

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

Typical Industrial Applications

Chemical industry
Hot water
Medias with Low solids content (B170GN)
Water and waste water technology
Chemical standard pumps
Water and sewage pumps

Materials

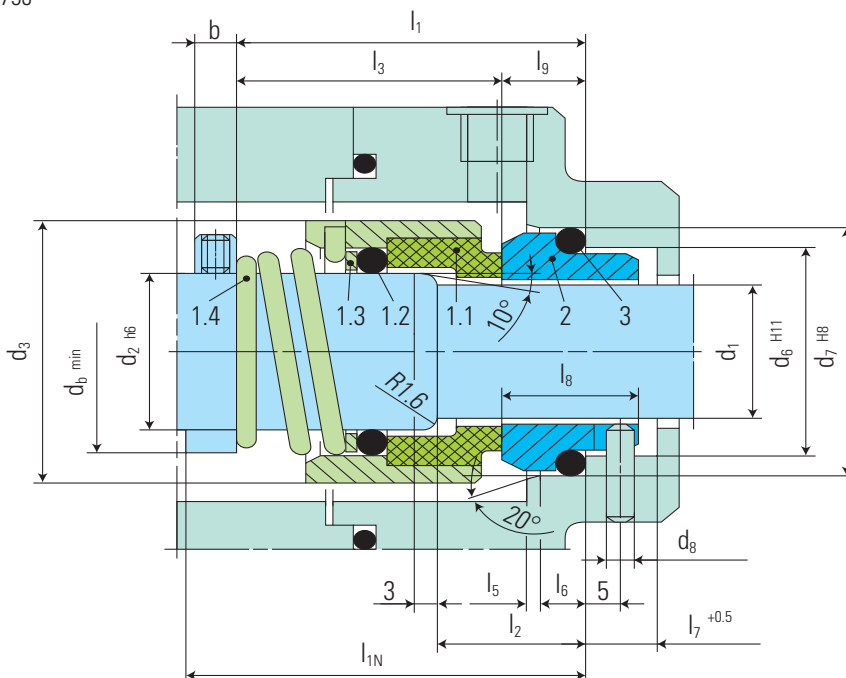
Seal face: Carbon graphite antimony impregnated (A)
 Seat G9 : Silicon carbide (Q1),
 Special cast CrMo steel (S)

Performance Capabilities

Sizes: $d_1 = \text{Up to } 80 \text{ mm (Up to } 3.15'')$
 Pressure: $p_1 = 25 \text{ bar (363 PSI)}$
 Temperature: $t = -50 \text{ }^\circ\text{C} \dots +220 \text{ }^\circ\text{C}$
 $(-58 \text{ }^\circ\text{F} \dots +430 \text{ }^\circ\text{F})$
 Speed: 15 m/s (50 ft/s)
 Permissible axial movement: $\pm 1.0 \text{ mm}$

Standards

EN 12756



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.

Design variations

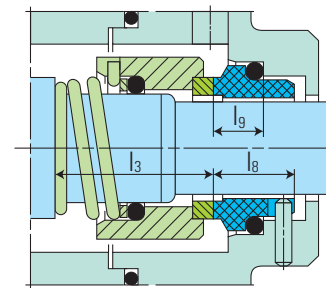
B120

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: $t = -20^{\circ}\text{C} \dots +180^{\circ}\text{C}$ ($-4^{\circ}\text{F} \dots +356^{\circ}\text{F}$)

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) and seat G16.

Temperature: $t = -20^{\circ}\text{C} \dots +180^{\circ}\text{C}$ ($-4^{\circ}\text{F} \dots +356^{\circ}\text{F}$)

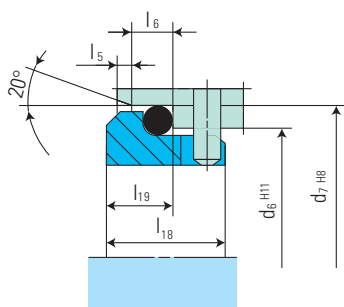
Seal face: Silicon carbide (Q12)

Seat G16 : Silicon carbide (Q1)

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		

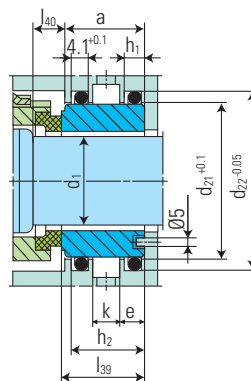


Stationary Seats



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 B120N rotating unit are modified. Seal designation: B721G115.

Dimensional Data

Dimensions in millimeter

d1	d2	d3	d6	d7	d8	d21	d22	db	l1N	l1	l2	l3	l5	l6	l7	l8	l9	l18	l19	l39	l40	a	b	e	h1	h2	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.