



Mechanical Seal HB74D

Operating range

- Shaft diameter: $d1 = 18 \dots 200 \text{ mm}$ (0.71" ... 7.87")
- Pressure: $p1 = 25 \text{ bar}$ (363 PSI)
- 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:
 - $d1$ up to 100 mm: $\pm 0.5 \text{ mm}$
 - $d1$ from 100 mm: $\pm 2.0 \text{ mm}$

Materials

- Seal face: Silicon carbide (Q1)
- Seat G9: Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B), Silicon carbide (Q1)
- Seat G4, G6 (Q1, Q2), Seat G13 (A, B)
- Secondary seals: EPDM (E), FKM (V), FFKM (K)
- Springs: CrNiMo steel (G)
- Metal parts: CrNiMo steel (G), Duplex (G1)

Features

- For plain shafts
- Dual seal
- Unbalanced
- \checkmark Rotating multiple springs
- Independent of direction of rotation
- Seal concept based on the M7 range
- Variant with pumping screw available (HB74FD)

Advantages

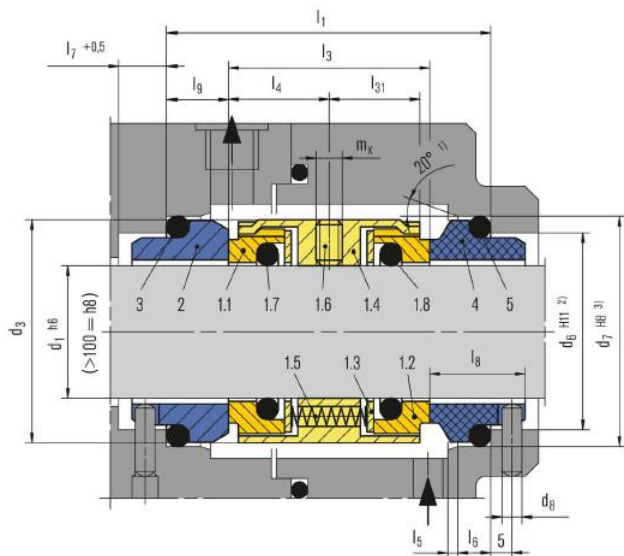
- Efficient stock keeping due to easily interchangeable faces
- Extended selection of materials
- Flexibility in torque transmissions
- EN 12756 (For connection dimensions $d1$ up to 100 mm (3.94"))

Recommended applications

- Chemical industry
- Process industry
- Pulp and paper industry
- Low solids content and low abrasive media
- Toxic and hazardous media
- Media with poor lubrication properties
- Adhesives

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Item	Part no. to DIN 24250	Description
1.1	472.1	Seal face
1.2	472.2	Seal face ^v
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 ₃	d ₆	d ₇	d ₈	d ₉	d ₁₁	d ₁₂	d _s	l ₁	l ₃	l ₄	l ₅	l ₆
18	33	27.0	33.0	3	4	24.0	30.0	–	61.0	38	19.0	2.0	5
20	35	29.0	35.0	3	4	29.5	35.0	–	61.0	38	19.0	2.0	5
22	37	31.0	37.0	3	4	29.5	35.0	42	61.0	38	19.0	2.0	5
24	39	33.0	39.0	3	4	32.0	38.0	44	61.0	38	19.0	2.0	5
25	40	34.0	40.0	3	4	32.0	38.0	45	61.0	38	19.0	2.0	5
28	43	37.0	43.0	3	4	36.0	42.0	47	62.0	39	19.5	2.0	5
30	45	39.0	45.0	3	4	39.2	45.0	49	62.0	39	19.5	2.0	5
32	47	42.0	48.0	3	4	42.2	48.0	51	62.0	39	19.5	2.0	5
33	48	42.0	48.0	3	4	44.2	50.0	51	62.0	39	19.5	2.0	5
35	50	44.0	50.0	3	4	46.2	52.0	54	62.0	39	19.5	2.0	5
38	55	49.0	56.0	4	4	49.2	55.0	59	69.0	41	20.5	2.0	6
40	57	51.0	58.0	4	4	52.2	58.0	61	70.0	42	21.0	2.0	6
43	60	54.0	61.0	4	4	53.3	62.0	65	70.0	42	21.0	2.0	6
45	62	56.0	63.0	4	4	55.3	64.0	66	70.0	42	21.0	2.0	6
48	65	59.0	66.0	4	4	59.7	68.4	69	70.0	42	21.0	2.0	6
50	67	62.0	70.0	4	4	60.8	69.3	71	73.0	43	21.5	2.5	6
53	70	65.0	73.0	4	4	63.8	72.3	75	73.0	43	21.5	2.5	6
55	72	67.0	75.0	4	4	66.5	75.4	76	73.0	43	21.5	2.5	6
58	79	70.0	78.0	4	5	69.5	78.4	83	86.0	56	28.0	2.5	6
60	81	72.0	80.0	4	5	71.5	80.4	85	86.0	56	28.0	2.5	6
63	84	75.0	83.0	4	5	74.5	83.4	88	85.0	55	27.5	2.5	6
65	86	77.0	85.0	4	5	76.5	85.4	95	85.0	55	27.5	2.5	6
68	89	81.0	90.0	4	5	82.7	91.5	93	91.0	55	27.5	2.5	7
70	91	83.0	92.0	4	5	83.0	92.0	95	92.0	56	28.0	2.5	7
75	99	88.0	97.0	4	5	90.2	99.0	105	92.0	56	28.0	2.5	7
80	104	95.0	105.0	4	5	95.2	104.0	109	92.5	56	28.0	3.0	7
85	109	100.0	110.0	4	5	100.2	109.0	114	92.5	56	28.0	3.0	7
90	114	105.0	115.0	4	5	105.2	114.0	119	92.5	56	28.0	3.0	7
95	119	110.0	120.0	4	5	111.6	120.3	124	90.5	56	28.0	3.0	7
100	124	115.0	125.0	4	5	114.5	123.3	129	90.5	56	28.0	3.0	7
105	138	122.2	134.3	5	7	–	–	143	108.0	68	34.0	2.0	10
110	143	128.2	140.3	5	7	–	–	148	110.0	70	35.0	2.0	10
115	148	136.2	148.3	5	7	–	–	153	110.0	70	35.0	2.0	10
120	153	138.2	150.3	5	7	–	–	158	110.0	70	35.0	2.0	10
125	158	142.2	154.3	5	7	–	–	163	110.0	70	35.0	2.0	10
130	163	146.2	158.3	5	7	–	–	168	110.0	70	35.0	2.0	10
135	168	152.2	164.3	5	7	–	–	173	110.0	70	35.0	2.0	10
140	173	156.2	168.3	5	7	–	–	178	110.0	70	35.0	2.0	10
145	178	161.2	173.3	5	7	–	–	183	110.0	70	35.0	2.0	10
150	183	168.2	180.3	5	7	–	–	188	114.0	70	35.0	2.0	10
155	191	173.2	185.3	5	7	–	–	196	127.0	79	39.5	2.0	12
160	196	178.2	190.3	5	7	–	–	201	127.0	79	39.5	2.0	12
165	201	183.2	195.3	5	7	–	–	206	127.0	79	39.5	2.0	12
170	206	188.2	200.3	5	7	–	–	211	127.0	79	39.5	2.0	12
175	211	193.2	205.3	5	7	–	–	216	127.0	79	39.5	2.0	12
180	216	207.5	219.3	5	7	–	–	221	135.0	79	39.5	2.0	12
185	221	212.5	224.3	5	7	–	–	226	135.0	79	39.5	2.0	12
190	226	217.5	229.3	5	7	–	–	231	135.0	79	39.5	2.0	12
195	231	222.5	234.3	5	7	–	–	236	135.0	79	39.5	2.0	12
200	236	227.5	239.3	5	7	–	–	241	135.0	79	39.5	2.0	12

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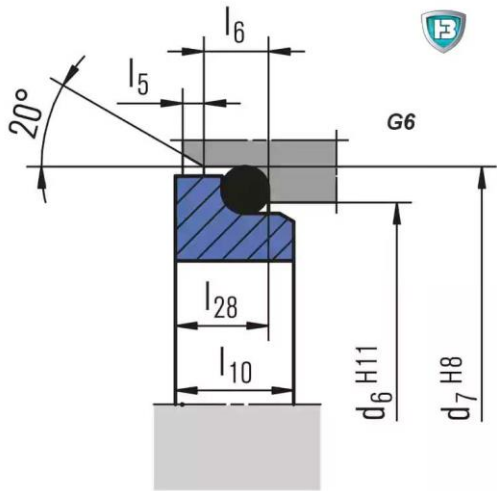


l ₇	l ₈	l ₉	l ₁₀	l ₁₁	l ₁₂	l ₁₃	l ₁₄	l ₁₅	l ₁₆	l ₂₈	l ₃₁	l ₃₅	m _x	t	R
9	19.5	11.5	8.5	12.5	9.0	10.0	8.0	1.5	5	7.5	17.0	15	M5	3.5	1.5
9	19.5	11.5	8.5	12.5	8.5	9.5	7.5	1.5	5	7.5	17.0	15	M5	3.5	1.5
9	19.5	11.5	8.5	12.5	8.5	9.5	7.5	1.5	5	7.5	17.0	15	M5	3.5	1.5
9	19.5	11.5	8.5	12.5	8.5	9.5	7.5	1.5	5	7.5	17.0	15	M5	3.5	1.5
9	19.5	11.5	8.5	12.5	8.5	9.5	7.5	1.5	5	7.5	17.0	15	M5	3.5	1.5
9	19.5	11.5	8.5	14.0	10.0	11.0	9.0	1.5	5	7.5	17.5	15	M6	3.5	1.5
9	19.5	11.5	8.5	14.0	11.5	11.0	10.5	1.5	5	7.5	17.5	15	M6	3.5	1.5
9	19.5	11.5	8.5	14.0	11.5	11.0	10.5	1.5	5	7.5	17.5	15	M6	3.5	1.5
9	19.5	11.5	8.5	14.5	12.0	11.5	10.5	1.5	5	7.5	17.5	15	M6	3.5	1.5
9	19.5	11.5	8.5	14.5	12.0	11.5	11.0	1.5	5	7.5	17.5	15	M6	3.5	1.5
9	22.0	14.0	10.0	14.5	11.3	11.5	10.3	1.5	5	9.0	18.5	15	M6	3.5	1.5
9	22.0	14.0	10.0	14.5	11.8	11.5	10.8	1.5	5	9.0	19.0	15	M6	3.5	1.5
9	22.0	14.0	10.0	17.0	13.2	14.3	12.0	2.0	6	9.0	19.0	15	M6	3.5	2.5
9	22.0	14.0	10.0	17.0	12.8	14.3	11.6	2.0	6	9.0	19.0	15	M6	3.5	2.5
9	22.0	14.0	10.0	17.0	12.8	14.3	11.6	2.0	6	9.0	19.0	15	M6	3.5	2.5
9	23.0	15.0	10.5	17.0	12.8	14.3	11.6	2.0	6	9.5	19.5	15	M6	3.5	2.5
9	23.0	15.0	12.0	17.0	13.5	14.3	12.3	2.0	6	11.0	19.5	15	M6	3.5	2.5
9	23.0	15.0	12.0	18.0	14.5	15.3	13.3	2.0	6	11.0	19.5	15	M8	3.5	2.5
9	23.0	15.0	12.0	18.0	14.5	15.3	13.3	2.0	6	11.0	23.5	19	M8	3.5	2.5
9	23.0	15.0	12.0	18.0	14.5	15.3	13.3	2.0	6	11.0	23.5	19	M8	3.5	2.5
9	23.0	15.0	12.0	18.0	14.2	15.3	13.3	2.0	6	11.0	24.5	19	M8	3.5	2.5
9	23.0	15.0	12.0	18.0	14.2	15.3	13.0	2.0	6	11.0	24.5	19	M8	3.5	2.5
9	26.0	18.0	12.5	19.0	14.9	16.0	13.7	2.0	6	11.3	24.5	19	M8	3.5	2.5
9	26.0	18.0	12.5	18.0	14.2	15.3	13.0	2.0	6	11.3	23.5	19	M8	3.5	2.5
9	26.0	18.0	12.5	18.0	15.2	15.3	14.0	2.0	6	11.3	25.5	19	M8	3.5	2.5
9	26.2	18.2	13.0	19.0	16.2	16.3	15.0	2.0	6	12.0	25.5	19	M8	3.5	2.5
9	26.2	18.2	15.0	19.0	16.0	16.3	14.8	2.0	6	14.0	25.0	19	M8	3.5	2.5
9	26.2	18.2	15.0	19.0	16.0	16.3	14.8	2.0	6	14.0	25.5	19	M8	3.5	2.5
9	25.2	17.2	15.0	20.0	17.0	17.3	15.8	2.0	6	14.0	25.0	19	M8	3.5	2.5
9	25.2	17.2	15.0	20.0	17.0	17.3	15.8	2.0	6	14.0	25.0	19	M8	3.5	2.5
-	30.0	20.0	-	-	-	-	-	-	-	-	30.5	22	M8	3.5	-
-	30.0	20.0	-	-	-	-	-	-	-	-	31.5	22	M8	3.5	-
-	30.0	20.0	-	-	-	-	-	-	-	-	31.5	22	M8	3.5	-
-	30.0	20.0	-	-	-	-	-	-	-	-	31.5	22	M8	3.5	-
-	30.0	20.0	-	-	-	-	-	-	-	-	31.5	22	M8	3.5	-
-	30.0	20.0	-	-	-	-	-	-	-	-	31.5	22	M8	3.5	-
-	30.0	20.0	-	-	-	-	-	-	-	-	31.5	22	M8	3.5	-
-	30.0	20.0	-	-	-	-	-	-	-	-	31.5	22	M8	3.5	-
-	30.0	20.0	-	-	-	-	-	-	-	-	31.5	22	M8	3.5	-
-	32.0	22.0	-	-	-	-	-	-	-	-	31.5	22	M8	3.5	-
-	34.0	24.0	-	-	-	-	-	-	-	-	35.5	22	M8	3.5	-
-	34.0	24.0	-	-	-	-	-	-	-	-	35.5	22	M8	3.5	-
-	34.0	24.0	-	-	-	-	-	-	-	-	35.5	22	M8	3.5	-
-	34.0	24.0	-	-	-	-	-	-	-	-	35.5	22	M8	3.5	-
-	34.0	24.0	-	-	-	-	-	-	-	-	35.5	22	M8	3.5	-
-	38.0	28.0	-	-	-	-	-	-	-	-	35.5	22	M8	3.5	-
-	38.0	28.0	-	-	-	-	-	-	-	-	35.5	22	M8	3.5	-
-	38.0	28.0	-	-	-	-	-	-	-	-	35.5	22	M8	3.5	-
-	38.0	28.0	-	-	-	-	-	-	-	-	35.5	22	M8	3.5	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

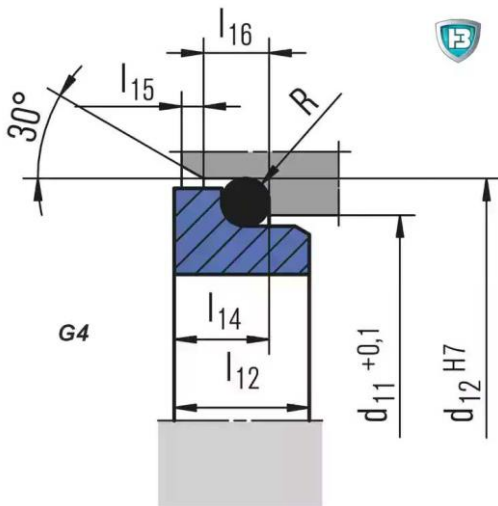
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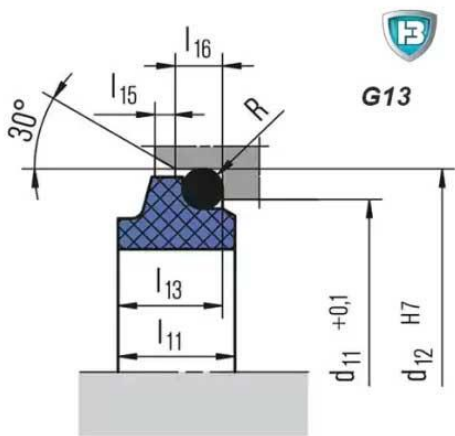
Seat alternatives



Seat G6



v
Seat G4



Seat G13