

# CTXAPI-SN

API 682 4th Edition Category 1  
Seal Type A (Rotating)  
Configuration 1CW-FX (Contacting Wet – Fixed throttle bushing)

## Product Description

1. API 682 Category 1, Type A, Arrangement 1
2. Single seal configuration
3. Balanced design
4. Independent of direction of rotation
5. Cartridge construction
6. Robust construction with shrink-fitted seal face
7. Heavy duty solid seat design

## 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

## Typical Industrial Applications

- Chemical industry
- Petrochemical industry
- Oil and gas industry
- Highly volatile hydrocarbons
- Toxic and hazardous media
- Media with poor lubrication properties
- Low solids content and low abrasive media
- Vertical and horizontal ANSI chemical standard pumps

## Performance Capabilities

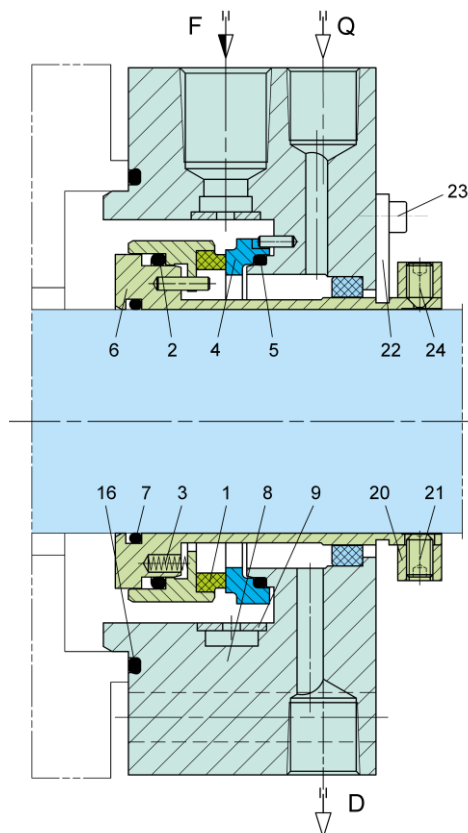
Shaft diameter:  $d_1 = 20 \dots 110 \text{ mm}$  (0.79" ... 4.33")  
Pressure:  $p_1 = 22 \text{ bar}$  (319 PSI)  
Temperature:  $t = -40 \text{ }^\circ\text{C} \dots +176 \text{ }^\circ\text{C}$  ( $-40 \text{ }^\circ\text{F} \dots +349 \text{ }^\circ\text{F}$ )  
( $>176 \text{ }^\circ\text{C}$  (349 °F) please enquire)  
Sliding velocity:  $v_g = 23 \text{ m/s}$  (75 ft/s)

## Materials

Seal ring: Blister resistant carbon, Silicon carbide SSiC (Q12)  
Mating ring: Silicon carbide SSiC (Q1)  
Secondary seals: EPDM (E), NBR (P), FKM (V), FFKM (K)  
Springs: Hastelloy® C-4 (M)\* and C-276 (M5)  
Metal parts: CrNiMo steel 316 (G) or equivalent, optional materials on request.  
\* Sealmatic standard

## Recommended piping plans

Process side:  
01, 02, 03, 11, 12, 13, 14, 21, 22, 23, 31, 41, 32  
Atmospheric side: 51, 61, 62, 65A, 65B, 66A, 66B



Item	Description
1	Seal ring
2, 5, 7, 16	O-ring
3	Spring
4	Mating ring
6	Shaft sleeve
8	Gland
9	Multi-flow distributor
20	Set ring
21, 24	Set screw
22	Setting plate
23	HSH cap screw
F	Flush
Q	Quench
D	Drain