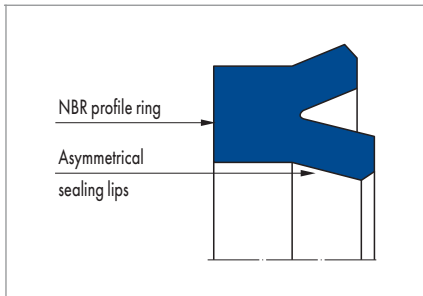


MERKEL U-RING NA 150



PRODUCT DESCRIPTION

Merkel U-ring with asymmetrical profile of the sealing lips.

PRODUCT ADVANTAGES

Single-acting piston seal, preferably for spare parts requirement.

APPLICATION

- Earth moving equipment
- Industrial vehicles
- Agricultural machinery

MATERIAL

Profile ring

Material	Code	Hardness
Nitrile rubber NBR	80 NBR 878	80 Shore A

OPERATING CONDITIONS

Pressure p	10 MPa
Running speed v	0,5 m/s

Medium/ Temperature	80 NBR 878
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	-
Water	+5 °C ... +90 °C
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	$\leq 2,5 \mu\text{m}$
Groove base	$\leq 1,6 \mu\text{m}$	$\leq 6,3 \mu\text{m}$
Groove flanks	$\leq 3,0 \mu\text{m}$	$\leq 15,0 \mu\text{m}$

Percentage contact area $M_r > 50\%$ 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.

Profile dimension	2,5 MPa	5 MPa	7,5 MPa	10 MPa
$\leq 5,0 \text{ mm}$	0,45 mm	0,30 mm	0,25 mm	0,20 mm
$> 5,0 \text{ mm}$	0,50 mm	0,35 mm	0,30 mm	0,25 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 $\varnothing D$	D	d
$\leq 200 \text{ mm}$	H11	h11

FITTING & INSTALLATION

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