EagleBurgmann
a member of EKK and FREUDENBERG

RELY ON EXCELLENCE

eMG

Mechanical Seals | Mechanical seals for pumps | Elastomer bellows seals

Features

- For plain shafts
- Single and dual seal
- Elastomer bellows rotating
- Balanced
- Independent of direction of rotation

Notes

The eMG can also be used as a multiple seal in tandem or in a back-to-back arrangement, please inquire. Other materials and designs available on request.

Advantages

Identical with eMG1 but with approx. 20 % shorter installation length

- Small outer diameter of bellows support (dbmin) enables direct retaining ring support, or smaller spacer rings
- Optimal alignment characteristic through self-cleaning of disk/shaft
- Improved centering across entire pressure operating range
- No torsion on bellows
- Shaft protection over entire seal length
- Protection of seal face during installation due to special bellows design
- Insensitive to shaft deflections due to large axial movement ability

Operating range

Shaft diameter:
d1 = 14 ... 110 mm (0.55" ... 4.33")
Pressure: p1 = 18 bar (261 PSI),
vacuum ... 0.5 bar (7.25 PSI),
up to 1 bar (14.5 PSI) with seat locking
Temperature:
t = -20 °C ... +140 °C
(-4 °F ... +284 °F)
Sliding velocity: vg = 10 m/s (33 ft/s)
Admissible axial movement: ±2.0 mm (±0.08")

Materials

Seal face: Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B), Silicon carbide (eSiC-Q7, Q1)
Seat: Silicon carbide (eSiC-Q7, Q1), Tungsten carbide (U3)
Elastomer: NBR (P), EPDM (E), FKM (V), HNBR (X4)
Metal parts: CrNiMo steel (G), Hastelloy® (M)

Standards and approvals

Various material approvals available (depending on type and material combinations).
Please inquire!

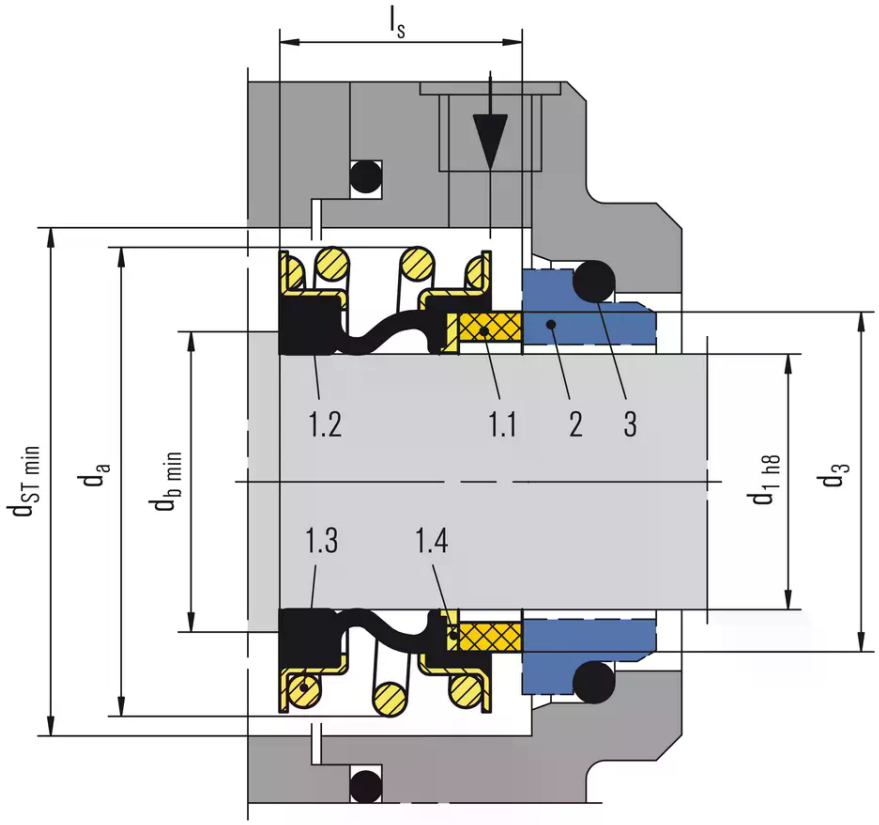
- FDA
- UBA (KTW)
- ACS
- W270

Recommended applications

- Water, waste water, slurries (up to 5 % by weight)
- Pulp (up to 4 % otro)
- Latex
- Dairies, beverages
- Sulfide slurries
- Chemicals
- Oils
- Fresh water supply
- Building services engineering
- Waste water technology
- Food and beverage industry
- Sugar production
- Pulp and paper industry
- Oil industry
- Petrochemical industry
- Chemical industry
- Chemical standard pumps
- Helical screw pumps
- Stock pumps

eagleburgmann.com
info@eagleburgmann.com

All technical specifications are based on extensive tests and our many years of experience. The diversity of possible applications means, however, 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. Subject to change.



- Circulating pumps
- Submersible pumps
- Water and waste water pumps

eMG

Item	Description
1.1	Seal face
1.2	Bellows
1.3	Set of springs
1.4	PEEK-PTFE disk
2	Seat (G6)
3	O-Ring or cup rubber

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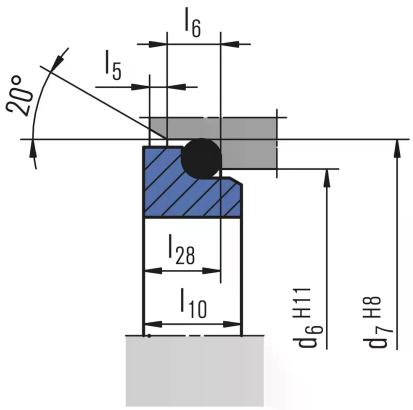
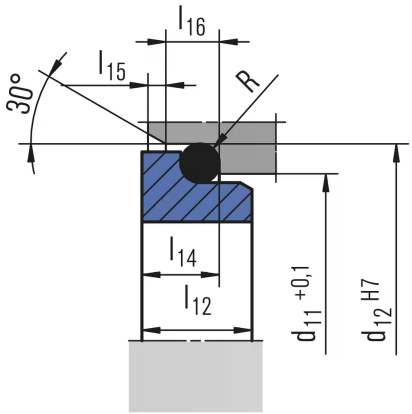
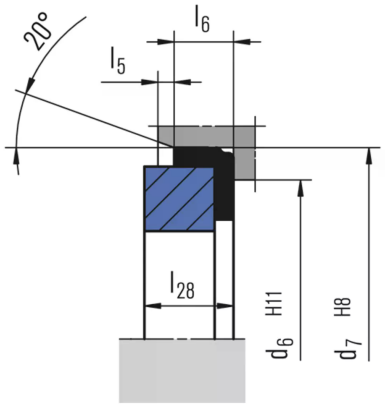
Seat alternatives



G6
EN 12756



G4 (optional)



G60 (optional)
EN 12756

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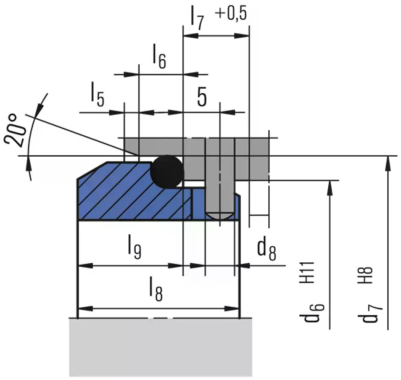
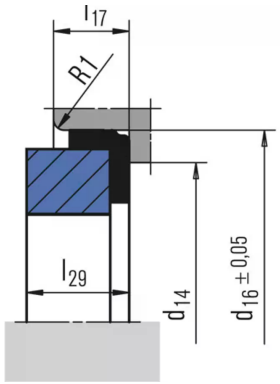


G9
EN 12756



G50
Euro standard

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Product variants

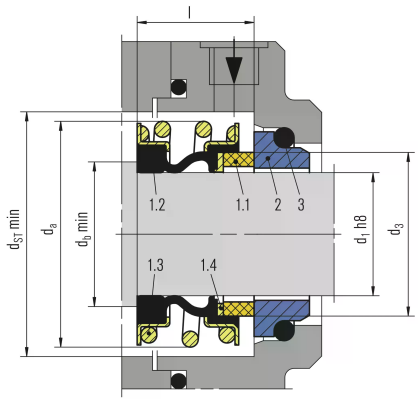
eRMG
Identical to eMG, but with a special bellows surface on the shaft side. For use in hot water pumps.

d1 = 14 ... 38 mm (0.55" ... 1.50")
Seat G6: Silicon carbide (eSiC-Q7)

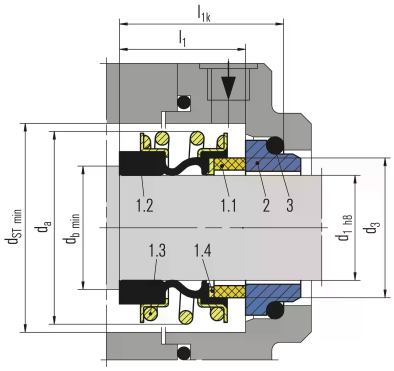
A/eSIC-Q7:
120 °C (248 °F) and 25 bar (363 PSI) 140 °C (284 °F) and 16 bar (232 PSI)

B/eSIC-Q7:
120 °C (248 °F) and 18 bar (161 PSI)

eSIC-Q7/eSIC-Q7:
120 °C (248 °F) and 18 bar (161 PSI)



eMG1
Dimensions, items and designations same as for eMG, but with an extended bellows tail to achieve the fitting length l.



eMG12
Dimensions, items and designations same as for eMG, but with an extended bellows tail to achieve the fitting length l1k according to EN 12756 in combination with seat G6 or G60 (da exceeds EN 12756).

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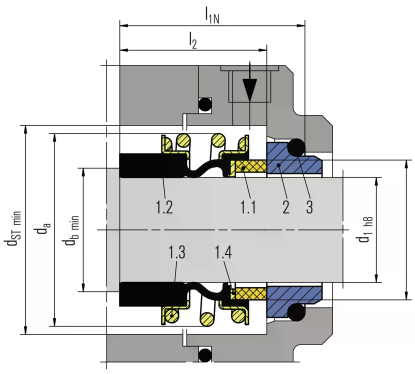

eMG13
Dimensions, items and designations same as for eMG, but with an extended bellows tail to achieve the fitting length l1N according to EN 12756 in combination with seat G6 or G60 (da exceeds EN 12756).

Dimensions

d_1	d_3	d_6	d_7	d_{11}	d_{12}	d_a	d_b*)	d_{ST}	l_S	l	l_1	l_{1k}	l_2	l_{1N}	l_5	l_6	l_{10}	l_{12}	l_{14}	l_{15}	l_{16}	l_{28}	R
14	19.7	21	25	20.5	24.6	27	17.5	28.5	15	17	28.4	35	-	-	1.5	4	7.5	6.5	5.6	1.2	3.8	6.6	1.2
15	20.8	-	-	20.5	24.6	28.5	18.5	30	15	17	-	-	-	-	-	-	-	7.5	6.6	1.2	3.8	-	1.2
16	21	23	27	22	28	28.5	19.5	30	15	17	28.4	35	33.4	40	1.5	4	7.5	8.5	7.5	1.5	5	6.6	1.5
18	23.7	27	33	24	30	32	21.5	33	17	19.5	30	37.5	-	-	2	5	8.5	9	8	1.5	5	7.5	1.5
20	26.7	29	35	29.5	35	37	24	38	19	21.5	30	37.5	-	-	2	5	8.5	8.5	7.5	1.5	5	7.5	1.5
22	27.7	31	37	29.5	35	37	26	38	19	21.5	30	37.5	37.5	45	2	5	8.5	8.5	7.5	1.5	5	7.5	1.5
24	31.2	33	39	32	38	42.5	28	44	19	22.5	32.5	40	-	-	2	5	8.5	8.5	7.5	1.5	5	7.5	1.5
25	31.2	34	40	32	38	42.5	29	44	19	23	32.5	40	-	-	2	5	8.5	8.5	7.5	1.5	5	7.5	1.5
28	35	37	43	36	42	49	32	50	23	26.5	35	42.5	42.5	50	2	5	8.5	10	9	1.5	5	7.5	1.5
30	37	39	45	39.2	45	49	34	50	23	26.5	35	42.5	-	-	2	5	8.5	11.5	10.5	1.5	5	7.5	1.5
32	40.2	42	48	42.2	48	53.5	36	55	23.5	27.5	35	42.5	-	-	2	5	8.5	11.5	10.5	1.5	5	7.5	1.5
33	40.2	42	48	44.2	50	53.5	37	55	23.5	27.5	35	42.5	-	-	2	5	8.5	12	11	1.5	5	7.5	1.5
35	43.2	44	50	46.2	52	57	40	59	24.5	28.5	35	42.5	-	-	2	5	8.5	12	11	1.5	5	7.5	1.5
38	46.2	49	56	49.2	55	59	43	61	25	30	36	45	46	55	2	6	10	11.3	10.3	1.5	5	9	1.5
40	48.8	51	58	52.2	58	62	45	64	25.5	30	36	45	-	-	2	6	10	11.8	10.8	1.5	5	9	1.5
43	51.8	54	61	53.3	62	65.5	48	67	25.5	30	36	45	-	-	2	6	10	13.2	12	2	6	9	2.5
45	53.8	56	63	55.3	64	68	50	70	25.5	30	36	45	-	-	2	6	10	12.8	11.6	2	6	9	2.5
48	56.8	59	66	59.7	68.4	70.5	53	74	26	30.5	36	45	51	60	2	6	10	12.8	11.6	2	6	9	2.5
50	58.8	62	70	60.8	69.3	74	55	77	26	30.5	38	47.5	-	-	2.5	6	10.5	12.8	11.6	2	6	9.5	2.5
53	62.2	65	73	63.8	72.3	78.5	58	81	29	33	36.5	47.5	-	-	2.5	6	12	13.5	12.3	2	6	11	2.5
55	64.2	67	75	66.5	75.4	81	60	83	30	35	36.5	47.5	59	70	2.5	6	12	14.5	13.3	2	6	11	2.5
58	67.2	70	78	69.5	78.4	85.5	64	88	31	37	-	-	-	-	2.5	6	12	14.5	13.3	2	6	11	2.5
60	70	72	80	71.5	80.4	88.5	66	91	32	38	41.5	52.5	59	70	2.5	6	12	14.5	13.3	2	6	11	2.5
65	75	77	85	76.5	85.4	93.5	71	96	34	40	41.5	52.5	-	-	2.5	6	12	14.2	13	2	6	11	2.5
68	78	81	90	82.7	91.5	96.5	74	100	34	40	-	-	-	-	2.5	7	12.5	14.9	13.7	2	6	11.3	2.5
70	80	83	92	83	92	99.5	76	103	34	40	48.7	60	-	-	2.5	7	12.5	14.2	13	2	6	11.3	2.5
75	85.5	88	97	90.2	99	107	81	110	34	40	48.7	60	-	-	2.5	7	12.5	15.2	14	2	6	11.3	2.5
80	90.5	95	105	95.2	104	112	86	116	34	40	48	60	-	-	3	7	13	16.2	15	2	6	12	2.5
85	96	100	110	100.2	109	120	92	124	35	41	46	60	-	-	3	7	15	16	14.8	2	6	14	2.5
90	102	105	115	105.2	114	127	97	131	38	45	51	65	-	-	3	7	15	16	14.8	2	6	14	2.5
95	107	110	120	111.6	120.3	132	102	136	39	46	51	65	-	-	3	7	15	17	15.8	2	6	14	2.5
100	112	115	125	114.5	123.3	137	107	140	40	47	51	65	-	-	3	7	15	17	15.8	2	6	14	2.5
110	123	-	-	-	-	150	118	154	43	49	-	-	-	-	-	-	-	-	-	-	-	-	-

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