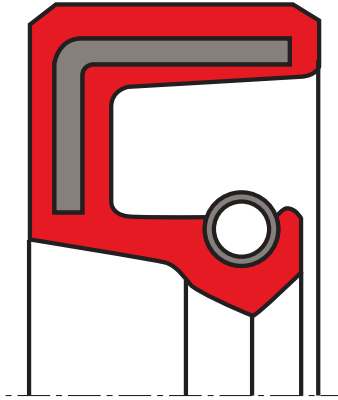


## oil seal R60-A

## seal spec



### description

rotary seal in standard design according to DIN 3760 with an elastomer outer sheath covering a metal insert as well as a spring-energised sealing lip. in addition, the standard design is available with a protective lip R61-A on the air side.

### application



### category of profile

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

### single acting rotary shaft seal

### area of application

sealing of rotating machine elements such as shafts, hubs and axles

- transmission systems (e.g. gearboxes)
- pumps
- electrical motors
- machinery industry (e.g. tool machines)

### advantages

- good static sealing
- compensation of different thermal expansion
- reduced risk of fretting corrosion
- higher bore surface roughness is allowed
- installation in split-housings
- modern lip design provides low radial forces

### function

the R60-A/R61-A is a single action rotary shaft seal for rotating or pivoting shafts with optional protective lip sealing action (R61-A) on the side facing away from the medium, against dirt accumulation from the outside. the elastomer outer sheath provides good static sealing, good thermal expansion balance e.g. in light-metal housings, better sealing with greater roughness and secure sealing for split housing as well as good static sealing with thin fluid or gaseous media.

### media

good chemical resistance to many mineral oil and synthetic lubricants (CLP, HLP, APGL etc.)

**operating parameters & material**

sealing element*	material		temperature	max. surface speed	max. pressure
	metal insert**	spring**			
s-mart NBR (available in 70 shore A, 72 shore A, 75 shore A)	mild steel DIN 1624 or non-alloy steel DIN EN 10139	spring steel DIN 17223 or non-alloy spring steel DIN EN 10270-1	-40 °C ... +100 °C	30 m/s	0,5 bar (0,05 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.

\* special grades and other materials (ACM, EACM, EPDM, HNBR, MVQ) on request

\*\* metal insert, and spring as well, can be supplied in different materials on request.

**surface quality**

surface roughness	Rtmax [μm]	Rz [μm]	Ra [μm]
shaft	≤6,3	≤1,0-5,0	≤0,2-0,8
bottom of groove	≤25	≤10-25	≤1,6-6,3

hardness 45 ... 60 HRC

**tolerance recommendation**

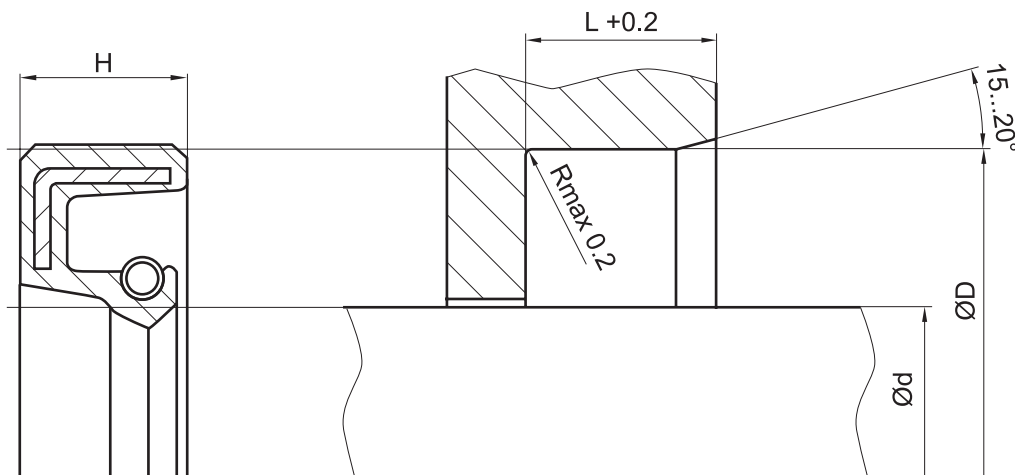
seal housing tolerances	
Ød	f8/h11
ØD	H8

**fitting & installation**

suitable tool should be used for installation. it is recommended that the installation housing is designed to provide the rotary shaft seal with axial support.

**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.