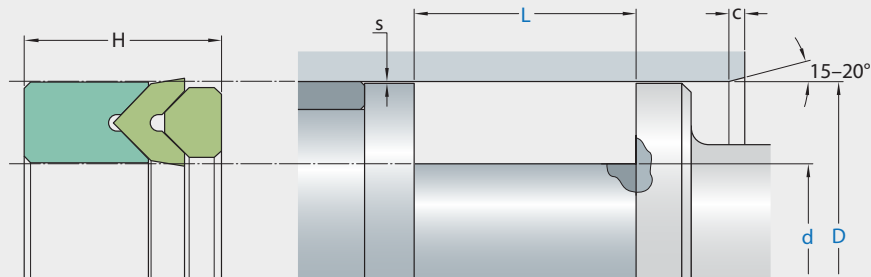


K1012-M



Ordering dimensions in blue

| Surface roughness | R_{tmax} | R_a |
|-------------------|------------------|------------------|
| Sliding surface | $\leq 2,5 \mu m$ | $0,05-0,2 \mu m$ |
| Bottom of groove | $\leq 6,3 \mu m$ | $\leq 1,6 \mu m$ |
| Groove face | $\leq 15 \mu m$ | $\leq 3 \mu m$ |

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

Standard dimensions

| D | H9 | d | L | R_{max} | c | s^* |
|------|-------|--------|------|-----------|------|-------|
| over | incl. | h10 | +0,2 | | | |
| mm | | | | | | |
| 40 | 40 | D - 10 | 9,5 | 0,4 | 4,0 | 0,25 |
| 75 | 75 | D - 15 | 12,3 | 0,4 | 5,0 | 0,37 |
| 75 | 150 | D - 20 | 21,2 | 0,4 | 6,0 | 0,50 |
| 150 | 200 | D - 25 | 25,8 | 0,4 | 8,5 | 0,62 |
| 200 | 300 | D - 30 | 33,5 | 0,4 | 10,0 | 0,75 |
| 300 | | D - 40 | 41,5 | 0,4 | 13,0 | 1,00 |

* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

application



not bolded symbols; please consult our technical for application limitations

operating parameters & material

diameter range: up to 600 mm

| material | | | temperature | max. surface speed | max. pressure 1 | hydrolysis | dry running | wear resistance |
|----------------------------|-----------------------|----------------------------|--------------------|--------------------|------------------|------------|-------------|-----------------|
| header ring K10-A | sealing element K11-M | back-up ring K12-M | | | | | | |
| Ecotal/Ecomid ² | ECOPUR | Ecotal/Ecomid ² | -30 °C ... +100 °C | 0,5 m/s | 500 bar (50 MPa) | - | + | + |
| Ecotal/Ecomid ² | H-ECOPUR | Ecotal/Ecomid ² | -20 °C ... +100 °C | 0,5 m/s | 500 bar (50 MPa) | + | + | + |
| Ecotal/Ecomid ² | T-ECOPUR | Ecotal/Ecomid ² | -40 °C ... +100 °C | 0,5 m/s | 500 bar (50 MPa) | - | + | + |
| Ecotal/Ecomid ² | S-ECOPUR | Ecotal/Ecomid ² | -20 °C ... +100 °C | 0,7 m/s | 500 bar (50 MPa) | + | + | + |
| Ecotal/Ecomid ² | G-ECOPUR | Ecotal/Ecomid ² | -30 °C ... +100 °C | 0,5 m/s | 500 bar (50 MPa) | + | + | + |
| Ecoflon 2 | Ecorubber 1 | Ecoflon 2 | -30 °C ... +100 °C | 0,5 m/s | 250 bar (25 MPa) | - | - | O |
| Ecoflon 2 | Ecorubber 2 | Ecoflon 2 | -20 °C ... +200 °C | 0,5 m/s | 250 bar (25 MPa) | - | - | O |
| Ecoflon 2 | Ecorubber 3 | Ecoflon 2 | -50 °C ... +150 °C | 0,5 m/s | 250 bar (25 MPa) | ++ | - | O |
| Ecoflon 2 | Ecorubber H | Ecoflon 2 | -25 °C ... +150 °C | 0,5 m/s | 250 bar (25 MPa) | + | O | + |

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 Ecotal up to $\varnothing 260$ mm, Ecomid above $\varnothing 260$ mm.

++ ... particularly suitable

o ... conditional suitable

+ ... suitable

- ... not suitable

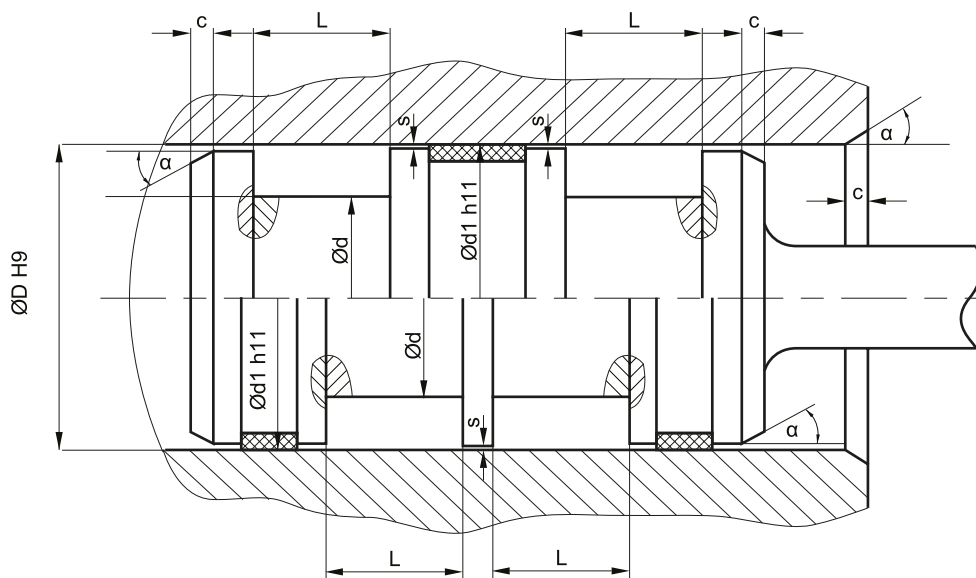
for detailed information regarding chemical resistance please refer to our „list of resistance“. for increased chemical and thermal resistance rubber materials are to be preferred, polyurethane materials increase wear resistance. for higher gliding speeds another sealing system should be used (e.g. PTFE materials).

mode of installation

open housings are required.

in case of already existing closed grooves the pressure and the support ring can be split for installation (pressure ring with cutting gap 0). the chevron has to be slipped in uncut. the support ring should be made of two parts (like ST08+K10) for easier installation into closed grooves.

recommended mounting space:



plastic guiderings (wearbands) have to feature a adequate cutting gap (recommendation: 2-5% of D). if metallic guides are used, spiral grooves shall be provided.

in order to avoid drag pressure built up in case of back-to-back arrangement, the distance between the seals should be as small as possible.

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) | |
|---------|------------------------------------|------------------------------------|
| | $\alpha = 15^\circ \dots 20^\circ$ | $\alpha = 20^\circ \dots 30^\circ$ |
| 4 | 3,5 | 2 |
| 5 | 4 | 2,5 |
| 6 | 4,5 | 3 |
| 7,5 | 5 | 4 |
| 10 | 6 | 5 |
| 12,5 | 8,5 | 6,5 |
| 15 | 10 | 7,5 |
| 20 | 13 | 10 |

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