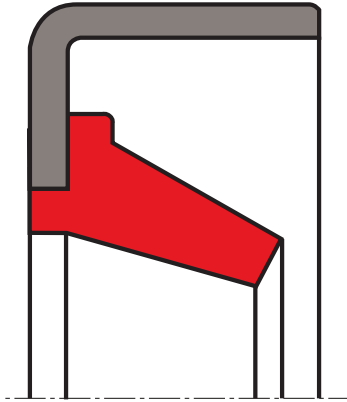


oil seal R82-A

seal spec



description

the R82-A is special metal cased radial oil seals without spring energised sealing lip. these types are not recommended for use in heavy polluted environments. as the static sealing between housing and metallic shell is limited, low viscosity media can "creep". better performance can be achieved with epoxy based resin O.D. coating. this special treatment is on request.

application



category of profile

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

single acting rotary shaft seal

area of application

secondary sealing e.g. as a dust, dirt or spray protection seal in electric engines, as a grease retainer.

- roller bearings
- tooling fixtures (e.g. drilling machines)
- sealing against viscous media (e.g. grease)
- supplementary excluders (shaft ends)
- axle king pin seals

advantages

- good radial stiffness
- good fitting stability avoiding pop-out of the seal
- low friction and low heat generation
- extremely compact design
- low radial force provides a low brake-out torque
- suitable for scraper applications

function

the R82-A is a single action rotary shaft seal for rotating or pivoting shafts. the sealing lip design without a spring produces less friction. as a result the sealing action in comparison to rotary shaft seals with energised springs is reduced. 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 housings as well as good static sealing with thin fluid or gaseous media.

tight and accurate fitting is achieved by the metal outer casing. the R78-A model has limited sealing action with thin fluid or gaseous media and in split housings. to guarantee a high level of static sealing on the outer surface, better surface treatment of the housing bore is necessary.

media

good chemical resistance to various mineral oil and synthetic lubricants.

**operating parameters & material**

material		temperature	max. surface speed	max. pressure
sealing element*	metal housing**			
s-mart NBR (70 shore A, 72 shore A and 75 shore A)	mild steel DIN 1624 (non-alloy steel DIN EN 10139)	-40 °C ... +100 °C	6 m/s	-

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, VMQ) on request

** metal housing 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

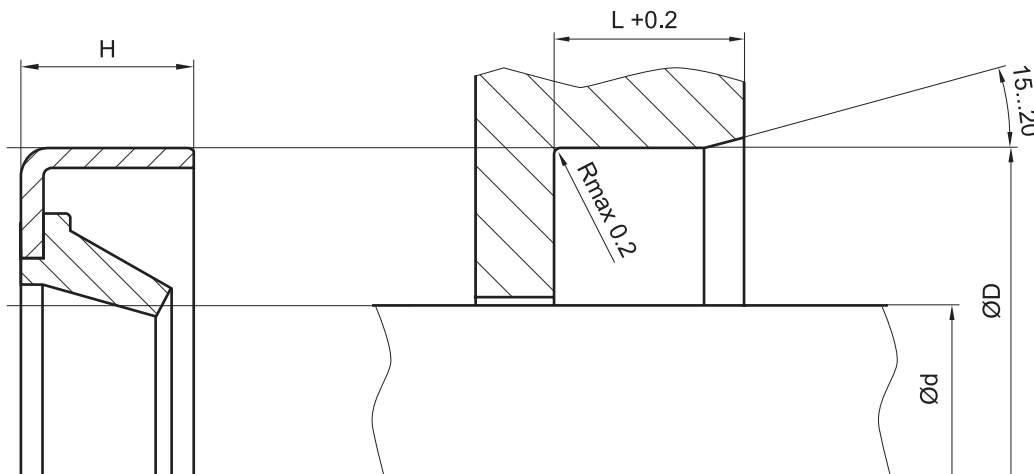
seal housing tolerances	
Ød	f8/h11
ØD	H8

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.