



## Simmerring® Cassette Seals

A comprehensive range for extreme conditions

**simrit®**



# Sturdy and reliable in harsh conditions

## Reliable for years

Simmerrings are sturdy heavy duty machine elements. They owe their high levels of reliability to the many years of development work undertaken by Simrit. To cater for the specific requirements involved with applications that are exposed to dirt and intrusion there are 3 types of Simmerring® Cassette Seals available.

## Simmerring Cassette Seals

The versatility of our brand products is a key factor during development. This applies to dimensional range as well as to quality. Our wide range of diameters and overall heights offered by Simmerring Cassette Seals ensures the seals are suitable for different applications and operating conditions. The selection criteria include aspects such as soiling levels and circumferential speed. Typical applications and the seals recommended by Simrit for these purposes are shown in the adjacent tables. In the case of high or special loads we recommend selecting seals in consultation with ourselves, a process in which tests of functional reliability are often indispensable.

## Agricultural Machinery

Application	Type		
	1	2	3
Tractor/forestry			
Axle: wheel hub			●
Axle: axle shaft*			●
Axle: drive sprocket	●		
Harrow/rotary cutter			●
Hay rake/baler/loader		●	
Cultivator			●
Sowing machine		●	
Transplanting machine		●	
Spreading machine		●	
Tiller		●	
Hoeing machine			●
Combine harvester		●	
Fertiliser spreader			●
Threshing machine		●	

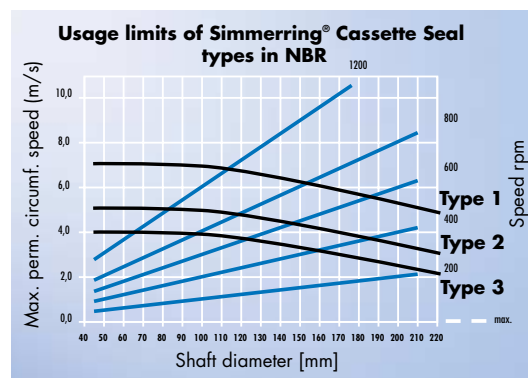
## Construction Machinery

Application	Type		
	1	2	3
Excavator/dredger, telescopic loader, concrete mixer, wheel loader, etc.			
Axle: wheel hub			●
Axle: axle shaft*			●
Axle: drive sprocket	●		
Power take-off	●		

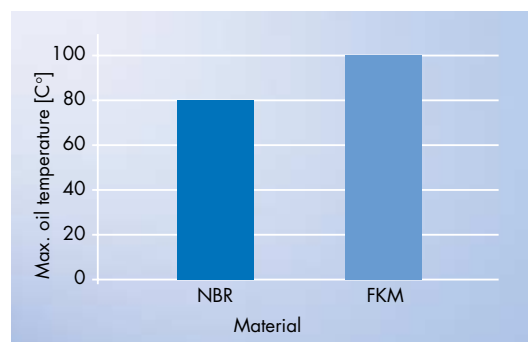
## Utility Vehicles

Application	Type		
	1	2	3
Trailer, special vehicles			
Axle: wheel hub	●		
Axle: axle shaft*	●		
Axle: drive sprocket	●		

\*With possible axial movement of the shaft a special version is required.



For values falling below the individual limit curves the use of the relevant Simmerring® Cassette Seal type is recommended.



# Flexible in all dimensions

## Simmerring® Cassette Seal Types Available

Shaft diameter (D1) [mm]	Housing diameter (D2) [mm]	Overall height b1 [mm]	Overall height b2 [mm]	Type			Special fitting required	Article no.
				1	2	3		
25	52	12	12			●		25-52-12
35	60	13	14,5			●		35-60-13/14,5
35	65	14,5	17,5			●		35-65-14,5/17,5
35	92/98	11,5	27		●			35-92/98-13/27
45	70	14,5	17			●		45-70-14/17
48	75	14,5	17			●		48-75-14/17
53,2	78	13	14			●		53,2-78-13/14
55	80	12	14	●				55-80-12,5/14
56	80	13	14,5			●		56-80-13/14,5
60	84	13	14,5			●		60-84-13/14,5
60	90	13,5	15			●		60-90-13,5/15
60	90	13,5	16	●			a)	60-90-14/16
60	90	13,5	19,3			●	a)	60-90-17,8/19,3
65	90	13	14,5	●				65-90-13/14,5
65	92	10	15		●			65-92-10/15
65	100	13,5	15,5	●			a)	65-100-14
65	105	13	14,5		●			65-105-13/14,5
70	90	12	14,5	●			a)	70-90-13,5/14,5
70	95	10,5	10,5	●			a)	70-95-10,5
70	95	14	14,5			●		70-95-13/14,5
70	100	12,5	15	●			a)	70-100-13,5/15
73	101,6	14,5	15,5			●		73-101,6-14,5/15,5
75	100	13	14,5		●			75-100-13/14,5
75	100	12	13	●			a)	75-100-10/13
85	110	13	14,5			●		85-110-13/14,5
85	140	15	17			●		85-140-15/17
88,9	120,65	14,5	16			●		88,9-120,65-14,5/16
95	130	13	16	●			a)	95-130-16
110	140	14,5	16		●			110-140-14,5/16
111	146	13	14,5			●		111-146-13,5/14,5
114,3	155,8	15	15			●		114,3-155,8-15
120	160	15	17,5			●		120-160-15/17,5
121	170	15	17	●			a)	121-170-15,5/17
127	160	15	17,5			●		127-160-15,5/17,5
130	160	14,5	16			●		130-160-14,5/16
133,35	180	15	17	●				133,35-180-17
133,35	183	15	15			●		133,35-183-15
140	170	14,5	16			●		140-170-14,5/16
142	170	15	16		●			142-170-15/16
145	175	14,5	15,5			●		145-175-14,5/15,5
145	183	15	15			●		145-183-15
150	180	14,5	16			●		150-180-14,5/16
155	190	17,5	19	●				155-190-17,5/19
155	195	18	18			●		155-195-16,5/18
158	188	14,5	16			●		158-188-14,5/16
165	190	15,5	17		●			165-190-15,5/17
165	195	16	18			●		165-195-16,5/18
170	200	15	16			●		170-200-15/16
173	200	15,5	17		●			173-200-15,5/17
178	208	14,5	18			●		178-208-16/18
190	215	15,5	17		●			190x215-15,5/17
190	220	14,5	18			●		190-220-14,5/18
210	240	14,5	18			●		210-240-14,5/18

a) Special fitting necessary: play between Simmerring and slip ring required

### Simmerring Cassette Seal Type 1:



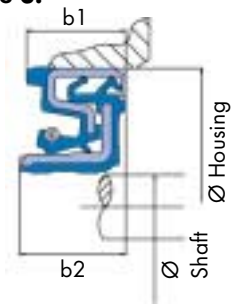
For high circumferential speeds and normal soiling levels

### Simmerring Cassette Seal Type 2:



For medium circumferential speeds and heavy soiling levels

### Simmerring Cassette Seal Type 3:



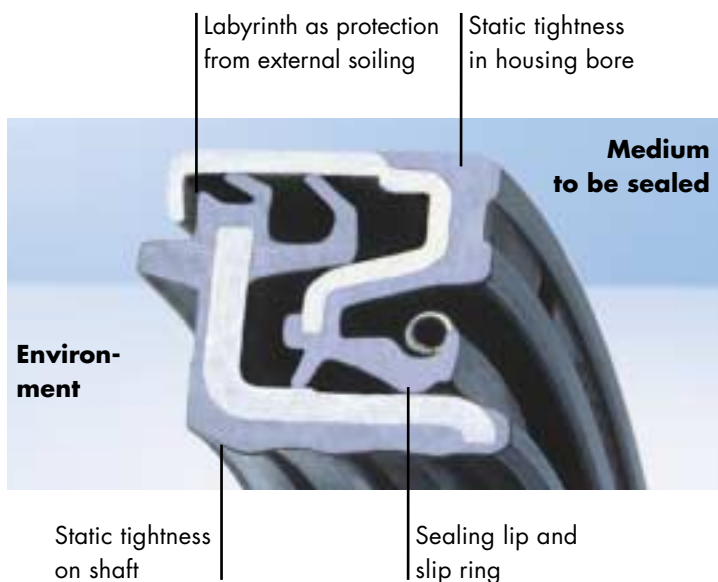
For low circumferential speeds and extreme soiling levels

# A closed sealing system with numerous benefits

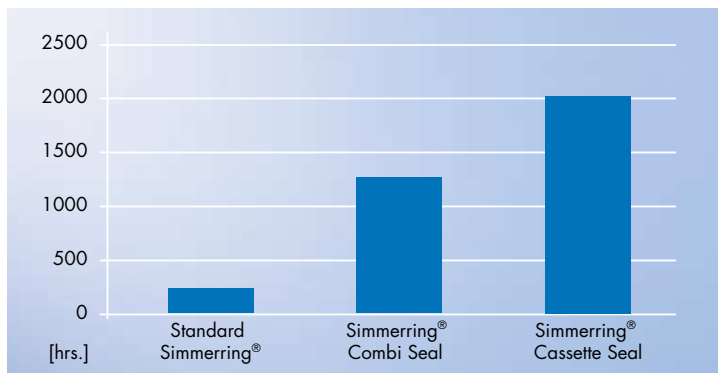
The service life of seals may be greatly impaired by a contaminated environment. Simmerring® Cassette Seals have been specially developed for extreme soiling levels and have proved their worth in many applications.

## The benefits of Simmerring Cassette Seals at a glance

- reliable static and dynamic sealing
- perfectly coordinated and precisely greased sealing lips
- incorporation of an effective labyrinth
- simple replacement of seal without refinishing of the shaft
- incorporation of a slip ring, thus involving no costly shaft treatment (no hardening or grinding required)
- simple fast fitting without damage



Simmerring Cassette Seals consist of two components, a Simmerring and a slip ring. They have been joined together to prevent any detachment.



Average service life periods for different sealing concepts in muddy water test sections.

**i** The information in this brochure is based on the experience acquired from years of research into the development and manufacture of sealing and vibration control components by Freudenberg Simrit. It is nevertheless possible that unknown factors may noticeably limit the statements made with the practical use of seals. As a result the information in this brochure only represents general guide values that are not binding. This product information may be changed by ourselves without prior notice.

# Simrit® , Your Global Technology Specialist for Seals and Vibration Control

**Simrit, Your Global Technology Specialist for Seals and Vibration Control offers you a complete service package. A unique range of products and services guarantees you numerous advantages over the competition.**

Simrit acts as a partner to general industry. Its position as a market leader is achieved through continuous research, development and manufacture. We have the world's widest range of seals and vibration control products, and can offer you solutions based on the demands of state-of-the-art-technology, solutions which set standards.

We can guarantee you a competitive edge based on experience all around the world: Simrit has a presence throughout Europe, America and Asia, either directly or through its affiliated companies NOK (Japan) or Freudenberg-NOK (USA). The transfer of knowledge between these markets is incorporated directly into the Simrit service package.

With our many Simrit Service Centres and Simrit distribution Partners, we serve and supply more than 100,000 customers worldwide. Our Simrit Partners ensure rapid availability from stock. This means spare parts quickly arrive when and where they are needed. There is a Simrit Partner near you as well.

Make the most of Simrit's service package and give yourself a real competitive edge:

- + The technological edge due to constant innovations
- + Savings in cost and time by using a single source for a uniquely wide range of products
- + Increased efficiency, using Simrit's material expertise to extend the service life of your components
- + The competitive edge due to our wide range of value added services



Simrit offers a complete package of products and services, including leading brands such as Simmerring®, Merkel, Integral Accumulator, Meillor and ISC O-Ring.

Simmerring®

Merkel Hydraulics / Pneumatics / Packings

Integral Accumulator

Meillor Flat and Frame Seals

ISC O-Ring

Special Sealing Products: Bellows, Diaphragms, Elastomer Composite Parts and Precision Mouldings

Vibration Control

# Simrit, Your Global Technology Specialist for Seals and Vibration Control

## Simrit Services

- Constant innovations
- Uniquely wide range of products
- Unique materials expertise
- A wide range of value added services

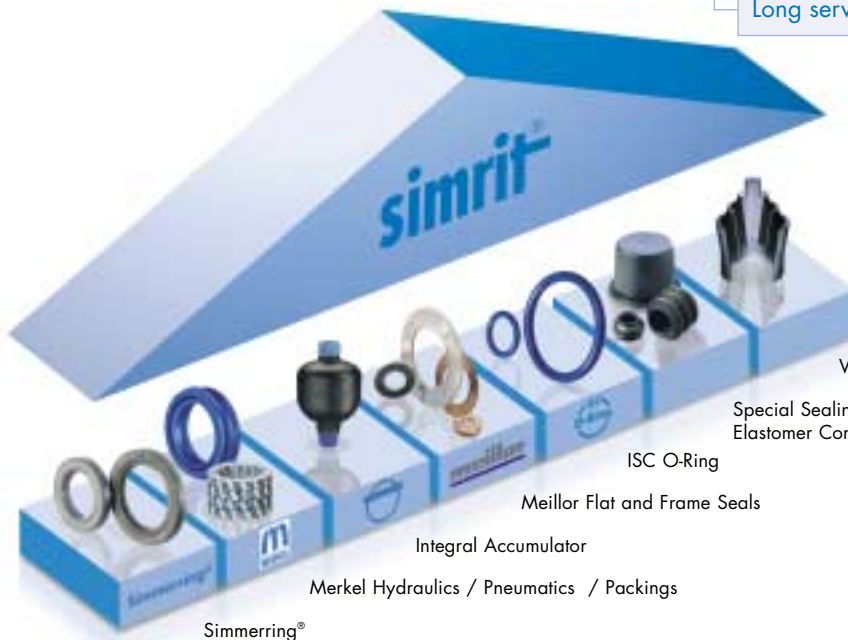
## Your Benefits

- Technological edge
- All from one source
- Longer unit service life
- Competitive advantages, efficiency and lower costs

e. g. Simmerring Cassette Seals for extreme conditions

### Your Benefits

- Sturdy and reliable in harsh conditions
- Wide range of dimensions
- Long service life



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kennis maakt het verschil

**ERIKS**