

# UFL650-Ta

API 682 4th Edition Category 2 & 3  
 Seal type C (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 C, 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. For plain shafts
7. Stationary metal bellows design
8. Shrink fitted seal rings and solid mating rings

## Technical Features

1. Suitable for high and low temperature application
2. Compact design
3. No dynamically loaded O-ring which reduces chances of seal face hang-up.
4. Pumping screw for media with higher viscosity also available
5. Short installation length possible
6. Rugged design for long operating life
7. Bellows design efficiently ensure self-cleaning
8. Bellows design minimizes variation in face load due to shaft expansion or face wear
9. Resistant to abrasive particles in the medium, no shaft or sleeve fretting

## Typical Industrial Applications

- Refining technology
- Oil and gas industry
- Petrochemical industry
- Chemical industry
- Power plant technology
- LPG plants
- API 610/ISO 13709 pumps
- Process pumps

## Performance Capabilities

Shaft diameter:  $d_1 = 20 \dots 110 \text{ mm (0.79" } \dots 4.33\text{")}$   
 $p = \text{vacuum } \dots 20 \text{ bar } (\dots 290 \text{ PSI)}$   
 Temperature:  $t = -130 \text{ }^\circ\text{C } \dots +400 \text{ }^\circ\text{C } (-202 \text{ }^\circ\text{F } \dots +752 \text{ }^\circ\text{F})$   
 Sliding velocity:  $v_g \dots 50 \text{ m/s } (\dots 164 \text{ ft/s})$

## Materials

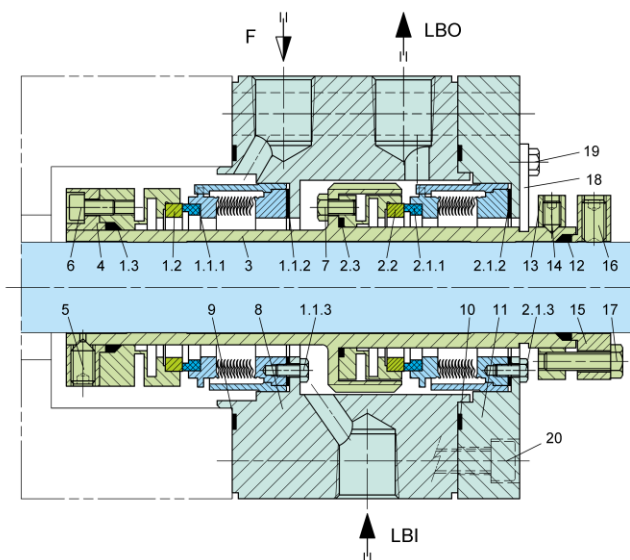
Seal rings: Blister resistant carbon,  
 Silicon carbide SSiC (Q1), RBSiC (Q2)  
 Mating rings: Silicon carbide SSiC (Q1), RBSiC (Q2)  
 Bellows: Inconel® 718 (M6)  
 Secondary seals: Graphite (G)  
 Metal parts: CrNiMo steel 316 (G),  
 Carpenter® 42 (T4)

## 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
1.1.1, 2.1.1	Seal ring with Bellows Unit
1.1.2, 2.1.2, 2.3, 9, 10	Gasket
1.1.3, 2.1.3, 7, 17, 19	Hexagonal screw
1.2, 2.2	Mating ring
1.3, 12	Sealing ring
3	Shaft sleeve
4	Seat carrier
5, 14, 16	Set screw
6, 20	HSH cap screw
8	Intermediate gland
11	Gland
13	Set ring
15	Pusher ring
18	Setting Plate
F	Flush
LBI	Liquid Buffer/Barrier IN
LBO	Liquid Buffer/Barrier OUT