



- Enhanced sealing performance in non-pressurized conditions.
- Robust seal profile for harshest operating conditions.
- Extreme wear resistance.
- Long service life thanks to application-optimized compounds.
- Insensitive to pressure peaks.
- Improved lubrication due to pressure medium deposit in the dynamic contact area.
- Extremely high extrusion resistance.
- Installation in closed and undercut housings.

The profile RS rotary sealing set consists of a high-strength thermoplastic slide ring with particularly stable thermic properties and an elastomer expander ring.

The special contact surface geometry at the inner diameter of the slide ring with the patented (EP 0 643 243 B2) altering pitch has a major beneficial effect on the lubrication of the seal. This impacts positively on both friction resistance and wear.

The expander ring responsible for the static sealing function has a rectangular cross-section. Compared to O-rings, this has advantages with regard to contact load (sealing) and deformation behavior (pumping inside the groove).

The dynamic interior sealing method is preferable. We do not recommend a dynamic exterior sealing arrangement.

The slide ring compound used and its geometry allow use of the seal even under maximum permissible pressure (and in case of pressure peaks) without requiring additional anti-extrusion rings. At the same time, it is possible to take maximum advantage of the diameter play between rotor and stator without any functional impairment.

In principle, the seal can also be used as a final exterior sealing device. In case of doubt, however, we recommend the use of our profiles C5 or C9.

## Range of Application

Primarily for alternating sealing of rotary applications in rotating tracks, pivot drives, hose reels, and in machine tool hydraulics.

|                     |                   |
|---------------------|-------------------|
| Working pressure    | ≤ 500 bar         |
| Working temperature | -35 °C to +100 °C |
| Surface speed       | ≤ 0.5 m/s         |

Recommendation for rotary transmissions:

$P \cdot v \leq 40$  for  $L = 4.1$  to  $4.2$

$P \cdot v \leq 70$  for  $L = 6.0$  to  $6.3$

(For definition see catalogue "Hydraulic Seals", chapter "Rotary Seals", introduction.)

## Compounds

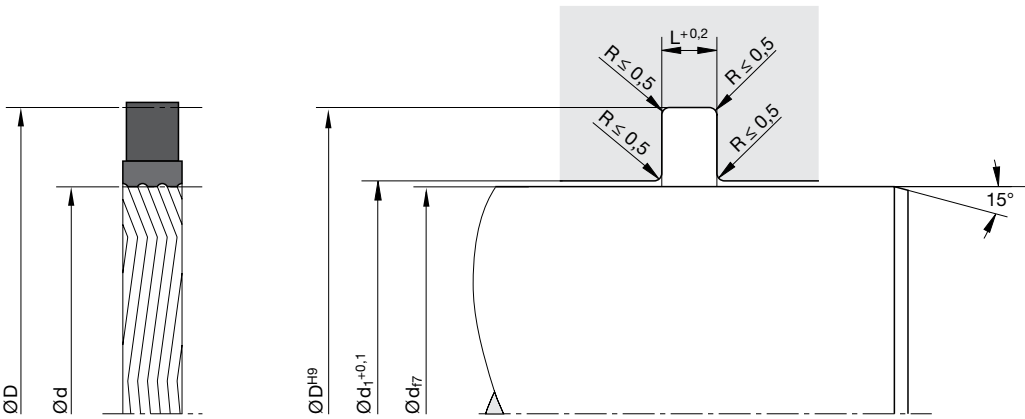
The standard compound for the slide ring is a thermoplastic compound (W5071) with outstanding physical properties.

The expander ring consists of our tried and proven standard NBR compound N3571 with 70 Shore A. For higher temperatures, we recommend HNBR compounds.

## Installation

The axial fit of the seal is especially narrow and suitable for grooves conforming to DIN ISO 7425. This benefits the total installation length of the rotary transmissions. By selecting suitable compounds, snap installation depending on profile width down to rotor diameter of app. 30 mm is possible. Below that, we recommend axially open grooves for installation.

In case of special operating conditions (specific pressure loads, temperature, speed, use in water, HFA, HFB fluids etc.), please contact our consultancy service for a selection of the material and design best suited to your particular application requirements.



For surface finish, lead in chamfer and other installation dimensions see “General installation guidelines”.

| d   | D     | L   | Order code    |
|-----|-------|-----|---------------|
| 45  | 51.6  | 4.1 | RS 0045 00716 |
| 50  | 61    | 4.1 | RS 0050 00716 |
| 55  | 61.6  | 4.1 | RS 0055 00716 |
| 60  | 71    | 4.1 | RS 0060 00716 |
| 80  | 91    | 4.1 | RS 0080 00716 |
| 95  | 110.5 | 6.3 | RS 0095 00716 |
| 100 | 111   | 4.1 | RS 0100 00716 |
| 105 | 120.4 | 6.2 | RS 0105 00716 |
| 110 | 121   | 4.2 | RS 0110 00716 |
| 124 | 139.2 | 6.1 | RS 0124 00716 |
| 125 | 135.4 | 5.1 | RS 0125 00716 |
| 130 | 140   | 6   | RS 0130 00715 |
| 145 | 160   | 6.2 | RS 0145 00716 |
| 160 | 171.7 | 5.7 | RS 0160 00716 |
| 170 | 185.2 | 6.2 | RS 0170 00716 |
| 250 | 265.5 | 6.3 | RS 0250 00716 |

Further sizes on request.