

GSR-D

API 682 4th Edition Category 2/3
Seal type A (Stationary)
Configuration 3NC-FF (Non Contacting – Face-to-Face)

Product Description

1. API 682 Category 2 and 3, Type A, Arrangement 3 seal
2. Dual seal in face-to-face configuration
3. Gas-lubricated
4. Cartridge construction
5. Balanced design
6. Independent of direction of rotation
7. Contact free operation, no friction
8. Stationary spring on process and atmospheric side

Technical Features

1. Suitable for both, retrofits and original equipment
2. Varied selection of materials available
3. Metal parts available in special materials

Typical Industrial Applications

- API 610/ISO 13709 pumps
- Media with gaseous leakage
- Oil and gas industry
- Petrochemical industry
- Refining technology
- Process pumps
- Media which require high purity
- Environmentally harmful media

Performance Capabilities

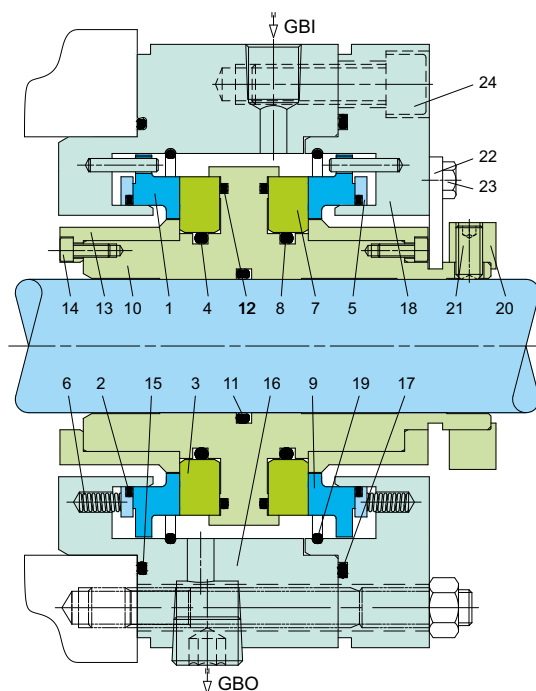
Shaft diameter: $d = 20 \dots 110 \text{ mm}$ (0.79" ... 4.33")
Pressure: $p_1 = 42 \text{ bar}$ (609 PSI)
Temperature: $t = -20 \text{ }^{\circ}\text{C} \dots +176 \text{ }^{\circ}\text{C}$ ($-4 \text{ }^{\circ}\text{F} \dots +350 \text{ }^{\circ}\text{F}$)
Sliding velocity: $v_g = 4 \dots 23 \text{ m/s}$ (13 ... 76 ft/s)
Axial movement: $\pm 1.0 \text{ mm}$

Materials

Seal rings: Blister resistant carbon, Silicon carbide Q19
Mating rings: Silicon carbide SSiC (Q1), RBSiC (Q2)
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, 21, 22, 31, 32, 41
Between seals: 74
* Piping plans 11 ... 41:
Integration in seal to be dimensionally checked.



Item	Description
1, 9	Seal ring
2, 4, 8, 11, 12, 15, 17	O-ring
3, 7	Mating ring
5	Thrust ring
6	Spring
10	Shaft sleeve
13	Support ring
14, 23	Hexagonal bolt
16	Intermediate gland
18	Gland
19	Retaining ring
20	Set ring
21	Set screw
22	Assembly plate
GBI	Gas Barrier IN
GBO	Gas Barrier OUT