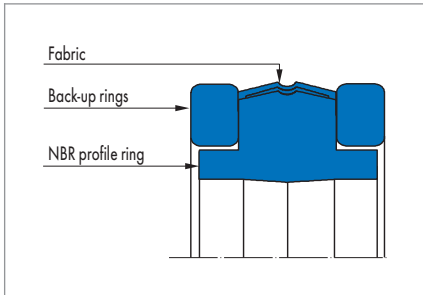


# Merkel Compact Seal Simko 520



## Product description

Three-piece Merkel Compact Seal Simko 520 consisting of a fabric reinforced elastomeric sealing element and two guide back-up rings as gap sealing component.

## Product advantages

Double-acting Merkel piston seal, preferably for spare parts requirement.

## Application

- Earth moving equipment
- Agricultural machinery
- Cranes
- Standard cylinders

## Material

### Sealing component

Material	Code	Hardness
Nitrile rubber NBR	NBR	80 Shore A

### Guide back-up rings

Material	Code	Hardness
Polyacetal resin	POM 992020	-

## Operating conditions

Pressure p	50 MPa
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Running speed v	0,5 m/s
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Medium/ Temperature	80 NBR/POM
Hydraulic oils HL, HLP	-30 °C ... +100 °C
HFA fluids	+5 °C ... +60 °C
HFB fluids	+5 °C ... +60 °C
HFC fluids	-30 °C ... +60 °C
HFD fluids	-

Medium/ Temperature	80 NBR/POM
Water	+5 °C ... +90 °C
HETG (rapeseed oil)	-30 °C ... +80 °C
HEES (synthetic ester)	-
HEPG (glycol)	-30 °C ... +60 °C

## Design notes

Please observe our general design notes in → Technical Manual.

## Surface quality

Peak-to-valley heights	R <sub>a</sub>	R <sub>max</sub>
Sliding surface	0,05 ... 0,3 µm	≤2,5 µm
Groove base	≤1,6 µm	≤6,3 µm
Groove flanks	≤3,0 µm	≤15,0 µm

Percentage contact area M<sub>v</sub> >50% to max. 90% at cutting depth c = Rz/2 and reference line C ref = 0%.

## Admissible gap dimension

The largest gap dimension occurring on the non-pressurised side of the seal in operation is of vital importance for the function of the seal. → Technical Manual.

BR	26 MPa	32 MPa	40 MPa	50 MPa
≤80 mm	0,60 mm	0,55 mm	0,45 mm	0,35 mm
>80 mm	0,65 mm	0,60 mm	0,50 mm	0,40 mm

## Tolerances

The admissible gap width, tolerances, guide play and deflection of the guide under load are to be taken into account when designing d2. → Technical Manual.

Nominal Ø D	D	d
≤320 mm	H11	h11

## Fitting & installation

Careful fitting is a prerequisite for the correct function of the seal. → Technical Manual.