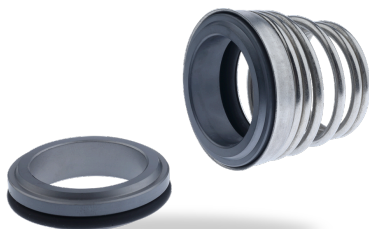


RELY ON EXCELLENCE

BT-FN

EagleBurgmann BT Mechanical seals



Features

- Single pusher-type seal
- Unbalanced
- Conical spring
- Dependent on direction of rotation

Advantages

The BT-FN combines a spring loaded ceramic seal face and the traditional pusher mechanical seals. The competitive price and the wide range of applications have made the BT-FN seal a success. The seal is produced with punched metal parts that allow an economical design.

BT-FN mechanical seals are also the ideal solution for light chemicals media applications. To ensure the best reliable performance, we recommend a material combination of hard material sliding faces and proper elastomer O-Rings.

Operating range

Shaft diameter:
 $d1^* = 10 \dots 40 \text{ mm (0.39" ... 1.57")}$
 Pressure: $p1^* = 12 (16) \text{ bar (174 (232) PSI)}$
 Temperature:
 $t^* = -35 \text{ °C} \dots +180 \text{ °C (-31 °F ... +356 °F)}$
 Sliding velocity: $vg = 15 \text{ m/s (49 ft/s)}$

* Dependent on medium, size and material

Materials

Seal face:

Steatite (X), Aluminium oxide (V), Silicon carbide (Q1, Q6), Tungsten carbide (U1)

Seat:

Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B), Silicon carbide (Q1, Q6), Tungsten carbide (U1)

Elastomers:

NBR (P), EPDM (E), FKM (V), FFKM (K)

Metal parts: CrNi steel 1.4301 (F), CrNiMo steel 1.4401 (G)

Standards and approvals

- KTW
- W270
- ACS
- WRAS
- NSF
- FDA
- DM 174/04

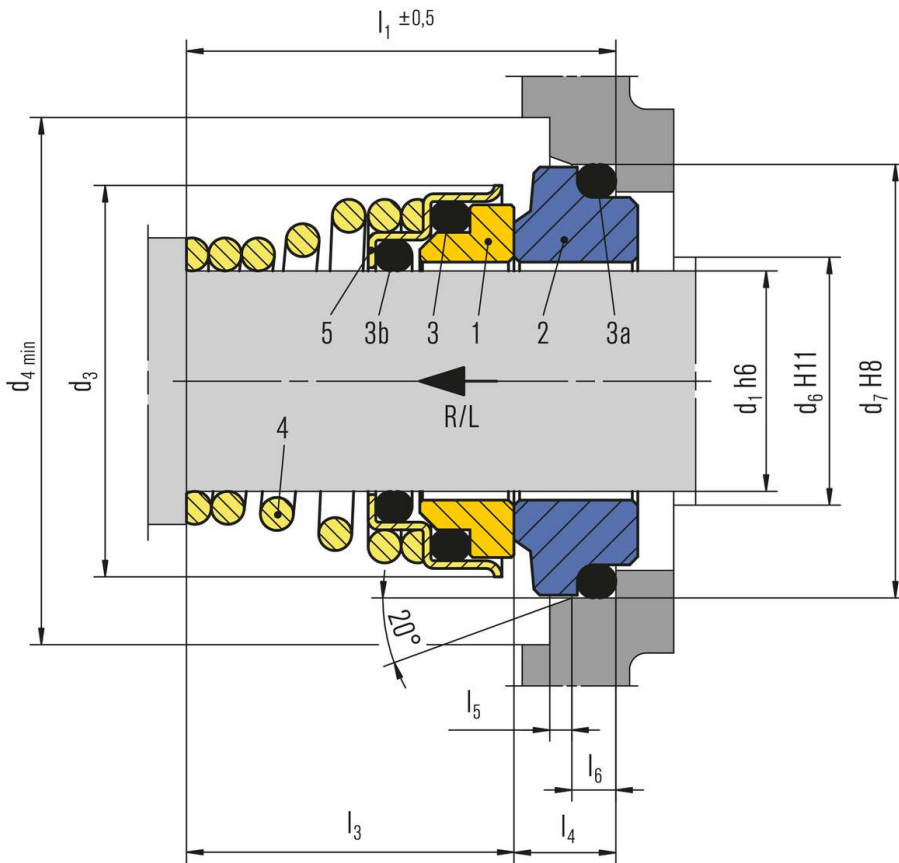
Notes

Seat ring of alternative seats can be supplied with short tail or with pin to block the seat and prevent seat rotation.

Recommended applications

- Building services industry
- Household appliances
- Centrifugal pumps
- Clean water pumps
- Pumps for domestic applications and gardening

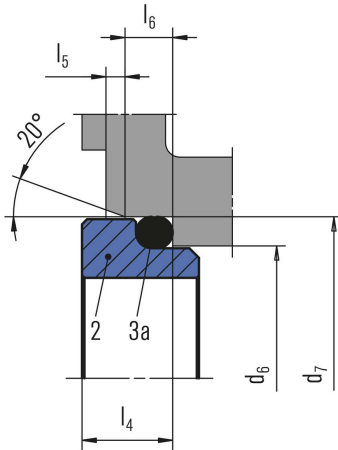
RELY ON EXCELLENCE



Item	Description
1	Seal face
2	Stationary seat
3, 3a, 3b	O-Ring
4	Spring
5	Collar

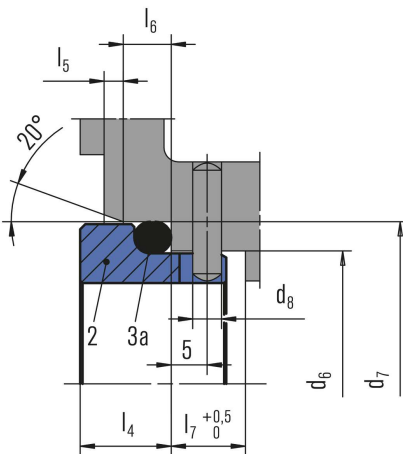
RELY ON EXCELLENCE

Seat alternatives



PFL

Item Description
 2 Stationary seat
 3a O-Ring

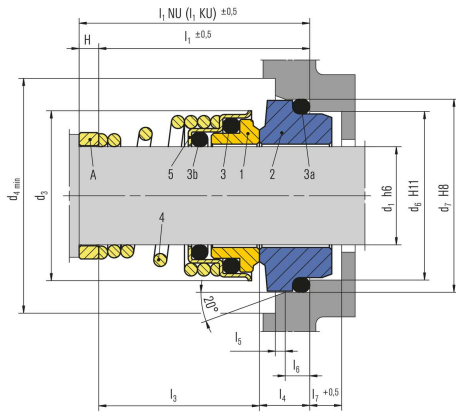


PFL1

Item Description
 2 Stationary seat
 3a O-Ring

RELY ON EXCELLENCE

Product variants



BT-FN.NU / KU

BT-FN.NU has an installation length l_{1N} and dimensions in accordance with EN 12756 (normal length, unbalanced).

BT-FN.KU has an installation length l_{1K} and dimensions in accordance with EN 12756 (short length, unbalanced).

Item	Description
1	Seal face
2	Stationary seat
3, 3a, 3b	O-Ring
4	Spring
5	Collar
A	Spacer (upon request)

Dimensions

d_1	d_3	d_4	d_6	d_7	l_1	l_3	l_4	l_5	l_6
10	19.5	22	14.0	18.1	20.5	15	5.5	1.2	3
11	22.5	25	16.5	20.6	23.5	18	5.5	1.2	3
12	22.5	25	16.5	20.6	23.5	18	5.5	1.2	3
13	24.5	28	19.0	23.1	28.0	22	6.0	1.2	3
14	24.5	28	19.0	23.1	28.0	22	6.0	1.2	3
15	29.0	32	21.0	26.9	29.0	22	7.0	1.5	4
16	29.0	32	21.0	26.9	30.0	23	7.0	1.5	4
17	29.0	32	21.0	26.9	30.0	23	7.0	1.5	4
18	32.5	36	25.0	30.9	32.0	24	8.0	1.5	4
19	32.5	36	25.0	30.9	33.0	25	8.0	1.5	4
20	32.5	36	25.0	30.9	33.0	25	8.0	1.5	4
22	37.5	42	30.0	35.4	33.0	25	8.0	2.0	4
24	37.5	42	30.0	35.4	35.0	27	8.0	2.0	4
25	40.0	45	33.0	38.2	35.5	27	8.5	2.0	4
28	46.0	51	38.0	43.3	38.0	29	9.0	2.0	4
30	46.0	51	38.0	43.3	39.0	30	9.0	2.0	4
32	46.0	51	38.0	43.3	39.0	30	9.0	2.0	4
35	50.0	55	45.0	53.5	50.5	39	11.5	2.0	6
38	58.0	68	52.0	60.5	50.5	39	11.5	2.0	6
40	58.0	68	52.0	60.5	50.5	39	11.5	2.0	6

BT-FN - Dimensions in millimeter

RELY ON EXCELLENCE

Dimensions

BT-FN.NU d ₁	d ₃	d ₄	d ₆	d ₇	d ₈	l _{1N}	H	l ₁	l ₃	l ₄	l ₅	l ₆	l ₇	BT-FN.KU l _{1KU}	l ₃
10	20.0	22	17	21	3	40	18	22	15	7	1.5	4	8.5	32.5	25.5
12	22.5	26	19	23	3	40	15	25	18	7	1.5	4	8.5	32.5	25.5
14	24.5	28	21	25	3	40	11	29	22	7	1.5	4	8.5	35.0	28.0
16	29.0	32	23	27	3	40	10	30	23	7	1.5	4	8.5	35.0	28.0
18	32.5	36	27	33	3	45	11	34	24	10	2.0	5	9.0	37.5	27.5
20	32.5	36	29	35	3	45	10	35	25	10	2.0	5	9.0	37.5	27.5
22	37.5	40	31	37	3	45	10	35	25	10	2.0	5	9.0	37.5	27.5
24	37.5	40	33	39	3	50	13	37	27	10	2.0	5	9.0	40.0	30.0
25	40.0	42	34	40	3	50	13	37	27	10	2.0	5	9.0	40.0	30.0
28	46.0	48	37	43	3	50	11	39	29	10	2.0	5	9.0	42.5	32.5
30	46.0	48	39	45	3	50	10	40	30	10	2.0	5	9.0	42.5	32.5
32	46.0	48	42	48	3	55	15	40	30	10	2.0	5	9.0	42.5	32.5
35	50.0	53	44	50	3	55	6	49	39	10	2.0	5	9.0	42.5	32.5
38	58.0	68	49	56	4	55	3	52	39	13	2.0	6	9.0	45.0	32.0
40	58.0	68	51	58	4	55	3	52	39	13	2.0	6	9.0	45.0	32.0

d₃, d₄ dimensions not always in accordance with EN 12756

l_{1NU} complies with EN 12756 (normal length, unbalanced)

l_{1KU} complies with EN 12756 (short length, unbalanced)

BT-FN.NU / KU - Dimensions in millimeter