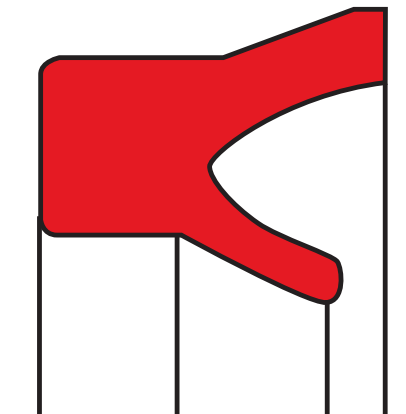


rod seal S05-SA

seal spec



description

the S05-SA rod seal has been redesigned with respect to the traditional u-profile used in pneumatics to give significant improvements.

these include:

- a dynamic lip with no sharp edges to facilitates sliding. increased depth within the u-profile to increase flexibility.
- the use of a urethane resin instead of rubber to increase seal life and facilitate the use of non-lubricated air.

application



category of profile

machined or molded/standard/trade product.

single acting

the S05-SA seal is designed for use as a rod seal.

area of application: pneumatic

media: dry or lubricated air, mineral oils and greases, non-aggressive gases.

operating parameters & material

material	temperature	max. surface speed	max. Pressure	remarks
s-mart PU (90 Shore A)	-30°C ... + 80°C	1 m/s	16 bar (1,6 MPa)	standard material
s-mart PU (85 Shore A)	-30°C ... + 80°C	1 m/s	16 bar (1,6 MPa)	alternative material

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.

gap dimension

referring to the low pressure range in standard pneumatic applications the extrusion gap depends only on cross section and temperature. the maximum value of the permissible extrusion gap is reached when the piston or the piston rod touches one side of the cylindrical tube or the guide.

the extrusion gap should not exceed 10% of the cross section for an operating temperature of 70°C.

surface quality

surface roughness μm		
parameter	mating surface (polyurethane)	groove surface
Rmax	1.0 - 4.0	≤ 16
Rz DIN	,63 - 2,5	≤ 10
Ra	0.1 - 0.4	≤ 1.6

the material contact area Rmr should be approx. 50 to 70%, determined at a cut depth $c = 0.25 \times Rz$, relative to a reference line of Cref. 5%.

**tolerance recommendation****seal housing tolerances**

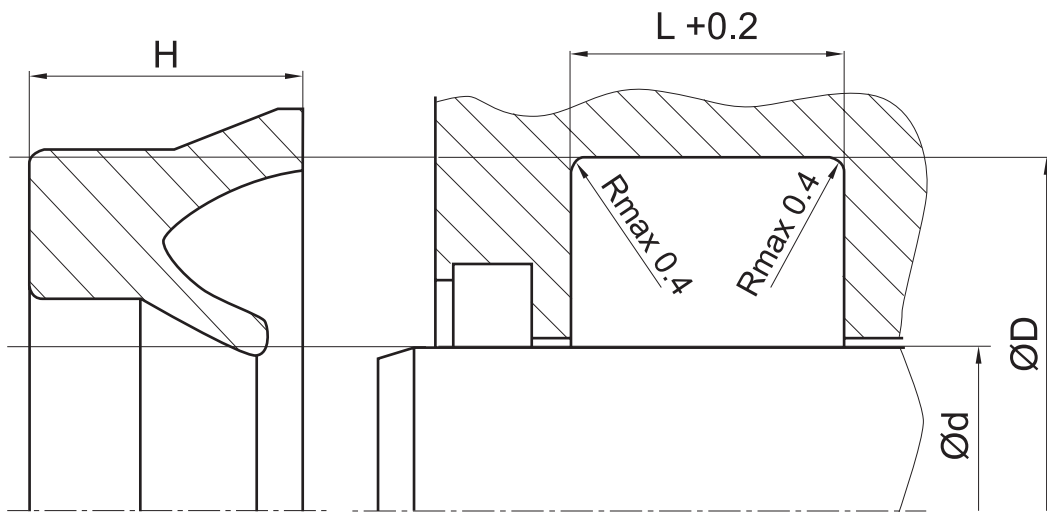
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fitting & installation

it is important to remove all sharp edges from the groove and shaft to prevent damaging the seal.
the seals can be installed more easily if they are greased or oiled.

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.