SHARK ANSI-D

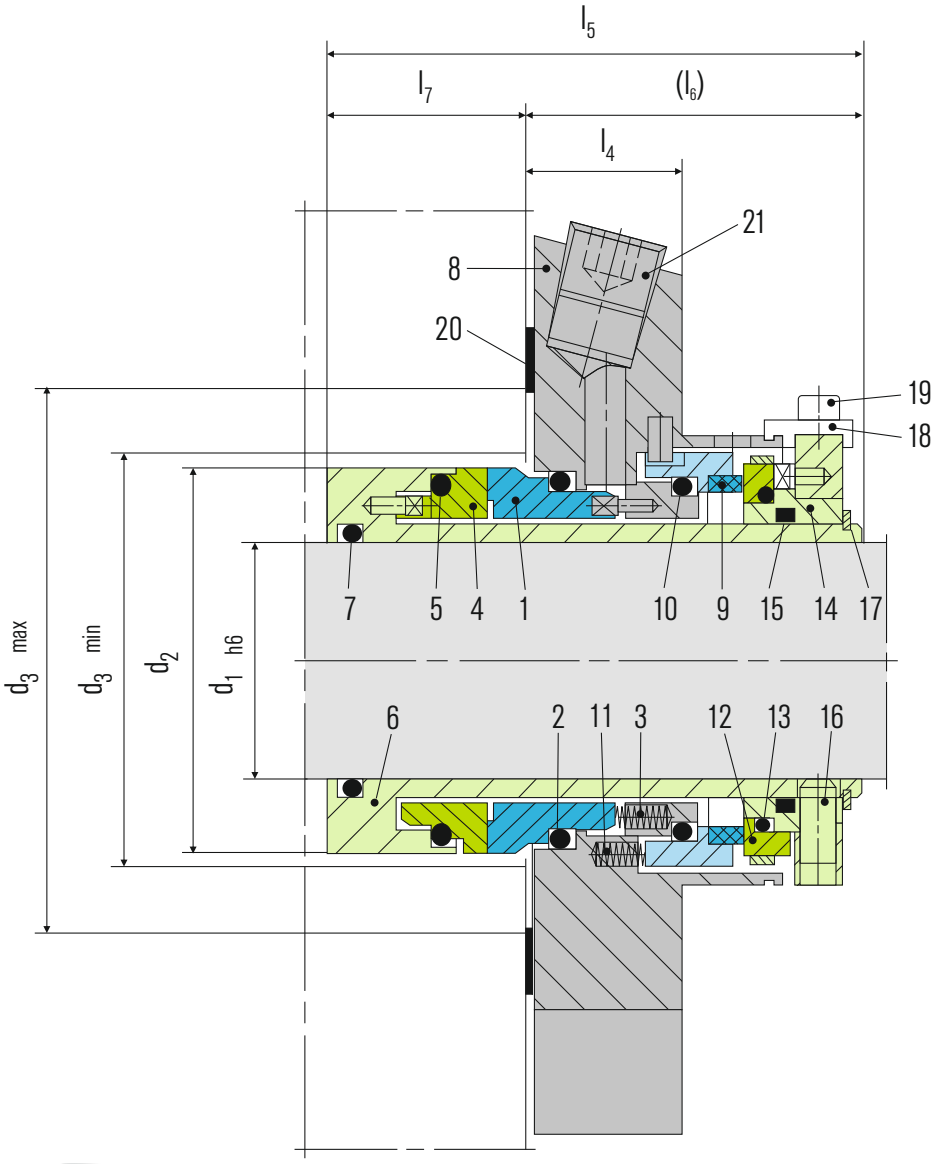
Cartridge Double Seal

Product Description

1. Double/Dual seal
2. Available for standard (ANSI-DS) and big bore (ANSI-DB) seal chambers
3. Balanced
4. Cartridge
5. Double pressure balanced
6. Independent of direction of rotation
7. Integrated pumping device

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 OEM



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

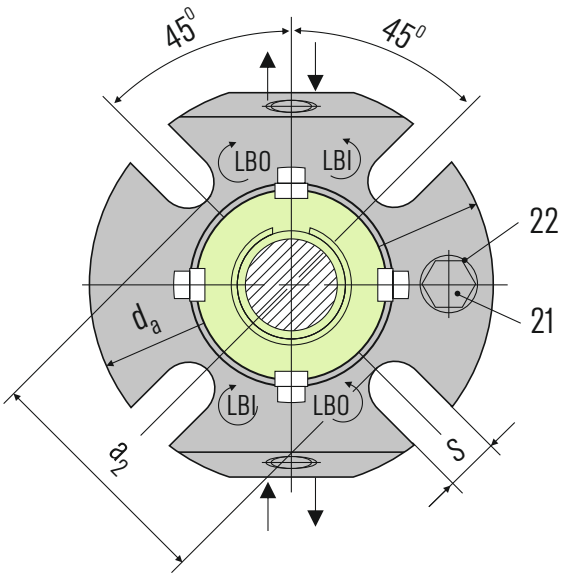
Stationary Seal face: Silicon carbide (S), Carbon graphite resin impregnated (C), Tungsten carbide (U)
Rotating: Silicon carbide (S)
Secondary seals: FKM (V), EPDM (E), FFKM (P)
Springs: Hastelloy® C-4 (H)
Metal parts: CrNiMo steel (1)

Item	Description
1	Stationary IB Seal face
2, 5, 7, 10, 13, 15	O-Rings
3	Spring
4	Rotating IB Seal Face
6	Shaft sleeve
8	Gland (Flange)
9	Stationary OB Seal face
11	Spring
12	Rotating OB Seal Face
14	Drive collar
16	Set screw
17	Snap ring
18	Setting Clips
19	Socket head cap screw
20	Gasket
21	Flush Port plug
22	Gasket

Operating Limits

Sizes: d1 = Up to 5.000"
Other sizes on request
Temperature: t = -40 °F ... 428 °F (-40 °C ... 220 °C)
(Check O-Ring resistance)
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 = 290 PSIG (20 bar)
Speed = 33 ft/s (10 m/s)
Barrier fluid circulation system:
p3max = 363 PSIG (25 bar)
Δp (p3 - p1) ideal = 25 ... 50 PSIG,
100 PSIG for barrier fluids with poor lubricating properties
Pump startup:
Δp (p3 - p1)max = 363 PSIG allowed
Recommended supply medium: max. ISO VG 5
Permissible axial movement: ± 0.040" d1 >= 3.000" ± 0.060"

Gland Detail



Dimensional Data

BIG BORE - Dimensions in inches

d_1	d_2	d_3 min.	d_3 max.	l_4	l_5	l_6	l_7	a_2	d_a	s	Connection
1.000	-	-	-	-	-	-	-	-	-	-	-
1.125	1.713	1.752	2.795	1.000	3.228	1.886	1.343	3.311	4.500	0.437	1/4 NPT
1.250	-	-	-	-	-	-	-	-	-	-	-
1.375	1.960	2.000	3.189	1.000	3.406	2.083	1.323	3.543	5.118	0.437	1/4 NPT
1.500	-	-	-	-	-	-	-	-	-	-	-
1.625	-	-	-	-	-	-	-	-	-	-	-
1.750	2.461	2.500	4.055	1.000	3.406	2.083	1.323	4.567	6.496	0.559	3/8 NPT
1.875	2.583	2.661	3.937	1.000	3.406	2.083	1.323	4.409	5.984	0.551	3/8 NPT
2.000	2.677	2.756	4.567	1.260	3.406	2.102	1.303	4.882	6.260	0.551	3/8 NPT
2.125	2.834	2.913	4.528	1.000	3.406	2.102	1.303	5.276	6.890	0.709	3/8 NPT
2.250	2.960	3.093	4.409	1.276	3.406	2.102	1.303	4.685	6.417	0.709	3/8 NPT
2.500	3.212	3.299	5.276	1.250	3.406	2.102	1.303	5.512	7.795	0.709	3/8 NPT
2.625	3.338	3.170	5.118	1.250	3.406	2.102	1.303	5.354	6.890	0.709	3/8 NPT
2.750	3.660	3.740	5.236	1.276	3.406	2.102	1.303	5.512	7.480	0.630	3/8 NPT
3.000	3.937	4.016	5.512	1.276	3.406	2.516	1.303	5.906	8.228	0.650	3/8 NPT
3.250	-	-	-	-	-	-	-	-	-	-	-

STANDARD BORE - Dimensions in inches

d_1	d_2	d_3 min.	d_3 max.	l_4	l_5	l_6	l_7	a_2	d_a	s	Connection
1.000	1.693	1.732	2.205	1.000	3.406	2.102	1.303	2.441	3.937	0.433	1/4 NPT
1.125	1.713	1.752	2.205	1.000	3.228	3.228	1.343	2.441	4.134	0.437	1/4 NPT
1.250	1.969	2.008	2.402	1.000	3.406	2.102	1.303	2.756	4.252	0.433	1/4 NPT
1.375	1.961	2.000	2.402	1.000	3.406	2.083	1.303	2.756	4.213	0.437	1/4 NPT
1.500	2.200	2.244	2.717	1.000	3.406	2.102	1.303	2.953	4.488	0.551	3/8 NPT
1.625	2.340	2.421	2.795	1.000	3.406	2.102	1.303	3.091	4.921	0.551	3/8 NPT
1.750	2.461	2.500	2.953	1.000	3.406	2.102	1.303	3.228	5.118	0.559	3/8 NPT
1.875	2.583	2.661	3.070	1.000	3.406	2.102	1.303	3.307	5.118	0.551	3/8 NPT
2.000	2.677	2.756	3.189	1.000	3.406	2.102	1.303	3.425	5.472	0.630	3/8 NPT
2.125	2.834	2.913	3.583	1.000	3.406	2.102	1.303	3.819	5.512	0.650	3/8 NPT
2.250	2.960	3.039	3.583	1.000	3.406	2.102	1.303	3.858	5.866	0.650	3/8 NPT
2.375	3.070	3.125	3.590	1.000	3.406	2.102	1.303	4.528	6.181	0.709	3/8 NPT
2.500	3.212	3.291	3.937	1.122	3.406	2.102	1.303	4.528	6.693	0.709	3/8 NPT
2.625	3.338	3.417	4.016	1.250	3.406	2.102	1.303	4.528	6.378	0.630	3/8 NPT
2.750	3.660	3.740	4.370	1.260	3.406	2.102	1.303	4.646	7.441	0.709	3/8 NPT
3.000	3.937	4.016	4.724	1.260	4.252	2.516	1.736	5.000	7.835	0.709	3/8 NPT
3.250	4.189	4.268	4.921	1.260	4.252	2.516	1.736	5.315	7.830	0.709	3/8 NPT
3.750	4.689	4.750	5.433	1.000	4.252	2.516	1.736	5.315	8.189	0.866	3/8 NPT

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