



DESCRIPTION

Double acting piston seal

MATERIAL ON DYNAMIC SURFACE

Type: Polyurethane
 Designation: SEALPUR 97
 Hardness: 97 °ShA

MATERIAL ON STATIC SURFACE

Type: Nitril Rubber NBR
 Designation: RUBSEAL 80
 Hardness: 80 °ShA

MAIN FEATURES

The piston seal type KPR is composed of:

- A dynamic seal element which assures exceptional high sealing performance. Two compact and small seal edges ensure perfect fluid control and concentrate the load against the dynamic surface. The cavity between the two external seal edges keeps a small quantity of fluid which reduces friction and wear. Side grooves ensure that pressure loads the energizing element in all work conditions.
- A nitril rubber element with low permanent deformation as energizing component on the static side. The hardness and the rectangular cross-section prevent twisting of the static element in the groove.

- High sealing performance at low pressure also
- Excellent wear-resistance
- Space-saving construction
- Can also work for single action
- Extended service life
- Simple groove design
- Low cost solution
- High resistance against extrusion
- Good temperature resistance
- Easy installation on a solid piston

FIELD OF APPLICATION

Pressure	≤ 400 bar
Speed	≤ 0.5 m/s
Temperature	-30°C ÷ +100°C
Fluids	Hydraulic oils (mineral oil based). For other fluids contact our technical department

SURFACE ROUGHNESS

Dynamic surface	Ra ≤ 0.3 µm	Rt ≤ 2.5 µm
Static surface	Ra ≤ 1.6 µm	Rt ≤ 6.3 µm

GAP DIMENSION "g"

The largest gap dimension appearing in operation on the non-pressurised side:

• 50 bar	1.20 mm
• 100 bar	0.80 mm
• 200 bar	0.40 mm
• 300 bar	0.25 mm
• 400 bar	0.17 mm

LEAD-IN CHAMFERS

D	S _{MIN}
• less 100	5 mm
• 100÷200	7 mm
• over 200	10 mm

- to avoid damaging the sealing lips during installation, housing must have rounded chamfers. Sharp edges and burrs within the installation area of the seal must be removed

Part.	D ^{H10}	d ^{+0.1}	L ^{+0.2}
KPR 63 52 4.2	63	52.0	4.2
KPR 70 59 4.2	70	59.0	4.2
KPR 80 64.5 6.3	80	64.5	6.3
KPR 90 69 8.1	90	69.0	8.1
KPR 90 74.5 6.3	90	74.5	6.3
KPR 100 84.5 6.3	100	84.5	6.3
KPR 110 94.5 6.3	110	94.5	6.3
KPR 120 104.5 6.3	120	104.5	6.3