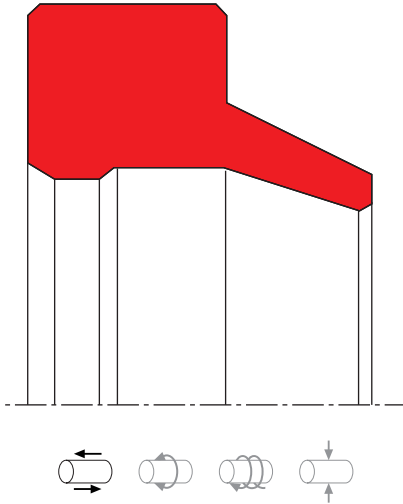


SEAL SPEC A02-A

seal-mart 



description

wiper with interference fit on outside diameter. wiping edge assures a reliable protection against penetration of dust and dirt whilst allowing backflow of residual oil film. back support area prevents tilting of wiper.

- + the seal profile and close machining tolerances provide a good static seal for the outside diameter, assisting in the prevention of ingress of humidity and foreign matter via the outside diameter.
- + the design of the wiping lip aids the recovery of residual oil film while exclusion of foreign matter is maintained.
- + the provision of a support shoulder, along with relief grooves on the mating seal face, prevents tilting of the wiper and pressure build up on the trailing side.
- + support shoulder not included in design A02-I.

category of profile

machined or molded/standard/trade product.

single acting

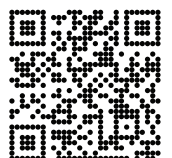
the A02-A seal is designed for use as a wiper.

area of application; hydraulics

- reciprocating rods on hydraulic cylinders.
- push rods and valve stems.
- materials must be selected according to operating requirements.
- the A02-I design is to be used for mounting spaces according to ISO 6195-1986 type C.

function

A02-A and A02-I wipers are designed to keep dust, dirt, sand and metal chips away from the sealing and guiding elements, thereby avoiding abrasive damage caused by external contamination.



operating parameter & material

sealing element	material energizer	back-up ring	temperature	max surface speed	hydrolysis	dry running	wear resistance
PU			-30 °C ... +110 °C	4 m/s	-	+	++
HPU			-20 °C ... +110 °C	4 m/s	++	+	++
LTPU			-50 °C ... +110 °C	4 m/s	-	+	++
SPU			-20 °C ... +110 °C	5 m/s	++	++	++
GPU			-30 °C ... +110 °C	4 m/s	++	+	++
NBR			-30 °C ... +100 °C	4 m/s	-	-	o
FKM			-20 °C ... +200 °C	4 m/s	-	-	o
EPDM			-50 °C ... +150 °C	4 m/s	++	-	o
HNBR			-25 °C ... +150 °C	4 m/s	+	o	+
XPU			-30 °C ... +110 °C	4 m/s			
XHPU			-20 °C ... +110 °C	4 m/s			
XSPU			-20 °C ... +110 °C	5 m/s			

attention: not suitable for mineral oils!

++ particularly suitable

+ suitable

o conditional suitable

- not suitable

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.

for detailed information regarding chemical resistance please refer to our "list of resistance". for increased chemical and thermal resistance rubber materials are to be preferred, polyurethan materials increase wear resistance.

surface quality

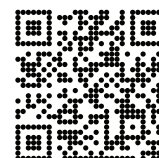
surface roughness	Rtmax (µm)	Ra (µm)
sliding surface	according to seal data	
bottom of groove	≤6,3	≤1,6
groove face	≤15	≤3

mode of installation

the prerequisites for perfect functioning are careful fitting and an accurately dimensioned mounting space. in general, wipers snap easily into their housings when distorted into a kidney shape (over 20mm diameter).

tolerance recommendation

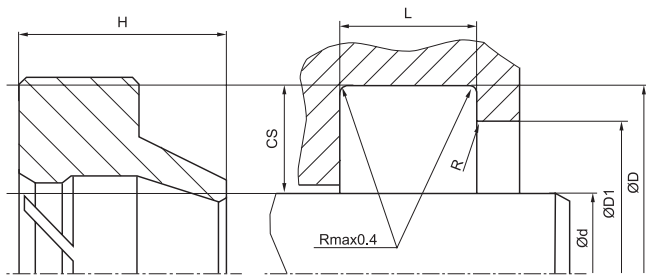
seal housing tolerance	cs	R[mm]
L < 10 mm	0,2	≤ 5
L ≥ 10 mm	0,3	max. 0,3
D1	H11	>5.....≤ 7,5
D	H11	max. 0,4
		>7,5...≤ 10
		max. 0,6
		> 10
		max. 0,8



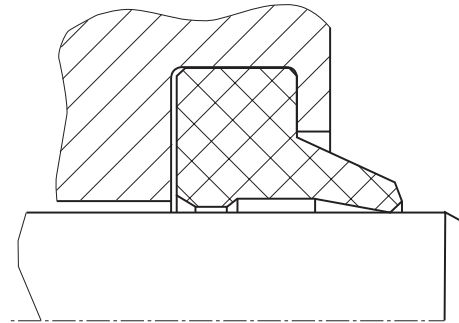
SEAL SPEC A02-A

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...



fitted



H [mm]	L1 [mm]
≤ 7	1
10	1,5
13	2

the L1 measurement, which is dependent on the height of the wiper, is selected as follows

