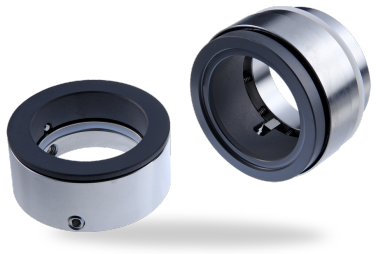
EagleBurgmann
a member of EKK and FREUDENBERG

RELY ON EXCELLENCE

HRN

Mechanical seals | Mechanical seals for pumps | Pusher seals



Features
- Single seal
- Balanced
- Independent of direction of rotation
- Stationary springs
- Dual seals in tandem as well as back-to-back arrangements (also in combination with H10 seal)

Advantages
- Safe operation (no fractures) because of seal face locking by square pin
- Spring unit averted from the product so no sticking and clogging of the springs
- Suitable for pressure reversals
- Operation in vacuum without additional seat locking possible
- No damage of the shaft by a dynamically loaded O-Ring
- Small installation sizes
- Best suitable for conversions, no adaptations of the pump
- Insensitive to solid containing and abrasive media
- Advantages of a balanced seal even with plain shafts
- Insensitive to shaft movements because of the stationary design

Operating range
Shaft diameter:
d = 18 ... 100 mm (0.71" ... 3.94")
Pressure: p1*) = 25 bar (363 PSI)
Temperature:
t = -40 °C ... +220 °C (-40 °F ... 428 °F)
Sliding velocity: vg = 20 m/s (66 ft/s)
Axial movement: ±1.0 mm

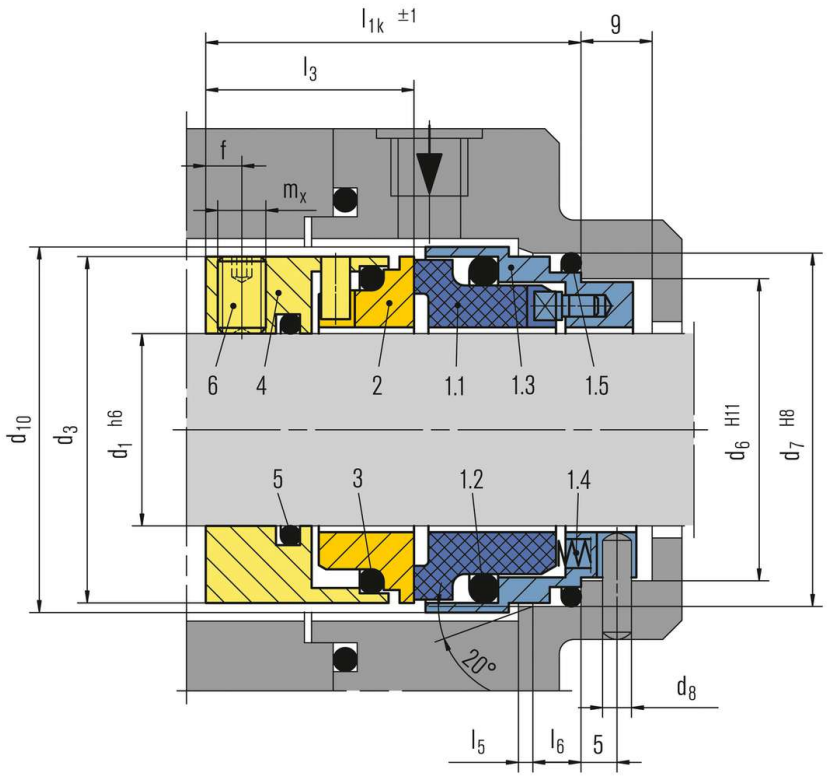
* Additional seat locking is not needed in vacuum operation. For operation under vacuum it is necessary to arrange for quenching on the atmosphere side.

Materials
Seal face: Carbon graphite resin impregnated (B), Silicon carbide (Q1)
Seat: Silicon carbide (Q1)
Secondary seals: FKM (V), NBR (P), FFKM (K), PTFE (T)
Springs: Hastelloy® C-4 (M)
Metal parts: CrNiMo steel (G)

Standards and approvals
- EN 12756

Recommended applications
- Water and waste water technology
- Refining technology
- Dirty, abrasive and solid containing media
- Fugitive hydrocarbons (no API seal!)
- Sticky and stringy media
- Chemical standard pumps
- Sewage pumps

All technical specifications are based on extensive tests and our many years of experience. The diversity of possible applications, however, means that they can serve only as guide values.
We must be notified of the exact conditions of application before we can provide any guarantee for a specific case. This is subject to change.



Item	Part no. to DIN 24250	Description
1.1	472	Seal face
1.2	412.1	O-Ring
1.3	485	Retainer
1.4	477	Spring
1.5	412.2	O-Ring
2	475	Seat
3	412.3	O-Ring
4	485	Drive collar
5	412.4	O-Ring
6	904	Set screw

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Dimensions

d_1	d_3	d_6	d_7	d_8	d_{10}	l_{1k}	l_3	l_5	l_6	f	m_x
18	33	27	33	3	34.7	37.5	19.5	2.0	5	3.0	4
20	35	29	35	3	36.7	37.5	19.5	2.0	5	3.0	4
22	37	31	37	3	38.7	37.5	19.5	2.0	5	3.0	4
24	39	33	39	3	40.7	40.0	20.5	2.0	5	3.5	5
25	40	34	40	3	41.7	40.0	20.5	2.0	5	3.5	5
28	43	37	43	3	44.7	42.5	21.5	2.0	5	3.5	5
30	45	39	45	3	46.7	42.5	21.5	2.0	5	3.5	5
32	48	42	48	3	49.7	42.5	21.5	2.0	5	3.5	5
33	48	42	48	3	49.7	42.5	21.5	2.0	5	3.5	5
35	50	44	50	3	51.7	42.5	21.5	2.0	5	3.5	5
38	56	49	56	4	57.7	45.0	24.0	2.0	6	4.0	6
40	58	51	58	4	59.7	45.0	24.0	2.0	6	4.0	6
43	61	54	61	4	62.7	45.0	24.0	2.0	6	4.0	6
45	63	56	63	4	64.7	45.0	24.0	2.0	6	4.0	6
48	66	59	66	4	67.7	45.0	24.0	2.0	6	4.0	6
50	70	62	70	4	71.7	47.5	25.0	2.5	6	4.0	6
53	73	65	73	4	74.7	47.5	25.0	2.5	6	4.0	6
55	75	67	75	4	76.7	47.5	25.0	2.5	6	4.0	6
58	78	70	78	4	80.5	52.5	28.0	2.5	6	4.0	6
60	80	72	80	4	82.5	52.5	28.0	2.5	6	4.0	6
63	83	75	83	4	85.5	52.5	28.0	2.5	6	4.0	6
65	85	77	85	4	87.5	52.5	28.0	2.5	6	4.0	6
68	90	81	90	4	92.5	52.5	28.0	2.5	7	4.0	6
70	92	83	92	4	94.5	60.0	34.0	2.5	7	6.0	8
75	97	88	97	4	100.5	60.0	34.0	2.5	7	6.0	8
80	105	95	105	4	108.5	60.0	34.0	3.0	7	6.0	8
85	110	100	110	4	113.5	60.0	34.0	3.0	7	6.0	8
90	115	105	115	4	118.5	65.0	39.0	3.0	7	10.0	8
95	120	110	120	4	123.5	65.0	39.0	3.0	7	10.0	8
100	125	115	125	4	128.5	65.0	39.0	3.0	7	10.0	8

Dimensions in Millimeter

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