SB-Ta

API 682 4th Edition Category 2 & 3
Seal type A (Stationary)
Configuration 2CW-CW (Contacting Wet– Contacting Wet)
Configuration 3CW-FB (Contacting Wet– Face-to-Back)

Product Description

1. API 682 Category 2 and 3, Type A, Arrangement 2 & 3 seal
2. Dual seal in face-to-back configuration
3. Balanced design
4. Independent of direction of rotation
5. Cartridge construction
6. Stationary design with multiple springs
7. Designed with integrated pumping device for increased efficiency in circulation
8. Robust construction with shrink-fitted seal face
9. Heavy duty design of solid seat

Technical Features

1. Accommodates shaft deflections due to stationary design
2. Can be designed for individual pump application with corresponding connection parts to be adopted to the pump seal chamber
3. Optimum heat dissipation due to integrated pumping device available for increased efficiency in circulation and optimized seat design
4. Cartridge unit factory assembled for easy installation, which reduces downtime
5. Trouble-free long-term operation due to heavy duty single seat design with bandage
6. Can operate under high sliding velocities and high pressures

Typical Industrial Applications

- Multiphase pumps API 610/ISO 13709 pumps
- Oil and gas industry
- Refining technology
- Chemical industry
- Hot water
- Sour water
- Caustic soda
- Amines
- Crystallizing media
- Crude oil
- Process water
- Crude oil feed pumps
- Injection pumps

Performance Capabilities

Shaft diameter: d1 = 20 … 110 mm (0.79" … 4.33")
Pressure: p = 60 bar (870 PSI)
Temperature: –40 °C … +176 °C (–40 °F … +349 °F)*
Sliding velocity: vg = 50 m/s (164 ft/s)
* Engineered up to 260 °C (500 °F) with FFKM (K) secondary seals

Materials

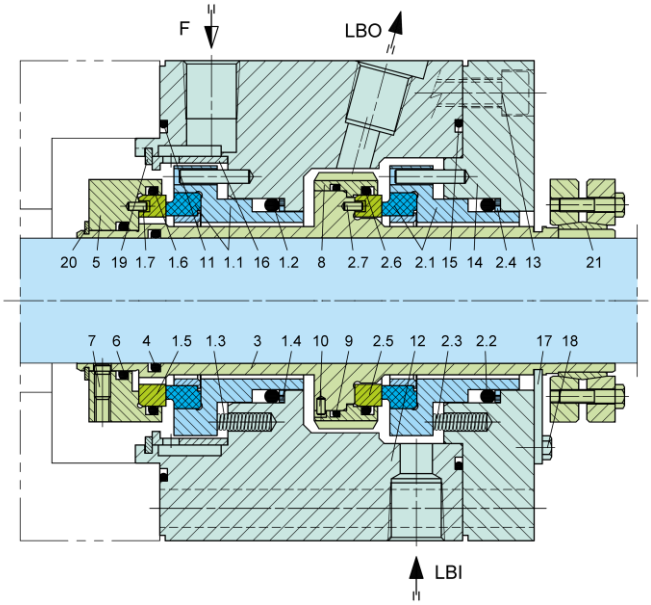
Seal rings: Blister resistant carbon,
Silicon carbide SSiC (Q1), RBSiC (Q2)
Mating rings: Silicon carbide SSiC (Q1), RBSiC (Q2)
Secondary seals: FKM (V), FFKM (K), EPDM (E), NBR (P)
Springs: Hastelloy® C-276 (M5)
Metal parts: CrNiMo steel 316 (G)

Recommended piping plans 2CW-CW

Process side:
01, 02, 03, 11, 12, 13, 14, 21, 22, 23, 31, 32, 41
Between seals: 52, 55
Atmospheric side*: 61, 62, 65A, 65B
* Throttle bushing on request

Recommended piping plans 3CW-FB

Process side:
01, 02, 03, 11, 12, 13, 14, 21, 22, 23, 31, 32, 41
Between seals: 53A, 53B, 53C, 54
Atmospheric side*: 61, 62, 65A, 65B
* Throttle bushing on request



Item	Description
1.1, 2.1	Seal ring
1.2, 1.6, 2.2, 2.6, 4, 6, 9, 11, 15	O-ring
1.3, 2.3	Spring
1.4, 2.4	Back up ring
1.5, 2.5	Mating Ring
1.7, 2.7, 10	Pin
3	Shaft sleeve
5	Seat housing
7	Set screw
8	Pumping ring
12	Gland
13	HSH cap screw
14	Cover
16	Multi-flow distributor
17	Setting Plate
18	Hexagon screw
19, 20	Retaining ring
21	Shrink disc
F	Flush
LBI	Liquid Buffer/Barrier IN
LBO	Liquid Buffer/Barrier OUT