



Mechanical Seal HBHRC

Operating range

Shaft diameter: $d_{10} = 30 \dots 60 \text{ mm}$ (1.181" ... 2.362")

Pressure: $p_1 = 23 \text{ bar}$ (334 PSI)

Temperature: $t = -20 \text{ }^\circ\text{C} \dots +160 \text{ (200*) }^\circ\text{C}$ (-4 °F ... +320 (382*) °F)

Sliding velocity: $v_g = 20 \text{ m/s}$ (66 ft)

Axial movement: $\pm 1.0 \text{ mm}$

* Due to shrinking

Materials

- Seal face: Silicon carbide (Q1, Q2)
- Seat: Carbon graphite antimony impregnated (A), Silicon carbide (Q1, Q2)

Features

- Cartridge
- Balanced
- Independent of direction of rotation
- Stationary multiple springs
- Spring protection sleeve
- Variant for operation with pressureless quench available (HRC2000N)
- Dual seal with and without pumping screw (HRC3300NF, HRC3300N) available

Advantages

- Insensitive to solids containing media. Solids content 40 % (single seal), 60 % (double seal)
- Springs protected from product and leakage
- Variant with short installation length to meet limited space conditions (HRC1100N)
- Dual seal remains closed in case of barrier pressure failure, self-closing at pressure reversal (HRC3300NF)
- Operation under vacuum without seat locking possible
- No damage of the shaft by dynamically loaded O-Ring
- Insensitive to shaft deflections due to stationary design

Recommended applications

- Chemical industry
- Process industry
- Petrochemical industry
- Mining industry
- Sugar industry
- Dirty, abrasive and solids containing media
- Various chemical processes
- Chemical standard pumps

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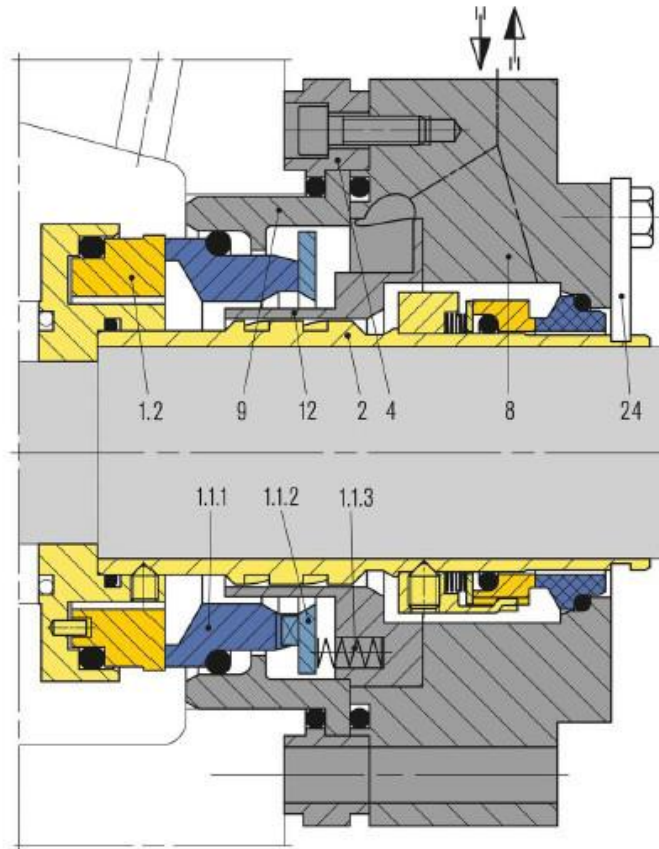
Engineered seals

Mechanical Seal HBHRC



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Item	Part no DIN 24250	Description
1.1.1	472.1	Seal face
1.1.2	474	Thrust ring
1.1.3	477.1	Spring
1.2	475.1	Seat
2	523	Shaft sleeve
4	513	Insert
8	160	Cover plate
9	509	Spring carrier
12		Spring protection sleeve
19		Plug
24		Assembly fixture

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Dimension Table

d ₁₀ ¹⁾	d ₁₁ ¹⁾	d ₁₂ ²⁾	d ₁₃ ³⁾	d ₁₄ ²⁾	d ₁₅ ⁴⁾	d ₁₆	d ₁₇ ⁵⁾	d ₁₈ ¹⁾⁶⁾	d ₁₉	d ₂₀	d ₂₁	d ₂₂
30	24	31	35	41	44	82	85	95	d ₁₉ <d ₂₀ <d	110	129	86
40	32	41	45	51	54	92	95	110	d ₁₉ <d ₂₀ <d	130	155	96
50	42	51	55	61	66	105	110	125	d ₁₉ <d ₂₀ <d	145	168	111
60	50	61	61	67	76	120	125	140	d ₁₉ <d ₂₀ <d	160	185	126

l ₈₇	l ₉	l ₁₀	l ₁₁ ^{2) 7)}	l ₁₂ ^{2) 7)}	l ₁₃ ⁸⁾	l ₁₄	l ₁₅ l ₁₆	l ₁₇	l ₁₈	l ₁₉	l ₂₀	l ₂₁	l ₂₂	l ₂₃	l ₂₄ ⁹⁾	l ₂₅	s
115	10	15	50	4	4	20	1	16	0.5	55	39	35	35	39	2	0.5	M10
130	10	15	52	4	4	22	1	18	0.5	60	44	40	40	44	2	0.5	M12
140	12	15	55	4	4	25	1	21	0,5	60	44	45	40	44	2	0.5	M12
166	14	20	70	4	4	30	1	26	0,5	60	44	50	40	44	2	0.5	M12

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