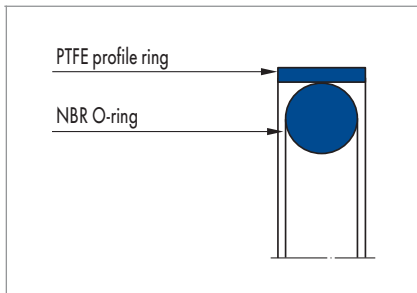


MERKEL COMPACT SEAL TFMA



PRODUCT DESCRIPTION

Two-piece Merkel Compact Seal TFMA comprising a profile ring and O-ring as a pre-load component.

PRODUCT ADVANTAGES

Double-acting piston seal for the lower pressure range with the properties of

- Low friction
- Low housing height

APPLICATION

- Cranes
- Standard cylinders

MATERIAL

Profile ring

Material	Code	Hardness
PTFE bronze compound	PTFE 177023	–

O-ring

Material	Code	Hardness
Nitrile rubber NBR	NBR	70 Shore A

OPERATING CONDITIONS

Pressure p	16 MPa
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Running speed v	2 m/s
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Medium/ Temperature	PTFE 177023/NBR
Hydraulic oils HL, HLP	–30 °C ... +100 °C
HFA fluids	–
HFB fluids	–
HFC fluids	–
HFD fluids	–

Medium/ Temperature	PTFE 177023/NBR
Water	–
HETG (rapeseed oil)	–30 °C ... +80 °C
HEES (synthetic ester)	–
HEPG (glycol)	–30 °C ... +60 °C
Mineral greases	–30 °C ... +100 °C

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	≤2,5 μm
Groove base	≤1,6 μm	≤6,3 μm
Groove flanks	≤3,0 μm	≤15,0 μm

Percentage contact area M, >50% up 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. We recommend a metal guide H8/f7.

Tolerances

D	d
H8	h7

FITTING & INSTALLATION

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