

Simmerring Radiamatic® R 37

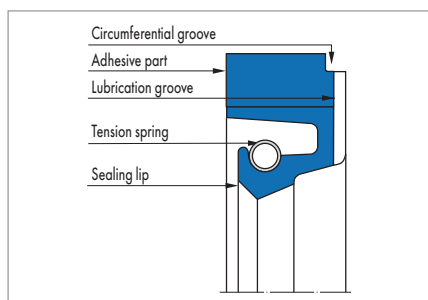


Fig. 1 Simmerring Radiamatic® R 37

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

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 C2K670	ST 1.4571
75 HNBR U467	Impregnated aramide fabric C2U464	ST 1.4571

Operating conditions

Material	80 NBR B241	80 FKM K670	75 HNBR U467
	Temperature range in °C		
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 _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

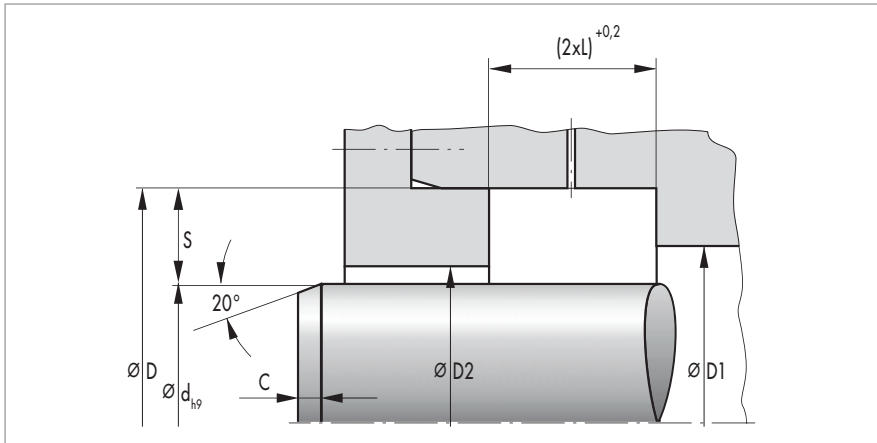


Fig. 2

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.

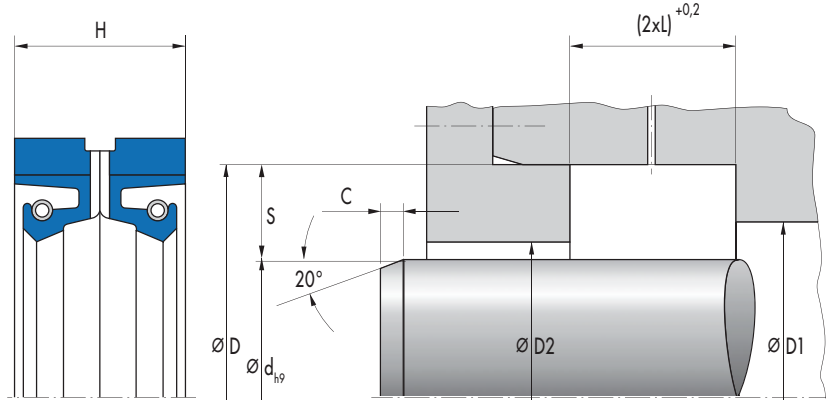
Housing recommendations for new designs

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

Fitting & installation

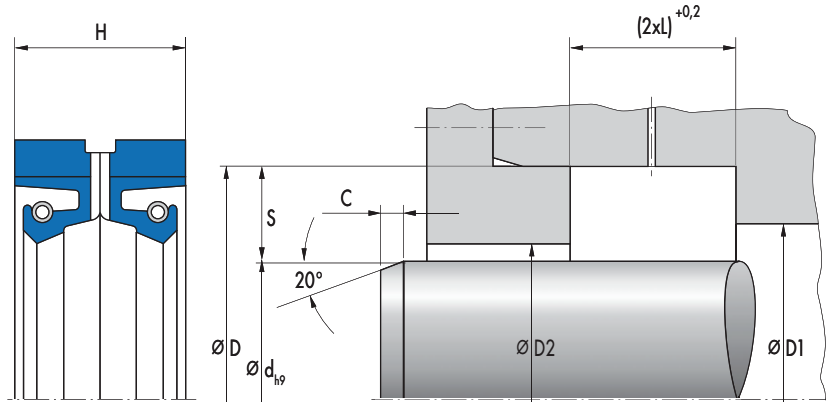
For Simmerring Radiamatic R 37 an axially accessible housing is necessary, as the rings must have low inclination. The Radiamatic R 37 rings are supplied with oversize seal width. For reliable function the Radiamatic R rings must be axially compressed to the dimension "L". An open housing with cover 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.

Article list



Width	D	L	D ₁	D ₂	C	Material	Article No.	
101,6	133,3	11,9	117,45	106,6	8	80 NBR B241	24019488	○
127	158,8	12,3	142,9	134	8	80 NBR B241	24084424	○
127	158,8	12,5	142,9	134	8	80 FKM K670	24316571	○
132,5	172,5	16	152,5	139,5	8	80 NBR B241	24102306	○
133	165	12,5	149	138	8	80 NBR B241	24029891	○
160	190	14,3	175	165	10	80 NBR B241	24233697	○
160	200	18	180	167	10	80 NBR B241	24019489	○
170	200	13	185	175	10	80 NBR B241	24039649	○
170	210	18	190	177	10	80 NBR B241	24128280	○
175	205	14,5	190	180	10	80 NBR B241	24242046	○
175	215	16	195	182	10	80 NBR B241	24027243	○
180	210	14	195	185	10	80 NBR B241	24051648	○
185	225	16	205	192	10	80 FKM K670	24264958	○
195	225	14,5	210	200	10	80 NBR B241	24242055	○
200	230	14	215	205	10	80 FKM K670	24292790	○
200	230	14	215	205	10	80 NBR B241	24051248	○
220	250	16	235	225	10	80 NBR B241	24051448	○
220	260	16	240	227	10	80 NBR B241	24035849	○
230	260	16	245	235	10	80 NBR B241	24234870	○
230	270	16	250	237	10	80 NBR B241	24181867	○
230	280	22,5	255	238	10	80 NBR B241	24019490	○
235	265	15	250	240	10	80 NBR B241	24339504	○
245	285	16	265	252	10	80 NBR B241	24352034	○
250	280	16	265	255	10	80 NBR B241	24051548	○
250	290	16	270	257	10	80 NBR B241	24035749	○
260	300	14	280	267	10	80 NBR B241	24051348	○
270	310	18	290	277	10	80 NBR B241	24030228	○
275	315	18	295	282	10	80 NBR B241	24142291	○
290	334	20	312	297	10	80 NBR B241	24052348	○
292,1	330,2	19,4	312,65	299,1	10	80 NBR B241	24180004	○
300	340	16	320	307	10	80 NBR B241	24230747	○
300	344	20	322	307	10	80 NBR B241	24055100	○
320	360	17,7	340	327	10	80 NBR B241	24141749	○
320	364	20	342	327	10	80 NBR B241	24237636	○
325	375	22,5	350	333	10	80 NBR B241	24019493	○

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



Width	D	L	D ₁	D ₂	C	Material	Article No.	
330	374	20	352	337	10	80 NBR B241	24143075	○
330,2	368,3	22,2	349,25	337,2	10	80 NBR B241	24170623	○
345	389	20	367	352	10	80 NBR B241	24143071	○
350	394	20	372	357	10	80 NBR B241	24264183	○
350	394	20	372	357	10	80 FKM K670	24292794	○
360	404	20	382	367	10	80 NBR B241	24090860	○
370	414	20	392	377	10	80 NBR B241	24183874	○
370	414	20	392	377	10	80 FKM K670	24302799	○
380	424	20	402	387	10	80 NBR B241	24143083	○
387	431	22	409	394	10	80 NBR B241	24019494	○
395	439	22	417	402	10	80 NBR B241	24030420	○
400	444	20	422	407	10	80 NBR B241	24090862	○
400	450	22	425	408	10	80 NBR B241	24085941	○
420	470	22	445	428	10	80 NBR B241	24019496	○
430	480	22	455	438	10	80 NBR B241	24019497	○
435	485	22	460	443	10	80 NBR B241	24080564	○
440	490	28	465	448	10	80 NBR B241	24080542	○
445	485	18	465	452	10	80 NBR B241	24316607	○
446	486	16	466	453	10	80 NBR B241	24055680	○
454	504,8	21	479,4	462	10	80 NBR B241	24023848	○
455	505	25	480	463	10	80 NBR B241	24019499	○
470	520	22	495	478	10	80 NBR B241	24030349	○
480	530	22	505	488	10	80 NBR B241	24346715	○
480	530	25	505	488	10	80 NBR B241	24019500	○
500	545	20	522,5	507	10	80 NBR B241	24073136	○
500	550	22	525	508	10	80 FKM K670	24351569	○
500	550	22	525	508	10	80 NBR B241	24029886	○
530	580	22	555	538	13	80 FKM K670	24330883	○
530	580	22	555	538	13	80 NBR B241	24079020	○
535	585	22	560	543	13	80 NBR B241	24377408	○
540	590	22	565	548	13	80 NBR B241	24027244	○
540	590	25	565	548	13	80 NBR B241	24019502	○
560	604	20	582	567	13	80 NBR B241	24019503	○
560	610	22	585	568	13	80 FKM K670	24142097	○
565	615	22	590	573	13	80 NBR B241	24377407	○
580	630	22	605	588	13	80 NBR B241	24241448	○

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Width	D	L	D ₁	D ₂	C	Material	Article No.	
590	640	22	615	598	13	80 NBR B241	24029885	○
596	652	29,5	624	606	13	80 NBR B241	24030419	○
600	650	22	625	608	13	80 NBR B241	24092311	○
609,6	660,4	22	635	617,6	13	80 NBR B241	24183145	○
616	666,8	22	641,4	624	13	80 NBR B241	24296689	○
620	684	25	652	630	13	80 NBR B241	24173794	○
640	684	20	662	647	13	80 NBR B241	24019505	○
650	714	25	682	660	13	80 NBR B241	24019506	○
660	700	18	680	667	13	80 NBR B241	24147946	○
670	714	22	692	677	13	80 NBR B241	24019507	○
680	730	22	705	688	13	80 NBR B241	24143002	○
685,8	749,3	25	717,55	695,8	13	80 NBR B241	24179979	○
700	750	25	725	708	13	80 NBR B241	24144899	○
710	760	25	735	718	13	80 NBR B241	24030492	○
710	774	25	742	720	13	80 NBR B241	24138786	○
720	780	25	750	730	13	80 NBR B241	24138770	○
720	780	25	750	730	13	80 FKM K670	24335751	○
735	799	25	767	745	13	80 FKM K670	24335411	○
750	814	25	782	760	13	80 NBR B241	24239267	○
750	814	28	782	760	13	80 NBR B241	24019508	○
760	804	20	782	767	13	80 NBR B241	24092067	○
775	839	25	807	785	13	80 NBR B241	24078227	○
780	820	17,7	800	787	13	80 NBR B241	24141753	○
780	844	25	812	790	13	80 NBR B241	24102054	○
800	864	25	832	810	13	80 NBR B241	24139749	○
810	874	25	842	820	16	80 NBR B241	24019509	○
820	870	25	845	828	16	80 NBR B241	24138778	○
860	920	22	890	870	16	80 FKM K670	24260998	○
860	920	22	890	870	16	80 NBR B241	24019510	○
870	930	27	900	880	16	80 NBR B241	24077687	○
870	934	25	902	880	16	80 NBR B241	24030422	○
880	944	25	912	890	16	80 NBR B241	24039949	○
970	1030	21,5	1000	980	16	80 NBR B241	24019511	○
985	1045	24,5	1015	995	16	80 NBR B241	24066979	○
1080	1140	25	1110	1090	16	80 FKM K670	24335407	○
1220	1284	25	1252	1230	20	80 NBR B241	24060650	○
1250	1314	25	1282	1260	20	80 FKM K670	24215196	○
1250	1314	25	1282	1260	20	80 NBR B241	24090489	○
1330	1394	25	1362	1340	20	80 NBR B241	24290261	○
1608,5	1670	20	1639,25	1618	20	80 NBR B241	24055983	○
1610	1670	20	1640	1620	20	80 NBR B241	24027477	○
1740	1800	20	1770	1750	20	80 NBR B241	24055944	○

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