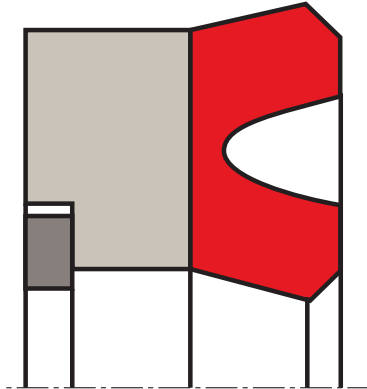


## rod seal S75

## seal spec



### description

the rod seal S75 with symmetrical sealing lips which are cut at an angle of less than 45°. the lip segment made of elastomer and the fabric block at the back are vulcanized together to form a single unit. a support ring is integrated on the outer diameter of the seal unit.

### application



not bolded symbols; please consult our technical for application limitations

### category of profile

molded/standard/trade product or machined with minor design change.

### single acting

the S75 seal is designed for use as a piston seal for medium load, preferably for spare parts requirement.

### area of application: hydraulics

hydraulics, reciprocating movements.

### function

the S75 is a single function piston and piston rod seal in the form of a U-ring. its sealing function is very effective due to the sealing lips being provided with radial self energising which is activated by the system pressure.

due to the symmetrical sealing lips and the proportion of fabric in the seal profile, this U-ring displays much less frictional behaviour than the classic elastomer seal. the fabric back stabilises the profile and the semi-active support ring on the inner diameter protects against fission extrusion.

### media

hydraulic oils acc. DIN 51524/51525, lubricating oils, mineral oil based lubricating fats, non-flammable hydraulic fluids HFA, HFB, HFC acc. VDMA 24317.

### operating parameters & material

material			temperature	max. surface speed	max. pressure <sup>1</sup>
sealing element	back-up	guide ring			
s-mart NBR	NBR fabric NBR - impregnated cotton fabric	s-mart POM / s-mart PA <sup>2</sup>	-30°C ... + 100°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.

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

<sup>2</sup> POM up to ø260 mm, PA above ø260 mm

**surface quality**

surface roughness	Rtmax [ $\mu\text{m}$ ]	Ra [ $\mu\text{m}$ ]
running surface	$\leq 3.0$	$\leq 0.4$
bottom of groove	$\leq 10.0$	$\leq 1.8$
side of groove	$\leq 16$	$\leq 3.0$

**tolerance recommendation**

seal housing tolerances	
$\varnothing d$	h9/f8
$\varnothing D$	H11

**fitting & installation**

the S74 can only be installed by hand in axially accessible housing. with an inner diameter greater than 25mm and a thinner profile, it can also be inserted in a cut piston rod groove. to push the cylinder head and seal over the piston rod without damaging it, a lead-in chamfer C acc. to the following table is required:

cs	C
4	2
5	2,5
7,5	4
10	5
12,5	6,5
15	7,5
20	10
25	10

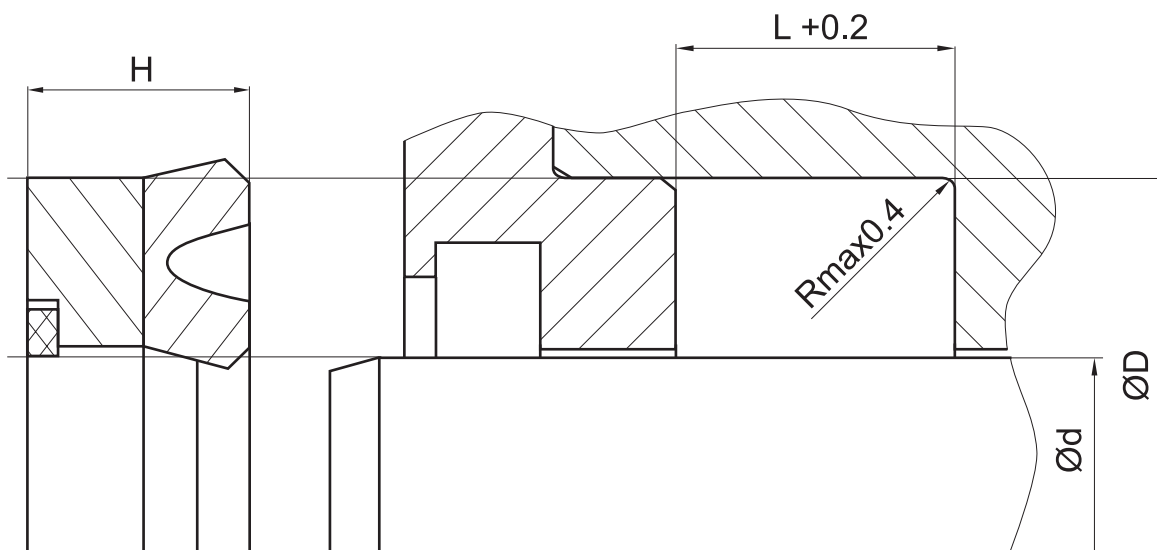
**gap dimension**

if the housing is provided with a metallic fitting on the side opposite the pressure, the service life of the seal is lengthened. within the operating parameters given above, depending on the pressure, a metallic wedge can be fitted between the cylinder head and piston rod or cylinder pipe and piston acc. to the following table:

operating pressure (MPa)	safe extrusion gap (mm)
5	1
10	0,9
20	0,7
30	0,6
40	0,6

**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.