

CTX ANSI Single Seals Mechanical Seals for Pumps · Standard Cartridge Seals

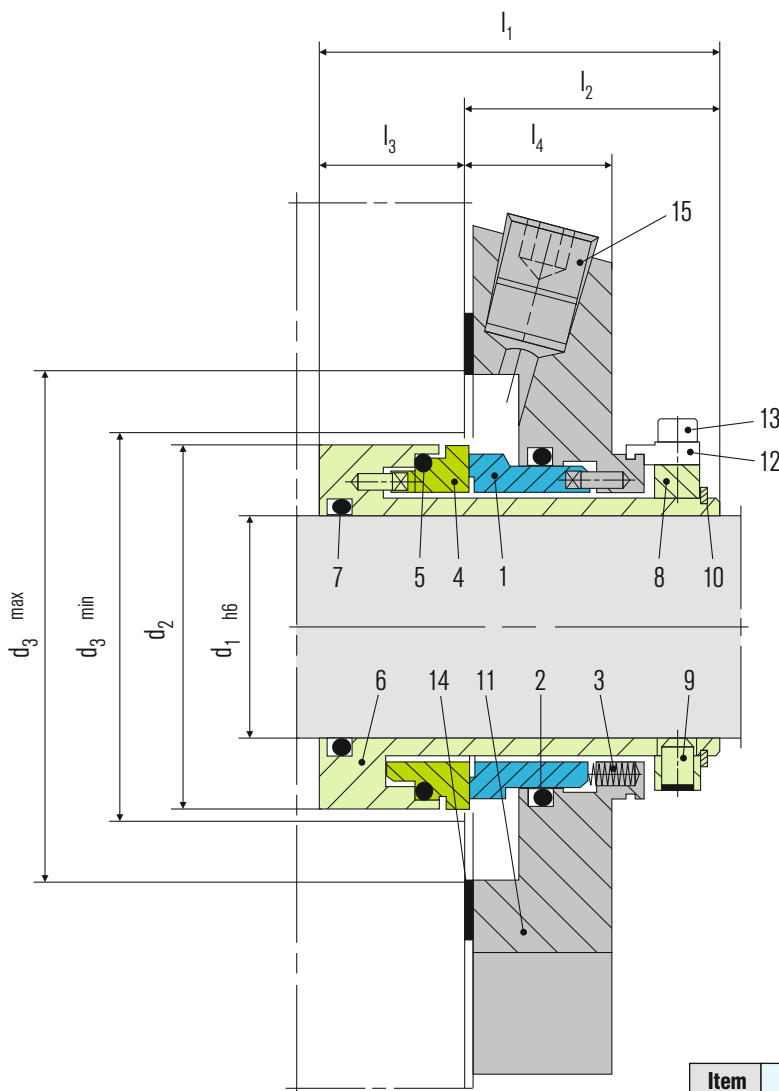


Product Description

1. Single seal
2. Available for standard (CTX-ASPN) and big bore (CTX-ABPN) seal chambers
3. Balanced
4. Cartridge
5. Independent of direction of rotation
6. Single seals with flush (-ASPN, -ABPN) and with quench combined with lip seal (-ASQN, -ABQN) or throttle ring (-ASTN, -ABTN)

Technical Features

1. Ideal for use in ANSI process pumps
2. No damage of the shaft by dynamically loaded O-Ring
3. No dimensional modification of the seal chamber necessary, small radial installation height
4. Universal applicable for packings conversions, retrofits or original equipment



Typical Industrial Applications

ANSI process pumps
 Chemical industry
 Food and beverage industry
 Petrochemical industry
 Pharmaceutical industry
 Universally applicable
 Water and waste water technology

Standards

ANSI

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), Perfluorocarbon rubber/PTFE (U1)
 Springs: Hastelloy® C-4 (M)
 Metal parts: CrNiMo steel (G), CrNiMo cast steel (G)

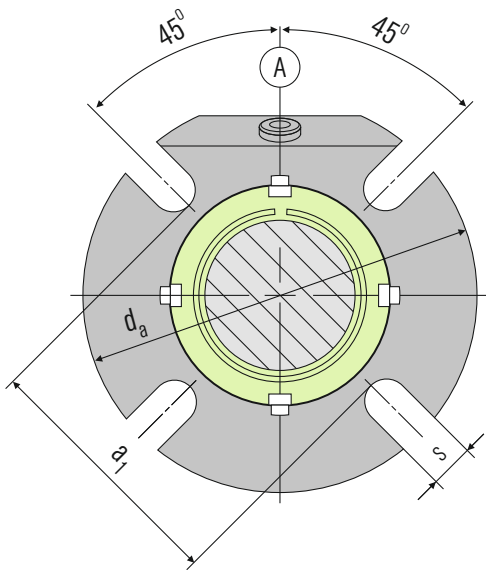
Performance Capabilities

CTX-SN, -SNO, -QN, -TN
 Sizes: Upto 100 mm (Upto 4.000")
 Other sizes on request
 Temperature: $t = -40\text{ °C} \dots 220\text{ °C}$ ($-40\text{ °F} \dots 428\text{ °F}$)
 (Check O-Ring resistance)
 Sliding face material combination BQ1
 Pressure: $p_1 = 25\text{ bar}$ (363 PSI)
 Speed = 16 m/s (52 ft/s)
 Sliding face material combination Q1Q1 or U2Q1
 Pressure: $p_1 = 12\text{ bar}$ (175 PSI)
 Speed = 10 m/s (33 ft/s)
 Permissible axial movement: $\pm 1.0\text{ mm}$, $d_1 \geq 75\text{ mm}$
 $\pm 1.5\text{ mm}$

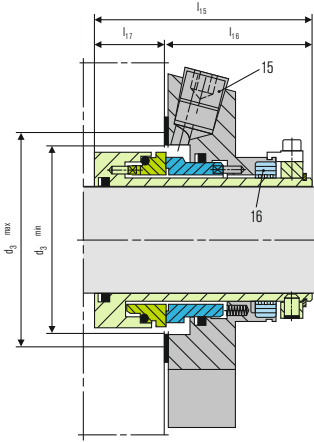
Item	Description
1	Seal face
2, 5, 7	O-Ring
3	Spring
4	Seat
6	Shaft sleeve
8	Drive collar
9	Set screw

Item	Description
10	Snap ring
11	Cover
12	Assembly fixture (remove after installation)
13	Screw
14	Gasket
15	Screw plug
16	Lip seal (-QN), throttle ring (-TN)

Installation, Details, Options

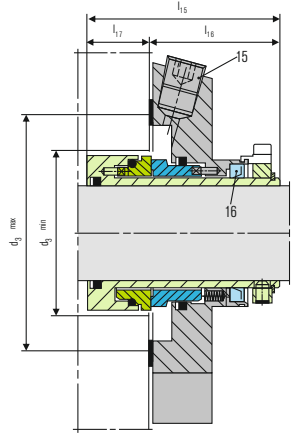


Product Variants



CTX-ASTN and -ABTN

Single seal for operation with unpressurized quench for standard (S) and big bore (B) seal chambers. Same as CTX-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).



CTX-ASQN and -ABQN

Single seal for operation with unpressurized quench for standard (S) and big bore (B) seal chambers. Same as CTX-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)

Dimensional Data

BIG BORE : Dimensions in inch

d ₁	d ₂	d ₃ min	d ₃ max	l ₁	l ₂	l ₃	l ₄	l ₅	l ₆	l ₇	a ₁	d _a	s	Connection
1.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.125	1.713	1.752	2.795	2.638	1.669	0.969	1.000	2.937	1.909	1.028	3.311	4.500	0.437	1/4 NPT
1.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.375	1.960	2.000	3.189	2.638	1.669	0.969	1.000	2.947	1.919	1.028	3.543	5.118	0.437	1/4NPT
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	3.170	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-

STANDARD BORE : Dimensions in inch

d ₁	d ₂	d ₃ min	d ₃ max	l ₁	l ₂	l ₃	l ₄	l ₅	l ₆	l ₇	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	2.102	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	1.028	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

Note: Additional technical & dimensional information will be provided on request.