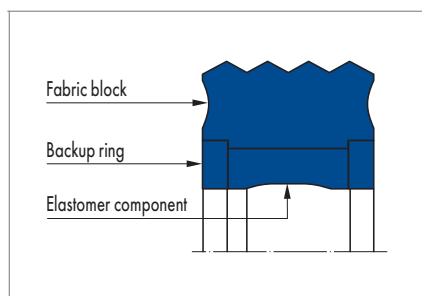


MERKEL ROTOMATIC M 19



PRODUCT DESCRIPTION

Three-part Merkel seal set, consisting of an elastomer part with fabric reinforcement on the contact area which is formed so that two sealing edges form an oil groove, as well as two activated back-up rings.

PRODUCT ADVANTAGES

Double-acting rod seal for pivoting motions in hydraulic systems, preferably for usage in hydraulic joints and rotary joints

- Extrusion-secured through activated back-up ring
- Wear-resistant

APPLICATION

- Excavators
- Rotary joints
- Grippers

MATERIAL

Material	Code
Nitrile rubber NBR/POM	80 NBR B246/BI-NBR B4 B248/POM PO202

OPERATING CONDITIONS

Pressure p	40 MPa
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Running speed v	0,2 m/s
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Medium/ Temperature	80 NBR B246/BI-NBR B4 B285/POM PO202
Hydraulic oils HL, HLP	-30 °C ... +80 °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 B246/BI-NBR B4 B285/POM PO202
Water	+5 °C ... +80 °C
HETG (rapeseed oil)	-30 °C ... +80 °C
HEES (synthetic ester)	-30 °C ... +80 °C
HEPG (glycol)	-30 °C ... +30 °C
Mineral greases	-30 °C ... +80 °C

If the seal set is to be used for permanent rotational movement, please consult us first.

DESIGN NOTES

Please observe our general design notes in → Technical Manual.

Surface quality

Peak-to-valley heights	R_a	R_{max}
Sliding surface	0,05 ... 0,3 μm	$\leq 2,5 \mu\text{m}$
Groove base	$\leq 1,6 \mu\text{m}$	$\leq 6,3 \mu\text{m}$
Groove flanks	$\leq 3,0 \mu\text{m}$	$\leq 15,0 \mu\text{m}$

The surface hardness must be approx. 45 to 60 HRC (depth of hardening min. 0,5 mm). Percentage contact area M_r >50% to max 90% at cutting depth $c = R_z/2$ and reference line $C_{ref} = 0\%$. Abrasive surfaces, ridges, scratches and blow-holes are to be avoided.

Tolerances

Recommended fit for pressures up to 40 MPa

Nominal $\varnothing d$	D	d
10 ... 750 mm	H8	f8

* In dependence on the H dimension of the back-up ring.