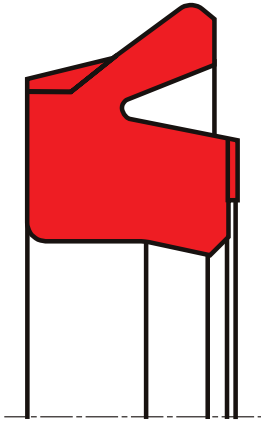


piston seal K05-SE

seal spec



description

K05-SE U-ring with asymmetrical profile and special pneumatic sealing edge on the dynamic sealing lip.

- the asymmetrical profile with the longer and thicker static sealing lip ensure secure seating in the bottom of the groove
- the special pneumatic sealing edge give very good tightness with low friction and maintains an effective lubricating film
- for s-mart NBR/s-mart FKM, minimal axial space requirements & integrated pressure relief to prevent an intermediate pressure build-up.
- for s-mart PU material with high wear resistance & good low temperature properties.

application



category of profile

machined or molded/standard/trade product.

area of application: pneumatic

piston seal for high-temperature cylinders (only s-mart FKM).

single acting

the K05-SE seal is designed for use as a piston seal - either single or double acting where two seals are used 'back to back'

operating parameters & material

material	temperature	max. surface	max. pressure ¹
s-mart FKM (75 shore A)	-5°C ... + 200°C	≤ 1 m/s	12 bar (1,2 MPa)
s-mart NBR (80 Shore A)	-25°C ... + 100°C	≤ 1 m/s	12 bar (1,2 MPa)
s-mart PU (80 Shore A)	-35°C ... + 80°C	≤ 1 m/s	12 bar (1,2 MPa)

the stated operation conditions represent general indications. it is recommended not to use all maximum values simultaneously. surface speed limits apply only to the presence of adequate lubrication film.

¹ pressure ratings are dependent on the size of the extrusion gap.

fitting & installation

Careful fitting is a prerequisite for the correct function of the seal.

pneumatic U-rings can be snapped by hand into the housing grooves provided.

gap dimension

ØD	max. extrusion gap 12 bar (1,2 MPa)
≤ 60	0,50
> 60	0,65

important note:

the above data are maximum value 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.



surface quality

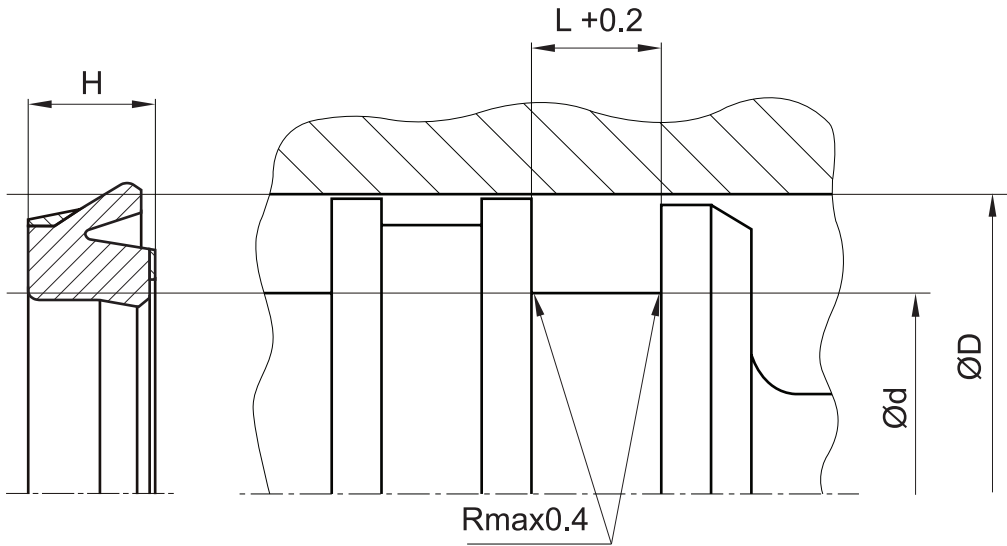
surface roughness	Rtmax (µm)	Rz(µm)
cylinder barrel	≤ 4.0	≤ 0.5
bottom of groove	≤ 10.0	≤ 0.5

tolerance recommendation

seal housing tolerances	
Ød	h9
ØD	H12

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.