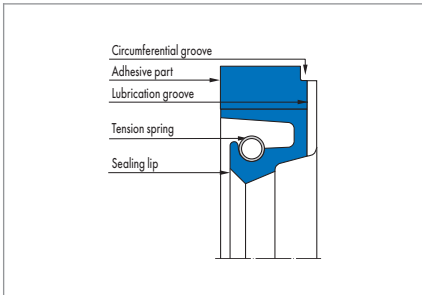


Simmerring Radiamatic® R 37



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

Sealing ring is used, in case of adequate lubrication by the medium to be sealed, preferably where shafts pass through walls in mills and large gearboxes in heavy machinery manufacture.

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

Application

- Ship building
- Steel hydraulics engineering
- Rolling mills
- Wind power plants

Material

Sealing lip	Static part	Tension spring
80 NBR B241	Impregnated cotton fabric B4 B248	ST 1.4571
80 FKM K670	Impregnated aramide fabric C2 K670	ST 1.4571
75 HNBR U467	Impregnated aramide fabric C2 U464	ST 1.4571

Operating conditions

Pressure p	0,05 MPa
Running speed v	25* m/s

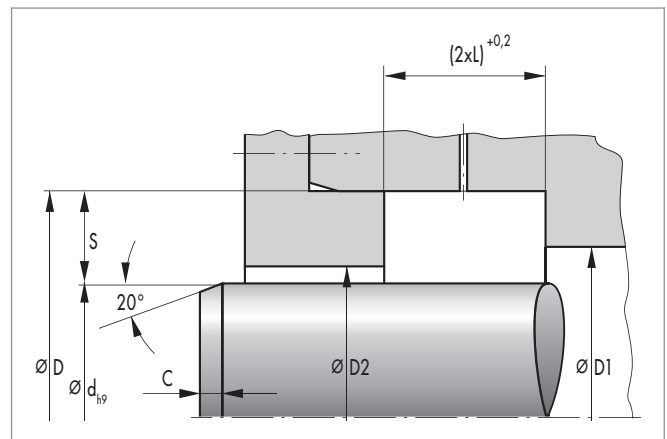
* Running speed at 80 NBR B241: 20 m/s.

Medium/ Temperature	75 HNBR U467	80 FKM K670	80 NBR B241
Mineral oils	-20 °C ... +140 °C	10 °C ... +180 °C	-30 °C ... +100 °C
Water	+5 °C ... +100 °C	+5 °C ... +80 °C	+5 °C ... +100 °C
Mineral greases	-20 °C ... +140 °C	-10 °C ... +180 °C	-30 °C ... +100 °C
Rolling oil emulsion	on enquiry	on enquiry	on enquiry

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

Design notes

Please observe our general design notes in → Technical Manual.



Surface quality

Peak-to-valley heights	R _a	R _{max}
Sliding surface	≤0,6 µm	≤2,5 µm
Housing	≤4,0 µm	≤15,0 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_r >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.

Tolerances

Nominal Ø D	D	d
≤500 mm	H8	h9
>500 mm	+0,0004 x D	h9

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.

Simmerring Radiamatic® R 37

Fitting & installation

For Simmerring Radiamatic R 37 an axially accessible housing is necessary, as the rings must have low inclination. The Radiamatic R 37 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.

Lead-in chamfers

See dimension "C" in the article list.

Housing recommendations for new designs

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