22	14	11.3	10.3	10	2	9	6	19	M6	1.5
6	9	22	14	11.8	10.8	10	2	9	6	19	M6	1.5
6	9	22	14	13.2	12	10	2	9	6	19	M6	2.5
6	9	22	14	12.8	11.6	10	2	9	6	19.5	M6	2.5
6	9	22	14	12.8	11.6	10	2	9	6	19.5	M6	2.5
6	9	23	15	12.8	11.6	10.5	2	9.5	6	19.5	M6	2.5
6	9	23	15	13.5	12.3	12	2	11	6	23.5	M8	2.5
6	9	23	15	14.5	13.3	12	2	11	6	23.5	M8	2.5
6	9	23	15	14.5	13.3	12	2	11	6	24.5	M8	2.5
6	9	23	15	14.5	13.3	12	2	11	6	24.5	M8	2.5
6	9	23	15	14.2	13.3	12	2	11	6	24.5	M8	2.5
6	9	23	15	14.2	13	12	2	11	6	23.5	M8	2.5
7	9	26	18	14.9	13.7	12.5	2	11.3	6	25.5	M8	2.5
7	9	26	18	14.2	13	12.5	2	11.3	6	25.5	M8	2.5
7	9	26.2	18.2	15.2	14	12.5	2	11.3	6	25	M8	2.5
7	9	26.2	18.2	16.2	15	13	2	12	6	25.5	M8	2.5
7	9	26.2	18.2	16	14.8	15	2	14	6	25	M8	2.5
7	9	25.2	17.2	16	14.8	15	2	14	6	25	M8	2.5
7	9	25.2	17.2	17	15.8	15	-	14	-	25.5	M8	2.5
10	-	30	20	17	15.8	15	-	14	-	31.5	M8	2.5
10	-	30	20	-	-	-	-	-	-	31.5	M8	-
10	-	30	20	-	-	-	-	-	-	31.5	M8	-
10	-	30	20	-	-	-	-	-	-	31.5	M8	-
10	-	30	20	-	-	-	-	-	-	31.5	M8	-
10	-	30	20	-	-	-	-	-	-	31.5	M8	-
10	-	30	20	-	-	-	-	-	-	31.5	M8	-
10	-	30	20	-	-	-	-	-	-	31.5	M8	-
10	-	30	20	-	-	-	-	-	-	35.5	M8	-
10	-	32	22	-	-	-	-	-	-	35.5	M8	-
12	-	34	24	-	-	-	-	-	-	35.5	M8	-
12	-	34	24	-	-	-	-	-	-	35.5	M8	-
12	-	34	24	-	-	-	-	-	-	35.5	M8	-
12	-	34	24	-	-	-	-	-	-	35.5	M8	-
12	-	34	24	-	-	-	-	-	-	35.5	M8	-
12	-	38	28	-	-	-	-	-	-	35.5	M8	-
12	-	38	28	-	-	-	-	-	-	35.5	M8	-
12	-	38	28	-	-	-	-	-	-	35.5	M8	-
12	-	38	28	-	-	-	-	-	-	-	M10	-
12	-	38	28	-	-	-	-	-	-	-	-	-

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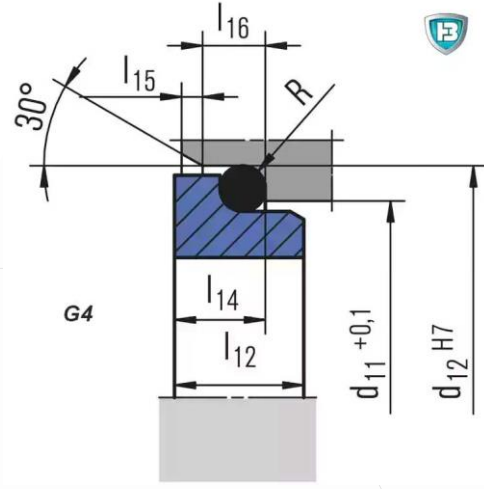
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Seat alternatives



G6



G4

v

