EagleBurgmann
a member of EKK and FREUDENBERG

RELY ON EXCELLENCE

M74-D

Mechanical Seals | Mechanical seals for pumps | Pusher seals

Features

- For plain shafts
- Dual seal
- Unbalanced
- Rotating multiple springs
- Independent of direction of rotation
- Seal concept based on the M7 range
- Variant with pumping screw available (M74F-D)

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"))

Operating range

Shaft diameter:
d1 = 18 ... 200 mm (0.71" ... 7.87")
Pressure:
p1 = 25 bar (363 PSI)
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)
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)

Standards and approvals

- EN 12756

Recommended applications

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

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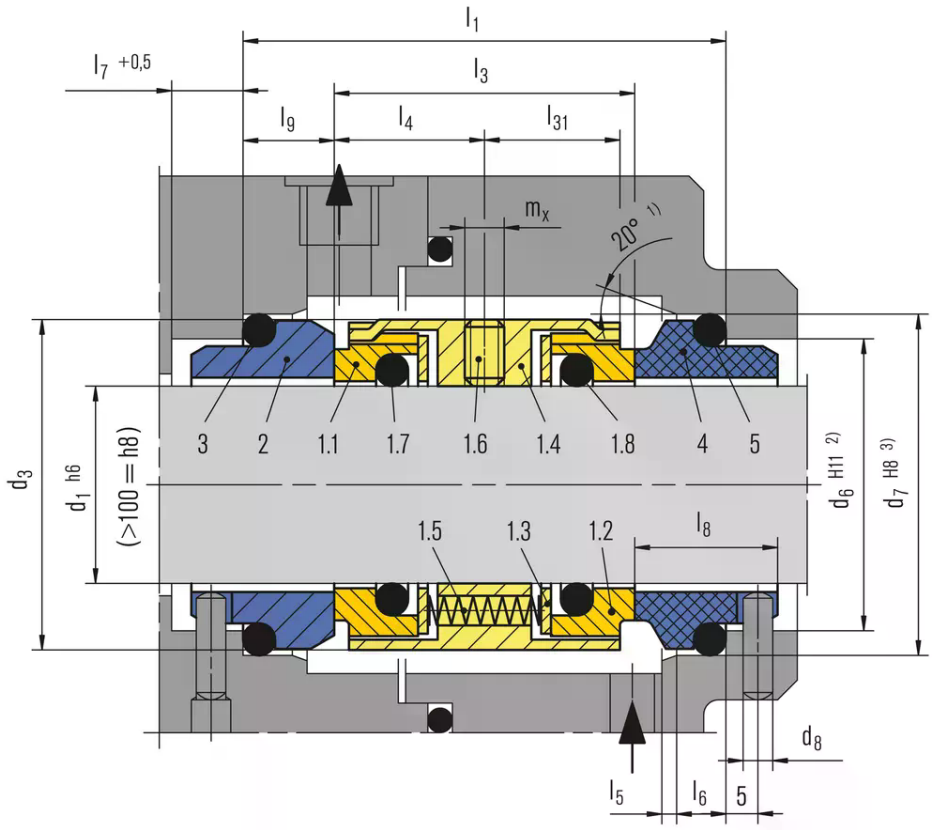
We must be notified of the exact conditions of application before we can provide any guarantee for a specific case. Subject to change.



Item	Part no. toDIN 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: 30°
2) d1 > 100 mm: +0.1
3) d1 > 100 mm: H7

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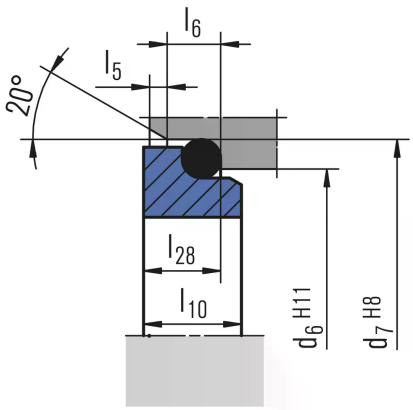
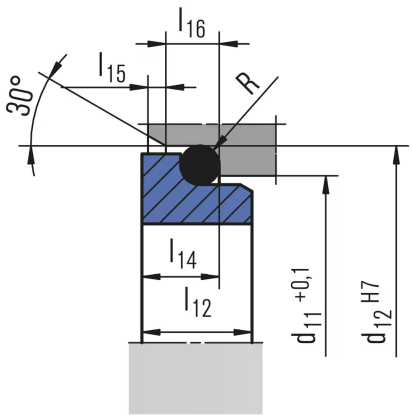
Seat alternatives

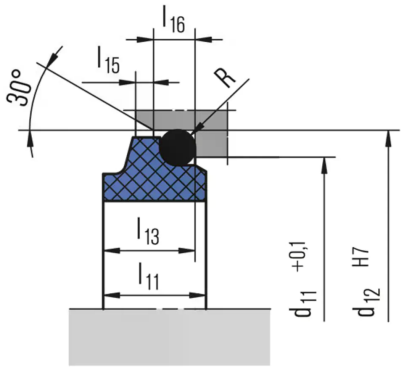
G6 (EN 12756)



G4



G13



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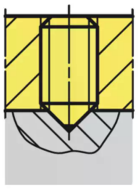
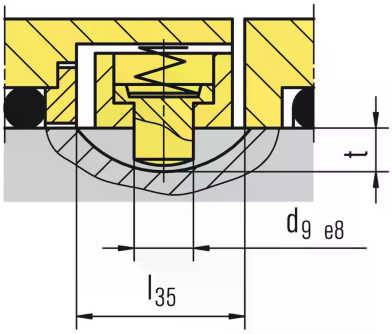
Torque transmissions

d1 > 100 mm (3.94") Torque transmission by 4 set screws with cone point. Offset: 90°

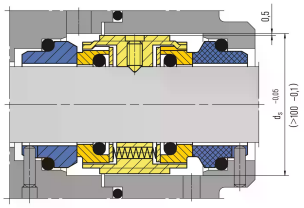


Spring loaded drive pin
(M74-D22)



Product variants

M74F-D
Dimensions, items and descriptions as for M74-D, but with pumping screw.
Dependent on direction of rotation. Viscosity ≤ ISO VG10).



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Dimensions

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	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
18	33	27.0	33.0	3	4	24.0	30.0	–	61.0	38	19.0	2.0	5	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
20	35	29.0	35.0	3	4	29.5	35.0	–	61.0	38	19.0	2.0	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
22	37	31.0	37.0	3	4	29.5	35.0	42	61.0	38	19.0	2.0	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
24	39	33.0	39.0	3	4	32.0	38.0	44	61.0	38	19.0	2.0	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
25	40	34.0	40.0	3	4	32.0	38.0	45	61.0	38	19.0	2.0	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
28	43	37.0	43.0	3	4	36.0	42.0	47	62.0	39	19.5	2.0	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
30	45	39.0	45.0	3	4	39.2	45.0	49	62.0	39	19.5	2.0	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
32	47	42.0	48.0	3	4	42.2	48.0	51	62.0	39	19.5	2.0	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
33	48	42.0	48.0	3	4	44.2	50.0	51	62.0	39	19.5	2.0	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
35	50	44.0	50.0	3	4	46.2	52.0	54	62.0	39	19.5	2.0	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
38	55	49.0	56.0	4	4	49.2	55.0	59	69.0	41	20.5	2.0	6	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
40	57	51.0	58.0	4	4	52.2	58.0	61	70.0	42	21.0	2.0	6	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
43	60	54.0	61.0	4	4	53.3	62.0	65	70.0	42	21.0	2.0	6	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
45	62	56.0	63.0	4	4	55.3	64.0	66	70.0	42	21.0	2.0	6	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
48	65	59.0	66.0	4	4	59.7	68.4	69	70.0	42	21.0	2.0	6	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
50	67	62.0	70.0	4	4	60.8	69.3	71	73.0	43	21.5	2.5	6	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
53	70	65.0	73.0	4	4	63.8	72.3	75	73.0	43	21.5	2.5	6	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
55	72	67.0	75.0	4	4	66.5	75.4	76	73.0	43	21.5	2.5	6	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
58	79	70.0	78.0	4	5	69.5	78.4	83	86.0	56	28.0	2.5	6	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
60	81	72.0	80.0	4	5	71.5	80.4	85	86.0	56	28.0	2.5	6	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
63	84	75.0	83.0	4	5	74.5	83.4	88	85.0	55	27.5	2.5	6	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
65	86	77.0	85.0	4	5	76.5	85.4	95	85.0	55	27.5	2.5	6	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
68	89	81.0	90.0	4	5	82.7	91.5	93	91.0	55	27.5	2.5	7	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
70	91	83.0	92.0	4	5	83.0	92.0	95	92.0	56	28.0	2.5	7	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
75	99	88.0	97.0	4	5	90.2	99.0	105	92.0	56	28.0	2.5	7	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
80	104	95.0	105.0	4	5	95.2	104.0	109	92.5	56	28.0	3.0	7	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
85	109	100.0	110.0	4	5	100.2	109.0	114	92.5	56	28.0	3.0	7	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
90	114	105.0	115.0	4	5	105.2	114.0	119	92.5	56	28.0	3.0	7	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
95	119	110.0	120.0	4	5	111.6	120.3	124	90.5	56	28.0	3.0	7	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
100	124	115.0	125.0	4	5	114.5	123.3	129	90.5	56	28.0	3.0	7	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
105	138	122.2	134.3	5	7	–	–	143	108.0	68	34.0	2.0	10	–	30.0	20.0	–	–	–	–	–	–	–	–	30.5	22	M8	3.5	-
110	143	128.2	140.3	5	7	–	–	148	110.0	70	35.0	2.0	10	–	30.0	20.0	–	–	–	–	–	–	–	–	31.5	22	M8	3.5	-
115	148	136.2	148.3	5	7	–	–	153	110.0	70	35.0	2.0	10	–	30.0	20.0	–	–	–	–	–	–	–	–	31.5	22	M8	3.5	-
120	153	138.2	150.3	5	7	–	–	158	110.0	70	35.0	2.0	10	–	30.0	20.0	–	–	–	–	–	–	–	–	31.5	22	M8	3.5	-
125	158	142.2	154.3	5	7	–	–	163	110.0	70	35.0	2.0	10	–	30.0	20.0	–	–	–	–	–	–	–	–	31.5	22	M8	3.5	-
130	163	146.2	158.3	5	7	–	–	168	110.0	70	35.0	2.0	10	–	30.0	20.0	–	–	–	–	–	–	–	–	31.5	22	M8	3.5	-
135	168	152.2	164.3	5	7	–	–	173	110.0	70	35.0	2.0	10	–	30.0	20.0	–	–	–	–	–	–	–	–	31.5	22	M8	3.5	-
140	173	156.2	168.3	5	7	–	–	178	110.0	70	35.0	2.0	10	–	30.0	20.0	–	–	–	–	–	–	–	–	31.5	22	M8	3.5	-
145	178	161.2	173.3	5	7	–	–	183	110.0	70	35.0	2.0	10	–	30.0	20.0	–	–	–	–	–	–	–	–	31.5	22	M8	3.5	-
150	183	168.2	180.3	5	7	–	–	188	114.0	70	35.0	2.0	10	–	32.0	22.0	–	–	–	–	–	–	–	–	31.5	22	M8	3.5	-
155	191	173.2	185.3	5	7	–	–	196	127.0	79	39.5	2.0	12	–	34.0	24.0	–	–	–	–	–	–	–	–	35.5	22	M8	3.5	-
160	196	178.2	190.3	5	7	–	–	201	127.0	79	39.5	2.0	12	–	34.0	24.0	–	–	–	–	–	–	–	–	35.5	22	M8	3.5	-
165	201	183.2	195.3	5	7	–	–	206	127.0	79	39.5	2.0	12	–	34.0	24.0	–	–	–	–	–	–	–	–	35.5	22	M8	3.5	-
170	206	188.2	200.3	5	7	–	–	211	127.0	79	39.5	2.0	12	–	34.0	24.0	–	–	–	–	–	–	–	–	35.5	22	M8	3.5	-
175	211	193.2	205.3	5	7	–	–	216	127.0	79	39.5	2.0	12	–	34.0	24.0	–	–	–	–	–	–	–	–	35.5	22	M8	3.5	-
180	216	207.5	219.3	5	7	–	–	221	135.0	79	39.5	2.0	12	–	38.0	28.0	–	–	–	–	–	–	–	–	35.5	22	M8	3.5	-
185	221	212.5	224.3	5	7	–	–	226	135.0	79	39.5	2.0	12	–	38.0	28.0	–	–	–	–	–	–	–	–	35.5	22	M8	3.5	-
190	226	217.5	229.3	5	7	–	–	231	135.0	79	39.5	2.0	12	–	38.0	28.0	–	–	–	–	–	–	–	–	35.5	22	M8	3.5	-
195	231	222.5	234.3	5	7	–	–	236	135.0	79	39.5	2.0	12	–	38.0	28.0	–	–	–	–	–	–	–	–	35.5	22	M8	3.5	-

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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	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
200	236	227.5	239.3	5	7	–	–	241	135.0	79	39.5	2.0	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Dimensions in millimeter

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