

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

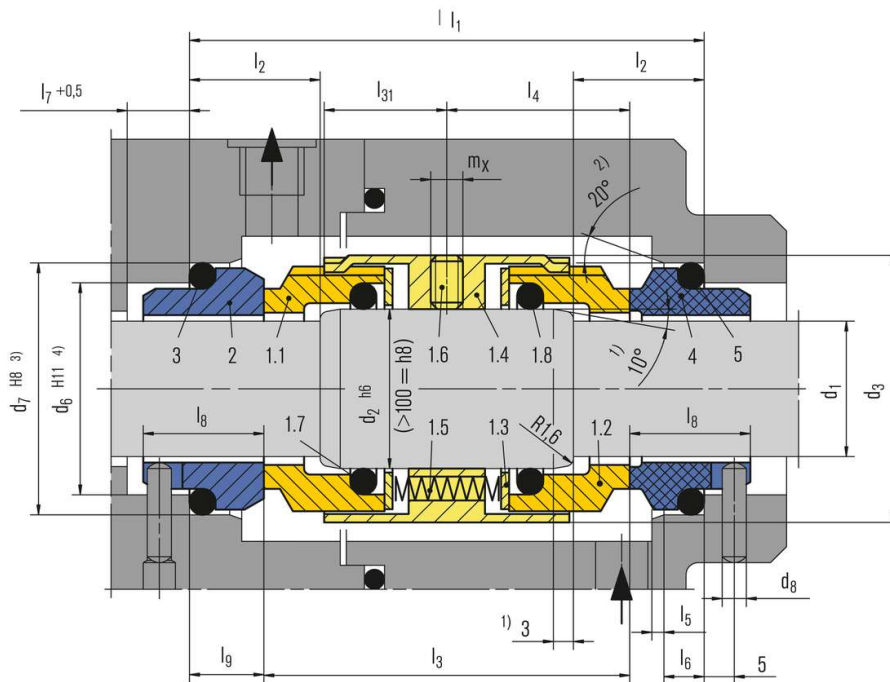
Standards and approvals

- 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

RELY ON EXCELLENCE



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) $d_1 > 100$ mm: 2 mm x 30°

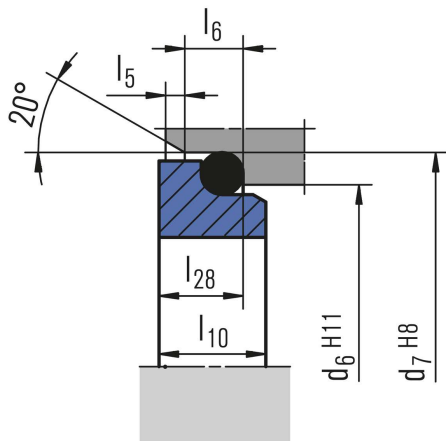
2) $d_1 > 100$ mm: 30°

3) $d_1 > 100$ mm: H7

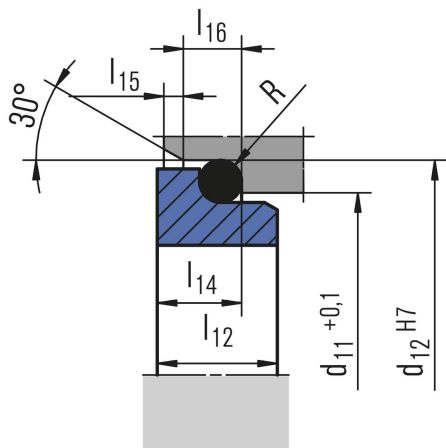
4) $d_1 > 100$ mm: +0.1

RELY ON EXCELLENCE

Seat alternatives



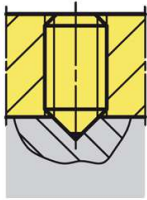
G6 (EN 12756)



G4

RELY ON EXCELLENCE

Torque transmissions

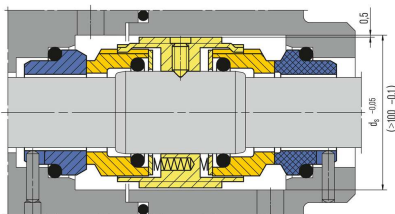


$d_{12} \geq 105$ mm Torque transmission by **4 set screws**
with cone point. Offset: 90°

Product variants

H74F-D

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



RELY ON EXCELLENCE

Dimensions

d ₁	d ₂	d ₃	d ₆	d ₇	d ₈	d ₁₁	d ₁₂	d ₉	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	-

RELY ON EXCELLENCE

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