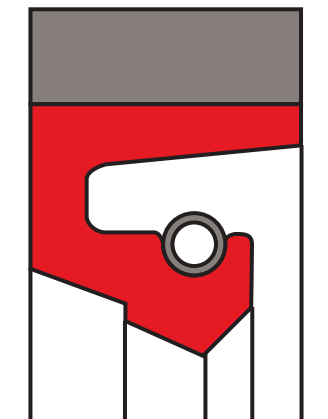


oil seal R103-A

seal spec



description

rotary shaft seal made of elastomer which has an outer casing reinforced with impregnated fabric. the fabric reinforcement is bonded firmly to the elastomer component. the sealing ring is energised by a spring. on request with additional dust lips (designation R106)

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 axle in large machinery and plant construction, e.g. wind energy generators, construction machinery, rolling mills and shipbuilding. R103-A can be used in difficult installation conditions.

advantages

sealing ring is used, in case of adequate lubrication by the medium to be sealed, preferably where shafts pass through walls in mills and large gearboxes in heavy machinery manufacture.

- particularly robust static part
- lasting radial contact pressure
- highly wear-resistant.

function

the R103-A type is rotary shaft seals for rotating or pivoting shafts. the R103-A is the standard model. the R104-A type has a groove running vertically to the axle. the R105-A type have a circular groove on the outside diameter in addition to the vertically running groove as the R104-A. the R104-A & R105-A type are applied back to back in pairs wherever relubrication from the outside is necessary, e.g. when separating of media or protecting against the invasion of dust, dirt and water spray. the R103-A is distinguished by a robust adhesive part, high radial contact pressure as well as good wear resistance. large-diameter the R103-A are alternatively available in split form in order to facilitate installation, i.e. the them can be installed around the built-in shaft.

media

good chemical resistance to many mineral oils and greases.

operating parameters & material

material		temperature	max. surface speed	max. pressure
sealing element	spring			
s-mart NBR 80 with impregnated cotton fabric	rust & acid-resistant steel 1.4301 (AISI 304)	-30 °C ... +100 °C	20 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.

**surface quality**

surface roughness	Rtmax [μm]	Ra (μm)
contact area	$\leq 2,5$	$\leq 0,6$
housing	≤ 15	≤ 4

tolerance recommendation

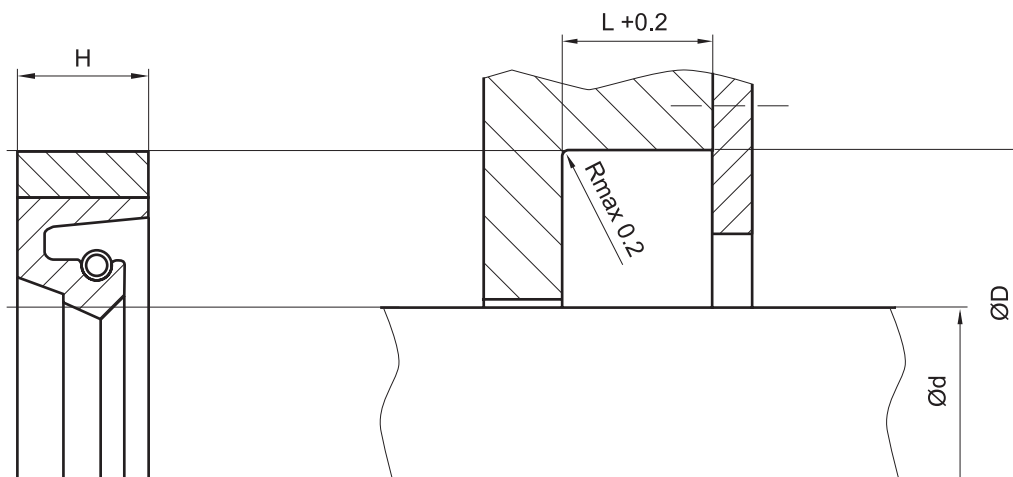
seal housing tolerances	
$\varnothing d$	h9
$\varnothing D (<500)$	H8
$\varnothing D (>500)$	$+0,0004 \cdot \varnothing D$

fitting & installation

suitable tool should be used for installation. R103-A are slightly squashed into the axially accessible housing bore. R103-A have surplus height and are additionally axially pressed into the installation housing. increased radial pressure is guaranteed by the radial and axial deformation. R104-A & R105-A rotary shaft seals are both installed back to back. special values apply with regard to the requirements for shafts, housing bores and eccentricities. these details can be coordinator with our technical department.

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.