

B120N Single Seals

Standard Mechanical Seals - Pusher Seals

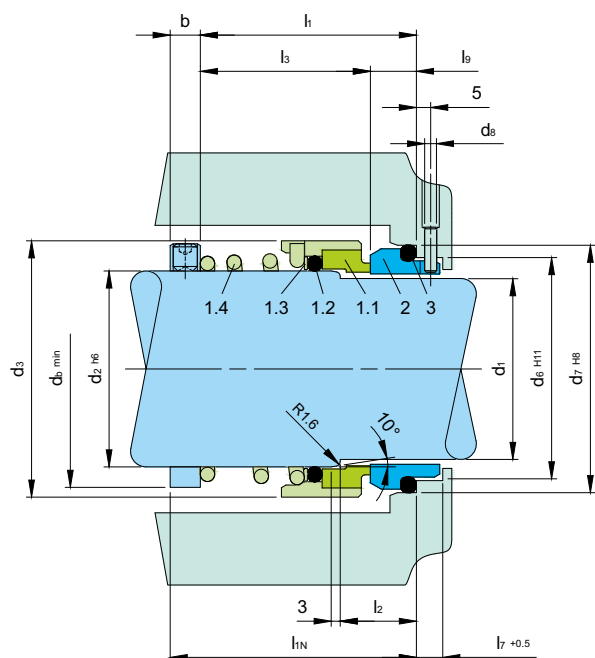


Product Description

1. Single seal configuration
2. Balanced design
3. Dependent of direction of rotation
4. For stepped shafts
5. Torque transmission is through the conical spring

Technical Features

1. Low cost seal solution
2. No damage to the shaft
3. Short installation length available on request



Note: The item numbers as depicted above are based on our technical experience and knowledge and are placed in the chronological order of their assembly procedure.

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

Typical Industrial Applications

API & ISO Pumps	hydrocarbons
Acids (some)	Low abrasive media
Aqueous solutions	Low solids content and
Boiler feed pumps	low abrasive media
Chemical	Low solids media
Fertiliser	Oil & gas
Highly viscous	Petrochemical
hydrocarbons	Poor lubrication media
Hot water applications	Power plant technology
Light volatile	Sewage applications

Performance Capabilities

Sizes	$d_1 = \text{Upto } 80 \text{ mm (Upto } 3.15\text{'')}$
Pressure	$p_1 = 25 \text{ bar (363 PSI)}$
Temperature	$t = -50\text{ }^\circ\text{C} \dots +220\text{ }^\circ\text{C}$ ($-58\text{ }^\circ\text{F} \dots +428\text{ }^\circ\text{F}$)
Speed	15 m/s (50 ft/s)

Permissible axial movement :

 $\pm 1.0 \text{ mm}$

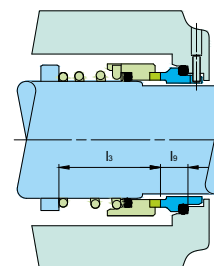
Design Variations

B120

Dimensions, items and descriptions as for B120N, but with seat G16.

Seal face	Carbon graphite antimony impregnated (A)
Seat G16	Silicon carbide (Q1), CrMo cast steel (S), Aluminium oxide (V)

B170GN



Dimensions, items and descriptions as for B120N, 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)

B170G

Dimensions, items and descriptions as for B120N, 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 G16	Silicon carbide (Q1)

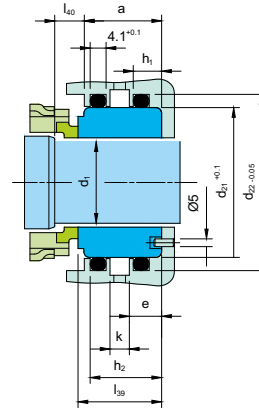
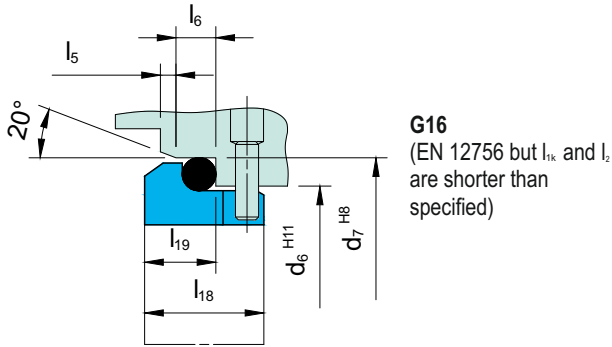
Materials

Seal Face	Carbon graphite antimony impregnated (A)
Seat G9	Silicon carbide (Q1, Q2), Special cast CrMo steel (S)

Standards

EN 12756

Stationary Seats



Dimensional Data

Dimensions in millimeter

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	24.0	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	51.00	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	26.0	11.0	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	26.0	11.0	24	6	8	6.6	22.6	9	8.0
43	48	64	54	61	4	63.70	69.62	58	75	65.0	23	51.0	2.0	6	9.0	22.0	14.0	16	8	26.0	11.0	24	6	8	6.6	22.6	9	8.0
45	50	66	56	63	4	63.70	69.62	61	75	69.0	23	55.0	2.0	6	9.0	22.0	14.0	16	8	26.0	11.0	24	6	8	6.6	22.6	9	8.0
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	26.0	11.0	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	76.40	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	76.40	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	89.10	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	101.80	107.72	98	105	86.0	28	68.0	3.0	7	9.0	26.2	18.2	19	11.5	30.2	14.0	26	10	8	6.6	24.6	11	10.0

*) l_{1N} acc. to EN 12756 is bigger
inch size available from size 0.375 to 3.125

Note: Additional technical & dimensional information will be provided on request.

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