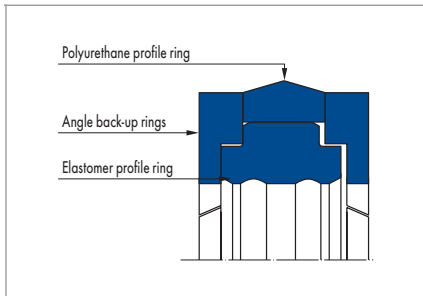


MERKEL COMPACT SEAL T 44



PRODUCT DESCRIPTION

Double-acting Merkel Compact Seal T 44 with semi-active angle back-up rings.

PRODUCT ADVANTAGES

Merkel Compact Seal T 44 for sealing pistons which can be pressurised on both sides in plungers, pushers and subsidiary cylinders in self-advancing support systems.

- Very good protection against extrusion even with pressure peaks
- High resistance to abrasion
- High contact pressure due to rubber profile ring

APPLICATION

- Mining

MATERIAL

Material	Code	Hardness
Polyurethane	93 AU V167	93 Shore A
Polyacetal	POM PO202	–
Nitrile rubber	85 NBR B203	85 Shore A

OPERATING CONDITIONS

Pressure p	150 MPa
Running speed v	0,1 m/s

Medium/ Temperature	93 AU V167/NBR/POM PO202
HFA fluids	+5 °C ... +60 °C
HFD fluids	+5 °C ... +60 °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
$\leq 11,0 \text{ mm}$	1,10 mm	0,80 mm	0,60 mm	0,50 mm
$> 11,0 \text{ mm}$	1,60 mm	1,20 mm	0,90 mm	0,70 mm

Tolerances

Please observe our general design notes in → Technical Manual.

Nominal $\varnothing D$	D	d
$\leq 350 \text{ mm}$	H8	h9

FITTING & INSTALLATION

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

SPECIALITIES

Profile recommendation

D	S	L
$\leq 200 \text{ mm}$	10,0 mm	25,0 mm
$> 200 \dots 400 \text{ mm}$	12,5 mm	25,0 mm
$> 400 \text{ mm}$	15,0 mm	30,0 mm