K33 is a single acting rod seal designed to have inner lip shorter than the outer lip and additional sealing lip which improves the leakage behavior and, at the same time, prevents the penetration of dirt from the wiper side.

PRODUCT ADVANTAGES
- High wear resistant
- Superior sealing effect with the secondary lip
- Secondary sealing lip provides extra protection against the ingress of dirt particles
- Wide range of dimensions
- Simple groove design
- Easy assembly into closed grooves

APPLICATION
Construction machinery, fork-lift trucks, injection moulding machines, agricultural machinery, loading platforms and standard cylinders.

MATERIAL		CODE
PU	94 SHR 1	PU9401

OPERATING CONDITIONS			
MEDIA	Mineral oils (DIN 51524)	HFA and HFB	HFC
TEMPERATURE	-30°C +100°C	+5°C +50°C	-30°C +40°C
PRESSURE	≤400 Bar	≤400 Bar	≤400 Bar
SPEED	≤0.5 m/sec	≤0.5 m/sec	≤0.5 m/sec

Note: The above data are maximum values and cannot be used at the same time.

SURFACE ROUGHNESS		Ra	Rmax
Sliding Surface	Ød	≤0.4 µm	≤3.2 µm
Groove Base	ØD	≤1.6 µm	≤10 µm
Groove Flanks	B	≤3.2 µm	≤16 µm

Note: It is recommended to have 50% to 90% of the working surface material contact area value.

INSTALLATION
Easily assembled into closed grooves according to the minimum diameter values that are given in the below table. Open grooves or special assembly tools should be used for the values that are outside this table. It is very important that the assembly tools must be of soft material and have no sharp edges. Before installation the sealing element must be oiled with system oil.

MINUMUM DIAMETER VALUES FOR CLOSED TYPE OF GROOVES							
(D-d)/2 (mm)	4	5	6	7.7	10	12.5	15
d min (mm)	25	30	40	50	80	100	105

NOTES
The permissible sealing gap values of K33 rod seal is given in the below table.

PERMISSIBLE SEALING GAP			
NBR	**Smax (mm)**		
t=(D-d)/2 (mm)	150 Bar	250 Bar	400 Bar
t≤5	0.30	0.20	0.15
t>5	0.35	0.25	0.20

Note: The largest sealing gap value occurring on the non-pressurized side of the seal does have a vital importance for the function of the seal and in this respect it is quite important to use the S value lower than the above indicated numbers.