



K709 is a two piece double acting rod seal which consists of one special mixture PTFE profile ring and an o-ring as an energizing element.

PRODUCT ADVANTAGES

- Free of stick-slip
- Long service life
- High sliding speed
- Able to operate with wide range of chemicals and wide range of temperature depending on the o-ring material
- Low friction coefficient
- Superior static and dynamic sealing

APPLICATION

Industrial machines, injection moulding machines, mobile hydraulics, automotive industry, hydraulic breakers and servo cylinders.

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	-20°C +50°C
PRESSURE	≤400 Bar	≤400 Bar	≤400 Bar
SPEED	≤5.0 m/sn	≤5.0 m/sn	≤5.0 m/sn

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 Element General Installation Information). It is very important that the assembly tools must be of soft material and have no sharp edges. Before the installation the sealing element must be oiled with system oil.

NOTES

K709 type of rod seal can also be used with double wiper lips. For special applications that require high temperatures or resistance to chemicals, rod seal is being manufactured with special mixture of PTFE and FKM material. For heavy duty applications and high pressures the tolerances should change to H8/f8 and please contact our customer service to choose the suitable sealing element. The permissible sealing gap values of K709 rod seal is given in the table below.

PERMISSIBLE SEALING GAP

B (mm)	Smax (mm)		
	150 Bar	250 Bar	400 Bar
2.2	0.25	0.15	0.10
3.2	0.35	0.20	0.10
4.2	0.35	0.20	0.15
6.3	0.45	0.25	0.15
8.1	0.55	0.30	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.

