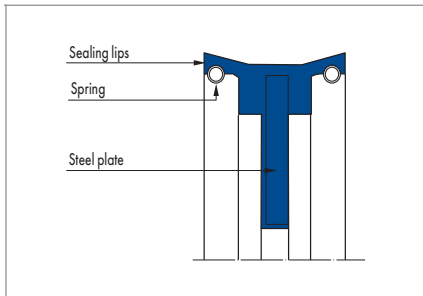


MERKEL COMPLETE PISTON TDUOH



PRODUCT DESCRIPTION

Merkel Complete Piston TDUOH with steel base plate and vulcanised, spring-loaded sealing lips.

PRODUCT ADVANTAGES

Merkel complete piston for secondary hydraulic applications, preferably for spare parts requirement. Can only absorb low lateral forces.

APPLICATION

- Cranes
- Standard cylinders

MATERIAL

Sealing lips

Material	Code	Hardness
Nitrile rubber NBR	90 NBR 109	90 Shore A

Springs

Material	Code	Hardness
Spring steel wire DIN 17223	–	–

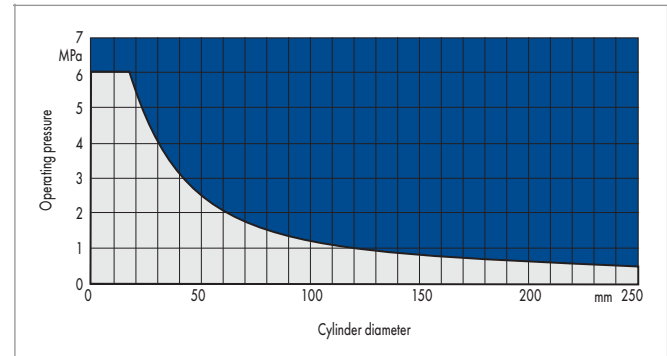
Mild steel

Material	Code	Hardness
Mild steel	–	–

OPERATING CONDITIONS

Pressure p

→ Diagram MPa



Running speed v

0,5 m/s

Medium/ Temperature	90 NBR 109
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}
Cylinder bore	0,05 ... 0,3 μm	$\leq 2,5 \mu\text{m}$

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.

Tolerances

The admissible gap width, tolerances, guide play and deflection of the guide under load are to be taken into account when designing d_2 . → Technical Manual.

Nominal $\varnothing D$	D	d
$\leq 300 \text{ mm}$	H11	h11

FITTING & INSTALLATION

The Merkel Complete Piston TDUOH is pushed onto the pin with the rubber layer on the clamping flange towards the rod and fixed with the fastening. The nut has to be secured.