EagleBurgmann
a member of EKK and FREUDENBERG

RELY ON EXCELLENCE

MFL85N

Mechanical seals | Mechanical seals for pumps | Metal bellows seals

Features
- For unstepped shafts
- Single seal
- Balanced
- Independent of direction of rotation
- Metal bellows rotating

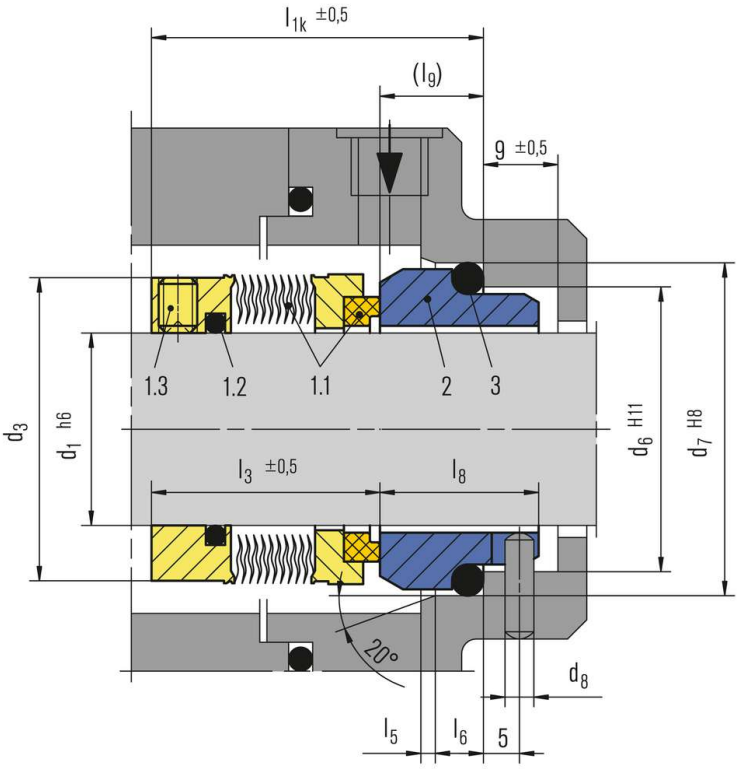
Advantages
- For extreme temperature ranges
- No dynamically loaded O-Ring
- Self cleaning effect
- Short installation length possible
- Pumping screw for highly viscous media available (dependent on direction of rotation).

Operating range
Shaft diameter:
d1 = 16 ... 100 mm (0.63" ... 4")
Externally pressurized:
p1 = ... 25 bar (363 PSI)
Internally pressurized:
p1 <120 °C (248 °F) 10 bar (145 PSI)
p1 <220 °C (428 °F) 5 bar (72 PSI)
Temperature: t = -40 °C ... +220 °C
(-40 °F ... 428) °F,
Stationary seat lock necessary.
Sliding velocity: vg = 20 m/s (66 ft/s)

Materials
Seal face: Carbon graphite antimony impregnated (A), Silicon carbide (Q12)
Seat: Silicon carbide (Q1)
Bellows: Inconel® 718 hardened (M6), Hastelloy® C-276 (M5)
Metal parts: CrNiMo steel (G), Duplex (G1), Hastelloy® C-4 (M)

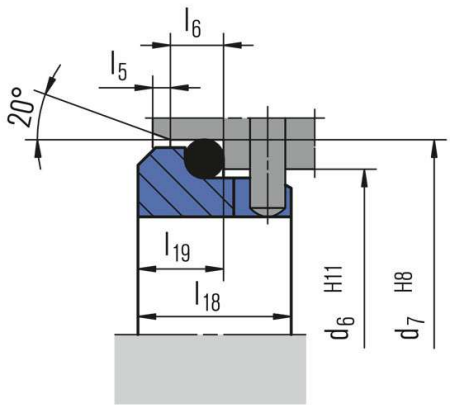
Standards and approvals
- EN 12756

Recommended applications
- Process industry
- Oil and gas industry
- Refining technology
- Petrochemical industry
- Chemical industry
- Hot media
- Cold media
- Highly viscous media
- Pumps
- Special rotating equipment



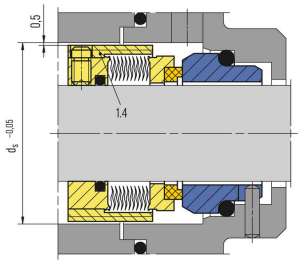
Item	Part no. DIN 24250	Description
1.1	472/481	Seal face with bellows unit
1.2	412.1	O-Ring
1.3	904	Set screw
2	475	Seat (G9)
3	412.2	O-Ring

Seat alternatives



G16
(l_{1k} shorter than specified by EN 12756)

Product variants



MFL85P / MFL90P
Version with pumping ring. Dependent on direction of rotation. Can be retrofitted.

MFL85F
Dimensions, items and description as for MFL85N, but with pumping screw (item no. 1.4). Dependent on direction of rotation. The pumping screw can be retrofitted.

MFL90N
Shaft diameter:
d1 = 20 ... 100 mm (0.79" ... 4")
Internally pressurized:
p1 = ... 16 bar (232 PSI),
stationary seat lock necessary.
Externally pressurized:
p1 = 10 bar (145 PSI)
Temperature:
t = -40 °C ... +220 °C (-40 °F ... +428 °F)
Sliding velocity: vg = 20 m/s (66 ft/s)

Dimensions

d_1	d_3	d_6	d_7	d_8	d_s	l_{1K}	l_3	l_5	l_6	l_8	l_9	l_{18}	l_{19}	b	s
16	30.0	23	27	3	38	42.5*)	32.5	1.5	4	17.5	10.0	–	–	1.6	9.0
18	32.0	27	33	3	39	42.0	30.5	2.0	5	14.0	11.5	15.0	7.0	1.6	10.0
20	33.5	29	35	3	41	42.0	30.5	2.0	5	14.0	11.5	15.0	7.0	1.6	10.0
22	36.5	31	37	3	44	37.5	30.5	2.0	5	14.0	11.5	15.0	7.0	1.6	10.0
24	39.0	33	39	3	47	40.0	28.5	2.0	5	19.5	11.5	15.0	7.0	1.6	8.2
25	39.6	34	40	3	48	40.0	28.5	2.0	5	19.5	11.5	15.0	7.0	1.6	8.5
28	42.8	37	43	3	51	42.5	31.0	2.0	5	19.5	11.5	15.0	7.0	1.6	9.0
30	45.0	39	45	3	53	42.5	31.0	2.0	5	19.5	11.5	15.0	7.0	1.6	8.5
32	46.0	42	48	3	55	42.5	31.0	2.0	5	19.5	11.5	15.0	7.0	1.6	9.2
33	48.0	42	48	3	56	42.5	31.0	2.0	5	19.5	11.5	15.0	7.0	1.6	9.2
35	49.2	44	50	3	58	42.5	31.0	2.0	5	19.5	11.5	15.0	7.0	1.6	9.5
38	52.3	49	56	4	61	45.0	31.0	2.0	6	22.0	14.0	16.0	8.0	1.6	9.2
40	55.5	51	58	4	64	45.0	31.0	2.0	6	22.0	14.0	16.0	8.0	1.6	9.2
43	57.5	54	61	4	67	45.0	31.0	2.0	6	22.0	14.0	16.0	8.0	1.6	9.2
45	58.7	56	63	4	69	45.0	31.0	2.0	6	22.0	14.0	16.0	8.0	1.6	9.5
48	61.9	59	66	4	72	45.0	31.0	2.0	6	22.0	14.0	16.0	8.0	1.6	9.2
50	65.0	62	70	4	74	47.5	32.5	2.5	6	23.0	15.0	17.0	9.5	1.6	10.5
53	68.2	65	73	4	77	47.5	32.5	2.5	6	23.0	15.0	17.0	9.5	1.6	10.5
55	70.0	67	75	4	80	47.5	32.5	2.5	6	23.0	15.0	17.0	9.5	1.6	10.0
58	71.7	70	78	4	83	52.5	37.5	2.5	6	23.0	15.0	18.0	10.5	3.0	14.0
60	74.6	72	80	4	85	52.5	37.5	2.5	6	23.0	15.0	18.0	10.5	3.0	14.0
63	79.0	75	83	4	88	52.5	37.5	2.5	6	23.0	15.0	18.0	10.5	3.0	14.0
65	84.1	77	85	4	95	52.5	37.5	2.5	6	23.0	15.0	18.0	10.5	3.0	14.0
68	87.3	81	90	4	96	52.5	34.5	2.5	7	26.0	18.0	18.5	11.0	1.6	10.0
70	87.3	83	92	4	96	60.0	42.0	2.5	7	26.0	18.0	19.0	11.5	3.0	17.0
75	95.0	88	97	4	104	60.0	42.0	2.5	7	26.0	18.0	19.0	11.5	3.0	16.0
80	98.4	95	105	4	109	60.0	41.8	3.0	7	26.2	18.2	19.0	11.5	3.0	16.0
85	104.7	100	110	4	114	60.0	41.8	3.0	7	26.2	18.2	19.0	11.5	3.0	16.0
90	111.0	105	115	4	119	65.0	46.8	3.0	7	26.2	18.2	20.5	13.0	3.0	21.0
95	114.0	110	120	4	124	65.0	47.8	3.0	7	25.2	17.2	20.5	13.0	3.0	21.0
100	117.4	115	125	4	129	65.0	47.8	3.0	7	25.2	17.2	20.5	13.0	3.0	20.0

Dimensions in millimeter
* Installation length is longer than l_{1k} specified by EN 12756