

BT-C5E

EagleBurgmann BT Mechanical seals



Features

- Single pusher-type seal
- Multiple springs
- Independent of direction of rotation
- External mounting
- For high viscosity media

Advantages

The BT-C5E is designed for external mounting and is characterized by a short installation length. The advantage of a seal mounted on the outside is that all metal parts, including springs, are not in contact with the media. Torque transmission via robust axial notches on the metal collar. The collar is fixed on the shaft with set screws.

Typical applications are volumetric lobe pumps for food, cosmetics and pharmaceuticals and for sticky and highly viscous media (e.g. paste, paints).

Operating range

Shaft diameter:
 $d_1 = 20 \dots 80 \text{ mm} (0.79" \dots 3.15")$
 Pressure: $p_1^* = 12 \text{ bar} (174 \text{ PSI})$
 Temperature:
 $t^* = -35 \text{ °C} \dots +180 \text{ °C} (-31 \text{ °F} \dots +356 \text{ °F})$
 Sliding velocity: $v_g = 15 \text{ m/s} (49 \text{ ft/s})$

* Dependent on medium, size and material

Materials

Seal face:

Carbon graphite antimony impregnated (A),
 Carbon graphite resin impregnated (B), PTFE reinforced (Y1)

Seat:

Aluminium oxide (V), Silicon carbide (Q1),
 CrNiMo steel (G), Tungsten carbide (U)

Elastomers:

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

Metal parts: CrNiMo steel 1.4401 (G)

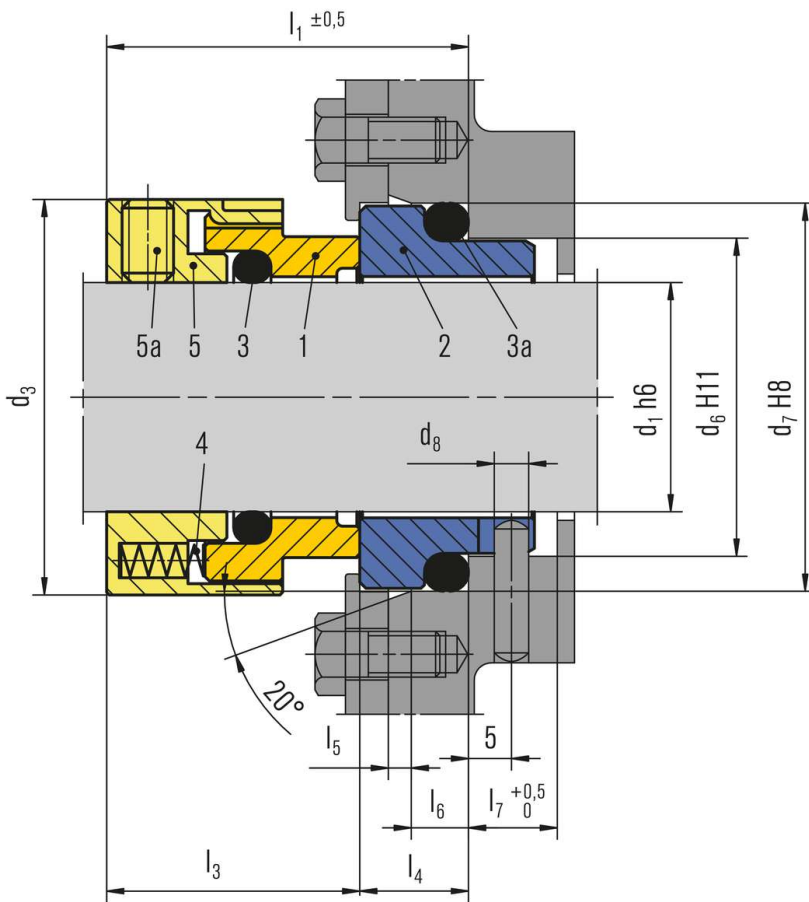
Standards and approvals

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

Recommended applications

- Chemical industry
- Pharmaceutical industry
- Food and beverage industry
- Centrifugal pumps
- Industrial pumps

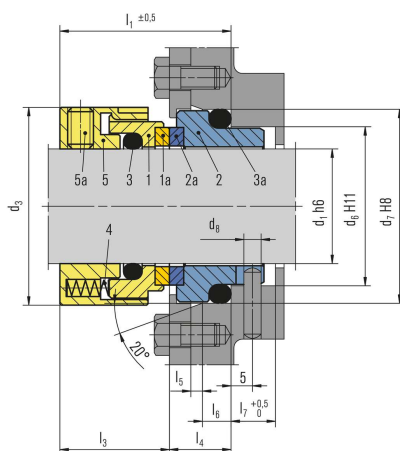
RELY ON EXCELLENCE



Item Description

- 1 Seal face
- 2 Stationary seat
- 3, 3a O-Ring
- 4 Spring
- 5 Collar
- 5a Set screw

Product variants



BT-C53E

Seal faces made of brazed tungsten carbide. This version is suitable for media with abrasive characteristics. Installation dimensions same as BT-C5E.

Item Description

- 1 Seal face housing
- 1a Brazed seal face
- 2 Stationary seat housing
- 2a Brazed stationary seat
- 3, 3a O-Ring
- 4 Spring
- 5 Collar
- 5a Set screw

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Dimensions

d ₁	d ₃	d ₆	d ₇	d ₈	l ₁	l ₃	l ₄	l ₅	l ₆	l ₇
20	36	29	35	3	29.0	19.0	10	2.0	5	9
25	41	34	40	3	29.0	19.0	10	2.0	5	9
30	46	39	45	3	29.0	19.0	10	2.0	5	9
35	51	44	50	3	29.0	19.0	10	2.0	5	9
40	59	51	58	4	34.0	23.0	11	2.0	6	9
45	60	56	63	4	34.0	23.0	11	2.0	6	9
50	66	62	70	4	35.0	22.0	13	2.5	6	9
60	80	72	80	4	39.5	26.5	13	2.5	6	9
65	86	77	85	4	39.5	26.5	13	2.5	6	9
70	92	83	92	4	41.5	26.5	15	2.5	7	9
80	105	95	105	4	42.5	26.5	16	3.0	7	9

BT-C5E - Dimensions in millimeter