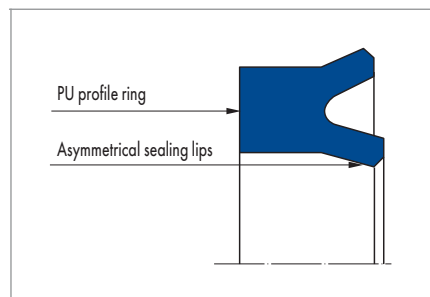


MERKEL U-RING NA 300



PRODUCT DESCRIPTION

Merkel U-ring with asymmetrical profile, outer lip set back and press fit at the inside diameter.

PRODUCT ADVANTAGES

Single-acting piston seal for standardised housings, amongst others, according to ISO 5597.

- Very good static and dynamic tightness

APPLICATION

- Earth moving equipment
- Presses
- Support cylinders

MATERIAL

Material	Code	Hardness
Polyurethane	94 AU 925	94 Shore A

OPERATING CONDITIONS

Pressure p	40 MPa
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Running speed v	0,5 m/s
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Medium/ Temperature	94 AU 925
Hydraulic oils HL, HLP	-30 °C ... +110 °C
HFA fluids	+5 °C ... +50 °C
HFB fluids	+5 °C ... +50 °C
HFC fluids	-30 °C ... +40 °C
HFD fluids	-
Water	+5 °C ... +40 °C
HETG (rapeseed oil)	-30 °C ... +60 °C
HEES (synthetic ester)	-30 °C ... +60 °C
HEPG (glycol)	-30 °C ... +40 °C
Mineral greases	-30 °C ... +110 °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 $c = R_z/2$ 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	16 MPa	26 MPa	32 MPa	40 MPa
>4,0 mm ... $\leq 5,0$ mm	0,50 mm	0,40 mm	0,35 mm	0,30 mm
>5,0 mm ... $\leq 7,5$ mm	0,55 mm	0,45 mm	0,40 mm	0,35 mm
>7,5 mm ... $\leq 11,0$ mm	0,66 mm	0,50 mm	0,45 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 $\varnothing D$	D	d
≤ 400 mm	H9	h11

FITTING & INSTALLATION

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