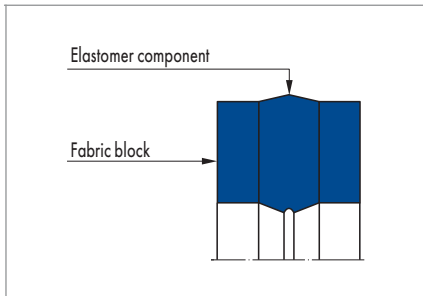


MERKEL ROTOMATIC M 17



PRODUCT DESCRIPTION

Single-piece Merkel sealing ring comprising an elastomer part firmly set by fabric blocks on both sides which is provided with an oil groove at the contact area.

PRODUCT ADVANTAGES

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

- Wear-resistant
- Secure static sealing

APPLICATION

- Excavators
- Rotary joints
- Grippers

MATERIAL

Material	Code
Nitrile rubber NBR	80 NBR B246/BI-NBR B3B248

OPERATING CONDITIONS

Pressure p	20 MPa
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Running speed v	0,1 m/s
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Medium/ Temperature	80 NBR B246/BI-NBR B3 B248
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 B3 B248
Water	+5 °C ... +80 °C
HETG (rapeseed oil)	-30 °C ... +80 °C
HEES (synthetic ester)	-30 °C ... +80 °C
HEPG (glycol)	-30 °C ... +60 °C
Mineral greases	-30 °C ... +80 °C

If the seal set is to be used for permanent rotational movement, please consult us first. Other material combinations are available on request.

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 20 MPa

Nominal $\varnothing d$	D	d
$\leq 60 \text{ mm}$	H9	f8
$> 60 \text{ mm}$	H9	f7