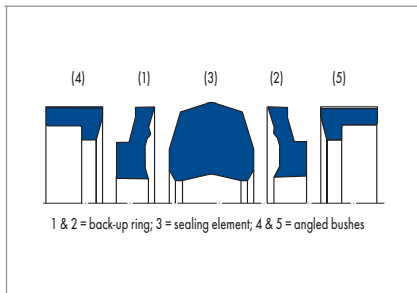


MERKEL COMPACT SEAL L 43



PRODUCT DESCRIPTION

Five-piece Merkel compact seal L 43 comprising one profile ring, two back-up rings and two angled bushes.

PRODUCT ADVANTAGES

The Merkel Piston Seal L 43 is used for sealing pistons with pressure on both sides. The angled rings guide the piston on the cylinder bore.

- No extrusion into the radial sealing gap
- Suitable for rapid pressure change
- Sealing component protected against twisting

APPLICATION

- Earth moving equipment
- Agricultural machinery
- Cranes
- Standard cylinders

MATERIAL

Sealing component

Material	Code	Hardness
Nitrile rubber	78 NBR B281	78 Shore A

Back-up ring

Material	Code	Hardness
Polyester elastomer	97 TPE 113TP	97 Shore A

Angled bush

Material	Code	Hardness
Polyamide with special filling	PA 6501	–

OPERATING CONDITIONS

Pressure p	40 MPa
Running speed v	0,5 m/s

Medium/ Temperature	78 NBR B281 / 97 TPE TP113 / PA 6.501
Hydraulic oils HL, HLP	-30 °C ... +100 °C
HFA fluids	+5 °C ... +60 °C
HFB fluids	+5 °C ... +60 °C
HFC fluids	+5 °C ... +50 °C
HFD fluids	–
Water	–
HETG (rapeseed oil)	-30 °C ... +60 °C
HEES (synthetic ester)	-30 °C ... +80 °C
HEPG (glycol)	-30 °C ... +50 °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_t >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.

Tolerances

Nominal ∅ D	D	d	d ₂	d ₃
40 ... 200 mm	H8	h9	h11	h8

FITTING & INSTALLATION

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