

CTXAPI Single & Dual Seals

Standard Cartridge Seals

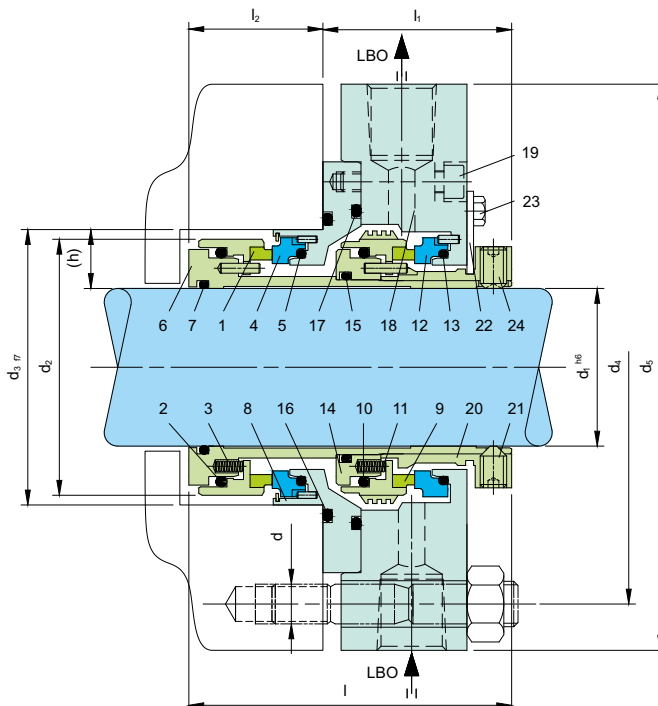


Product Description

1. Single and Dual seal configuration
2. Balanced design
3. Independent of direction of rotation
4. Cartridge construction
5. Seal design in accordance with API 682 / ISO 21049
6. Conforming to Category 1, Type A, Arrangement 1, 2 or 3
7. Single seal with API Plan 11 and 61
8. Dual seals with API Plan 52 / 53
9. Robust construction with shrink-fitted seal faces
10. Heavy duty solid seat design
11. Also available in design variation for independent of direction of rotation
12. Additional flushing plans available on request

Technical Features

1. Designed to accommodate shaft deflections and process fluctuations
2. Efficient construction for heat dissipation
3. Compact installation design
4. Factory assembled cartridge unit for easy installation
5. Springs are product protected to avoid contamination
6. Can accommodate reverse pressure
7. Can handle extensive applications in various temperatures and pressures
8. Versatile in design to fit various seal chambers



Note: The item numbers as depicted above are based on our technical experience and knowledge and are placed in the chronological order of their assembly procedure.

Item	Description
1, 9	Seal face
2, 5, 7, 10, 13, 15, 16, 17	O-ring
3, 11	Spring
4, 12	Seat
6	Shaft sleeve
8	Adapter
14	Driver
18	Housing
19	HSH Cap screw
20	Set ring
21	Set screw
22	Assembly fixture
23	Hexagon bolt
24	Set screw

Typical Industrial Applications

API & ISO Pumps	Low abrasive media
Acids (some)	Low solids content
Aqueous solutions	Oil & gas
Chemical	Petrochemical
Fertiliser	Poor lubrication media
Highly viscous hydrocarbons	Refining technology
Light volatile hydrocarbons	Toxic & hazardous media

Standards

API 682 / ISO 21049

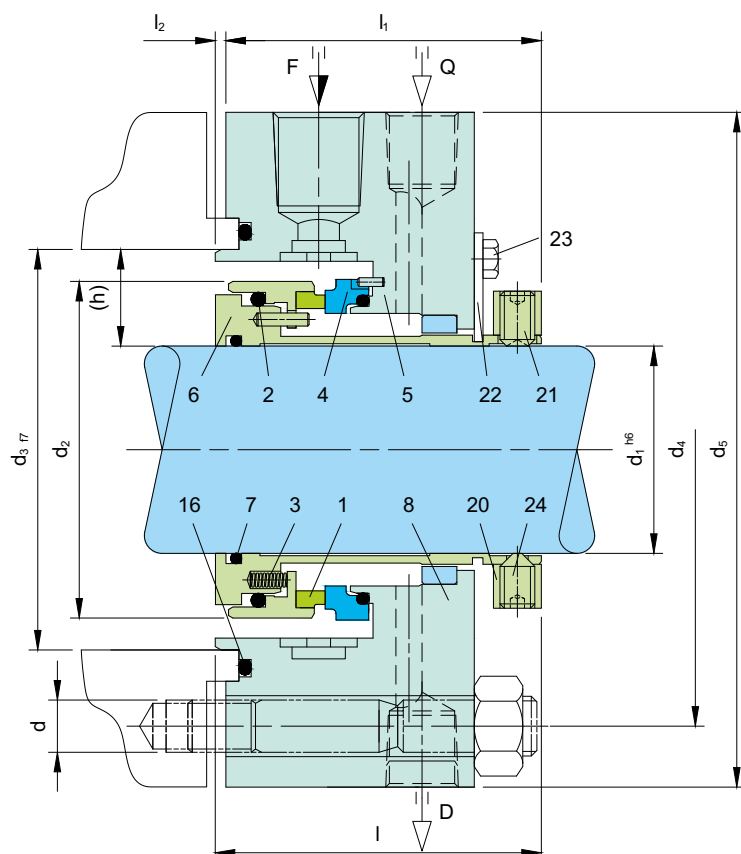
Materials

Seal face	Carbon graphite antimony impregnated (A), Silicon carbide sintered pressureless (Q12)
Seat	Silicon carbide sintered pressureless (Q1)
Secondary seals	FKM (V), FFKM (K), NBR (P), EPDM (E)
Springs	Hastelloy® C-4 (M)* and C-276 (M5)
Metal parts	CrNiMo steel (G)

Performance Capabilities

Sizes	Upto 110 mm (Upto 4.250") Other sizes on request
Pressure	$p_r = 22$ bar (319 PSI)
Temperature	$t = -40^\circ\text{C} \dots +260^\circ\text{C}$ ($-40^\circ\text{F} \dots +500^\circ\text{F}$)
Speed	23 m/s (75 ft/s)

Design Variations



CTXAPI-SN
Single Seal

Dimensional Data

Dimensions in millimeter

d ₁	d ₂	d ₃	d ₄	d ₅	l	l ₁	l ₂	d	n	acc. to ASME B73.1 (h min)
20	50.4	58	105	127	96.5	68.5	28	13.5	4	19.05
25	55.4	63	110	132	96.5	68.5	28	13.5	4	19.05
30	60.4	68	115	137	96.5	68.5	28	13.5	4	19.05
35	65.4	73	120	142	96.5	68.5	28	13.5	4	19.05
40	70.4	78	125	147	96.5	68.5	28	13.5	4	19.05
45	75.4	83	135	162	96.5	68.5	28	17.5	4	19.05
50	80.4	88	140	167	100	72	28	17.5	4	19.05
55	85.4	93	145	172	100	72	28	17.5	4	19.05
60	96	105	160	187	127.5	88	39.5	17.5	4	22.22
65	101	110	165	192	127.5	88	39.5	17.5	4	22.22
70	106	115	170	197	127.5	88	39.5	17.5	4	22.22
75	111	120	175	202	127.5	88	39.5	17.5	4	22.22
80	116	125	185	213	127.5	88	39.5	22	4	22.22
85	123.5	136	190	223	131.5	92	39.5	22	4	25.4
90	128.5	141	195	228	131.5	92	39.5	22	4	25.4
95	133.5	146	200	233	131.5	92	39.5	22	4	25.4
100	138.5	151	205	238	131.5	92	39.5	22	4	25.4
105	143.5	156	210	243	131.5	92	39.5	22	4	25.4
110	152.5	161	215	248	131.5	92	39.5	22	4	25.4

inch size available from size 0.750 to 4.250

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

The specifications, drawings, images etc included in this catalogue are intended to be generic and must be interpreted as equivalent or functionally equivalent, more specifically the performance capabilities mentioned in this catalogue is based on optimum values, however the performance of the product is dependent on size, material of construction, media, pressure, temperature, sliding velocity etc and it shall vary from size to size or application to application. Customers are requested to consult with Sealmatic before employing the product from this catalogue for any application.