K17 is a two piece double acting piston seal which consists of one special mixture PTFE profile ring and an o-ring as energizing element.

PRODUCT ADVANTAGES

- Low friction, free of stick-slip
- Simple groove design and low axial housing heights
- Long service life
- High sliding speed
- Wide range of temperature and chemicals depending on the o-ring material
- Minimum static and dynamic friction coefficient for a minimum energy loss and operating temperature
- Wide range of dimensions

APPLICATION

Injection moulding machines, fork-lift trucks, loading platforms, cranes, agricultural machinery and valves for hydraulic and pneumatic systems.

MATERIAL		CODE
NBR	70 SHORE A	NB7001
PTFE		PT6003

OPERATING CONDITIONS			
MEDIA	Mineral oils (DIN 51524)	HFA and HFB	HFC
TEMPERATURE	-30°C +105°C	+5°C +60°C	-30°C +60°C
PRESSURE	≤400 Bar	≤400 Bar	≤400 Bar
SPEED	≤5.0 m/sec	≤5.0 m/sec	≤5.0 m/sec

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

SURFACE ROUGHNESS		Ra	Rmax
Sliding Surface	ØD	≤0.2 µm	≤2.0 µm
Groove Base	Ød	≤1.6 µm	≤6.3 µm
Groove Flanks	B	≤3.2 µm	≤15 µm

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

INSTALLATION

We recommend using special assembly tool (See section; Hydraulic Sealing Elements General Installation Information) and to have open groove design for dimensions that are smaller than Ø 40 mm. 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.

NOTES

It is recommended to use with minimum two piston guide rings in long stroke cylinders, minimum one guide ring in short stroke and under low radial loads. For special applications that require high temperatures or resistance to chemicals, piston seal is being manufactured with special mixture PTFE and FKM material.
The permissible sealing gap values of K17 piston seal is given in the below table.

PERMISSIBLE SEALING GAP

B (mm)	Smax (mm)		
	150 Bar	250 Bar	400 Bar
2.2	0.3	0.20	0.15
3.2	0.4	0.25	0.15
4.2	0.4	0.25	0.20
6.3	0.5	0.30	0.20
8.1	0.6	0.35	0.25
9.5	0.7	0.50	0.30

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.