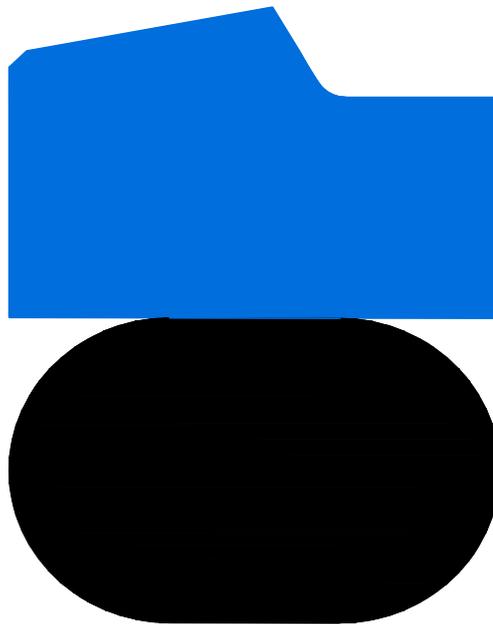




O.L. Seals A/S

Piston Seals

Kefloy SharpSeal® Type 2512-



Very efficient single acting piston seal for reciprocating movements.

The design of the seals concentrate the sealing force at the sealing edge.

Offers excellent leakage control over the whole pressure range.



SharpSeal® Type 2512-

Is a very efficient SINGLE ACTING piston seal. The design of the seal concentrates the sealing forces on the sealing edge. This ensures an excellent leakage control over the whole pressure range. The sealing edge virtually scrapes the sealing surface dry. Where a completely dry sealing surface is required, it is possible to install SharpSeals® in tandem. The SharpSeal® ensures automatic pressure relief between the two seals. Ventilation between the seals is not necessary.

SharpSeal® consists of an outer sliding part of Kefloy® energized by a rubber O-Ring. SharpSeal® is pressure responsive.

SharpSeal® can be used with a great variety of fluids. Kefloy® is compatible with virtually all fluids.

SharpSeal® type 2512- is available in Standard series, Light Duty series and Heavy Duty series.



Working Range

Pressure

Up to 80 MPa. For pressures exceeding 40 MPa, please contact your O.L. Seals distributor.

Temperature

-50°C to + 200°C. For temperatures exceeding this temperature range, please contact your O.L. Seals distributor.

Velocity

Reciprocating up to 15 m/sec. Frequency: Up to 5 HZ. SharpSeal® should not be used for rotating or oscillating applications.

Fluids

Kefloy® is compatible with virtually all Fluids – liquids as well as gases. By selecting the right compound for the O-Ring energizer, it is possible to cover almost all fluids.

Advantages

- Very good sealing efficiency
- Good wear resistance
- Low friction
- No stick-slip

- Simple groove design
- Compatible with virtually all fluids
- Available for all diameters up to 2.500 mm

Material Selection Guide

| Fluid | Mating surface | SharpSeal® compound |
|------------------------|---------------------|---------------------|
| Hydraulic oil | Steel | Kefloy® 13 |
| Motor oil | Chrome plated steel | Kefloy® 85 |
| Grease | Cast iron | |
| Other mineral oils | | |
| Water | Aluminium | Kefloy® 22 |
| Water hydraulic | Stainless steel | Kefloy® 90 |
| Steam | Bronze | |
| Non lubricating fluids | Soft metals | |
| Air, dry or lubricated | Steel | Kefloy® 22 |
| | Chrome plated steel | Kefloy® 28 |
| | Cast iron | Kefloy® 90 |
| | Aluminium | |
| | Stainless steel | |
| | Bronze | |
| | Soft metals | |

| Fluid | O-Ring compound |
|----------------------------|---|
| Hydraulic oil | NBR (Buna N) |
| Motor oil | |
| Grease | |
| Other mineral oils | |
| Water, cold | |
| Water hydraulic | At temperatures above 120°C use Viton O-Rings |
| Air, lubricated | |
| Water, hot | EPDM |
| Steam | |
| Synthetic hydraulic fluids | Special compounds |

O-Ring manufacturer's recommendation for the actual fluid should always be followed.

For other fluids or sealing surfaces, please consult your O.L. Seals distributor.



Seal Selection Guide

Standard Series

For most single acting applications the Standard Series installed in tandem is the best choice.

Light Duty Series

Where very low friction is required, the Light Duty Series is recommended.
Where space limitations make it necessary the light Duty Series should be chosen.

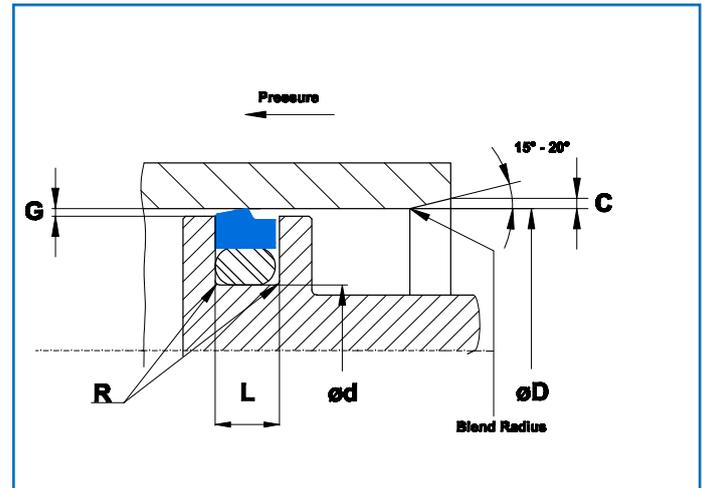
Heavy Duty Series

Where a very long service life is required the Heavy Duty Series should be chosen.

Ordering Example

Piston diameter: 663.7 mm

Part no 25125-6637-13
 SharpSeal® Type └──┬──
 Series └──┬──
 Piston dia. x 10 └──┬──
 Compound no └──┬──
 O-Ring size 633.48 x 7.00
 O-Ring to be ordered separately



Installation dimensions

| Type No. | Standard Series Piston dia. | Light Series Piston dia. | Heavy Series Piston dia. | d Groove diam. | L Groove width | R Ra- dius | G Radial gap | | | C Cham- fer | B O-ring ID | O-ring Cross section |
|----------|--------------------------------|-----------------------------|-----------------------------|-------------------|-------------------|------------------|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------------|
| | | | | | | | 10MPa (100 bar) | 20MPa (200 bar) | 40MPa (400 bar) | | | |
| | H9 | H9 | H9 | h9 | +0.2 -0 | Max. | | | | Min. | | |
| 25120 | 8-16.9 | 17-26.9 | - | D-4.9 | 2.2 | 0.4 | 0.30 | 0.20 | 0.15 | 0.7 | ød | 1.78 |
| 25121 | 17-26.9 | 27-59.9 | 8-16.9 | D-7.3 | 3.2 | 0.6 | 0.40 | 0.25 | 0.15 | 1.0 | ød | 2.62 |
| 25122 | 27-59.9 | 60-199.9 | 17-26.9 | D-10.7 | 4.2 | 1.0 | 0.40 | 0.25 | 0.20 | 1.3 | ød | 3.53 |
| 25123 | 60-199.9 | 200-255.9 | 27-59.9 | D-15.1 | 6.3 | 1.3 | 0.50 | 0.30 | 0.20 | 2.0 | ød | 5.33 |
| 25124 | 200-255.9 | 256-649.9 | 60-199.9 | D-20.5 | 8.1 | 1.8 | 0.60 | 0.35 | 0.25 | 2.5 | ød | 6.99 |
| 25125 | 256-669.9 | 650-999.9 | 200-255.9 | D-24.0 | 8.1 | 1.8 | 0.60 | 0.35 | 0.25 | 2.5 | ød | 6.99 |
| 25126 | 670-999.9 | ≥ 1000 | 256-649.9 | D-27.3 | 9.5 | 2.5 | 0.70 | 0.50 | 0.60 | 3.0 | ød | 8.40 |
| 25127 | ≥1000 | | 650-999.9 | D-38.0 | 13.8 | 3.0 | 1.00 | 0.70 | 0.60 | 3.5 | ød | 12.00 |

O-Ring Size

O-Ring cross section according to installation dimensions.
 O-Ring I.D. as close to groove dia. d as possible.
 O-Ring I.D. not bigger than groove dia. d +3%
 O-Ring I.D. not smaller than groove dia. d -5%

Important Note

The limits of pressure, temperature and velocity are individual maximum values. Heat generated by the friction may cause local increase of temperature. The cooling possibilities for the system determines the combinations of maximum values.