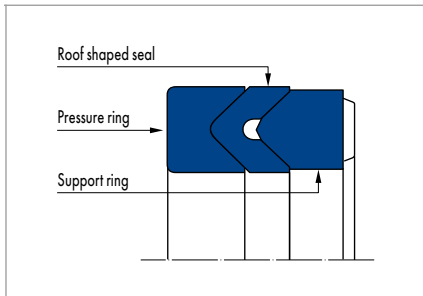


# MERKEL CHEVRON SEAL SET EK, EKV



## PRODUCT DESCRIPTION

Multi-part Merkel Chevron Seal Set comprising one thrust ring, one or two seals and a back-up ring.

## PRODUCT ADVANTAGES

Seal set for robust operating conditions, predominantly the provision of spare parts for older plant. Merkel Chevron Seal Set EK, EKV can be used for pistons with pressure on one side or "back to back" for pistons with pressure on both sides.

- Proven under extreme conditions
- High durability
- Can be optimally adjusted to the related application
- Functions over a certain time period even with poorer surfaces
- Insensitive to soiling
- For application and design related reasons, fluctuations in the leakage behaviour and in the friction behaviour are to be expected

## APPLICATION

- Iron and steel technology
- Presses
- Marine hydraulics
- Scrap cutters
- Injection moulding machines
- Steel hydraulics engineering
- Special cylinders

## MATERIAL

### Pressure ring

Material	Code
Cotton fabric/NBR	BI-NBR B259
Cotton fabric/FKM	BI-FKM

### Roof-shaped seal

Material	Code
Cotton fabric/NBR	BI-NBR
Cotton fabric/FKM	BI-FKM

## OPERATING CONDITIONS

Pressure p	40 MPa
------------	--------

Running speed v	0,5 m/s
-----------------	---------

Medium/ Temperature	BI-NBR/85 NBR	BI-FKM/85 FKM
Hydraulic oils HL, HLP	-30 °C ... +100 °C	-15 °C ... +140 °C
HFA fluids	+5 °C ... +60 °C	+5 °C ... +60 °C
HFB fluids	+5 °C ... +60 °C	+5 °C ... +60 °C
HFC fluids	-30 °C ... +60 °C	-15 °C ... +60 °C
HFD fluids	-	-15 °C ... +140 °C
Water	+5 °C ... +100 °C	+5 °C ... +80 °C
HETG (rapeseed oil)	-30 °C ... +80 °C	-15 °C ... +80 °C
HEES (synthetic ester)	-30 °C ... +80 °C	-15 °C ... +100 °C
HEPG (glycol)	-30 °C ... +60 °C	-15 °C ... +80 °C
Mineral greases	-30 °C ... +100 °C	-15 °C ... +140 °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 $\mu\text{m}$	$\leq 2,5 \mu\text{m}$
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  $C_{ref} = 0\%$ .

### Tolerances

Nominal $\varnothing D$	D	d
$\leq 120 \text{ mm}$	H11	f8
120 ... 500 mm	H11	f7
$> 500 \text{ mm}$	H10	f7

## FITTING & INSTALLATION

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