



## Radiamatic HTS II

Low-friction Simmerrings made of PTFE

Your Technology Specialist

**simrit®**



## Simmerrings made of PTFE – variable in material and design

**The chemical resistance and high design variability of the Simmerring Radiamatic HTS II ensure an optimal seal design for your individual application.**

Individual adaptability to a given installation space is a priceless advantage when sealing shafts. With the Simmerring Radiamatic HTS II, Simrit offers the perfect solution for this. By using highly resistant PTFE compounds and thanks to a friction-optimised sealing lip design, even difficult applications with high temperatures or aggressive media, with insufficient lubrication or in dusty environments can be reliably sealed.

### Areas of use for Simmerring Radiamatic HTS II

The Simmerring Radiamatic HTS II range from Simrit opens

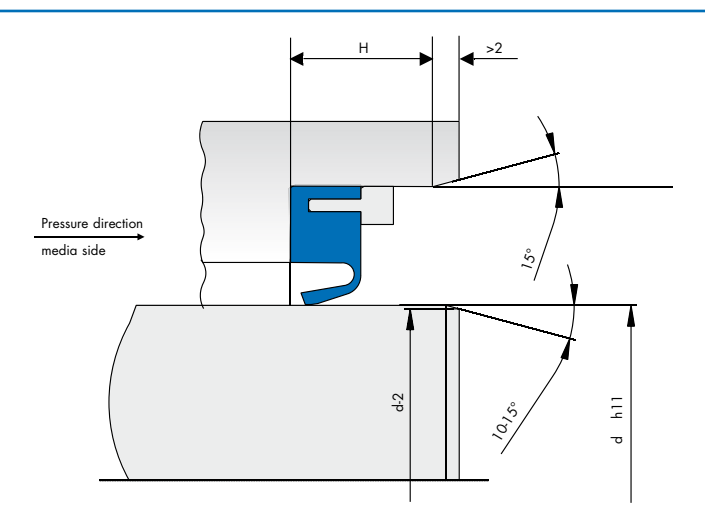
up a multitude of possible uses, from classic drive technology, general mechanical engineering and energy technology all the way to electrical engineering. But wood and paper processing are also ideal areas of use for the Radiamatic HTS II. Its unique design allows use in vacuum pumps with especially aggressive media and successfully seals against adhesives and biomass. The friction-optimised design stands the test in dry running with fans and ventilators and even in stone crushing machines by ensuring that maximum energy reaches the actual working point.

### Large selection of material and extraordinary flexibility

A wide range of PTFE compounds reliably meets the requirements for wear resistance, friction behaviour, thermal con-

ductivity and FDA conformity. Along with proven standard materials, we offer innovative high-end materials that open up new possibilities of application to designers. Thus, for example, even operation on untempered shafts or under ATEX conditions becomes possible. The two stock types of the Simmerring Radiamatic HTS II form the basis:

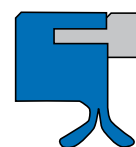
- Type 9535 standard: conductive PTFE K212, stocked in approx. 50 sizes from 10 mm - 125 mm
  - Type 9539: FDA-compliant PTFE Y002, in 12 sizes from 22 mm - 80 mm
- Both without additional moulding costs thanks to machine-manufacturing.



Standard HTS II 9535 in installation space

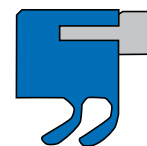
### Radiamatic HTS II 9536 SL

Shaft sealing ring with additional dust lip. Can also be used for alternating pressure/vacuum operation.



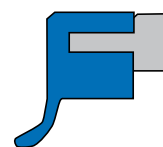
### Radiamatic HTS II 9538 DL

Shaft sealing ring with double lip for high safety requirements.



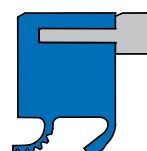
### Radiamatic HTS II 9539

Shaft sealing ring with forward-positioned sealing lip. Design for special requirements regarding cleaning and sterility.



### Radiamatic HTS II Special

Shaft sealing ring with dynamic lead for applications with high oil level.



# Simmerring® Radiamatic HTS II ensures energy efficiency



## The superiority of the Simmerring Radiamatic HTS II compared to conventional PTFE shaft sealing rings lies in its consistent orientation to the customer's benefit.

Through a combination of various technological details, it achieves a performance that today sets the benchmark. Especially the clearly reduced friction in comparison with other seals distinguishes the Simmerring Radiamatic HTS II. It allows the highest dynamic loads and thus makes it the first choice for the energy-conscious designer. With lower heat generation and substantially longer service life, the maintenance and operating costs can be noticeably lowered. In addition, the variable design allows space-saving machine designs.

### Product advantages at a glance

- Dynamically high-load resistant, energy-efficient and capable of dry running due to patented, low-friction design
- Chemically resistant and anti-adhesive thanks to single-piece PTFE surface
- Free of dead spots in terms of hygienic design
- Suitable for high temperatures due to lack of elastomer components
- Self-sustaining up to 6 bar due to clamp ring technology
- Variable in design and material
- Over 50 dimensions from Ø 20 to Ø 125 available ex stock

### Operating limits

<b>Pressure</b>	0 ... 0.6 MPa
<b>Temperature</b>	-20 ... +200 °C
<b>Circumferential speed</b>	0 ... 25 m/s non-pressurised

### Surfaces

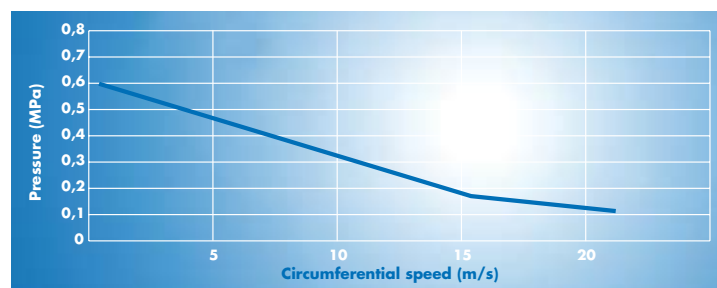
<b>Surface roughness</b>	R <sub>a</sub>	R <sub>t</sub>
<b>Housing</b>	<1.8 µm	<10 µm
<b>Shaft, ground with no lead</b>	0.2 µm	1 µm
<b>Hardness of the contact area</b>	45 – 65 HRC	

### Tolerances

<b>Housing bore</b>	H8
<b>Shaft</b>	h11
<b>Shaft runout, max.*</b>	± 0.05 mm

\* The shaft runout must be more severely limited depending on increasing rotational speed.

### Pressure-speed diagram



Test time: 5–8 h dynamic, medium: heat transfer oil

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