

# Simmerring Radiamatic® R 36

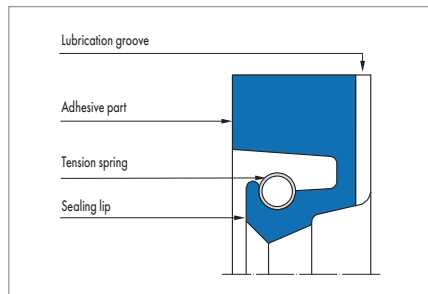


Fig. 1 Simmerring Radiamatic® R 36

## 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
- With design measures, e.g., metal support for the sealing lip, higher pressures are possible
- Overpressure requires the usage of endless seals
- Back-up ring drawings and installation instructions for open seals are available.

## Application

Mills, ship building, steel hydraulics engineering, 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	ST 1.4571
75 HNBR U467	Impregnated aramide fabric C2 U464	ST 1.4571

## Operating conditions

Material	80 NBR B241	80 FKM K670	75 HNBR U467
	<b>Temperature range in °C</b>		
Mineral oils	-30 ... +100	-10 ... +180	-20 ... +140
Water	+5 ... +100	+5 ... +80	+5 ... +100
Lubricating greases	-30 ... +100	-10 ... +180	-20 ... +140
Rolling oil emulsion	on enquiry		
Pressure p in MPa	0,05		
Running speed v in m/s	20	25	250

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 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<sub>a</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**

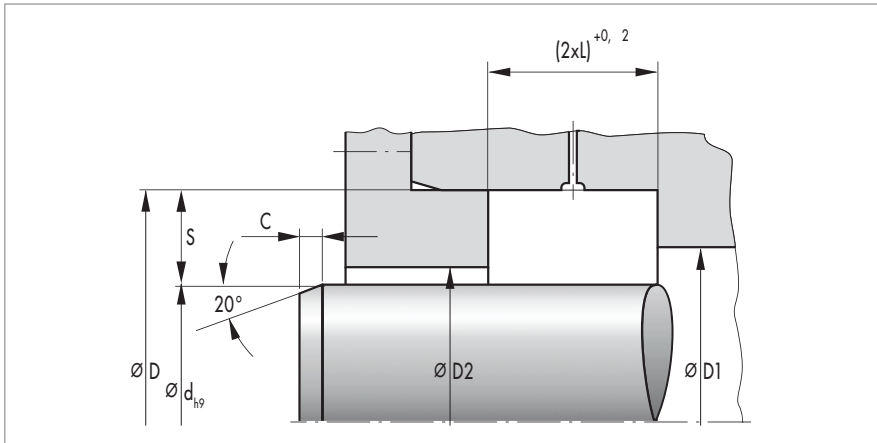


Fig. 2

**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.

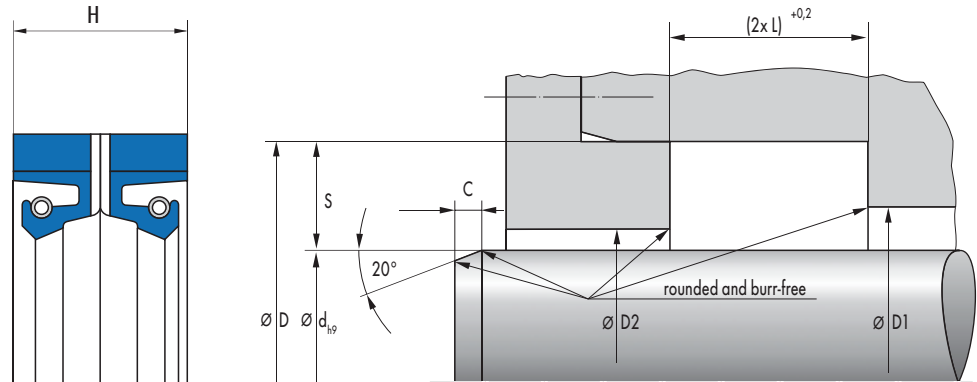
**Housing recommendations for new designs**

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

**Fitting & installation**

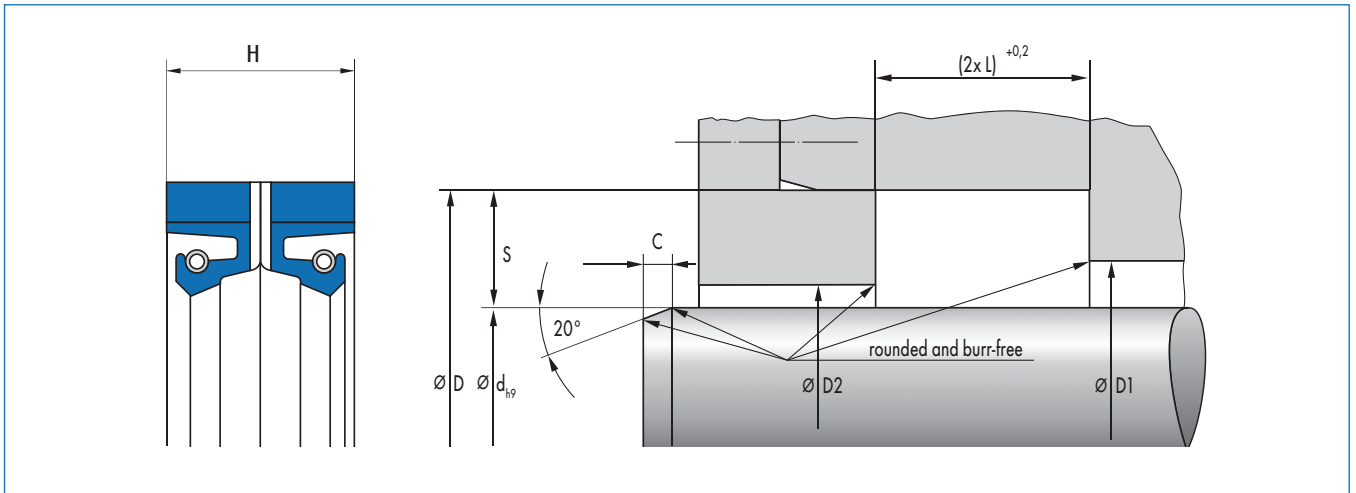
For Simmerring Radiamatic R 36 an axially accessible housing is necessary, as the rings must have low inclination. The Radiamatic R 36 rings are supplied with oversize seal width. For reliable function the Radiamatic R rings must be axially compressed to the dimension "L". An open housing with cover 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 <sub>1</sub>	D <sub>2</sub>	C	Material	Article No.	
156	196	16	176	163	8	80 NBR B241	24060486	○
200	240	16	220	207	8	80 NBR B241	24292849	○
220	260	16	240	227	10	80 NBR B241	24145056	○
260	290	16	275	265	10	80 NBR B241	24019466	○
275	319,5	19	297,25	282	10	80 NBR B241	24120742	○
280	320	16	300	287	10	80 NBR B241	24119507	○
320	355	16	337,5	325	10	80 NBR B241	24019468	○
330	374	20	352	337	10	80 NBR B241	24088367	○
335	375	15	355	342	10	80 NBR B241	24060450	○
350	394	20	372	357	10	80 NBR B241	24099447	○
380	424	20	402	387	10	80 NBR B241	24019469	○
400	440	21,9	420	407	10	80 NBR B241	24136768	○
400	450	22	425	408	10	80 NBR B241	24054744	○
400,1	438,2	19,1	419,15	405,1	10	80 NBR B241	24019470	○
430	480	22	455	438	10	80 NBR B241	24019471	○
445	495	22	470	453	10	80 NBR B241	24019472	○
460	510	22	485	468	10	80 NBR B241	24019473	○
470	520	22	495	478	10	80 NBR B241	24019474	○
515	565	22	540	523	13	80 NBR B241	24019475	○
570	620	22	595	578	13	80 NBR B241	24054745	○
592	642	22	617	600	13	80 NBR B241	24019476	○
610	660	22	635	618	13	80 NBR B241	24077194	○
625	689	25	657	635	13	80 NBR B241	24054746	○
650	700	22	675	658	13	80 NBR B241	24019477	○
650	714	25	682	660	13	80 NBR B241	24019478	○
676	740	25	708	686	13	80 NBR B241	24019480	○
710	760	25	735	718	13	80 NBR B241	24019481	○
710	774	25	742	720	13	80 NBR B241	24095916	○
735	799	25	767	745	13	80 NBR B241	24075431	○
820	884	28	852	830	16	80 NBR B241	24019482	○
830	894	28	862	840	16	80 NBR B241	24019483	○
835	894	28	864,5	845	16	80 NBR B241	24340276	○
840	904	28	872	850	16	80 NBR B241	24056636	○
850	910	25	880	860	16	80 NBR B241	24019484	○
1020	1084	25	1052	1030	16	80 NBR B241	24059867	○

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



Width	D	L	D <sub>1</sub>	D <sub>2</sub>	C	Material	Article No.	
1100	1160	25	1130	1110	16	80 NBR B241	24019487	○

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