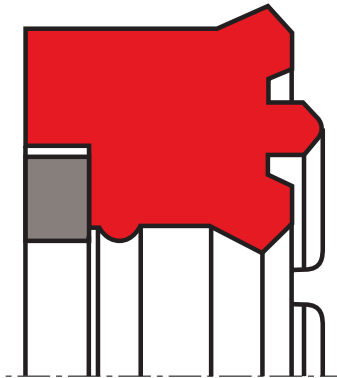


rod seal S65

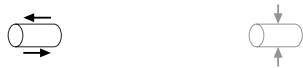
seal spec



description

S65 with integrated back-up ring, additional support edge and sealing edge, components for axial fixing in the housing and press fit at the outside diameter.

application



not bolded symbols; please consult our technical for application limitations

category of profile

machined or molded/standard/trade product.

single acting

the S65 seal is designed for use as a rod seal.

area of application: hydraulics

earth moving equipment, industrial vehicles, presses, mobile hydraulics.

advantages

single-acting rod seal for heavy duty applications, dimensions for standard used housings, amongst others, according to ISO 5597

- very good static and dynamic tightness
- high pressures and larger gap widths permissible
- compact compression, higher surface roughness in the groove base possible
- additional sealing edge prevents ingress of dirt to a large degree
- low deformation value, use in combination with single-acting wipers recommended.

operating parameters & material

material		temperature	max. surface speed	max. pressure ¹
sealing element	back-up ring			
s-mart PU (93 Shore A)	s-mart POM / s-mart PA ²	-35°C ... + 110°C	0,5 m/s	500 bar (50 MPa)
s-mart PU (94 Shore A)	s-mart POM / s-mart PA ²	-30°C ... + 110°C	0,5 m/s	400 bar (40 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.

² POM up to ø260 mm, PA above ø260 mm

surface quality

surface roughness	Rtmax [µm]	Ra [µm]
running surface	≤ 2.5	0.05-0.30
bottom of groove	≤ 10	≤ 2
side of groove	≤ 15	≤ 3.0

**gap dimension**

profile ($\varnothing D - \varnothing d$)/2 mm	max. permissible gap dimension			
	16 Mpa	32 Mpa	40 Mpa	50 Mpa
≤ 8	0,60	0,54	0,45	0,35
>8	0,65	0,60	0,60	0,40

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.

tolerance recommendation

seal housing tolerances
nominal $\varnothing d$ (40 ... 140)

$\varnothing d$ f8

$\varnothing D$ H11

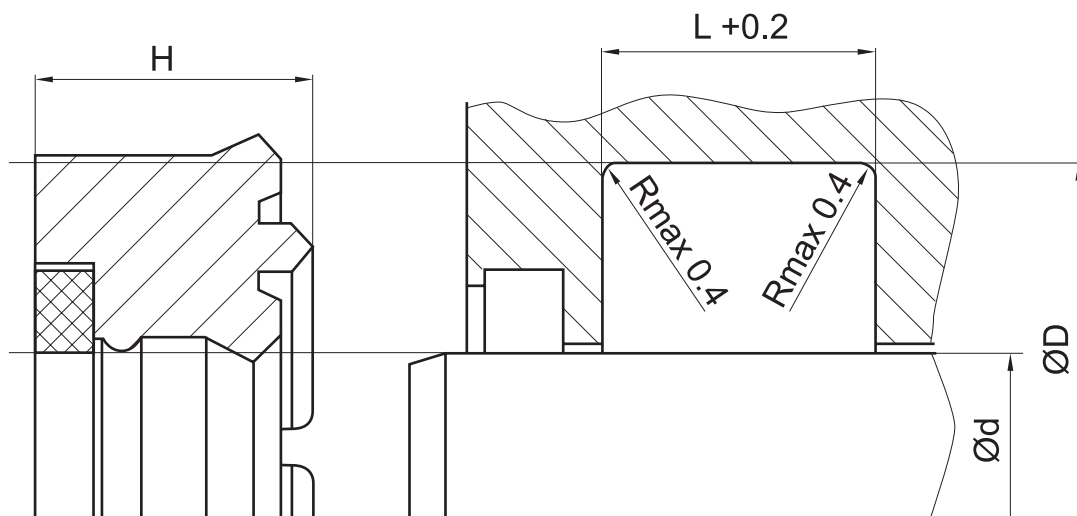
fitting & installation

the seals should have an axial clearance (see columns H and L). to avoid damage at the sealing lips, the seals should not be pulled over sharp edges during installation.

normally these seals may be snapped into closed grooves. where access is restricted special assembly tools may be required. proposals for the design of such tools will be provided on request. tolerance guidelines H8/f7.

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.