# **DUYBQJ 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
- 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**

- Designed to accommodate shaft deflections and process fluctuations
- 2. Efficient construction for heat dissipation
- 3. Compact installation design

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- 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

### **Typical Industrial Applications**

Chemical industry

Light volatile and highly viscous hydrocarbons Low solids content and low abrasive media

Media with poor lubrication properties

Oil and gas industry

Petrochemical industry

Toxic and hazardous media

Standard pumps

Vertical and horizontal ANSI chemical pumps

#### **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:  $d_1$  = Upto110 mm (Upto 4.250") other sizes on request Pressure:  $p_1$  = 22 bar (319 PSI) Temperature: t = -40 °C...+ 260 °C

(-40 °F... + 500 °F)Speed = 23 m/s (75 ft/s)

	↑ <u>↑</u> <u>€</u>	19 23
d <sub>3 f7</sub>	<b>↓</b>	6 7 1 4 5 17 15 18 12 13 22 24
:	<u> </u>	2 3 8 16 14 10 11 9 20 21
	<b>Description</b> Seal face	
, 13, 7	0-ring	LBI 🗍
	Chrina	

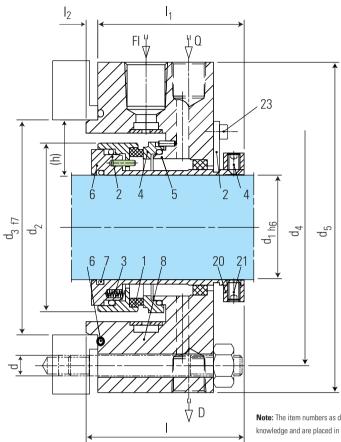
Note: The item numbers as depicted above are based on our technical experience and knowledge and are placed in the chronological order of their assembly procedure.

1, 9	Seal face				
2, 5, 7, 10, 13,	0-ring				
15, 16, 17					
3, 11	Spring				
4, 12	Seat				
6	Shaft sleeve				
8	Adapter Driver				
14					
18	Housing				
19	HSH Cap screw				
20	Set ring				
21	Set screw				
22	Assembly fixture				
23	Hexagon bolt				
24	Set screw				

Item



## **Design Variations**



# CTXAPI-SA

Single Seal

**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.

## **Dimensional Data**

#### **Dimensions in millimeter**

Dimensions in infinimeter												
d <sub>1</sub>	d 2	d 3	d 4	d 5	1	I <sub>1</sub>	12	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.