

HBrinker Mechanical Seal

Elastomer Bellows Mechanical Seal HBT-AR



Mechanical Seal HBT-AR

Operating range

Shaft diameter: $d_1 = 6 \dots 70 \text{ mm}$ (0.24" ... 2.76")

Pressure: $p_1^* = 6 \text{ bar}$ (87 PSI),

vacuum ... 0.5 bar (7.45 PSI) up to 1 bar (14.5 PSI) with seat locking

Temperature: $t = -20 \text{ }^\circ\text{C} \dots +120 \text{ }^\circ\text{C}$ (-4 °F ... +248 °F)

Sliding velocity: $v_g = 10 \text{ m/s}$ (33 ft/s)

Materials

- Seal face: Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B), Carbon graphite, full carbon (B3), Silicon carbide (Q1, Q6), Tungsten carbide (U), PTFE glass fiber reinforced (Y)
- Seat: Steatite (X), Aluminium oxide (V, V1), Silicon carbide (Q1, Q6, Q7), Tungsten carbide (U), Cr steel (E), CrNi steel (F), CrNiMo steel (G)
- Elastomers: NBR (P), EPDM (E), FKM (V), HNBR (X4)
- Metal parts: CrNi steel 1.4301 (F), CrNiMo steel 1.4401 (G), CrNi steel 1.4057 (F1)

Features

- Rubber bellows mechanical seal
- Unbalanced
- Single spring
- Independent of direction of rotation
- Short axial installation length

Advantages

Mechanical seal for large-series cold water pumps, produced in millions of units per year. The HBT-AR owes its success to the wide range of application, the short axial length (this allows for more economic pump construction and saves material), and the best quality/price ratio. The elasticity of the bellows design enables a more robust operation.

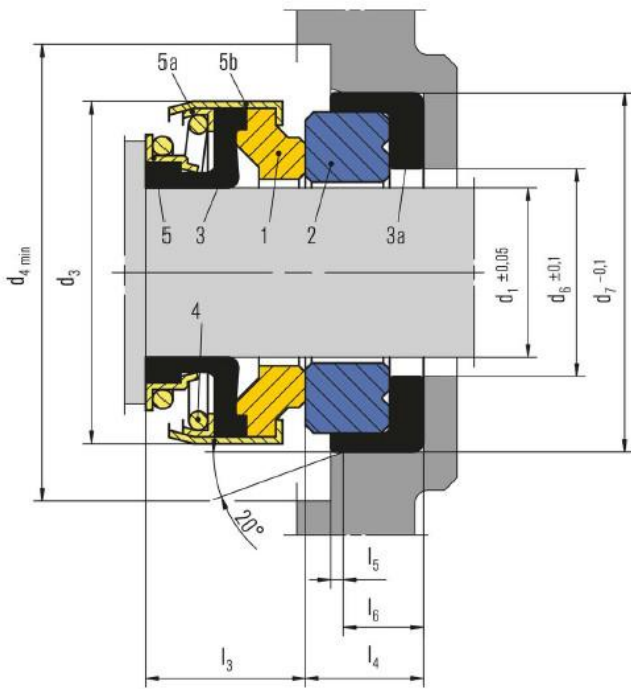
The HBT-AR can also be used as a multiple seal in tandem or back-to-back arrangement when the product media cannot ensure lubrication, or when sealing media with a higher solids content. Installation proposals can be provided upon request.

Recommended applications

- Water and waste water technology
- Pool and spa applications
- Household appliances
- Domestic and garden pumps
- Whirlpool and swimming pool pumps
- Dishwasher pumps
- Submersible motors / pumps
- Water pumps / waste water pumps

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v

Item	Description
1	Seal face
2	Stationary seat
3	Bellows
3a	Gasket
4	Spring
5	Ring
5a	Locking ring
5b	collar

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Dimension Table in millimeter

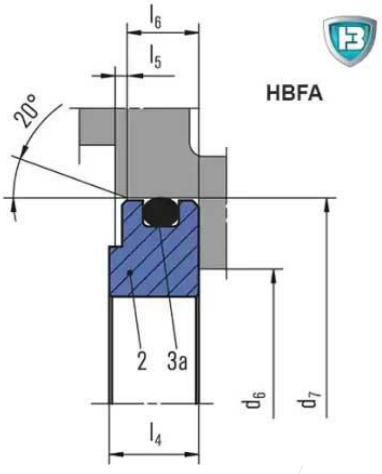
Type	d ₁	d ₃	d ₄	d ₆	d ₇	l ₃	tol	l ₄	l ₅	l ₆
6	6	18	23	8	22.0	8.0	+0.5/0	4.0	0.5	3.5
					18.0	8.0	+0.5/0	4.8	0.5	3.5
8S	8	20	23	10	22.0	11.0	+0.5/0	4.8	0.5	3.5
8	8	24	27	10	26.0	11.0	+0.5/0	8.0	1.0	6.0
					26.0	11.0	+0.5/0	5.5	0.5	4.5
10	10	24	27	12	26.0	11.0	+0.5/0	8.0	1.0	6.0
					26.0	11.0	+0.5/0	5.5	0.5	4.5
11	11	24	27	13	26.0	11.0	+0.5/0	8.0	1.0	6.0
					26.0	11.0	+0.5/0	5.5	0.5	4.5
12C	12	24	27	14	26.0	11.0	+0.5/0	8.0	1.0	6.0
					26.0	11.0	+0.5/0	5.5	0.5	4.5
12	12	24	27	14	26.0	12.8	+0.7/0	8.0	1.0	6.0
					26.0	12.8	+0.7/0	5.0	0.5	4.5
					25.0	12.8	+0.7/0	5.0	0.5	4.0
13	13	24	27	15	26.0	12.8	+0.7/0	8.0	1.0	6.0
					26.0	12.8	+0.7/0	5.5	0.5	4.5
14S	14	28	30	18	28.5	12.8	+0.7/0	7.5	1.0	5.5
					29.5	12.8	+0.7/0	8.0	1.0	6.0
14L	14	28	30	18	28.5	15.3	±0.8	7.5	1.0	5.5
14	14	32	35	16	29.5	12.8	+0.7/0	8.0	1.0	6.0
15	15	32	35	17	29.5	12.8	+0.7/0	8.0	1.0	6.0
					30.0	12.8	+0.7/0	6.0	1.0	4.0
16R	16	32	35	18	29.5	12.8	+0.7/0	8.0	1.0	6.0
					30.0	12.8	+0.7/0	6.0	1.0	4.0
					38.0	12.8	+0.7/0	8.0	1.0	6.0
16	16	39	43	18	42.0	12.8	+0.7/0	8.0	1.0	6.0
17	17	39	43	19	42.0	12.8	+0.7/0	8.0	1.0	6.0
18	18	39	43	20	42.0	12.8	+0.7/0	8.0	1.0	6.0
19	19	39	43	21	42.0	12.8	+0.7/0	8.0	1.0	6.0
20R	20	35	39	22	35.0	17.8	±0.7	7.5	1.0	5.5
20	20	39	43	22	42.0	12.8	+0.7/0	8.0	1.0	6.0
20S	20	42	47	22	45.0	12.8	+0.7/0	10.0	1.0	8.0
22	22	42	47	24	45.0	12.8	+0.7/0	10.0	1.0	8.0
23	23	47	52	25	50.0	13.5	+1/0	10.0	1.0	8.0
24	24	47	52	26	50.0	13.5	+1/0	10.0	1.0	8.0
25R	25	42	52	27	50.0	13.5	+1/0	10.0	1.0	8.0
					45.0	13.5	+1/0	10.0	1.0	8.0
25	25	47	52	27	50.0	13.5	+1/0	10.0	1.0	8.0
26	26	47	52	29	50.0	13.5	+1/0	10.0	1.0	8.0
27	27	47	52	30	50.0	13.5	+1/0	10.0	1.0	8.0
28	28	54	60	31	57.0	15.0	+1/0	10.0	1.0	8.0
30	30	54	60	33	57.0	15.0	+1/0	10.0	1.0	8.0
32	32	54	60	35	57.0	15.0	+1/0	10.0	1.0	8.0
35	35	60	70	38	63.0	16.0	+1/0	10.0	1.0	8.0
38	38	65	75	41	68.0	18.0	+1/0	12.0	2.0	9.0
40	40	65	75	43	68.0	18.0	+1/0	12.0	2.0	9.0
45	45	70	80	48	73.0	20.0	+1/0	12.0	2.0	9.0
50	50	85	95	53	88.0	23.0	+1/0	15.0	2.0	12.0
60	60	105	115	63	110.0	30.0	+1/0	15.0	2.0	12.0
70	70	105	115	73	110.0	32.0	+1/0	15.0	2.0	12.0

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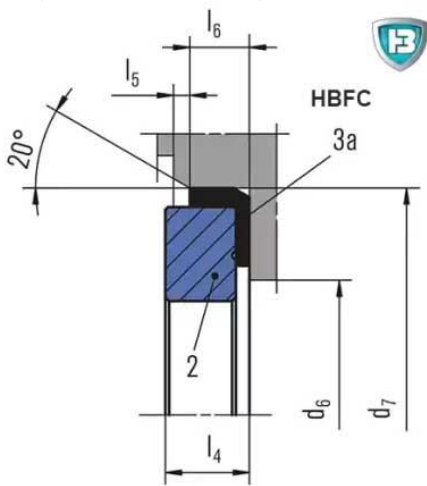
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Seat alternatives



Seat HBFA



Seat HBFA

