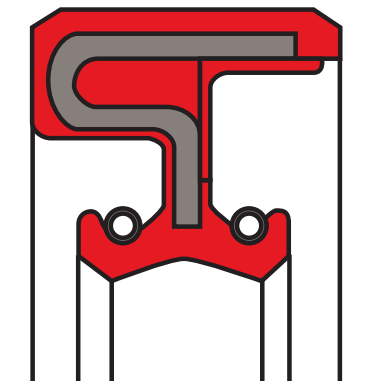


oil seal R114-A

seal spec



description

rotary shaft seal with an elastomer outer sheath and a metal insert as well as two spring-energised, back-to-back sealing lips.

application



category of profile

molded/standard/trade product only.

area of application

sealing of rotating machine elements such as shafts, hubs and axles. particularly for the separation of two media or extreme dirt accumulation from the outside

- machine tools
- power take-off gears in agricultural and construction machinery transmissions and axles.

advantages

- small housing
- sealing for the separation of two media
- two spring-loaded sealing lips (one spring-loaded dust lip against moderate to medium dust and dirt ingress)
- reliable sealing of the housing bore, even with increased roughness of the bore, thermal expansion and split housings.

function

the R114-A rotary shaft seal is used for the separation of two media or extreme dirt accumulation from the outside for rotating or pivoting shafts. the R114-A is a double action rotary shaft ring for rotating or pivoting shafts. 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. to guarantee high static sealing on the outer surface, better surface treatment of the housing bore is necessary or an additional coat of paint should be applied to the outer casing.

media

good chemical resistance to many mineral oil and greases.

operating parameters & material

material			temperature	max. surface speed	max. admitted misalignment
sealing element*	metal insert**	spring**			
s-mart NBR (70 shore A & 72 shore A)	non-alloy steel DIN EN 10139 (Unalloyed steel DIN EN 10027-1)	non-alloy spring steel DIN EN 10270-1	-40 °C ... +100 °C	6 m/s	0,3 bar (0,03 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	$\leq 6,3$	$\leq 1,0-5,0$	$\leq 0,2-0,8$
bottom of groove	≤ 25	$\leq 10-25$	$\leq 1,6-6,3$

hardness 45 ... 60 HRC

tolerance recommendation

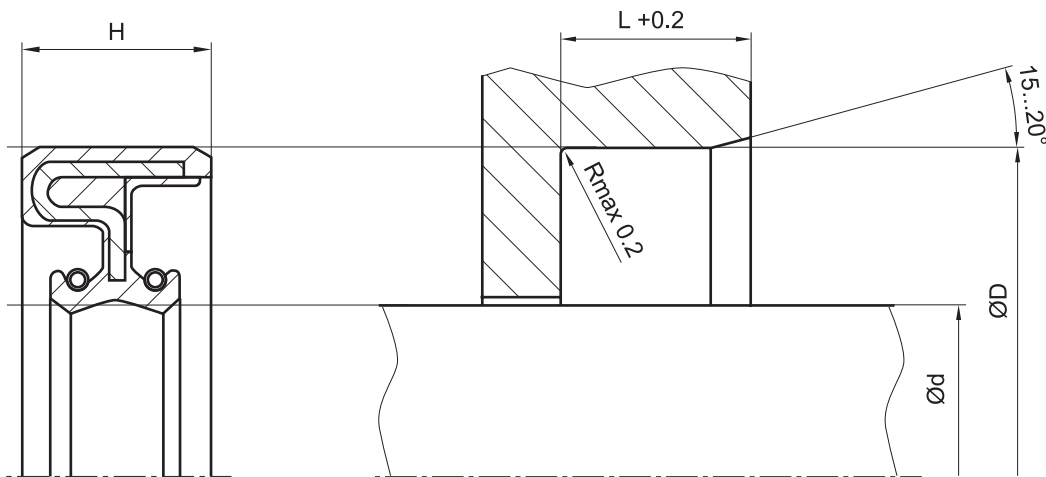
seal housing tolerances	
$\varnothing d$	f8/h11
$\varnothing D$	H8

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.