

# Simmerring Radiamatic® RS 85

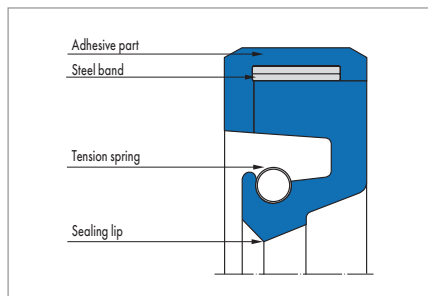


Fig. 1 Simmerring Radiamatic® RS 85

## Product description

Self-holding Simmerring made from two functionally suitable elastomer components and an integrated steel strip. The tension springs support the radial contact pressure on the shaft.

## Product advantages

Self-holding Simmerring for shaft pass through walls in heavy machinery manufacture.

- Long-lasting tight fit
- Lasting radial contact pressure
- Highly wear-resistant.

An axially accessible housing is necessary for the fitting. The non-pressurised side of the sealing ring is to be reinforced for pressurisation. In the unpressurised state, an axial reinforcement on the non-pressurised side is not necessary. Only endless self-holding Simmerrings Radiamatic RS 85 are available.

## Application

Rolling mills, large gearboxes.

## Material

Sealing lip	Static part	Steel strip	Tension spring
80 NBR B241	85 NBR B247	ST 1.4310	ST 1.4571
75 HNBR U467	85 HNBR 10040	ST 1.4310	ST 1.4571
80 FKM K670	90 FKM K683	ST 1.4310	ST 1.4571

## Operating conditions

Material	80 NBR B241	75 HNBR U467	80 FKM K670
	<b>Temperature range in °C</b>		
Mineral oils	-30 ... +100	-20 ... +140	-10 ... +180
Water	+5 ... +100	+5 ... +100	+5 ... +80
Lubricating greases	-30 ... +100	-20 ... +140	-10 ... +180
Rolling oil emulsion	on enquiry		
Pressure p in MPa	0,05		
Running speed v in m/s	20	25	25

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

## Surface quality

Peak-to-valley heights	R <sub>a</sub>	R <sub>max</sub>
Running 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<sub>z</sub>. The surface should not be too smooth so that an adequate film of lubricant can form. Recommended value: R<sub>a min</sub> = 0,1 µm. Percentage contact area M<sub>r</sub> >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.

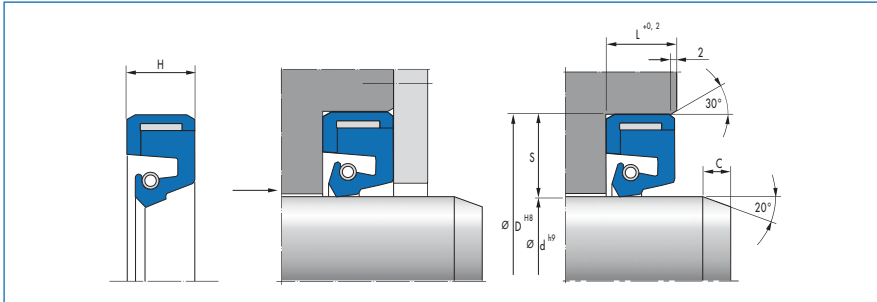
**Design notes**

Please observe our general design notes in → Technical Manual.

**Fitting & installation**

Careful fitting is a prerequisite for the correct function of the seal. → Technical Manual.

**Housing recommendations for new designs**



Ø d	S (Profile)	L	a
200 ... 450	20	20	4
	22	20	4
>450 ... 750	22	22	4
	25	22	4
>750	25	25	5
	30	25	5
	32	25	5

**Lead-in chamfer**

Ø d	c
<200	8
>200 ... 500	10
>500 ... 800	13
>800 ... 1200	16
>1200	20