

# ROD SEALS

## BECA 325



### DESCRIPTION

The BECA 325 profile is a U-ring type single acting rod seal with matching lips, composed of a profiled polyurethane seal, a NBR O'Ring to preserve its elastic memory and a POM back-up ring on the back. It can be assembled in a groove according to standard ISO 5597.

### ADVANTAGES

- Very good sealing at low pressures
- Elastic memory preserved using the O'Ring
- Excellent abrasion resistance
- Very good extrusion resistance

### APPLICATIONS

- Agriculture
- Mobile machinery
- Lifting systems
- Injection presses
- Hydraulic cylinders

### MATERIALS

#### Profiled seal

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

#### O'Ring

- NBR 70 Shore A

#### Back-up ring

- Polyoxymethylene - POM

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

### TECHNICAL DATA

|             |                        |
|-------------|------------------------|
| Temperature | -30°C / +100°C         |
| Pressure    | 45 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

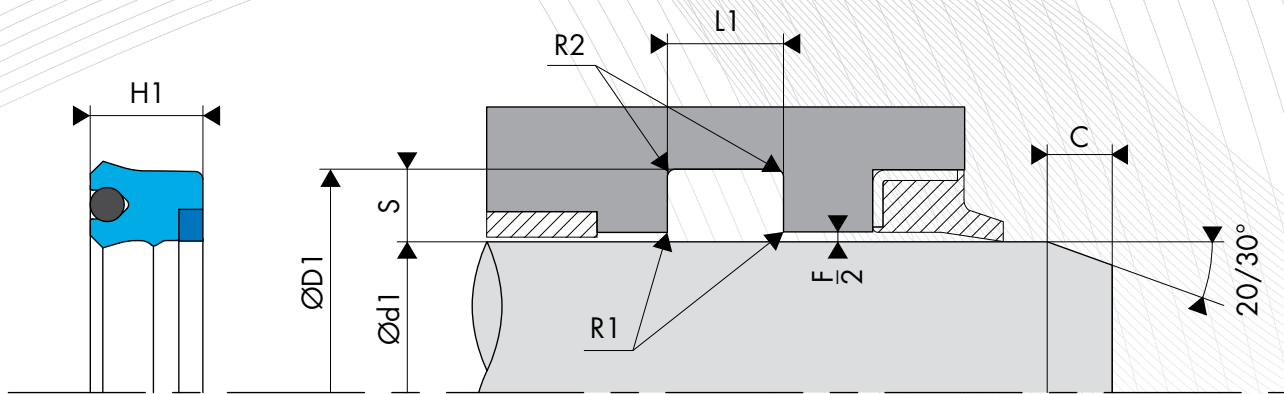
| Pressure MPa | Radial gap F/2 |
|--------------|----------------|
| 25 MPa       | 0.35           |
| 35 MPa       | 0.30           |
| 40 MPa       | 0.25           |
| 45 MPa       | 0.20           |

### 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 S | Radius R1 | Radius R2 | Chamfer C |
|------------------|-----------|-----------|-----------|
| 3.00             | 0.20      | 0.40      | 2.00      |
| 4.00             | 0.40      | 0.60      | 2.50      |
| 5.00             | 0.80      | 1.00      | 2.50      |
| 7.50             | 0.80      | 1.00      | 4.00      |
| 10.00            | 0.80      | 1.00      | 5.00      |



**DIMENSIONS**

| Part number | Rod diameter<br>Ød1 f8 | Groove diameter<br>ØD1 H10 | Seal height<br>H1 | Groove width<br>L1 0/+0.25 |
|-------------|------------------------|----------------------------|-------------------|----------------------------|
| 325.006014I | 6.00                   | 14.00                      | 5.70              | 6.30                       |
| 325.008016I | 8.00                   | 16.00                      | 5.70              | 6.30                       |
| 325.010018I | 10.00                  | 18.00                      | 5.70              | 6.30                       |
| 325.010020I | 10.00                  | 20.00                      | 7.30              | 8.00                       |
| 325.012020I | 12.00                  | 20.00                      | 5.70              | 6.30                       |
| 325.012022I | 12.00                  | 22.00                      | 7.30              | 8.00                       |
| 325.014022I | 14.00                  | 22.00                      | 5.70              | 6.30                       |
| 325.014024I | 14.00                  | 24.00                      | 7.30              | 8.00                       |
| 325.016024I | 16.00                  | 24.00                      | 5.70              | 6.30                       |
| 325.016026I | 16.00                  | 26.00                      | 7.30              | 8.00                       |
| 325.018025I | 18.00                  | 25.00                      | 5.00              | 5.60                       |
| 325.018026I | 18.00                  | 26.00                      | 5.70              | 6.30                       |
| 325.018028I | 18.00                  | 28.00                      | 7.30              | 8.00                       |
| 325.020028I | 20.00                  | 28.00                      | 5.70              | 6.30                       |
| 325.020030I | 20.00                  | 30.00                      | 7.30              | 8.00                       |
| 325.022030I | 22.00                  | 30.00                      | 5.70              | 6.30                       |
| 325.022032I | 22.00                  | 32.00                      | 7.30              | 8.00                       |
| 325.025032I | 25.00                  | 32.00                      | 5.00              | 5.60                       |
| 325.025033I | 25.00                  | 33.00                      | 5.70              | 6.30                       |
| 325.025035I | 25.00                  | 35.00                      | 7.30              | 8.00                       |
| 325.028038I | 28.00                  | 38.00                      | 7.30              | 8.00                       |
| 325.028043I | 28.00                  | 43.00                      | 11.50             | 12.50                      |
| 325.032040I | 32.00                  | 40.00                      | 5.70              | 6.30                       |
| 325.032042I | 32.00                  | 42.00                      | 7.30              | 8.00                       |
| 325.032047I | 32.00                  | 47.00                      | 11.50             | 12.50                      |
| 325.036046I | 36.00                  | 46.00                      | 7.30              | 8.00                       |
| 325.036051I | 36.00                  | 51.00                      | 11.50             | 12.50                      |
| 325.040050I | 40.00                  | 50.00                      | 7.30              | 8.00                       |
| 325.040055I | 40.00                  | 55.00                      | 11.50             | 12.50                      |
| 325.042050I | 42.00                  | 50.00                      | 5.70              | 6.30                       |
| 325.045055I | 45.00                  | 55.00                      | 7.30              | 8.00                       |
| 325.045060I | 45.00                  | 60.00                      | 11.50             | 12.50                      |
| 325.050060I | 50.00                  | 60.00                      | 7.30              | 8.00                       |
| 325.050065I | 50.00                  | 65.00                      | 11.50             | 12.50                      |
| 325.055063I | 55.00                  | 63.00                      | 5.70              | 6.30                       |
| 325.056071I | 56.00                  | 71.00                      | 11.50             | 12.50                      |

| Part number | Rod diameter<br>Ød1 f8 | Groove diameter<br>ØD1 H10 | Seal height<br>H1 | Groove width<br>L1 0/+0.25 |
|-------------|------------------------|----------------------------|-------------------|----------------------------|
| 325.056076I | 56.00                  | 76.00                      | 15.00             | 16.00                      |
| 325.063078I | 63.00                  | 78.00                      | 11.50             | 12.50                      |
| 325.063083I | 63.00                  | 83.00                      | 15.00             | 16.00                      |
| 325.070080I | 70.00                  | 80.00                      | 6.50              | 7.50                       |
| 325.070085I | 70.00                  | 85.00                      | 11.50             | 12.50                      |
| 325.070085I | 70.00                  | 85.00                      | 11.70             | 12.50                      |
| 325.070090I | 70.00                  | 90.00                      | 15.00             | 16.00                      |
| 325.080095I | 80.00                  | 95.00                      | 11.50             | 12.50                      |
| 325.080095I | 80.00                  | 95.00                      | 11.70             | 12.50                      |
| 325.080100I | 80.00                  | 100.00                     | 15.00             | 16.00                      |
| 325.090100I | 90.00                  | 100.00                     | 6.50              | 7.50                       |
| 325.090105I | 90.00                  | 105.00                     | 11.50             | 12.50                      |
| 325.090105I | 90.00                  | 105.00                     | 11.70             | 12.50                      |
| 325.090110I | 90.00                  | 110.00                     | 15.00             | 16.00                      |
| 325.100120I | 100.00                 | 120.00                     | 14.50             | 16.00                      |
| 325.1001205 | 100.00                 | 120.00                     | 15.00             | 16.00                      |
| 325.100125I | 100.00                 | 125.00                     | 19.00             | 20.00                      |
| 325.110130I | 110.00                 | 130.00                     | 15.00             | 16.00                      |
| 325.110135I | 110.00                 | 135.00                     | 19.00             | 20.00                      |
| 325.125145I | 125.00                 | 145.00                     | 15.00             | 16.00                      |
| 325.125150I | 125.00                 | 150.00                     | 19.00             | 20.00                      |
| 325.140160I | 140.00                 | 160.00                     | 15.00             | 16.00                      |
| 325.140165I | 140.00                 | 165.00                     | 19.00             | 20.00                      |
| 325.145160I | 145.00                 | 160.00                     | 9.60              | 10.60                      |
| 325.160185I | 160.00                 | 185.00                     | 19.00             | 20.00                      |
| 325.160190I | 160.00                 | 190.00                     | 24.00             | 25.00                      |
| 325.180205I | 180.00                 | 205.00                     | 19.00             | 20.00                      |
| 325.180210I | 180.00                 | 210.00                     | 24.00             | 25.00                      |
| 325.200225I | 200.00                 | 225.00                     | 19.00             | 20.00                      |
| 325.200230I | 200.00                 | 230.00                     | 24.00             | 25.00                      |
| 325.220250I | 220.00                 | 250.00                     | 24.00             | 25.00                      |
| 325.250280I | 250.00                 | 280.00                     | 24.00             | 25.00                      |
| 325.280310I | 280.00                 | 310.00                     | 24.00             | 25.00                      |
| 325.320360I | 320.00                 | 360.00                     | 31.00             | 32.00                      |
| 325.360400I | 360.00                 | 400.00                     | 31.00             | 32.00                      |

The figures highlighted in bold correspond to the dimensions for standard ISO 5597, with the rod diameters in line with standard ISO 3320. Other intermediate sizes can be provided.