EagleBurgmann
a member of EKK and FREUDENBERG

RELY ON EXCELLENCE

eCartex
Dual seals

Mechanical Seals | Mechanical seals for pumps | Standard cartridge seals

Features

- Dual seal
- Cartridge
- Balanced
- Independent of direction of rotation
- Double pressure balanced
- Integrated pumping device
- Variants available: for eccentric screw pumps (-Vario) and gas-lubricated version (-GSDN)

Advantages

- **The series has sliding surfaces that are equipped with EagleBurgmann DiamondFace technology as standard**
- Up to 80 % less energy consumption and minimized heat generation of seal due to friction-reducing DiamondFace layer
- Up to 100 % extended operating period, prolongation of MTBF and MTBR intervals
- Significantly improved dry-run capability for inadequately lubricated sealing surfaces, thus vastly improved process safety
- Universally applicable, even with high solids content in the medium

Operating range

Shaft diameter:
d1 = 25 ... 100 mm (1.000" ... 4.000"
Other sizes on request
Temperature:
t= -40 °C ... 220 °C (-40 °F ... 428 °F)
(Check O-Ring resistance)
Sliding face material combination B01
Pressure: p1 = 25 bar (363 PSI)
Sliding velocity: vg = 16 m/s (52 ft/s)
Sliding face material combination Q1Q1 or U2Q1
Pressure: p1 = 20 bar (290 PSI)
Sliding velocity: vg = 10 m/s (33 ft/s)
Barrier fluid circulation system:
p3max = 25 bar (363 PSI)
Δp (p3 - p1)ideal = 2 ... 3 bar (29 ... 44 PSI),
7 bar (102 PSI) for barrier media with poor lubricating properties)
Pump startup:
Δp (p3 - p1)max = 25 bar (363 PSI) allowed
Recommended supply medium: max. ISO VG 5
Axial movement: ±1.0 mm, d1 from 75 mm ±1.5 mm

Materials

Seal face product side: Silicon carbide DiamondFace® (Q15)
Seat product side: Silicon carbide DiamondFace® (Q15)
Seal face atmospheric side: Carbon graphite resin impregnated (B)
Seat atmospheric side: Silicon carbide (Q1)
Secondary seals: FKM (V), EPDM (E), FFKM (K), Perfluorcarbon rubber/PTFE (U1)
Springs: Hastelloy® C-4 (M)
Metal parts: CrNiMo steel (G), CrNiMo cast steel (G)

Recommended applications

- Universally applicable
- Petrochemical industry
- Chemical industry
- Pharmaceutical industry
- Power plant technology
- Pulp and paper industry
- Mining industry
- Food and beverage industry
- Sugar industry
- CCUS
- Nuclear power technology
- Centrifugal pumps
- Eccentric screw pumps

Recommended piping plans

The EagleBurgmann QFT1000 buffer system and QFT2000 vessels are suitable for eCartex-DN in back-to-back arrangement. The EagleBurgmann TS1016 and TS2000 thermosiphon systems support double and back-to-back seal configurations.

eagleburgmann.com
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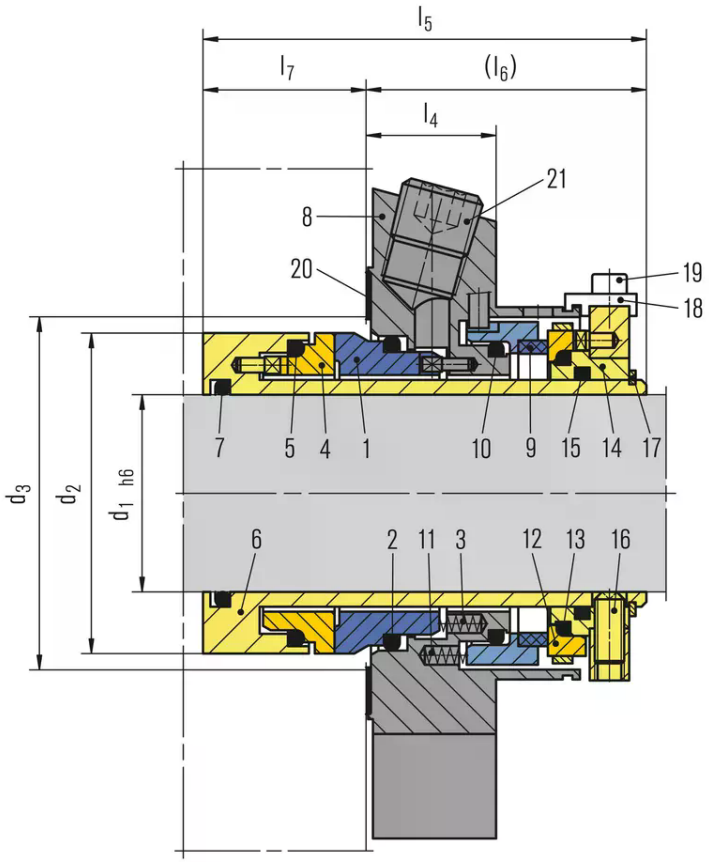
All technical specifications are based on extensive tests and our many years of experience. The diversity of possible applications means, however, that they can serve only as guide values.
We must be notified of the exact conditions of application before we can provide any guarantee for a specific case. Subject to change.



Item	Description
1	Seal face
2, 5, 7, 10, 13, 15	O-Ring
3	Spring
4	Seat
6	Shaft sleeve
8	Cover
9	Seal face
11	Spring
12	Seat
14	Drive collar
16	Set screw
17	Snap ring
18	Assembly fixture
19	Hex socket head screw
20	Gasket
21	Screw plug
22	Gasket

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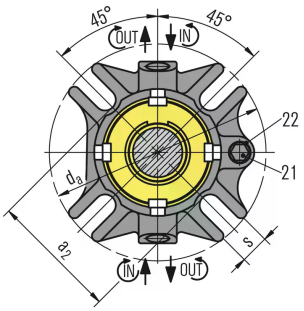
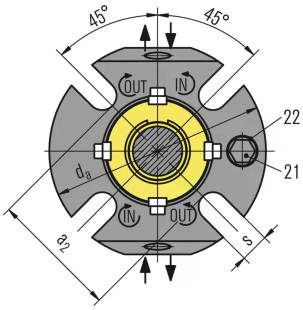
Installation, details, options

Seal cover
Cast version



Seal cover
Machined version



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Dimensions

d_1	d_2	d~3 ~min.	d_3 max.	l_4	l_5	l_6	l_7	a_2	d_a	s
1.000	1.693	1.732	2.008	1.000	3.400	2.102	1.303	2.440	4.134	0.520
1.125	1.811	1.875	2.050	1.000	3.400	2.102	1.303	2.402	4.134	0.520
1.250	1.961	2.008	2.244	1.000	3.400	2.102	1.303	2.760	4.330	0.520
1.375	2.087	2.126	2.421	1.000	3.400	2.102	1.303	2.840	4.449	0.520
1.500	2.205	2.244	2.598	1.000	3.400	2.102	1.303	2.950	4.843	0.520
1.625	2.343	2.375	2.700	1.000	3.400	2.102	1.303	3.090	4.842	0.559
1.750	2.461	2.520	2.874	1.000	3.400	2.102	1.303	3.230	5.433	0.559
1.875	2.582	2.638	2.953	1.000	3.400	2.102	1.303	3.350	5.433	0.559
2.000	2.677	2.717	3.071	1.000	3.400	2.102	1.303	3.430	5.827	0.559
2.125	2.835	2.874	3.425	1.000	3.400	2.102	1.303	3.819	5.827	0.709
2.250	2.961	3.000	3.560	1.000	3.400	2.102	1.303	3.940	6.181	0.709
2.375	3.071	3.125	3.583	1.000	3.400	2.102	1.303	4.020	6.181	0.709
2.500	3.213	3.300	3.800	1.000	3.400	2.102	1.303	4.180	6.417	0.709
2.625	3.339	3.374	3.937	1.000	3.400	2.102	1.303	4.303	6.417	0.709
2.750	3.661	3.740	4.252	1.000	3.400	2.102	1.303	4.660	7.008	0.709
2.875	3.937	4.000	4.646	1.000	4.250	2.516	1.736	5.079	7.480	0.709
3.000	3.937	4.000	4.646	1.102	4.250	2.516	1.736	5.079	7.480	0.709
3.125	4.189	4.252	4.882	1.102	4.250	2.516	1.736	5.315	7.677	0.709
3.250	4.189	4.252	4.882	1.102	4.250	2.516	1.736	5.315	7.677	0.709
3.375	4.311	4.375	5.039	1.102	4.250	2.516	1.736	5.472	7.795	0.866
3.500	4.437	4.500	5.157	1.102	4.250	2.516	1.736	5.591	7.795	0.866
3.625	4.563	4.625	5.315	1.102	4.250	2.516	1.736	5.709	8.071	0.866
3.750	4.689	4.752	5.433	1.102	4.250	2.516	1.736	5.827	8.189	0.866
4.000	4.937	5.000	5.669	1.102	4.250	2.516	1.736	6.063	8.583	0.866

Dimensions in inch

d_1	d_2	d~3 ~min.	d_3 max.	l_4	l_5	l_6	l_7	a_2	d_a	s
25	43.0	44.0	51.5	25.4	86.5	53.4	33.1	62	105	13.2
28	46.0	47.0	52.0	25.4	86.5	53.4	33.1	61	105	13.2
30	48.0	49.0	56.0	25.4	86.5	53.4	33.1	67	105	13.2
32	49.8	51.0	57.0	25.4	86.5	53.4	33.1	70	110	13.2
33	49.8	51.0	57.0	25.4	86.5	53.4	33.1	70	110	13.2
35	53.0	54.0	61.5	25.4	86.5	53.4	33.1	72	113	13.2
38	56.0	57.0	66.0	25.4	86.5	53.4	33.1	75	123	13.2
40	58.0	59.0	68.0	25.4	86.5	53.4	33.1	77	123	14.2
42	60.5	61.5	69.5	25.4	86.5	53.4	33.1	80	133	14.2
43	60.5	61.5	70.5	25.4	86.5	53.4	33.1	80	133	14.2
45	62.5	64.0	73.0	25.4	86.5	53.4	33.1	82	138	14.2
48	65.6	67.0	75.0	25.4	86.5	53.4	33.1	85	138	14.2
50	68.0	69.0	78.0	25.4	86.5	53.4	33.1	87	148	14.2
53	72.0	73.0	87.0	25.4	86.5	53.4	33.1	97	148	18.0
55	73.0	74.0	83.0	25.4	86.5	53.4	33.1	92	148	18.0
60	78.0	79.0	91.0	25.4	86.5	53.4	33.1	102	157	18.0
65	84.8	85.7	98.5	25.4	86.5	53.4	33.1	109	163	18.0
70	93.0	95.0	108.0	25.4	86.5	53.4	33.1	118	178	18.0
75	100.0	101.6	118.0	28.0	108.0	63.9	44.1	129	190	18.0
80	106.4	108.0	124.0	28.0	108.0	63.9	44.1	135	195	18.0

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d_1	d_2	d~3 ~min.	d_3 max.	l_4	l_5	l_6	l_7	a_2	d_a	s
85	109.5	111.1	128.0	28.0	108.0	63.9	44.1	139	198	22.0
90	115.9	117.5	135.0	28.0	108.0	63.9	44.1	145	205	22.0
95	119.1	120.7	138.0	28.0	108.0	63.9	44.1	148	208	22.0
100	125.4	127.0	144.0	28.0	108.0	63.9	44.1	154	218	22.0

Dimensions in millimeter

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