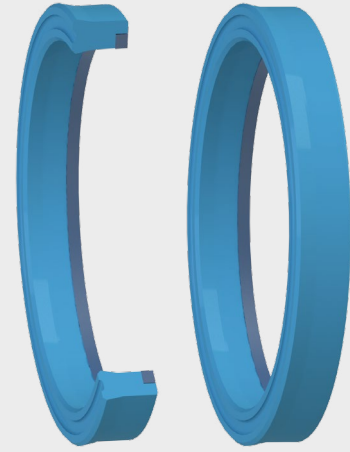


# ROD SEALS BECA 312



## DESCRIPTION

The BECA 312 profile is a U-ring type single acting compact rod seal with matching lips and made of a very dense polyurethane body and a POM back-up ring on the back.

## ADVANTAGES

Good sealing at both high and low pressures  
Excellent abrasion resistance  
Excellent extrusion resistance

## APPLICATIONS

Mobile hydraulics  
Material handling - Lifting  
Presses  
Hydraulic cylinders

## MATERIALS

### Profiled seal

PU 93 Shore A - Blue  
PU 96 Shore A - Blue  
High temp. PU 96 Shore A - Beige

### Back-up ring

Polyoxymethylene - POM

Other grades of materials are available.  
Please contact our experts.

## TECHNICAL DATA

|             |                        |
|-------------|------------------------|
| Temperature | -30°C / +110°C         |
| Pressure    | 50 MPa                 |
| Speed       | 0.5 m/sec              |
| Media       | Mineral hydraulic oils |

The figures above indicate the maximum values and may not be cumulated. They may be developed, depending on the materials used.

## EXTRUSION GAPS

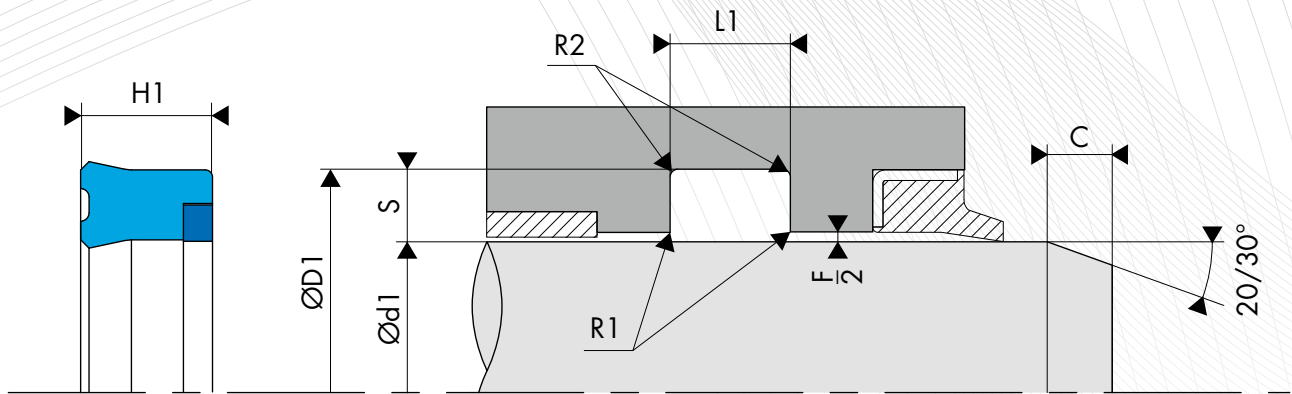
| Rod diameter<br>Ød1 | Radial gap<br>F/2 |          |          |          |          |          |
|---------------------|-------------------|----------|----------|----------|----------|----------|
|                     | ≤ 5 MPa           | ≤ 10 MPa | ≤ 20 MPa | ≤ 30 MPa | ≤ 40 MPa | ≤ 50 MPa |
| ≤ 60 mm             | 0.40              | 0.30     | 0.20     | 0.15     | 0.10     | 0.07     |
| > 60 mm             | 0.50              | 0.40     | 0.30     | 0.20     | 0.15     | 0.10     |

## SURFACE ROUGHNESS

| Roughness | Dynamic surface area | Static surface area | Groove flanks |
|-----------|----------------------|---------------------|---------------|
| Ra        | 0.1 - 0.4 µm         | ≤1.6 µm             | ≤3.2 µm       |
| Rz        | 0.63 - 2.5 µm        | ≤6.3 µm             | ≤10.0 µm      |
| Rmax      | 1.0 - 4.0 µm         | ≤10.0 µm            | ≤16.0 µm      |

## CHAMFERS AND RADIUS

| Radial section<br>S | Radius<br>R1 | Radius<br>R2 | Chamfer<br>C |
|---------------------|--------------|--------------|--------------|
| 3.00                | 0.40         | 0.60         | 2.50         |
| 4.00                | 0.40         | 0.60         | 2.50         |
| 5.00                | 0.40         | 0.60         | 2.50         |
| 7.50                | 0.80         | 1.00         | 4.00         |



### DIMENSIONS

| Part number        | Rod diameter<br>Ød1 f8 | Groove diameter<br>ØD1 H10 | Seal height<br>H1 | Groove width<br>L1 0/+0.25 |
|--------------------|------------------------|----------------------------|-------------------|----------------------------|
| <b>312.0200286</b> | <b>20.00</b>           | <b>28.00</b>               | <b>6.00</b>       | <b>7.00</b>                |
| <b>312.0250336</b> | <b>25.00</b>           | <b>33.00</b>               | <b>6.00</b>       | <b>7.00</b>                |
| 312.0300386        | 30.00                  | 38.00                      | 6.00              | 7.00                       |
| 312.0360436        | 36.00                  | 43.00                      | 5.50              | 6.50                       |
| <b>312.0400486</b> | <b>40.00</b>           | <b>48.00</b>               | <b>6.00</b>       | <b>7.00</b>                |
| <b>312.0400501</b> | <b>40.00</b>           | <b>50.00</b>               | <b>10.00</b>      | <b>11.00</b>               |
| <b>312.0450551</b> | <b>45.00</b>           | <b>55.00</b>               | <b>10.00</b>      | <b>11.00</b>               |
| <b>312.0450558</b> | <b>45.00</b>           | <b>55.00</b>               | <b>7.00</b>       | <b>8.00</b>                |

| Part number        | Rod diameter<br>Ød1 f8 | Groove diameter<br>ØD1 H10 | Seal height<br>H1 | Groove width<br>L1 0/+0.25 |
|--------------------|------------------------|----------------------------|-------------------|----------------------------|
| <b>312.0500601</b> | <b>50.00</b>           | <b>60.00</b>               | <b>10.00</b>      | <b>11.00</b>               |
| <b>312.0500609</b> | <b>50.00</b>           | <b>60.00</b>               | <b>9.00</b>       | <b>10.00</b>               |
| 312.0550651        | 55.00                  | 65.00                      | 10.00             | 11.00                      |
| 312.0600702        | 60.00                  | 70.00                      | 12.00             | 13.00                      |
| <b>312.1045055</b> | <b>45.00</b>           | <b>55.00</b>               | <b>10.00</b>      | <b>11.00</b>               |
| 312.1521622        | 152.00                 | 162.00                     | 12.20             | 13.00                      |
| 312.1882032        | 188.00                 | 203.00                     | 12.20             | 13.00                      |
| 312.1982082        | 198.00                 | 208.00                     | 12.00             | 13.00                      |

The figures highlighted in bold correspond to the rod diameters that are recommended by standard ISO 3320. Other intermediate sizes can be provided.