EagleBurgmann
a member of EKK and FREUDENBERG

RELY ON EXCELLENCE

H74-D

Mechanical seals | Mechanical seals for pumps | Pusher seals

Features
- For stepped shafts
- 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 d1 up to 100 mm (3.94"))

Operating range
Shaft diameter:
d1 = 14 ... 200 mm (0.55" ... 7.87")
Pressure:
p1 = 80 bar (1,160 PSI) for d1 = 14 ... 100 mm,
p1 = 25 bar (363 PSI) for d1 = 100 ... 200 mm,
p1 = 16 bar (232 PSI) for d1 > 200 mm
Temperature:
t = -50 °C ... 220 °C (-58 °F ... 428 °F)
Sliding velocity: vg = 20 m/s (66 ft/s)
Axial movement:
d1 up to 100 mm: ± 0.5 mm
d1 from 100 mm: ± 2.0 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)
* Cannot be combined with seal face made of S

Standards and approvals
- EN 12756

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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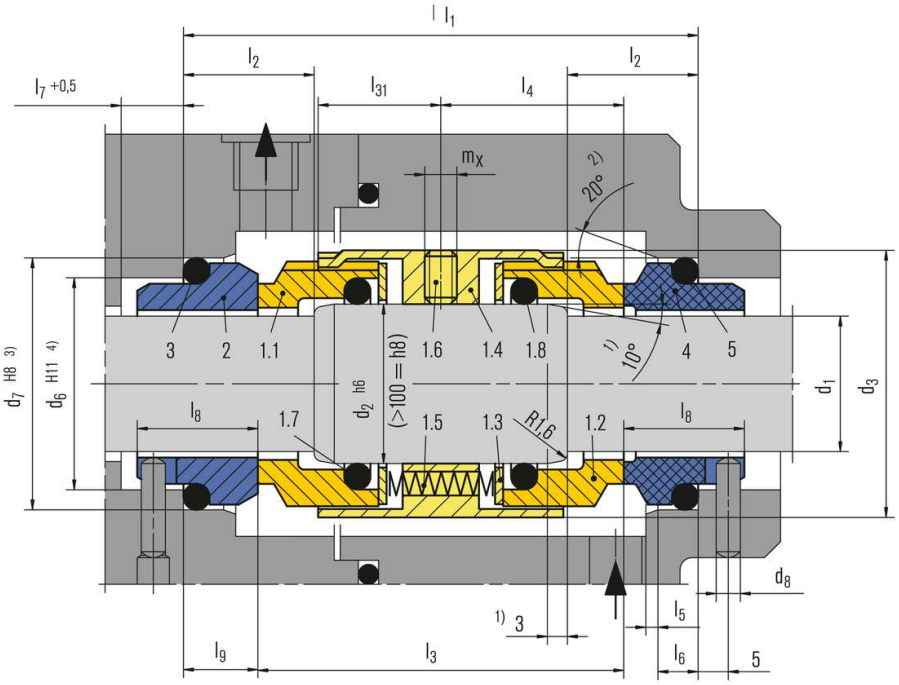

Item	Part no. to DIN 24250	Description
1.1	472.1	Seal face
1.2	472.2	Seal face
1.3	474	Thrust ring
1.4	485	Drive collar
1.5	477	Spring
1.6	904	Set screw
1.7	412.1	O-Ring
1.8	412.2	O-Ring
2	475.1	Seat (G9)
3	412.3	O-Ring
4	475.2	Seat (G9)
5	412.4	O-Ring

1) d1 > 100 mm: 2 mm x 30°
2) d1 > 100 mm: 30°
3) d1 > 100 mm: H7
4) d1 > 100 mm: +0.1

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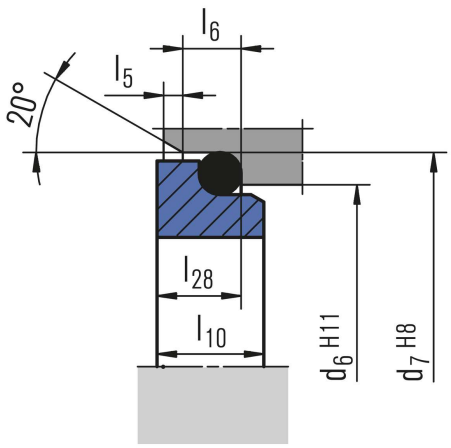
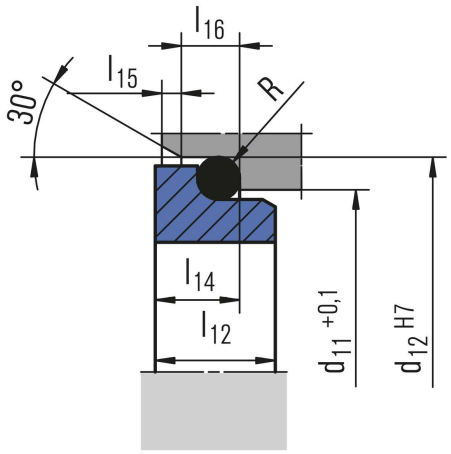
Seat alternatives



G6 (EN 12756)



G4

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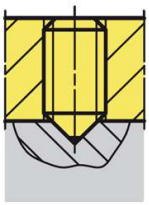
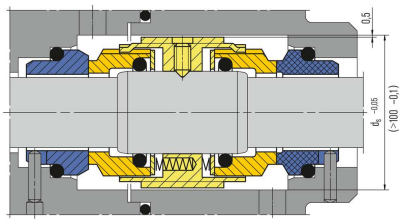
Torque transmissions



d_{12} ≥ 105 mm Torque transmission by **4 set screws** with cone point. Offset: 90°

Product variants



H74F-D
Dimensions, items and descriptions as for H74-D, but with pumping screw.
Dependent on direction of rotation.

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Dimensions

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	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
14	18	33	21	25	3	24	30	–	73	18	53	26.5	1.5	4	8.5	17.5	10	6.5	5.6	7.5	1.5	6.6	5	17	M5	1.2
16	20	35	23	27	3	29.5	35	–	73	18	53	26.5	1.5	4	8.5	17.5	10	8.5	7.5	7.5	1.5	6.6	5	17	M5	1.5
18	22	37	27	33	3	29.5	35	42	76	20	53	26.5	2	5	9	19.5	11.5	9	8	8.5	1.5	7.5	5	17	M5	1.5
20	24	39	29	35	3	32	38	44	76	20	53	26.5	2	5	9	19.5	11.5	8.5	7.5	8.5	1.5	7.5	5	17	M5	1.5
22	26	41	31	37	3	32	38	45	76	20	53	26.5	2	5	9	19.5	11.5	8.5	7.5	8.5	1.5	7.5	5	17	M5	1.5
24	28	43	33	39	3	36	42	47	77	20	54	27	2	5	9	19.5	11.5	8.5	7.5	8.5	1.5	7.5	5	17.5	M6	1.5
25	30	45	34	40	3	39.2	45	49	77	20	54	27	2	5	9	19.5	11.5	8.5	7.5	8.5	1.5	7.5	5	17.5	M6	1.5
28	33	48	37	43	3	42.2	48	51	77	20	54	27	2	5	9	19.5	11.5	10	9	8.5	1.5	7.5	5	17.5	M6	1.5
30	35	50	39	45	3	44.2	50	54	77	20	54	27	2	5	9	19.5	11.5	11.5	10.5	8.5	1.5	7.5	5	17.5	M6	1.5
32	38	55	42	48	3	46.2	52	59	79	20	56	28	2	5	9	19.5	11.5	11.5	10.5	8.5	1.5	7.5	5	18.5	M6	1.5
33	38	55	42	48	3	49.2	55	59	79	20	56	28	2	5	9	19.5	11.5	12	10.5	8.5	1.5	7.5	5	18.5	M6	1.5
35	40	57	44	50	3	52.2	58	61	80	20	57	28.5	2	5	9	19.5	11.5	12	11	8.5	1.5	7.5	5	19	M6	1.5
38	43	60	49	56	4	53.3	62	65	85	23	57	28.5	2	6	9	22	14	11.3	10.3	10	2	9	6	19	M6	1.5
40	45	62	51	58	4	55.3	64	66	85	23	57	28.5	2	6	9	22	14	11.8	10.8	10	2	9	6	19	M6	1.5
43	48	65	54	61	4	59.7	68.4	69	85	23	57	28.5	2	6	9	22	14	13.2	12	10	2	9	6	19	M6	2.5
45	50	67	56	63	4	60.8	69.3	71	84	23	56	28	2	6	9	22	14	12.8	11.6	10	2	9	6	19.5	M6	2.5
48	53	70	59	66	4	63.8	72.3	75	84	23	56	28	2	6	9	22	14	12.8	11.6	10	2	9	6	19.5	M6	2.5
50	55	72	62	70	4	66.5	75.4	76	93	25	63	31.5	2.5	6	9	23	15	12.8	11.6	10.5	2	9.5	6	19.5	M6	2.5
53	58	79	65	73	4	69.5	78.4	83	97	25	67	33.5	2.5	6	9	23	15	13.5	12.3	12	2	11	6	23.5	M8	2.5
55	60	81	67	75	4	71.5	80.4	85	97	25	67	33.5	2.5	6	9	23	15	14.5	13.3	12	2	11	6	23.5	M8	2.5
58	63	84	70	78	4	74.5	83.4	88	104	25	74	37	2.5	6	9	23	15	14.5	13.3	12	2	11	6	24.5	M8	2.5
60	65	86	72	80	4	76.5	85.4	95	104	25	74	37	2.5	6	9	23	15	14.5	13.3	12	2	11	6	24.5	M8	2.5
63	68	89	75	83	4	82.7	91.5	93	109	25	79	39.5	2.5	6	9	23	15	14.2	13.3	12	2	11	6	24.5	M8	2.5
65	70	91	77	85	4	83	92	95	98	25	68	34	2.5	6	9	23	15	14.2	13	12	2	11	6	23.5	M8	2.5
70	75	99	83	92	4	90.2	99	105	112.5	28	76.4	38.2	2.5	7	9	26	18	14.9	13.7	12.5	2	11.3	6	25.5	M8	2.5
75	80	104	88	97	4	95.2	104	109	112.5	28	76.4	38.2	2.5	7	9	26	18	14.2	13	12.5	2	11.3	6	25.5	M8	2.5
80	85	109	95	105	4	100.2	109	114	112.5	28	76	38	3	7	9	26.2	18.2	15.2	14	12.5	2	11.3	6	25	M8	2.5
85	90	114	100	110	4	105.2	114	119	112.5	28	76	38	3	7	9	26.2	18.2	16.2	15	13	2	12	6	25.5	M8	2.5
90	95	119	105	115	4	111.6	120.3	124	112.5	28	76	38	3	7	9	26.2	18.2	16	14.8	15	2	14	6	25	M8	2.5
95	100	124	110	120	4	114.5	123.3	129	110.5	28	76	38	3	7	9	25.2	17.2	16	14.8	15	2	14	6	25	M8	2.5
100	105	129	115	125	4	–	–	134	110.5	28	76	38	3	7	9	25.2	17.2	17	15.8	15	–	14	–	25.5	M8	2.5
105	115	148	122.2	134.3	5	–	–	153	122	32	82	41	2	10	–	30	20	17	15.8	15	–	14	–	31.5	M8	2.5
110	120	153	128.2	140.3	5	–	–	158	122	32	82	41	2	10	–	30	20	–	–	–	–	–	–	31.5	M8	-
115	125	158	136.2	148.3	5	–	–	163	122	32	82	41	2	10	–	30	20	–	–	–	–	–	–	31.5	M8	-
120	130	163	138.2	150.3	5	–	–	168	122	32	82	41	2	10	–	30	20	–	–	–	–	–	–	31.5	M8	-
125	135	168	142.2	154.3	5	–	–	173	122	32	82	41	2	10	–	30	20	–	–	–	–	–	–	31.5	M8	-
130	140	173	146.2	158.3	5	–	–	178	122	32	82	41	2	10	–	30	20	–	–	–	–	–	–	31.5	M8	-
135	145	178	152.2	164.3	5	–	–	183	122	32	82	41	2	10	–	30	20	–	–	–	–	–	–	31.5	M8	-
140	150	183	156.2	168.3	5	–	–	188	122	32	82	41	2	10	–	30	20	–	–	–	–	–	–	31.5	M8	-
145	155	191	161.2	173.3	5	–	–	196	133	34	93	46.5	2	10	–	30	20	–	–	–	–	–	–	35.5	M8	-
150	160	196	168.2	180.3	5	–	–	201	137	36	93	46.5	2	10	–	32	22	–	–	–	–	–	–	35.5	M8	-
155	165	201	173.2	185.3	5	–	–	206	141	38	93	46.5	2	12	–	34	24	–	–	–	–	–	–	35.5	M8	-
160	170	206	178.2	190.3	5	–	–	211	141	38	93	46.5	2	12	–	34	24	–	–	–	–	–	–	35.5	M8	-
165	175	211	183.2	195.3	5	–	–	216	141	38	93	46.5	2	12	–	34	24	–	–	–	–	–	–	35.5	M8	-
170	180	216	188.2	200.3	5	–	–	221	141	38	93	46.5	2	12	–	34	24	–	–	–	–	–	–	35.5	M8	-
175	185	221	193.2	205.3	5	–	–	226	141	38	93	46.5	2	12	–	34	24	–	–	–	–	–	–	35.5	M8	-
180	190	226	207.5	219.3	5	–	–	231	149	42	93	46.5	2	12	–	38	28	–	–	–	–	–	–	35.5	M8	-
185	195	231	212.5	224.3	5	–	–	236	149	42	93	46.5	2	12	–	38	28	–	–	–	–	–	–	35.5	M8	-

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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	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
190	200	236	217.5	229.3	5	–	–	241	149	42	93	46.5	2	12	–	38	28	–	–	–	–	–	–	35.5	M8	-
195	205	245	222.5	234.3	5	–	–	250	151	43	95	47.5	2	12	–	38	28	–	–	–	–	–	–	–	M10	-
200	210	250	227.5	239.3	5	–	–	255	151	43	95	47.5	2	12	–	38	28	–	–	–						

Dimensions in millimeter

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