Simmerring Radiamatic® R 58

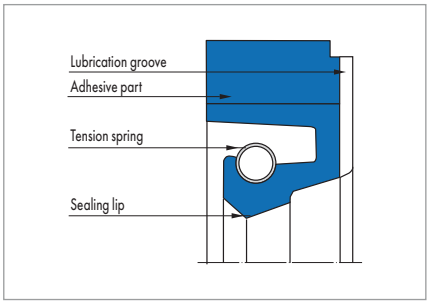


Fig. 1 Simmerring Radiamatic® R 58

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_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.

Design notes

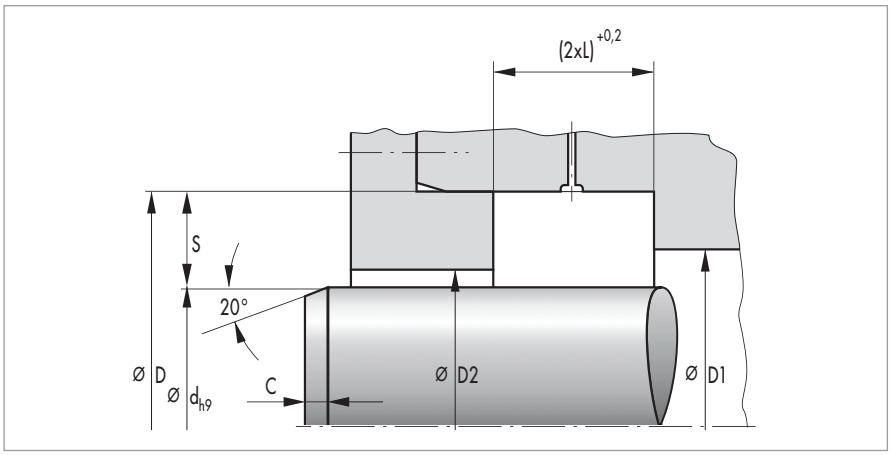


Fig. 2

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.

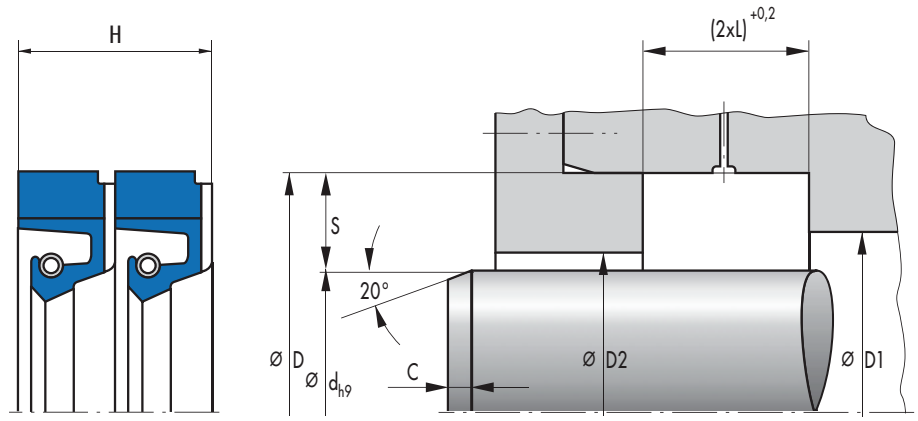
Housing recommendations for new designs

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.

Article list



Width	D	L	D_1	D_2	C	Material	Article No.	
345	389	20	367	352	10	80 NBR B241	24330193	○
360	404	20	382	367	10	80 NBR B241	24349035	○
400	444	20	422	407	10	80 NBR B241	24349036	○
430	480	22	455	438	10	80 NBR B241	24349033	○
435	485	22	460	443	10	80 NBR B241	24313903	○
440	480	20	465	438	10	80 NBR B241	24351547	○
440	490	28	465	448	10	80 NBR B241	24330194	○
455	505	22	480	463	10	80 NBR B241	24378064	○
455	505	22	480	463	10	75 NBR B244	24346279	○
480	530	25	505	488	10	80 NBR B241	24313904	○
485	535	22	510	493	10	80 NBR B241	24313920	○
500	550	22	525	508	10	80 NBR B241	24315279	○
525	575	22	550	533	13	80 NBR B241	24313919	○
530	580	22	555	538	13	80 NBR B241	24315505	○
550	600	22	575	558	13	80 NBR B241	24315506	○
560	604	20	582	567	13	80 NBR B241	24349034	○
560	610	22	585	568	13	80 NBR B241	24315507	○
620	684	25	652	630	13	80 NBR B241	24315278	○
750	814	28	782	760	13	80 NBR B241	24315280	○
880	944	25	912	890	16	80 NBR B241	24315287	○

● Available from stock ○ On request: Tool is available, delivery at short notice