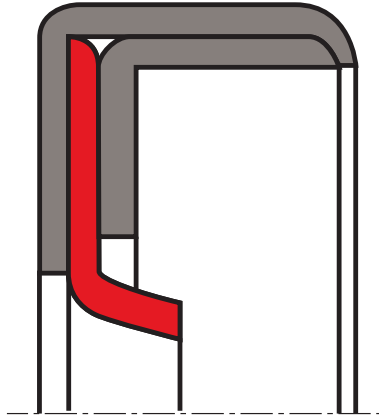


## oil seal R102

## seal spec



### description

rotary shaft seal with a PTFE sealing lip and an elastomer pre-tension ring which is clamped between two metal cages. non mould production.

### application



### category of profile

molded/standard/trade product only.

### single acting rotary shaft seal

### area of application

rotary joints, centrifuges, pumps, mixers.

### advantages

- special range of applications in general mechanical engineering and in the chemical industry
  - high temperature resistance
  - for dry running and insufficient lubrication
  - high chemical resistance
  - in case of requirements for stick/slip-free behaviour
- (note: for limited requirements on dynamic sealing behaviour! static sealing at the outer casing limited with low viscosity and gaseous media).

### media

all type of oil, water, water/oil emulsion, hot air, broadest chemical resistance to almost all aggressive media.

### operating parameters & material

material			temperature	max. surface speed	max. pressure <sup>1</sup>
sealing element	O-ring	metal housing			
s-mart PTFE carbon	s-mart FKM	stainless steel as per material No. 1.4571	-80 °C ... +200 °C	30 m/s	10 bar (1 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.

**tolerance recommendation****shaft  $\varnothing d$  (35 ... 145) mm**

tolerance	Iso h11
runout	IT 8
roughness	$R_a = 0,2 \dots 0,4 \mu\text{m}$
	$R_z = 1,0 \dots 5,0 \mu\text{m}$
	$R_{\text{max}} = <6,3 \mu\text{m}$
hardness	45 ... 60 HRC

**housing bore**

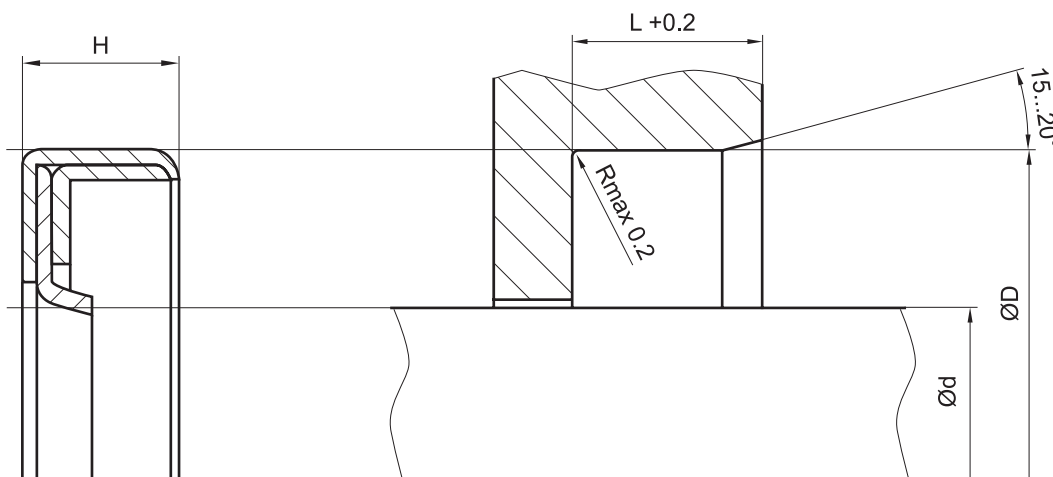
tolerance	Iso H8
roughness	$R_z = 6,3 \dots 16 \mu\text{m}$

**fitting & installation**

the outer diameter of the metal outer casing is centralised in the housing by press-fitting. the installation housing tolerances are in accordance with those in DIN 3760. suitable tools should be used for installation. it is recommended that the installation housing is designed to provide the rotary shaft seal with axial support. the PTFE sealing lip must not be damaged during installation. for this reason, we recommend using an installation cone.

**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.