SHARK ANSI-S

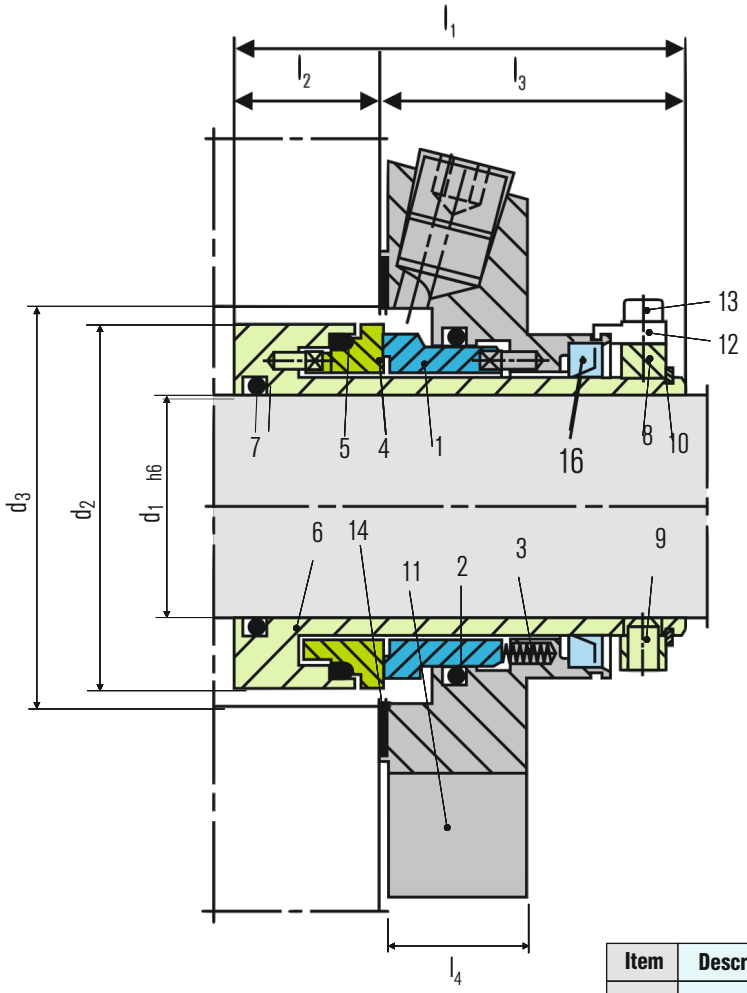
Cartridge Single Seal

Product Description

1. Single seal
2. Available for standard (ANSI-SS) and big bore (ANSI-SB) seal chambers
3. Balanced
4. Cartridge
5. Independent of direction of rotation
6. Single seals with flush and with quench

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. Universally 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 (S), Carbon graphite resin impregnated (C), Tungsten carbide (U)
Seat: Silicon carbide (S)
Secondary seals (o-rings): FKM (V), EPDM (E), AFLAS (A) FFKM (P)
Springs: Hastelloy® C-4 (C)
Metal parts: 316 stainless steel (1)

Operating Limits

ANSI-S
Sizes: Up to 5.000"
Other sizes on request
Temperature: t = -40°F to 428°F (-40°C to 220°C)
Verify O-Ring operating limits
Sliding face material combination SC/Carbon
Pressure: p1 = 363 PSIG (25 bar)
Speed = 52 ft/s (16 m/s)
Sliding face material combination SC/SC or SC/TC
Pressure: p1 = 175 PSIG (12 bar)
Speed = 33 ft/s (10 m/s)
Permissible axial movement: ± 0.040"
d1 ⩾ 3.000" ± 0.060"

Item	Description
1	Stationary Seal face
2, 5, 7	O-Rings
3	Spring
4	Rotating Seal Face
6	Shaft sleeve
8	Drive collar
9	Set screw

Item	Description
10	Snap ring
11	Gland (Flange)
12	Setting Clips (remove after installation)
13	Screw
14	Gasket
15	Flush port plug
16	Lip Seal

SHARK SEALS

SHARK ANSI-S

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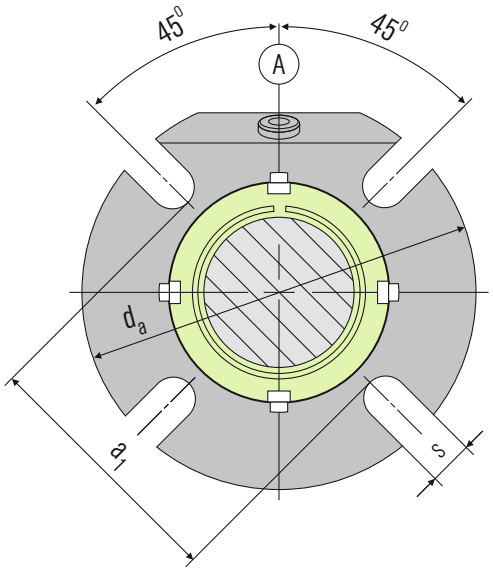
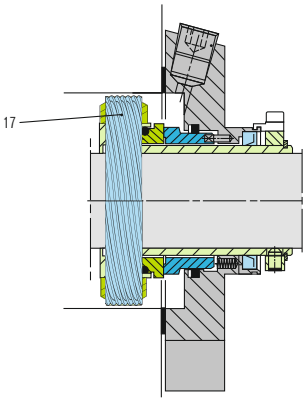
Gland Details

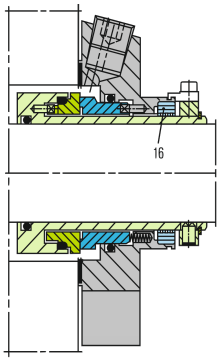


Design Variations



Shark Tooth - ANSI-SS-PR/ANSI-SB-PR

Single seal for operation with a low pressure quench. Same as ANSI-S but with a high head pumping screw (item 17) in the process. This evacuates the process fluid away from the faces so the quench lubricates the seal faces.
Can also be used with a Plan 23.



ANSI-SS-T/ANSI-SB-T

Single seal for operation with unpressurized quench. Same as ANSI-S but with throttle bushing (item 16). Throttle bushing : PTFE carbon-graphite reinforced (T12).

Dimensional Data

BIG BORE : Dimensions in inches

d_1	d_2	d_3 min	d_3 max	l_1	l_2	l_3	l_4	a_1	d_a	s	Connection	Pump fit capability
1.000	-	-	-	-	-	-	-	-	-	-	-	-
1.125	1.713	1.752	2.795	2.937	1.909	1.028	1.000	3.311	4.500	0.437	1/4 NPT	Durco Group 1 Mark 2
1.250	-	-	-	-	-	-	-	-	-	-	-	-
1.375	1.960	2.000	3.189	2.947	1.919	1.028	1.000	3.543	5.118	0.437	1/4 NPT	Durco Group 1 Mark 3/Goulds 3196 ST, STX
1.500	2.205	2.245	2.765	3.130	2.102	1.028	1.000	4.330	5.551	0.570	3/8 NPT	Aurora CT
1.625	-	-	-	-	-	-	-	-	-	-	-	
1.750	2.461	2.500	4.055	3.012	1.984	1.028	1.000	4.567	6.496	0.559	3/8 NPT	Goulds 3196 MTX, MTI
1.875	2.583	2.661	3.937	3.071	2.059	1.012	1.000	4.409	5.984	0.551	3/8 NPT	Durco Group 2 Mark 2, 3
2.000	2.677	2.756	4.567	3.130	2.102	1.028	1.260	4.882	6.260	0.551	3/8 NPT	
2.125	2.834	2.913	4.528	3.012	1.984	1.028	1.000	5.276	6.890	0.709	3/8 NPT	Goulds 3196 LT, 3196 LTX
2.250	2.960	3.093	4.409	3.130	2.120	1.028	1.276	4.685	6.417	0.709	3/8 NPT	
2.500	3.212	3.299	5.276	3.130	2.120	1.028	1.250	5.512	7.795	0.709	3/8 NPT	Goulds 3196 XL, 3196 XLT
2.625	3.338	3.170	5.118	3.130	2.120	1.028	1.250	5.354	6.890	0.709	3/8 NPT	Durco Group 3 Mark 3
2.750	3.660	3.740	5.236	3.130	2.120	1.028	1.276	5.512	7.480	0.630	3/8 NPT	Goulds 3196 X17
3.000	3.937	4.016	5.512	3.858	2.516	1.343	1.276	5.906	8.228	0.650	3/8 NPT	Goulds 3175 S

STANDARD BORE : Dimensions in inches

d_1	d_2	d_3 min	d_3 max	l_1	l_2	l_3	l_4	a_1	d_a	s	Connection	Pump fit capability
1.000	1.693	1.732	2.205	2.937	1.909	1.028	1.000	2.756	3.937	0.433	1/4 NPT	Dean Brothers
1.125	1.713	1.752	2.205	2.937	1.909	1.028	1.000	2.440	4.134	0.437	1/4 NPT	Durco Group 1 Mark 2
1.250	1.969	2.008	2.402	3.130	2.102	1.028	1.000	2.638	4.252	0.433	1/4 NPT	Floway
1.375	1.961	2.000	2.402	2.947	1.919	1.028	1.000	2.760	4.213	0.437	1/4 NPT	Durco Group 1 Mark 3/Goulds 3196 STX
1.500	2.200	2.244	2.717	3.130	2.102	1.028	1.000	2.950	4.488	0.551	3/8 NPT	Durco L, Group 2/Goulds VIT
1.625	2.340	2.421	2.795	3.130	2.102	1.028	1.000	3.030	4.921	0.551	3/8 NPT	Worthington FRBH
1.750	2.461	2.500	2.953	3.012	1.984	1.028	1.000	3.228	5.118	0.559	3/8 NPT	Goulds 3196 MTX, 3410 S/IDP Frame 3
1.875	2.583	2.661	3.070	3.071	2.043	1.028	1.000	3.190	5.118	0.551	3/8 NPT	Durco Grp 2, Mk 2,3/Goulds JC-1J
2.000	2.677	2.756	3.189	3.130	2.102	1.028	1.000	3.430	5.472	0.630	3/8 NPT	Goulds JC-2J/Allis Chalmers PWO/IDP LLR
2.125	2.834	2.913	3.583	3.012	1.984	1.028	1.000	3.820	5.512	0.650	3/8 NPT	Goulds 3196 LTX, 3410 M, 3195 L
2.250	2.960	3.039	3.583	3.130	2.102	1.028	1.000	3.858	5.866	0.650	3/8 NPT	Moyno Frame E
2.375	3.070	3.125	3.590	3.130	2.102	1.028	1.000	4.020	6.181	0.709	3/8 NPT	Ingersol Rand HOC
2.500	3.212	3.291	3.937	3.130	2.102	1.028	1.122	4.528	6.693	0.709	3/8 NPT	Goulds 3196 XLT
2.625	3.338	3.417	4.016	3.130	2.102	1.028	1.250	4.528	6.378	0.630	3/8 NPT	Durco Group 3 Mark 3
2.750	3.660	3.740	4.370	3.130	2.102	1.028	1.260	4.646	7.441	0.709	3/8 NPT	Goulds 3196 XT
3.000	3.937	4.016	4.724	3.858	2.516	1.343	1.260	5.000	7.835	0.709	3/8 NPT	Goulds 3175 S
3.250	4.189	4.268	4.921	3.858	2.516	1.343	1.260	5.315	7.830	0.709	3/8 NPT	Goulds JC-4J
3.750	4.689	4.750	5.433	3.858	2.780	1.047	1.000	5.827	8.189	0.866	3/8 NPT	Goulds 3175 M
4.750	5.700	5.750	6.500	3.909	3.000	0.909	1.500	7.087	9.450	0.787	3/8 NPT	Goulds 3175 L

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