

# SEALS FOR ROTARY APPLICATIONS

# SIMMERRING® SEALS

# BA (SL)

Standard design with rubberized outer sleeve and friction-optimized seal profile. Available with dust lip (SL) to protect against light to medium levels of exterior soiling.

MATERIAL	72 NBR 902	75 FKM 585	75 FKM 260466
MAX.	-40 to +100 °C	−25 to +160 °C	−25 to +160 °C
<b>C</b> ™ MAX.	14 m/s (8 m/s)	38 m/s (8 m/s)	38 m/s (8 m/s)
MAX.	0.05 MPa	0.05 MPa	0.05 MPa
<b>Q</b>	Industrial transmissions, shafts (for moderate soiling), power tools, agricultural and construction machinery transmissions		Use in synthetic oils, in particular polyglycols



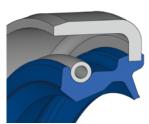


BA SL

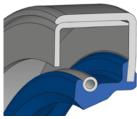
# B1 (SL) / B2 (SL)

Standard design with basic (B1) or reinforced (B2) metal outer sleeve. Available with dust lip (SL) to protect against moderate to medium levels of exterior soiling. We recommend gluing the Simmerring® seal in position for improved static tightness.

MATERIAL	72 NBR 902
MAX.	−40 to +100 °C
<b>C</b> ™ MAX.	14 m/s (8 m/s)
MAX.	0.05 MPa
<b>Q</b>	Industrial transmissions, shafts (for moderate soiling), power tools, heavy industry (cranes, calender transmissions, etc.)



B1 SL



В2

# BAB (SL)

Pressure-resistant design with additional dust lip (SL) to protect against dirt accumulation that can be used without a backup ring.

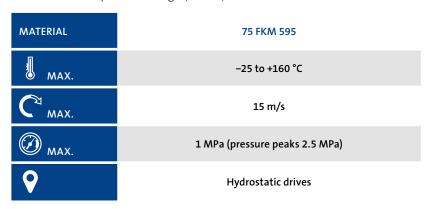
MATERIAL	72 NBR 902	75 FKM 595
<b>∄</b> MAX.	−40 to +100 °C	−25 to +160 °C
C™ MAX.	10 m/s	10 m/s
MAX.	1 MPa	1 MPa
8	Pressurized units such as hydraulic pumps, hydraulic motors, and hydrodynamic couplings	



BAB SL

# **Premium Pressure Seal (PPS)**

Pressure-resistant design with rubberized external interference fit (BA) and low-wear sealing lip profile that can be used without a backup ring. Boasts a patented sealing edge design that keeps the lip profile stable at up to twice the pressure of the conventional pressure design (BAB SL).





### BAHD

Profile for high-pressure loads with very short sealing lip and descending metal reinforcement located near the shaft to provide support.

MATERIAL	90 NBR 129208	88 FKM 107725
MAX.	−30 to +100 °C	−25 to +160 °C
<b>C</b> ™ MAX.	2 m/s	2 m/s
Ø MAX.	15 MPa	15 MPa

Low-speed hydrostatic drives



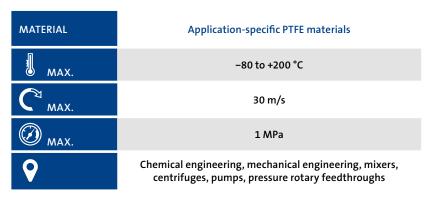
# Modified catalog products

PROFILE	MODIFICATION	AREA OF APPLICATION
5	Stainless steel spring (rustproof, 1.4571)	Water applications, corrosive media
5	Spring with adjusted spring force (stronger/weaker)	Applications with high circumferential speeds, insufficient lubrication, strong vibrations, increased shaft wear
5	Protective lip venting	Applications with circumferential speeds between 8 and 15 m/s and Simmerring® seal with protective lip.  Venting helps prevent the lip from being drawn in by suction force.
	Lubrication of the protective lip	The protective lip must always be lubricated with grease. You can also order the Simmerring® seal pre-lubricated from FST.
	PTFE, nonwoven, or PTFE-impregnated nonwoven protective lip	Applications with increased dirt ingress, tire pressure control systems, food and beverage applications, aggressive cleaning media

# PTFE SIMMERRING® SEALS

### B<sub>2</sub>PT

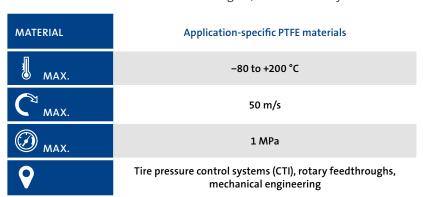
Design for extreme thermal and chemical loads, as well as for dry running and insufficient lubrication. Stainless steel housing (V4A) with PTFE sealing lip. Further versions are available, such as PTFE materials with FDA and EU Reg. 10/2011 conformity.





### **B1PT**

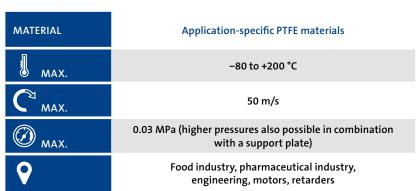
Combination of a metallic carrier with a PTFE disc using an innovative bonding process. The design facilitates low axial height. Further versions are available, such as PTFE materials with FDA and EU Reg. 10/2011 conformity.





### BlueSeal

The patented technology offers a friction-optimized lip design with a high degree of chemical resistance. The installation space can be reduced by up to 50%. Further versions are available, such as PTFE materials with FDA and EU Reg. 10/2011 conformity.





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# **BAPT/PTS**

Design with friction-optimized PTFE sealing lip for extreme thermal and chemical loads, for dry running and insufficient lubrication. Optimum static tightness thanks to partial rubber coating on the outer sleeve. Rotational direction-dependent return feed. Optional dust lip made of nonwoven material or elastomer.

MATERIAL	Application-specific PTFE materials
MAX.	−25 to +160 °C
<b>C</b> ™MAX.	35 m/s
MAX.	1 MPa
9	Hydrostatic drives, food industry, retarders, motors



# MODULAR SEAL SYSTEMS

### MSS1

Standard design BA, combined with an inner buffer seal with sinusoidal sealing lip as a one-piece solution. Lubricated with Klüber Petamo GHY 133N high-performance lubricating grease. High resistance to soiling and metal abrasion in the oil chamber.

MATERIAL	75 FKM 585 / 75 FKM 585	72 NBR 902 / 75 FKM 585
<b>∄</b> MAX.	−25 to +160 °C	−25 to +100 °C
<b>C</b> ™ MAX.	6 m/s	6 m/s
MAX.	0.05 MPa	0.05 MPa
<b>Q</b>	Industrial transmissions, drive technology, robotics	

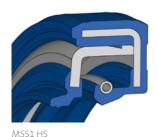


MSS1

### MSS1 HS

Standard design BA, combined with an inner buffer seal with sinusoidal sealing lip as a one-piece solution. Lubricated with Klüber Petamo GHY 133N high-performance lubricating grease. High resistance to soiling and metal abrasion in the oil chamber.

MATERIAL	72 NBR 902 / 75 FKM 585	75 FKM 585 / 75 FKM 585
MAX.	−25 to +100 °C	−25 to +160 °C
<b>C</b> ™MAX.	8 m/s	8 m/s
MAX.	0.05 MPa	0.05 MPa
9	Industrial transmissions, drive technology, robotics	



## MSS3

Modified standard design BA with bonded special nonwoven, a PTFE disc, or a PTFE-impregnated nonwoven disc as an additional protective lip against very fine dirt accumulation. Suitable for use with extremely aggressive media from outside, such as cleaning agents.

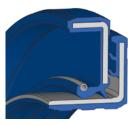
MATERIAL	72 NBR 902	75 FKM 585
MAX.	-40 to +100 °C	−25 to +160 °C
C™ MAX.	14 m/s (8 m/s)	38 m/s (8 m/s)
	0.05 MPa	0.05 MPa
<b>Q</b>	Drive technology, industrial transmissions, agricultural and construction machinery	



MSS7

Standard design BA, combined with a rubberized slip ring with outer, axial protective lips as a one-piece solution. A seal system with high resistance to dirt, water, and external environmental influences.

MATERIAL	72 NBR 902 / 72 NBR 902
MAX.	−40 to +80 °C
<b>C</b> ™ MAX.	8 m/s
	0.05 MPa
9	Drive technology, special transmissions, shafts for agricultural and construction machinery, shafts for special vehicles



MSS7