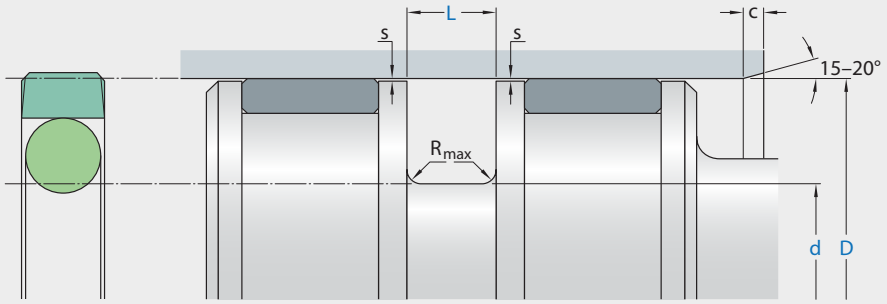
K08-D



Ordering dimensions in blue

Surface roughness	R_{tmax}	R_a
Sliding surface	≤ 2 µm	0,05–0,2 µm
Bottom of groove	≤ 6,3 µm	≤ 1,6 µm
Groove face	≤ 15 µm	≤ 3 µm

Bearing area: 50–95% and a cutting depth of 0,5 R_z based on C_{ref} = 0%

application

not bolded symbols; please consult our technical for application limitations

Standard dimensions D H9 over	incl.	d h10	L +0,2	R	c	OD	Maximal radial extrusion gap s* 100 bar	200 bar	400 bar	600 bar
mm							mm			
10	15	D – 4,9	2,2	0,4	2,5	1,78	0,30	0,20	0,15	0,05
15	40	D – 7,5	3,2	0,6	3,5	2,62	0,40	0,25	0,15	0,05
40	80	D – 11	4,2	1,0	4,5	3,53	0,40	0,25	0,20	0,10
80	133	D – 15,5	6,3	1,3	5,0	5,33	0,50	0,30	0,20	0,10
133	330	D – 21	8,1	1,8	6,0	7,00	0,60	0,35	0,25	0,15
330	670	D – 24,5	8,1	1,8	8,0	7,00	0,60	0,35	0,25	0,15
670	1 000	D – 28	9,5	2,5	10,0	8,40	0,70	0,50	0,30	0,20
1 000	2 000	D – 38	13,8	3,0	12,0	12,00	1,00	0,70	0,60	0,30

* The extrusion gap referred to is valid up to 80 °C and valid for the side opposite to the pressure side; higher temperatures require lower values.

operating parameters & material

diameter range: up to 600 mm

material		temperature	max. surface speed	max. pressure [1]	hydrolysis	dry running	wear resistance
sealing element	energizer						
Ecoflon 2	Ecorubber 1	-30 °C ... +100 °C	10 m/s	400 bar (40 MPa)	-	++	+
Ecoflon 3	Ecorubber 1	-30 °C ... +100 °C	10 m/s	400 bar (40 MPa)	-	++	+
Ecoflon 4	Ecorubber 1	-30 °C ... +100 °C	10 m/s	400 bar (40 MPa)	-	++	+
Ecoflon 2	Ecorubber 2	-20 °C ... +200 °C	10 m/s	400 bar (40 MPa)	-	++	+
Ecoflon 3	Ecorubber 2	-20 °C ... +200 °C	10 m/s	400 bar (40 MPa)	-	++	+
Ecoflon 4	Ecorubber 2	-20 °C ... +200 °C	10 m/s	400 bar (40 MPa)	-	++	+
Ecoflon 2	Ecorubber 3 [2]	-50 °C ... +150 °C	10 m/s	400 bar (40 MPa)	++	++	+
Ecoflon 3	Ecorubber 3 [2]	-50 °C ... +150 °C	10 m/s	400 bar (40 MPa)	++	++	+
Ecoflon 4	Ecorubber 3 [2]	-50 °C ... +150 °C	10 m/s	400 bar (40 MPa)	++	++	+
Ecoflon 2	Ecosil	-60 °C ... +200 °C	10 m/s	400 bar (40 MPa)	++	++	+
Ecoflon 3	Ecosil	-60 °C ... +200 °C	10 m/s	400 bar (40 MPa)	++	++	+
Ecoflon 4	Ecosil	-60 °C ... +200 °C	10 m/s	400 bar (40 MPa)	++	++	+
Ecowear	Ecosil	-60 °C ... +80 °C	10 m/s	400 bar (40 MPa)	++	+	+
X-ECOPUR	Ecorubber 1	-30 °C ... +110 °C	5 m/s	600 bar (40 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.

[1] pressure ratings are dependent on the size of the extrusion gap.

[2] attention: not suitable for mineral oils!

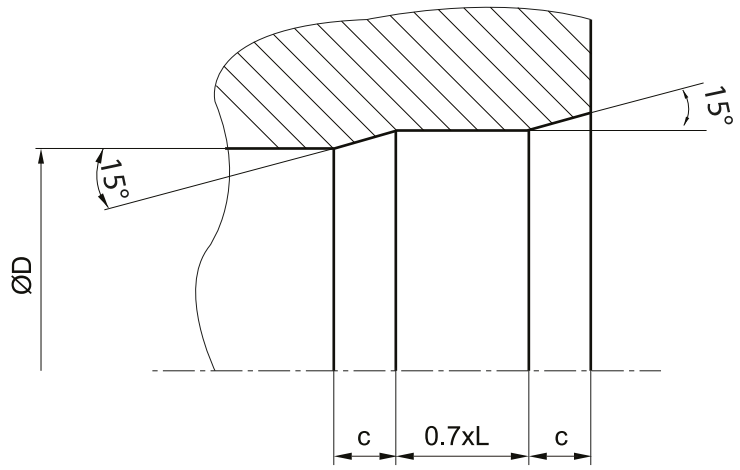
++ ... particularly suitable
o ... conditional suitable
+ ... suitable
- ... not suitable

for detailed information regarding chemical resistance please refer to our "list of resistance". for decreased leackage rates elastomer materials (polyurethane or rubber) in other sealing systems are to be preferred.

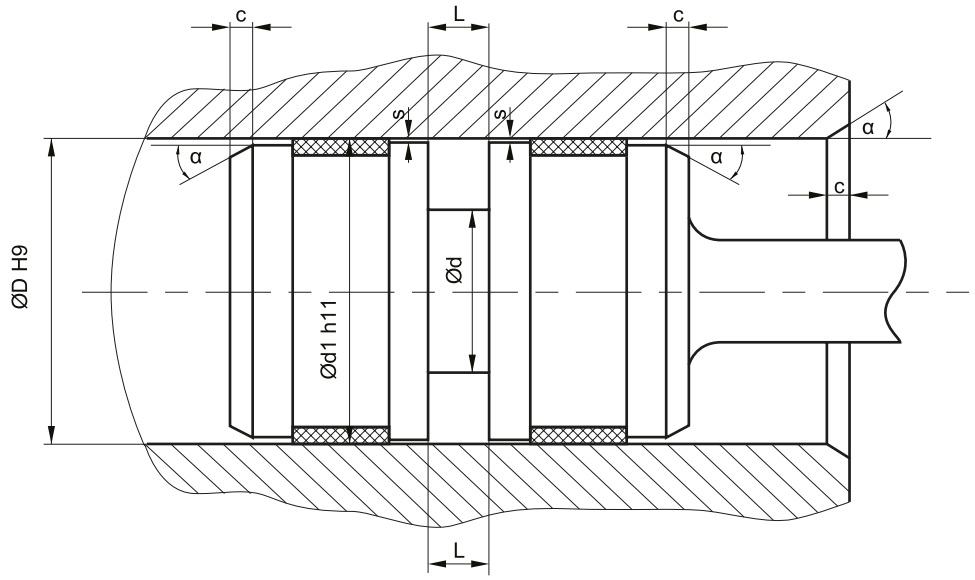
note on special materials:
as temperature limit and chemical resistance are determined by the preload element, the temperature range can be increased and the resistance to chemical influences improved, if a special material is used for the preload element.

mode of installation

in case of closed grooves, it is not recommended to slip the seal over the piston by hand (uneven material deformation in the sealing part). after the O-Ring is placed into the groove, the sealing part should be stretched over a installation cone by using a sleeve (assembly aid tools).
a recovery of the sealing part with a calibrating sleeve is advisable, however, a special shaped insertion chamfer on the cylinder barrel can also be designed (danger of tilting).
values for "c" see insertion chamfer.



recommended mounting space:



insertion chamfer:
in order to avoid damage to the piston seal during installation, the piston and the housing is to be chamfered and rounded as shown in the "recommended mounting space" drawing. the size of chamfer depends on the seal type and profile width.

cs (mm)	c (mm)	
	$\alpha = 15^0 \ldots 20^0$	$\alpha = 20^0 \ldots 30^0$
2,45	2,5	1,5
3,75	3,5	2
5,5	4,5	3
7,75	5	3,5
10,5	6	5
12,25	8	6
14	10	7

instead of a chamfer, the piston can also be designed with a radius. recommended size of the radius is equal to size of chamfer (R=c).