EagleBurgmann
a member of EKK and FREUDENBERG

RELY ON EXCELLENCE

H12N

Mechanical Seals | Mechanical seals for pumps | Pusher seals

Features

- For stepped shafts
- Single seal
- Balanced
- Dependent of direction of rotation
- Torque transmission via conical spring

Advantages

- High flexibility due to extended selection of materials
- Insensitive to low solids contents
- Short Installation length possible (G16)
- Economical balanced seal
- Seat cooling for hot water applications available (G115)
- No damage of the shaft by set screws

Operating range

Shaft diameter:
d1 = 10 ... 80 mm (0.4" ... 3.125")
Pressure: p1 = 25 bar (363 PSI)
Temperature:
t = -50 °C ... +220 °C (-58 °F ... +430 °F)
Sliding velocity: vg = 15 m/s (50 ft/s)
Axial movement: ±1.0 mm

Materials

Seal face: Carbon graphite antimony impregnated (A)
Seat G9: Silicon carbide (Q1), Special cast CrMo steel (S)

Standards and approvals

- EN 12756

Recommended applications

- Low solids content media (H12GN)
- Hot water
- Chemical industry
- Pulp and paper industry
- Water and waste water technology
- Chemical standard pumps
- Water and sewage pumps

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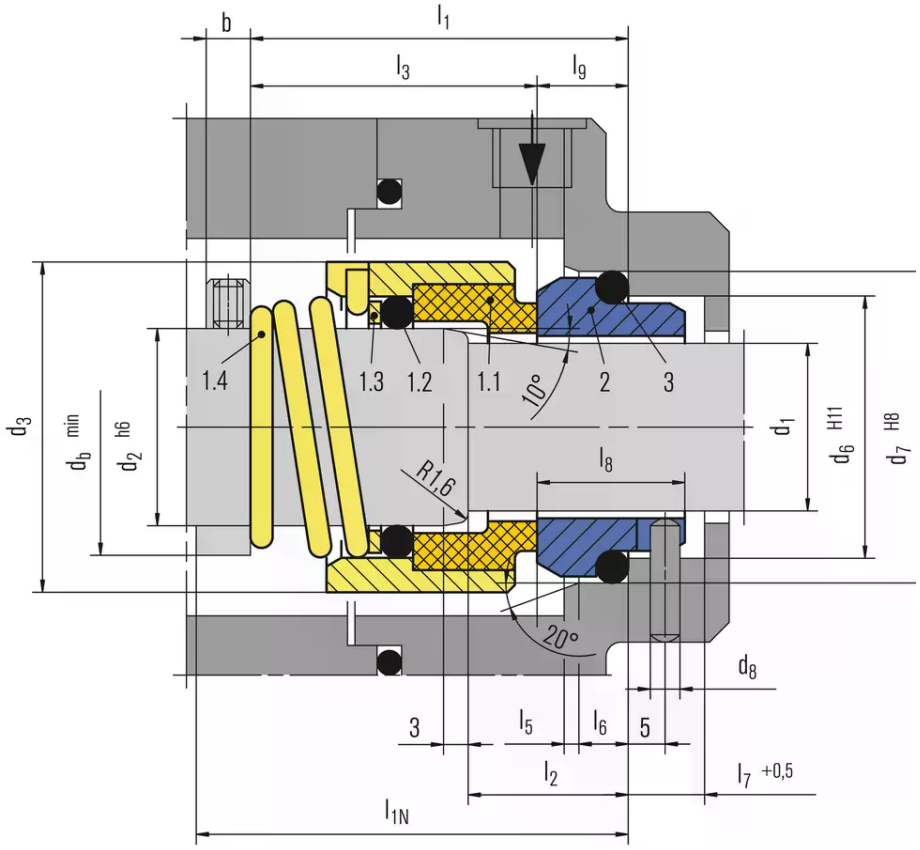
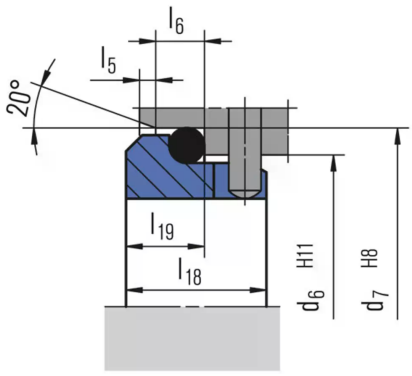
We must be notified of the exact conditions of application before we can provide any guarantee for a specific case. Subject to change.

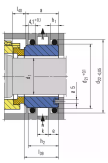


Item	Part no. toDIN 24250	Description
1.1	472/473	Seal face
1.2	412.1	O-Ring
1.3	474	Thrust ring
1.4	478	Righthand spring
1.4	479	Lefthand spring
2	475	Seat (G9)
3	412.2	O-Ring

Seat alternatives



G16
(EN 12756 but l1k and l2 are shorter than specified)



G115
Cooled seat especially for hot water applications. In this case, the dimensions of the H12N rotating unit are modified. Seal designation: H127G115. Please inquire.

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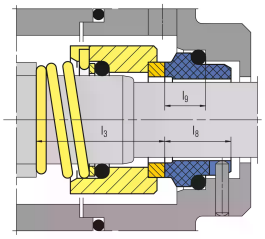
Product variants

H12
Dimensions, items and descriptions as for H12N, but with seat G16.
Seal face: Carbon graphite antimony impregnated (A)
Seat G16: Silicon carbide (Q1), CrMo cast steel (S), Aluminium oxide (V)

H17G
Dimensions, items and descriptions as for H12N, but with shrink-fitted seal face (Q12) and seat G16.
Temperature: t = -20 °C ... +180 °C (-4 °F ... +356 °F)
Seal face: Silicon carbide (Q12)
Seat G16: Silicon carbide (Q1)



H17GN
Dimensions, items and descriptions as for H12N, but with shrink-fitted seal face (Q12), item no. 1.1.
Temperature: t = -20 °C ... +180 °C (-4 °F ... +356 °F)
Seal face: Silicon carbide (Q12)
Seat G9: Silicon carbide (Q1, Q2), Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B)

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Dimensions

d_1	d_2	d_3	d_6	d_7	d_8	d_{21}	d_{22}	d_b	l_{1N}	l_1	l_2	l_3	l_5	l_6	l_7	l_8	l_9	l_{18}	l_{19}	l_{39}	l_{40}	a	b	e	h_1	h_2	k	b*)
10	14	24	17	21	3	–	–	18	50	35.5	18	25.5	1.5	4	8.5	17.5	10.0	–	–	–	–	–	5	–	–	–	–	8.0
12	16	26	19	23	3	–	–	21	50	36.5	18	26.5	1.5	4	8.5	17.5	10.0	–	–	–	–	–	5	–	–	–	–	8.0
14	18	31	21	25	3	–	–	23	55	39.5	18	29.5	1.5	4	8.5	17.5	10.0	–	–	–	–	–	6	–	–	–	–	8.0
16	20	34	23	27	3	–	–	26	55	41.0	18	31.0	1.5	4	8.5	17.5	10.0	–	–	–	–	–	6	–	–	–	–	8.0
18	22	36	27	33	3	–	–	28	55	44.0	20	32.5	2.0	5	9.0	19.5	11.5	15	7	–	–	–	6	–	–	–	–	8.0
20	24	38	29	35	3	–	–	30	60	44.0	20	32.5	2.0	5	9.0	19.5	11.5	15	7	–	–	–	6	–	–	–	–	8.0
22	26	40	31	37	3	–	–	31	60	44.0	20	32.5	2.0	5	9.0	19.5	11.5	15	7	–	–	–	6	–	–	–	–	8.0
24	28	42	33	39	3	–	–	35	60	44.0	20	32.5	2.0	5	9.0	19.5	11.5	15	7	–	–	–	6	–	–	–	–	8.0
25	30	44	34	40	3	–	–	37	60	45.0	20	33.5	2.0	5	9.0	19.5	11.5	15	7	–	–	–	6	–	–	–	–	8.0
28	33	47	37	43	3	44.65	50.57	40	65	47.0	20	35.5	2.0	5	9.0	19.5	11.5	15	7	24	8.5	24	6	8	6.6	22.6	9	8.0
30	35	49	39	45	3	47.83	53.75	43	65	47.0	20	35.5	2.0	5	9.0	19.5	11.5	15	7	24.5	9.0	24	6	8	6.6	22.6	9	8.0
32	38	54	42	48	3	47.83	53.75	45	65	51.0	20	39.5	2.0	5	9.0	19.5	11.5	15	7	24.5	9.0	24	6	8	6.6	22.6	9	7.5
33	38	54	42	48	3	47.83	53.75	45	65	51.0	20	39.5	2.0	5	9.0	19.5	11.5	15	7	24.5	9.0	24	6	8	6.6	22.6	9	7.5
35	40	56	44	50	3	51	56.92	49	65	55.0	20	43.5	2.0	5	9.0	19.5	11.5	15	7	24.5	9.0	24	6	8	6.6	22.6	9	8.0
38	43	59	49	56	4	54.18	60.10	52	75	60.0	23	46.0	2.0	6	9.0	22.0	14.0	16	8	26	11	24	6	8	6.6	22.6	9	7.5
40	45	61	51	58	4	60.53	66.45	55	75	62.0	23	48.0	2.0	6	9.0	22.0	14.0	16	8	26	11	24	6	8	6.6	22.6	9	8.0
43	48	64	54	61	4	63.7	69.62	58	75	65.0	23	51.0	2.0	6	9.0	22.0	14.0	16	8	26	11	24	6	8	6.6	22.6	9	8.0
45	50	66	56	63	4	63.7	69.62	61	75	69.0	23	55.0	2.0	6	9.0	22.0	14.0	16	8	26	11	24	6	8	6.6	22.6	9	(8)
48	53	69	59	66	4	66.88	72.80	64	85	69.0	23	55.0	2.0	6	9.0	22.0	14.0	16	8	26	11	24	8	8	6.6	22.6	9	8.0
50	55	71	62	70	4	70.05	75.97	66	85	73.0	25	58.0	2.5	6	9.0	23.0	15.0	17	9.5	26.5	12.5	24	8	8	6.6	22.6	9	8.0
53	58	78	65	73	4	76.4	82.32	69	85	75.0	25	60.0	2.5	6	9.0	23.0	15.0	17	9.5	26.5	12.5	24	8	8	6.6	22.6	9	8.0
55	60	79	67	75	4	76.4	82.32	71	85	75.0	25	60.0	2.5	6	9.0	23.0	15.0	17	9.5	28.5	12.5	26	8	8	6.6	24.6	11	8.0
58	63	83	70	78	4	79.58	85.50	74	85	75.0	25	60.0	2.5	6	9.0	23.0	15.0	18	10.5	28.5	12.5	26	8	8	6.6	24.6	11	8.0
60	65	85	72	80	4	82.75	88.67	77	95	75.0	25	60.0	2.5	6	9.0	23.0	15.0	18	10.5	28.5	12.5	26	8	8	6.6	24.6	11	8.0
63	68	88	75	83	4	85.93	91.85	80	95	75.0	25	60.0	2.5	6	9.0	23.0	15.0	18	10.5	28.5	12.5	26	8	8	6.6	24.6	11	8.0
65	70	90	77	85	4	85.93	91.85	83	95	76.0	25	61.0	2.5	6	9.0	23.0	15.0	18	10.5	28.5	12.5	26	8	8	6.6	24.6	11	10.0
70	75	98	83	92	4	89.1	95.02	88	95	81.0	28	63.0	2.5	7	9.0	26.0	18.0	19	11.5	30.5	14.5	26	8	8	6.6	24.6	11	10.0
75	80	103	88	97	4	98.63	104.55	93	105	86.0	28	68.0	2.5	7	9.0	26.0	18.0	19	11.5	30.5	14.5	26	10	8	6.6	24.6	11	10.0
80	85	109	95	105	4	101.8	107.72	98	105	86.0	28	68.0	3.0	7	9.0	26.2	18.2	19	11.5	30.2	14	26	10	8	6.6	24.6	11	10.0

*) l_{1N} acc. to EN 12756 is exceeded.

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