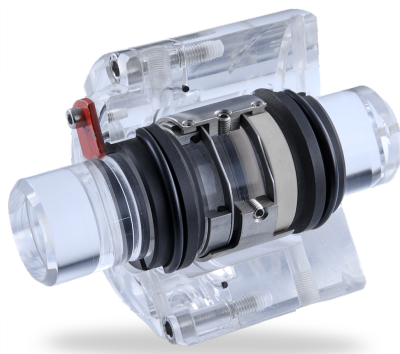


M74-D

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 d_1 up to 100 mm (3.94"))

Operating range

Shaft diameter:
 $d_1 = 18 \dots 200 \text{ mm (0.71" ... 7.87")}$
 Pressure:
 $p_1 = 25 \text{ bar (363 PSI)}$
 Temperature:
 $t = -50 \text{ °C ... 220 °C}$
 $(-58 \text{ °F ... 428 °F})$
 Sliding velocity:
 $vg = 20 \text{ m/s (66 ft/s)}$
 Axial movement:
 $d_1 \text{ up to } 100 \text{ mm: } \pm 0.5 \text{ mm}$
 $d_1 \text{ from } 100 \text{ mm: } \pm 2.0 \text{ mm}$

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)

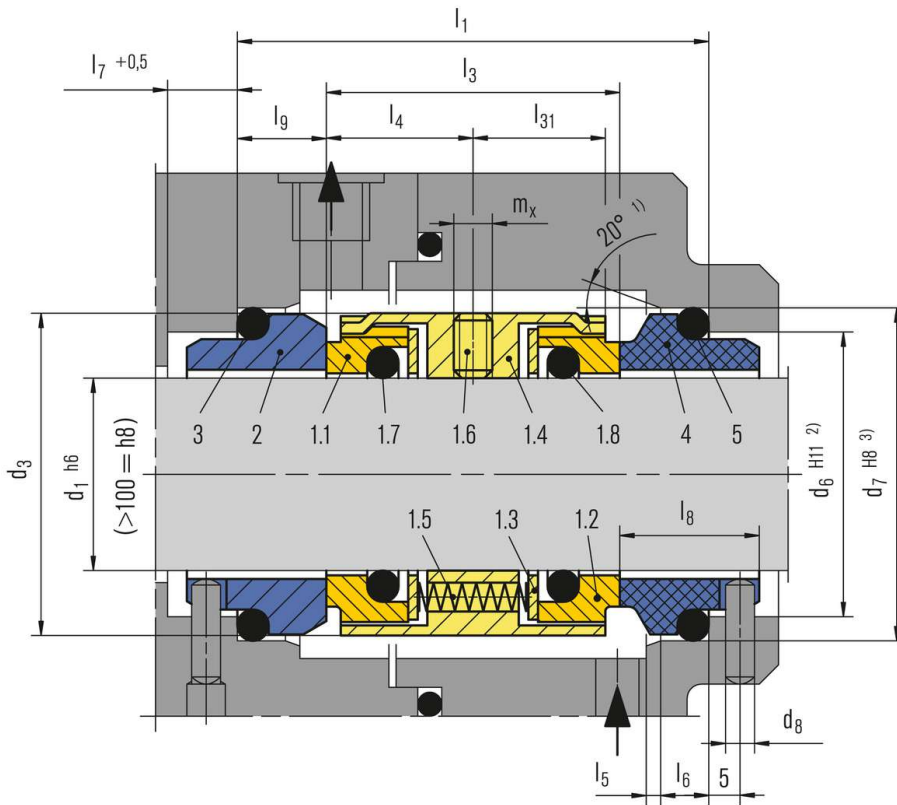
Standards and approvals

- EN 12756

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
- Chemical standard pumps

RELY ON EXCELLENCE



Item Part no. to Description DIN 24250

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

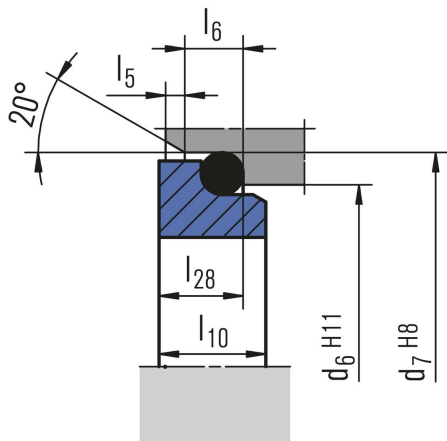
1) $d1 > 100 \text{ mm}$: 30°

2) $d1 > 100 \text{ mm}$: $+0.1$

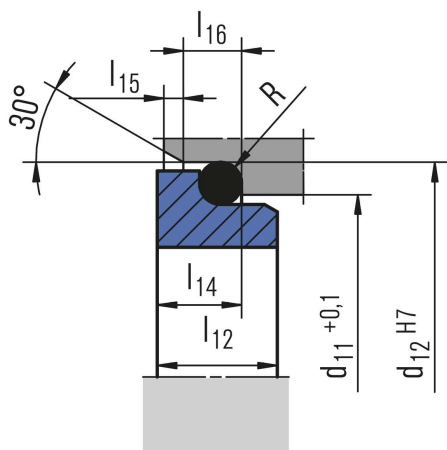
3) $d1 > 100 \text{ mm}$: H7

RELY ON EXCELLENCE

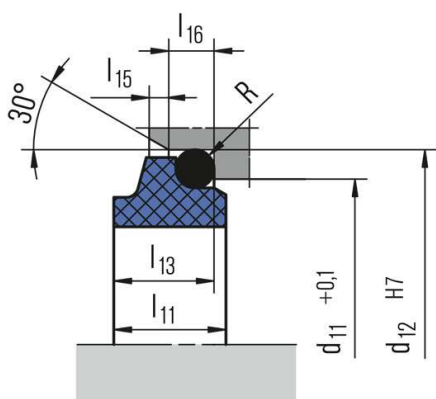
Seat alternatives



G6 (EN 12756)



G4

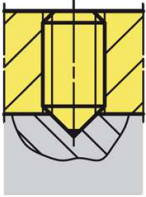


G13

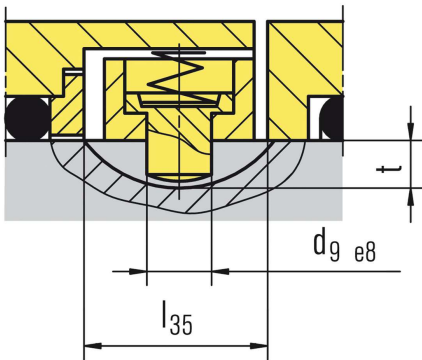
RELY ON EXCELLENCE

Torque transmissions

$d_1 > 100 \text{ mm (3.94")}$ Torque transmission by 4 set screws with cone point. Offset: 90°

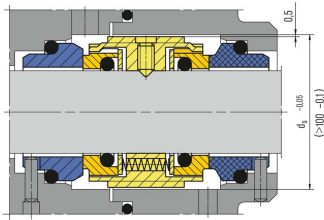


Spring loaded drive pin
(M74-D22)



RELY ON EXCELLENCE

Product variants



M74F-D

Dimensions, items and descriptions as for M74-D, but with pumping screw.

Dependent on direction of rotation. Viscosity \leq ISO VG10).

RELY ON EXCELLENCE

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	M6	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	-

RELY ON EXCELLENCE

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 ₂₀	l ₃₁	l ₃₅	m _x	t	R	
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	-
200	236	227.5	239.3	5	7	-	-	241	135.0	79	39.5	2.0	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Dimensions in millimeter