

Simmerring Radiamatic® R 58

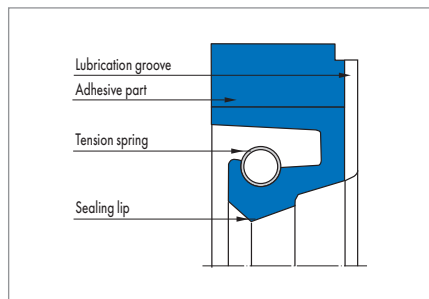


Fig. 1 Simmerring Radiamatic® R 58

Product description

Simmerring with a fabric reinforced static part that is securely joined to the elastomer sealing lip. The sealing lip is also pre-loaded with a garter spring.

Product advantages

The sealing ring has a groove around the circumference to facilitate additional lubrication from the outside. The Simmerring Radiamatic R 58 was developed for the special requirements of grease-lubricated bearings in mill manufacture.

- Particularly robust static part
- Lasting radial contact pressure
- Highly wear-resistant.

Application

Mills.

Material

| Sealing lip | Static part | Tension spring |
|-------------|-----------------------------------|----------------|
| 80 NBR B241 | Impregnated cotton fabric B4 B248 | ST 1.4571 |

Other materials on enquiry.

Operating conditions

| Material | 80 NBR B241 |
|------------------------|-------------------------|
| | Temperature range in °C |
| Mineral oils | -30 ... +100 |
| Water | +5 ... +100 |
| Lubricating greases | -30 ... +100 |
| Rolling oil emulsion | on enquiry |
| Pressure p in MPa | 0,05 |
| Running speed v in m/s | 15 |

Other media on enquiry. Application parameters are recommended values, do not utilise all parameters simultaneously.

Surface quality

| Peak-to-valley heights | R _a | R _{max} |
|------------------------|----------------|------------------|
| Running surface | ≤0,6 µm | ≤2,5 µm |
| Housing | ≤4 µm | ≤15 µm |

The contact area is machined by plunge grinding, i.e. without feed. The surface hardness must be approx. 60 HRC (depth of hardening min. 0,5 mm). With increasing circumferential speed the contact area should be manufactured with increasing peak-to-valley heights R_a. The surface should not be too smooth so that an adequate film of lubricant can form. Recommended value: R_{a min} = 0,1 µm. Percentage contact area M_v >50% to max. 90% at cutting depth c = Rz/2 and reference line C ref = 0%. Abrasive surfaces, ridges, scratches and blow-holes are to be avoided.

Design notes

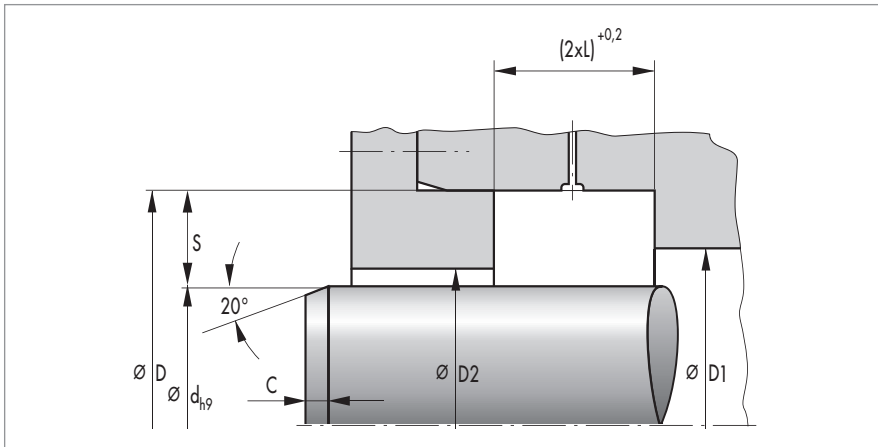


Fig. 2

Lead-in chamfers

See dimension "C" in the article list.

Tolerances

| D | Tolerance |
|------|-------------|
| <500 | H8 |
| >500 | +0,0004 x D |

Overall eccentricity

The permissible overall eccentricity (static and dynamic eccentricity) between shaft and housing is dependent on the seal profile and circumferential speed. If necessary, we will provide recommended values.

Housing recommendations for new designs

| d | S (Profile) | L |
|------|-------------|----|
| >100 | 20 | 16 |
| >250 | 22 | 20 |
| <450 | 25 | 22 |
| >750 | 32 | 25 |

Fitting & installation

For Simmerring Radiamatic R 58 an axially accessible housing is necessary, as the rings must have low inclination. The Radiamatic R 58 rings are supplied with oversize seal width. For reliable function the Radiamatic R rings must be axially compressed to the dimension "L". An open housing with cover plate and tightening screws is necessary. Specific deformation forces are necessary for the compression. The cover plate and the tightening screws are to be designed appropriately. Please request recommended values.