

# SPI-M280

John Crane Type 669 series replacement  
Technical Data Sheet



## Features

Welded metal bellows  
Bi-directional  
Balanced  
O-ring auxiliary seal  
Comply with API280 requirements  
Available with DOUBLE-PLY Bellows  
SPI-M280, equivalent to Type 280

welded metalThe SPI-M280 series seal is a welded metal bellowsrotating seal with 45° bellows design which makes the stress distribution more reasonable and flexibility, toensure seals has advantages of reliable sealing and good matching property. The seal has excellent dynamic performance and has a wide range of applications.

## Recommended Applications

Refining technology, Oil and gas industry  
Process industry  
Pumps  
Special Rotating Equipment.

## Operating range

**Shaft diameter:**  $d_1=1.000'' \dots 4.000''$

**Pressure:**  $p=0 \dots 2.5 \text{Mpa}$  (362.5psi)

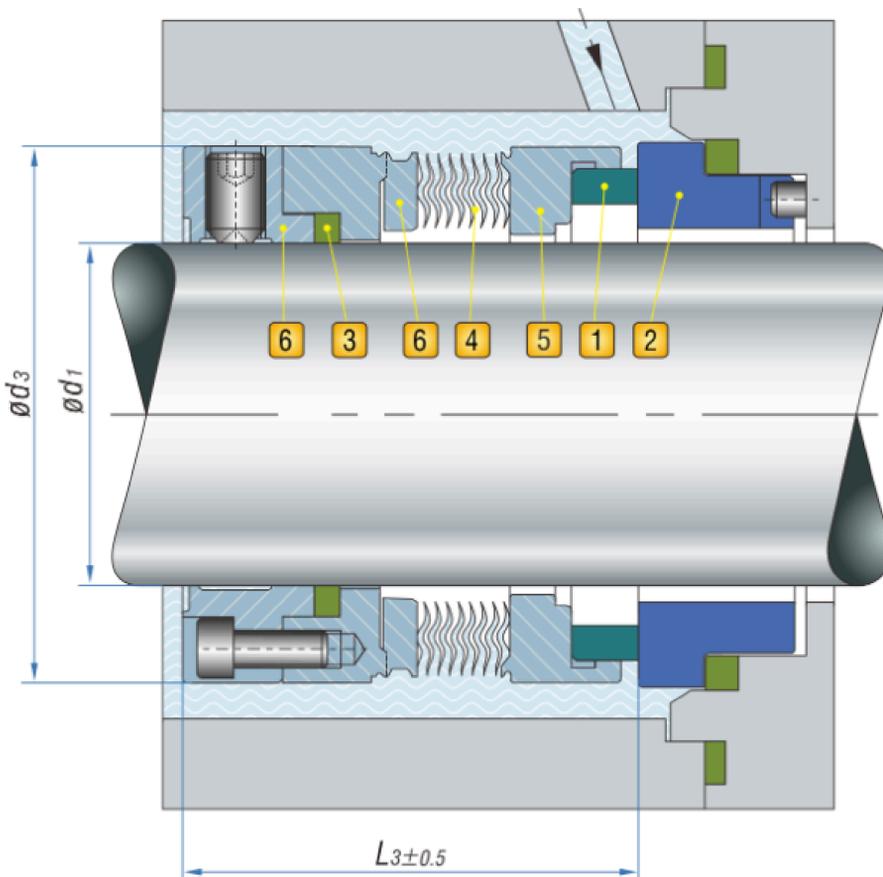
**Temperature:**  $t = -75^\circ\text{C} \dots 400^\circ\text{C}$  (-100°F to 752°F)-SPI-M280

$t = -20^\circ\text{C} \dots 220^\circ\text{C}$  (-4°F to 428°F)-SPI-M280

**Sliding velocity:**  $V_g \leq 25 \text{m/s}$  (or  $V_g \leq 5,000 \text{rpm}$ ) (82ft/s))

**Notes:** The range of pressure, temperature and sliding velocity is depend on seals combination materials

## Product Structure



## Combination Materials

### 1.BELLOWS

- AM350 T<sub>8</sub>
- inconel 718 M<sub>6</sub>

### 2.SEAL FACE

- Carbon graphite A<sub>0</sub>
- antimony impreg
- Sintered Silicon O<sub>1</sub>
- Sintered Silicon O<sub>1</sub>
- Carbide SSIC
- Carbide SSIC

### 3.AUXILIARY SEAL

- Flexible Graphite G
- Flexible Graphite G

### 4.ROTARY HEAD

- Alloy 42 T<sub>4</sub>
- Alloy 42 T<sub>4</sub>

### 5.METAL PARTS

- CrNiMo-steel G
- Alloy 625 T<sub>3</sub>

### 6.APPLICATION

- Mildly corrosive medium
- Corrosive medium