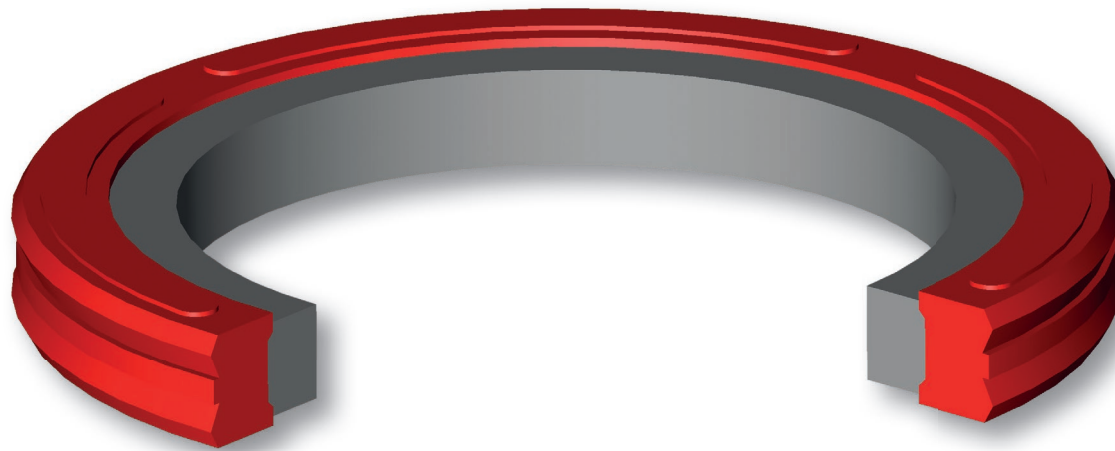


# KPR



KPR

The piston seal type Aston Seals 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

## MATERIAL

	① <b>Type</b>	Polyurethane
	<b>Designation</b>	SEALPUR 97
	<b>Hardness</b>	97 °ShA
	② <b>Type</b>	Nitril Rubber NBR
	<b>Designation</b>	RUBSEAL 80
	<b>Hardness</b>	80 °ShA

## FIELD OF APPLICATION

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

## SURFACE ROUGHNESS

<b>Dynamic surface</b>	Ra ≤ 0.3 µm	Rt ≤ 2.5 µm
<b>Static surface</b>	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	300 bar	0.25 mm
100 bar	0.80 mm	400 bar	0.17 mm
200 bar	0.40 mm		

NB: for the Gap calculation, it is necessary to consider the elastic deformation of metal elements under pressure loads.

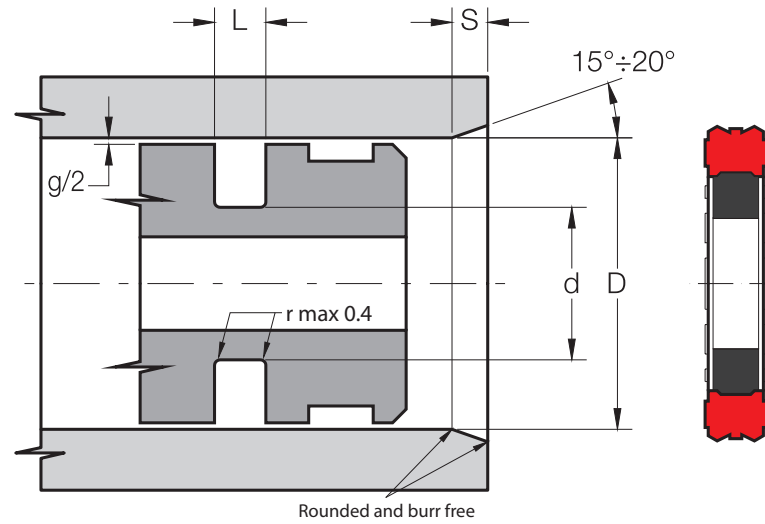
## LEAD-IN CHAMFERS

d	Smin
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.

The above data are maximum values, they may be maintained for short periods and can not be used at the same time simultaneously.

# KPR



Part.	D <sup>H10</sup>	d <sup>+0.1</sup>	L <sup>+0.2</sup>
<b>KPR 50 39 4.2</b>	50	39.0	4.2
<b>KPR 55 44 4.2</b>	55	44.0	4.2
<b>KPR 60 44.5 6.3</b>	60	44.5	6.3
<b>KPR 60 49 4.2</b>	60	49.0	4.2
<b>KPR 63 52 4.2</b>	63	52.0	4.2
<b>KPR 65 49.5 6.3</b>	65	49.5	6.3
<b>KPR 70 54.5 6.3</b>	70	54.5	6.3
<b>KPR 70 59 4.2</b>	70	59.0	4.2
<b>KPR 80 64.5 6.3</b>	80	64.5	6.3
<b>KPR 90 69 8.1</b>	90	69.0	8.1
<b>KPR 90 74.5 6.3</b>	90	74.5	6.3
<b>KPR 100 84.5 6.3</b>	100	84.5	6.3
<b>KPR 110 94.5 6.3</b>	110	94.5	6.3
<b>KPR 120 104.5 6.3</b>	120	104.5	6.3