EagleBurgmann
a member of EKK and FREUDENBERG

RELY ON EXCELLENCE

Cartex ANSI
Single seals

Mechanical Seals | Mechanical seals for pumps | Standard cartridge seals

Features

- Single seal
- Available for standard (Cartex-ASPN) and big bore (Cartex-ABPN) seal chambers
- Cartridge
- Balanced
- Independent of direction of rotation
- Single seals with flush (-ASPN, -ABPN) and with quench combined with lip seal (-ASQN, -ABQN) or throttle ring (-ASTN, -ABTN)

Advantages

- Ideal for use in ANSI process pumps
- Universal applicable for packings conversions, retrofits or original equipment
- Seal for standardizations
- No dimensional modification of the seal chamber necessary, small radial installation height
- No damage of the shaft by dynamically loaded O-Ring
- Extended service life
- Installation faults are avoided, cost-effective
- No damage caused by dirt entered during assembly
- Straightforward and easy installation due to pre-assembled unit (reduced down-times)

Operating range

Cartex-ASPN, - ABPN, -ASTN, -ABTN, -ASQN, -ABQN

Shaft diameter: d1 = 1.000" ... 3.750"
Other sizes on request
Temperature:
t= -40 °C ... 220 °C (-40 °F ... 428 °F)
(Check O-Ring resistance)

Sliding face material combination BQ1
Pressure: p1 = 25 bar (363 PSI)
Sliding velocity: vg = 16 m/s (52 ft/s)

Sliding face material combination Q1Q1 or U2Q1
Pressure: p1 = 12 bar (174 PSI)
Sliding velocity: vg = 10 m/s (33 ft/s)

Axial movement:
±1.0 mm, d1 ≥75 mm ±1.5 mm

Materials

Seal face: Silicon carbide (Q1), Carbon graphite resin impregnated (B), Tungsten carbide (U2)
Seat: Silicon carbide (Q1)
Secondary seals: FKM (V), EPDM (E), FFKM (K), Perflourocarbon rubber/PTFE (U1)
Springs: Hastelloy® C-4 (M)
Metal parts: CrNiMo steel (G)

Standards and approvals

- ANSI

Recommended applications

- Universally applicable
- Process industry
- Petrochemical industry
- Chemical industry
- Pharmaceutical industry
- Power plant technology
- Pulp and paper industry
- Water and waste water technology
- Mining industry
- Food and beverage industry
- CCUS
- Power generation
- ANSI process pumps

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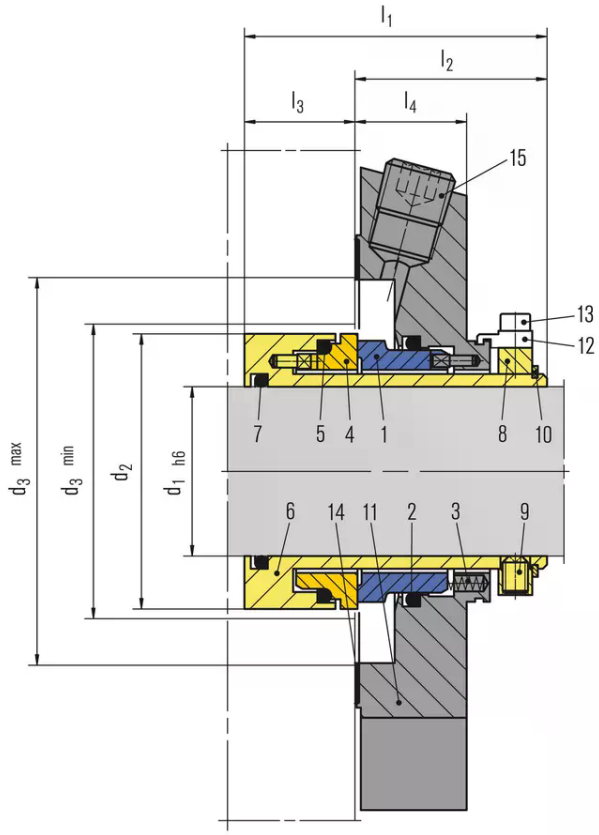
All technical specifications are based on extensive tests and our many years of experience. The diversity of possible applications means, however, that they can serve only as guide values.
We must be notified of the exact conditions of application before we can provide any guarantee for a specific case.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



Item	Description
1	Seal face
2, 5, 7	O-Ring
3	Spring
4	Seat
6	Shaft sleeve
8	Drive collar
9	Set screw
10	Snap ring
11	Cover
12	Assembly fixture (remove after intallation)
13	Screw
14	Gasket
15	Screw plug
16	Lip seal (-QN), throttle ring (-TN)

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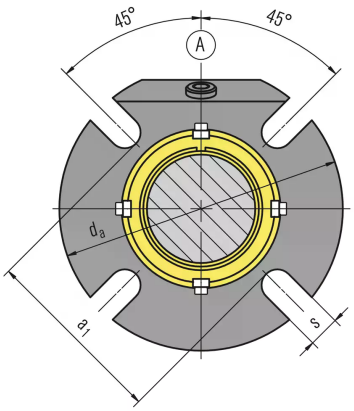
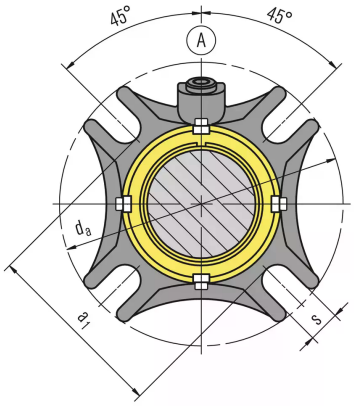
Installation, details, options



Seal cover
Machined version



Seal cover
Cast version

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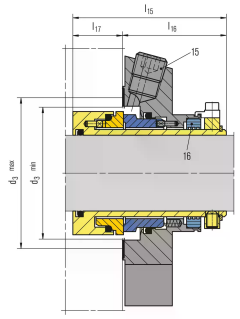
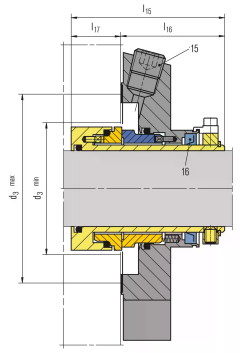
Product variants



Cartex-ASTN and -ABTN
Single seal for standard (S) and big bore (B) seal chambers. Same as Cartex-ASPN and -ABPN but with throttle ring (item 16) The cover has auxiliary connections for flushing and quench. Throttle ring: PTFE carbon-graphite reinforced (T12).



Cartex-ASQN and -ABQN
Single seal for operation with unpressurized quench for standard (S) and big bore (B) seal chambers. Same as Cartex-ASPN and -ABPN version but with lip seal (item 16) at the atmospheric side. The cover has auxiliary connections for flushing and quench. Lip seal: NBR (P), PTFE carbon reinforced (T3)

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Dimensions

d_1	d_2	d_3 min	d_3 max	l_1	l_2	l_3	l_4	l_{15}	l_{16}	l_{17}	a_1	d_a	s	Connection
1.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1125	1713	1752	2795	2638	1669	0.969	1000	2937	1909	1028	3311	4500	0.437	1/4 NPT
1250	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1375	1960	2000	3189	2638	1669	0.969	1000	2947	1919	1028	3543	5118	0.437	1/4 NPT
1.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.625	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.750	2.461	2.500	4.055	2.638	1.669	0.969	1.000	3.012	1.984	1.028	4.567	6.496	0.559	3/8 NPT
1.875	2.583	2.661	3.937	2.638	1.669	0.969	1.000	3.071	2.059	1.012	4.409	5.984	0.551	3/8 NPT
2.000	2.677	2.756	4.567	2.638	1.929	0.709	1.260	3.130	2.102	1.028	4.882	6.260	0.551	3/8 NPT
2.125	2.834	2.913	4.528	2.638	1.669	0.969	1.000	3.012	1.984	1.028	5.276	6.890	0.709	3/8 NPT
2.250	2.960	3.093	4.409	2.638	1.945	0.693	1.276	3.130	2.120	1.028	4.685	6.417	0.709	3/8 NPT
2.500	3.212	3.299	5.276	2.638	1.919	0.719	1.250	3.130	2.120	1.028	5.512	7.795	0.709	3/8 NPT
2.625	3.338	3.417	5.118	2.638	1.919	0.719	1.250	3.130	2.120	1.028	5.354	6.890	0.709	3/8 NPT
2.750	3.660	3.740	5.236	2.638	1.945	0.693	1.276	3.130	2.120	1.028	5.512	7.480	0.630	3/8 NPT
3.000	3.937	4.016	5.512	3.307	2.276	1.031	1.276	3.858	2.516	1.343	5.906	8.228	0.650	3/8 NPT
3.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-

BIG BORE - Dimensions in inch

d_1	d_2	d~3 min~	d~3 max~	l_1	l_2	l_3	l_4	l_{15}	l_{16}	l_{17}	a_1	d_a	s	Connection
1.000	1.693	1.732	2.205	2.638	1.669	0.969	1.000	2.937	1.909	1.028	2.756	3.937	0.433	1/4 NPT
1.125	1.713	1.752	2.205	2.638	1.669	0.969	1.000	2.937	1.909	1.028	2.440	4.134	0.437	1/4 NPT
1.250	1.969	2.008	2.402	2.638	1.669	0.969	1.000	3.130	2.102	1.028	2.638	4.252	0.433	1/4 NPT
1.375	1.961	2.000	2.402	2.638	1.669	0.969	1.000	2.947	1.919	1.028	2.760	4.213	0.437	1/4 NPT
1.500	2.200	2.244	2.717	2.638	1.669	0.969	1.000	3.130	2.102	1.028	2.950	4.488	0.551	3/8 NPT
1.625	2.340	2.421	2.795	2.638	1.669	0.969	1.000	3.130	21.02	1.028	3.030	4.921	0.551	3/8 NPT
1.750	2.461	2.500	2.953	2.638	1.669	0.969	1.000	3.012	1.984	1.028	3.228	5.118	0.559	3/8 NPT
1.875	2.583	2.661	3.070	2.638	1.669	0.969	1.000	3.071	2.043	1.028	3.190	5.118	0.551	3/8 NPT
2.000	2.677	2.756	3.189	2.638	1.669	0.969	1.000	3.130	2.102	1.028	3.430	5.472	0.630	3/8 NPT
2.125	2.834	2.913	3.583	2.638	1.669	0.969	1.000	3.012	1.984	1.028	3.820	5.512	0.650	3/8 NPT
2.250	2.960	3.039	3.583	2.638	1.669	0.969	1.000	3.130	2.102	1.028	3.858	5.866	0.650	3/8 NPT
2.375	3.070	3.125	3.590	2.638	1.669	0.969	1.000	-	-	-	4.020	6.181	0.709	3/8 NPT
2.500	3.212	3.291	3.937	2.638	1.669	0.969	1.122	3.130	2.102	1.028	4.528	6.693	0.709	3/8 NPT
2.625	3.338	3.417	4.016	2.638	1.669	0.969	1.250	3.130	2.102	1.028	4.528	6.378	0.630	3/8 NPT
2.750	3.660	3.740	4.370	2.638	1.929	0.709	1.260	3.130	2.102	10.28	4.646	7.441	0.709	3/8 NPT
3.000	3.937	4.016	4.724	3.307	2.260	1.047	1.260	3.858	2.516	1.343	5.000	7.835	0.709	3/8 NPT
3.250	4.189	4.268	4.921	3.307	2.260	1.047	1.260	3.858	2.516	1.343	5.315	7.830	0.709	3/8 NPT
3.750	4.689	4.750	5.433	3.307	2.260	1.047	1.000	-	-	-	5.827	8.189	0.866	3/8 NPT

STANDARD BORE - Dimensions in inch

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