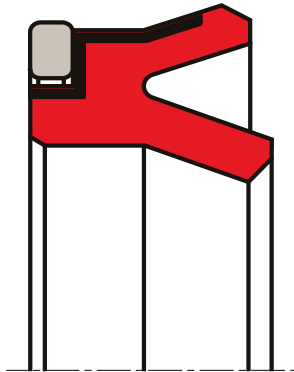


## piston seal K02-SA

## seal spec



### description

U-ring with asymmetrical profile of the sealing lips, fabric reinforcement on the dynamic sealing side and back-up ring as a gap sealing component. we recommend more modern series for new designs.

### single acting

the K02-SA seal is designed for use as a piston seal - either single or double acting where two seals are used 'back to back'

### application



not bolded symbols; please consult our technical for application limitations

### category of profile

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

### area of application: hydraulics

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

### operating parameters & material

material		temperature	max. surface speed	max. pressure <sup>1</sup>
sealing element	back-up ring			
s-mart NBR (80 Shore A)	s-mart POM <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 (µm)	Ra (µm)
running surface	≤ 2.5	0.05-0.30
bottom of groove	≤ 6.3	≤ 1.6
side of groove	≤ 15	≤ 3.0

**gap dimension**

the largest gap dimension occurring on the non-pressurised side of the seal in opera the function of the seal.

operating pressure	Ø range D	
	≤ 80 mm	> 80mm
	max. permissible gap dimension	
160 bar (16 MPa)	0,60	0,65
260 bar (26 MPa)	0,50	0,55
320 bar (32 MPa)	0,40	0,45
400 bar (40 MPa)	0,35	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.

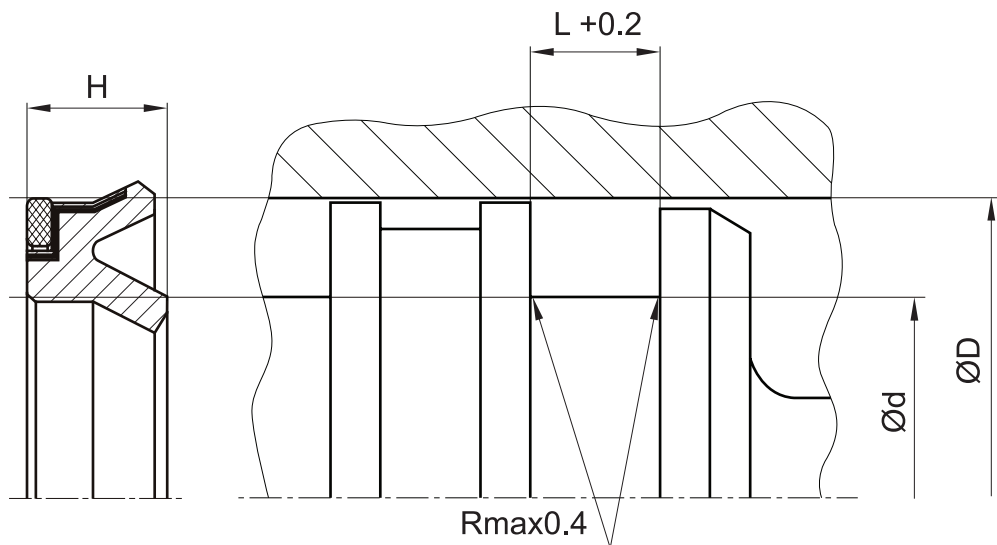
**tolerance recommendation**

the admissible gap width, tolerances, guide play and deflection of the guide under load are to be taken into account when designing ø piston.

seal housing tolerances nominal ØD ≤ 320	
Ød	h11
ØD	H11

**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.