Polon® Rotary sealing set

The OQ rotary sealing set consists of a wear-resistant, low-friction PTFE slipper sealing ring and an elastomer o-ring as a preloading element.

It is suitable mainly for applications where the pressure alternates from one side of the seal to the other, such as pivots for rotating track rings, swivel joints, hose reels, and in machine tool hydraulics. If the sealing set is used as an end seal, it is recommended to install a wiper ring at the end of the components.

Based on friction conditions during rotating movements in the application, the sealing set profile OR should generally be preferred. Only if housing limitations are given the profile OQ should be considered.

Depending on the special working conditions, the rotary sealing set OR is equipped with one or two circumferential lubricating grooves.

Advantages
- Excellent wear resistance.
- Minimal break-away and dynamic friction and no stick-slip tendency ensures uniform motion even at low speeds.
- Good energy efficiency due to low friction.
- High temperature resistance assured by suitable O-ring compound selection.
- Adaptable to nearly all media thanks to high chemical resistance of the sealing ring and large O-ring compound selection.
- Dimensions according to DIN/ISO 6195, Type D.
- Installation in closed and undercut housings.
- Available in diameters from 4 to 3000 mm.
- Machined small-volume series and samples available with short lead times.

Range of Application
- Operating pressure \( \leq 300 \text{ bar} \)
- Operating temperature \(-30 \text{ to } +100 \degree C \) \(^1\)
- Surface speed \( \leq 1.0 \text{ m/s} \)

Recommendation for rotary transmissions: \( P \cdot v \leq 25 \) (40)
(For definition see catalogue “Hydraulic Seals”, chapter “Rotary Seals”, introduction.)

\(^1\) For requirements outside of standard temperature range please contact our consultancy service for suitable O-ring compound.

Compounds
- Sealing ring: Polon® 033, modified PTFE + 25 % carbon
- O-ring: N0674, NBR elastomer with approx. 70 Shore A

This seal should only be used in combination with closed guiding elements.
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Housing dimensions

<table>
<thead>
<tr>
<th>Series No.</th>
<th>Cross-section</th>
<th>O-ring cross-section (mm)</th>
<th>Recommended piston Ø range</th>
<th>Groove width</th>
<th>Groove depth</th>
<th>Gap max. 0–200 bar e (mm)</th>
<th>Gap max. 200–400 bar e (mm)</th>
<th>Radius max. R1 (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>00260</td>
<td>A</td>
<td>1.78</td>
<td>8</td>
<td>15</td>
<td>2.2</td>
<td>0.4 - 0.2</td>
<td>0.2 - 0.1</td>
<td>0.5</td>
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<tr>
<td>00260</td>
<td>B</td>
<td>2.62</td>
<td>15</td>
<td>40</td>
<td>3.2</td>
<td>0.4 - 0.2</td>
<td>0.2 - 0.1</td>
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<tr>
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<td>C</td>
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<td>40</td>
<td>80</td>
<td>4.2</td>
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<tr>
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<td>133</td>
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<td>133</td>
<td>330</td>
<td>8.1</td>
<td>1.0 - 0.5</td>
<td>0.5 - 0.3</td>
<td>0.9</td>
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<tr>
<td>00260</td>
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<td>1.0 - 0.5</td>
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<td>0.9</td>
</tr>
</tbody>
</table>

Further sizes on request.

Ordering example

Rotary diameter 80 mm

OQ 0800 033 00261 C (80.0 x 69.0 x 4.2)

- OQ Profile
- 0800 Shaft diameter x 10
- 033 Compound
- 00261 Series no. / Compound code O-ring:
  - 00260 without O-ring
  - 00261 N0674 (NBR) 70±5 Shore A -30 / +110 °C
  - 00262 V0747 (FKM) 75±5 Shore A -25 / +200 °C
  - 00263 N0304 (NBR) 75±5 Shore A -50 / +110 °C
  - 00264 E0540 (EPDM) 80±5 Shore A -40 / +150 °C
  - 00265 N3578 (NBR) 75±5 Shore A -30 / +110 °C
  - 00266 N3588 (NBR) 90±5 Shore A -20 / +110 °C

- C Cross-section

Please note

For certain applications, it may be appropriate to use a non-standard cross-section – reduced or heavier. In these cases, please replace the standard cross-section code (in above example: “C”) by the one you require (for example “B” or “D”).