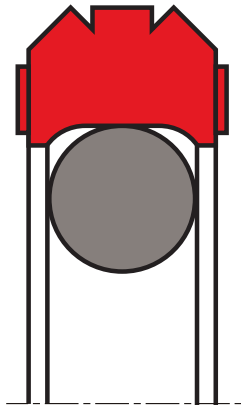


# piston seal K08-SC

## seal spec



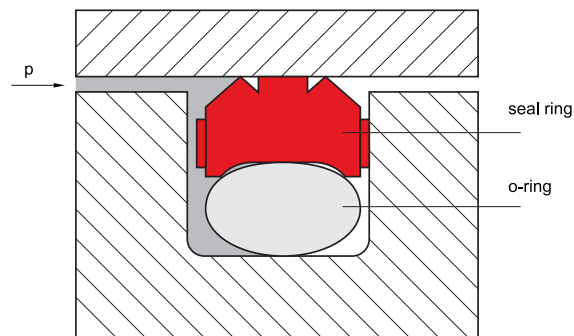
### description

the K08-SC is a double-acting seal consisting of a special polyurethane seal ring and an O-Ring as energizing element. see drawing below.

the particular characteristic of the seal is the special design of the seal edge profile. two external seal edges act as primary seal for pressures from both sides and prevent any build-up of hydrodynamic pressure over the seal profile and the risk of the blow-by effect. the central back-up and sealing bulge increases the sealing effect. grooves are provided on both sides on the plane surfaces to provide activation of the energizing O-Ring. these ensure direct pressure loading of the seal under all operating conditions.

since the installation groove is identical to that for the K08-D, the seal is ideal for the standardisation of cylinder construction if, efficient and low cost seal elements are demanded in large quantities and, the cylinder can be adapted to meet different operating conditions. it has to be taken into consideration that in this case the gap dimension has to be checked!

### application



### category of profile

machined or molded/standard/trade product.

### double acting

the K08-SC seal is designed for use as a piston seal.

### area of application: hydraulics

the K08-SC is the recommended sealing element for double acting pistons of hydraulic components in various sectors such as: machine tools, forklifts & handling machinery, agriculture & industrial hydraulic light to medium duty

### advantages

- high static and dynamic sealing effect
- high abrasion resistance
- simple groove design, one-piece piston possible
- suitable for grooves to ISO 7425, Part 1.

### operating parameters & material

material		temperature	max. surface speed	max. pressure <sup>1</sup>
sealing element	energizer			
s-mart PU (93 shore A)	NBR 70 Shore A	-35°C ... + 110°C	0,5 m/s	250 bar (25 MPa)
s-mart PU (96 shore A)	NBR 70 Shore A	-35°C ... + 110°C	0,5 m/s	400 bar (40 MPa)

### important note:

the above data are maximum values and can't be used at the same time. e.g. the maximum operating speed depend on material type, pressure, temperature and gap value. temperature range also dependent on medium.

<sup>1</sup> pressure ratings are dependent on the size of the extrusion gap.

**gap dimension**

d (h9)	L + 0,2	R	max. permissible gap dimension s max	O-Ring cross section
D - 4,9	2,2	0,4	0,20	1,78
D - 7,5	3,2	0,6	0,25	2,62
D - 11,0	4,2	1,0	0,25	3,53
D - 15,5	6,3	1,3	0,30	5,33
D - 21,0	8,1	1,8	0,30	6,99

**surface quality**

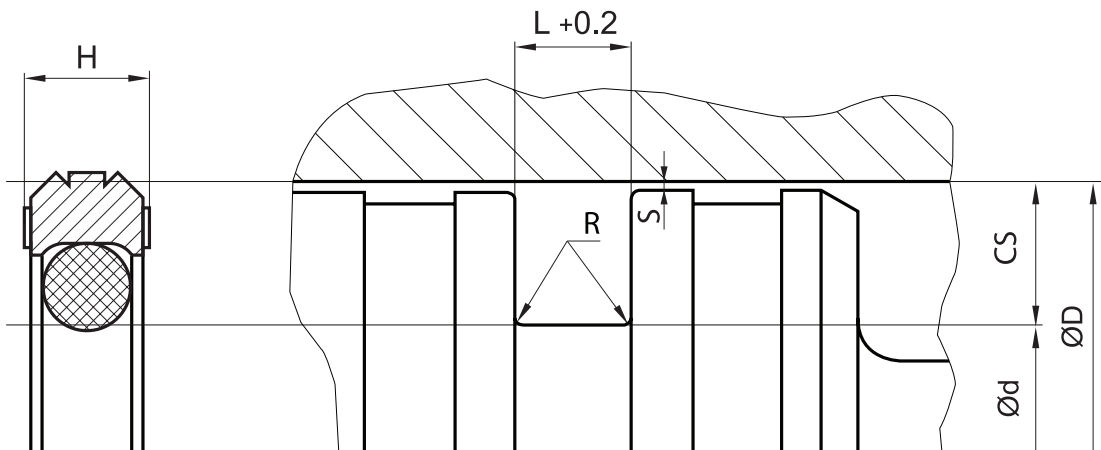
surface Roughness	material	Rtmax [ $\mu\text{m}$ ]	Rz DIN [ $\mu\text{m}$ ]	Ra [ $\mu\text{m}$ ]
mating Surface	PTFE + .....	0.63 - 2.50	0.40 - 1.60	0.05 - 0.20
	PU & Rubber	1.00 - 4.00	0.63 - 2.50	0.10 - 0.40
groove surface		< 16	< 10.0	< 1.6

**tolerance recommendation**

seal housing tolerances	
$\varnothing d$	h9
$\varnothing D$	H9

**seal & housing recommendations**

please note that we are able to produce those profiles to your specific need or any non standard housing. for detail measurements, please see seal-mart catalog...



don't hesitate to contact our technical department for further information or for special requirements (temperature, speed etc.), so that suitable materials and/or designs can be recommended.