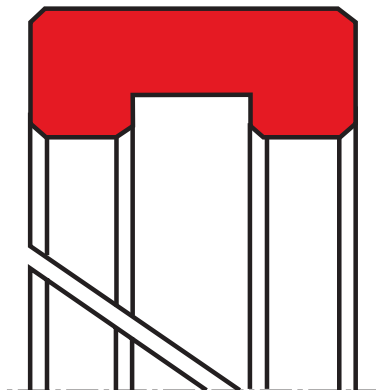


guide ring F07

seal spec



description

with groove on inside diameter, for piston application. split and non split design available.

the guide ring type F07 is mainly used on pistons. it provides guiding and bearing surfaces between piston and cylinder tube and prevents metal to metal contact between them.

the F07 consists of an extremely abrasion-resistant and low-friction POM-PTFE-Bronze compound and other materials. it can be used for hydraulic oil with a mineral oil base, for water-oil emulsions and for fire-resistant fluids as well as compressed air.

it has a U-shaped cross-section and is split with an angled butt joint. it can be easily expanded for fitting into corresponding installation grooves on the piston. the U-shaped groove arrangement secures the bearing against axial movement.

the bearing rings can be used as single rings or multiple rings arranged adjacent to each other. the number of bearing rings depends on the expected side loads. the butt joints in adjacent bearings should be staggered.

application



not bolded symbols; please consult our technical for application limitations

category of profile

machined only.

application:

- use on any piston in hydraulic cylinders.
- standard hydraulic oil, oil-water, water-glycol, synthetic fluids.

operating parameters & material

diameter range: up to 600 mm

material	temperature	max. surface speed	max. specific load
s-mart POM ²	-50 °C ... +100 °C	4,0 m/s	25 N/mm ²
s-mart PA ²	-40 °C ... +100 °C	4,0 m/s	25 N/mm ²
s-mart PTFE glass	-200 °C ... +200 °C	4,0 m/s	3 N/mm ²
s-mart PTFE bronze	-200 °C ... +200 °C	5,0 m/s	4,5 N/mm ²
s-mart TEX	-40 °C ... +130 °C	1,0 m/s	90 N/mm ²

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.

² POM up to ø260 mm, PA above ø260 mm

tolerance recommendation

seal housing tolerances

Ød	h8
Ød1	h10
ØD	H9

surface quality

surface roughness	Rtmax (µm)	Ra (µm)
sliding surface	≤ 1,5	0,3 - 0,5
bottom of groove	≤ 6,3	0,8
groove face	≤ 15	3,2

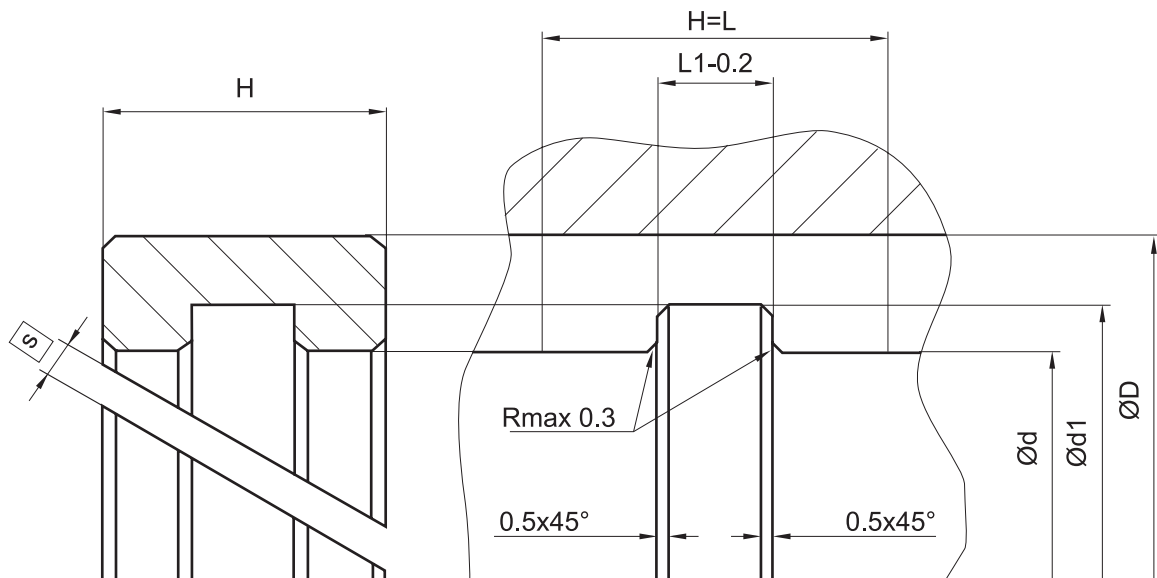


fitting & installation

split bearing ring F07 to be snapped onto the piston.

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...



variations:

- cutting gap width $s = \dots \text{mm}$
- endless

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.