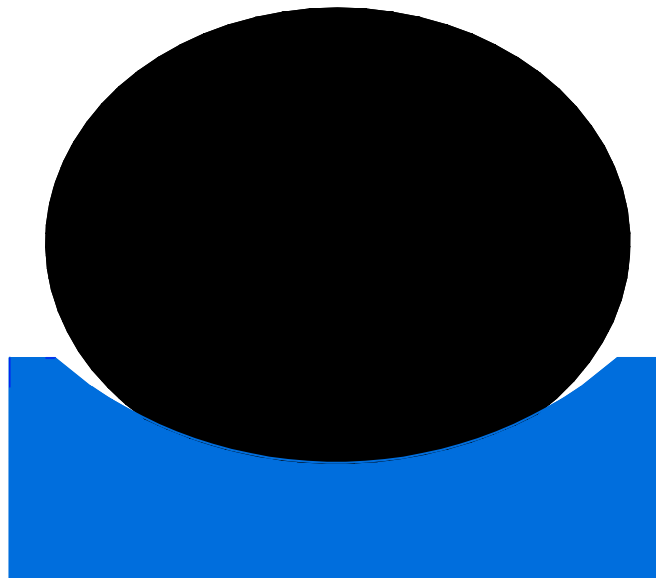




O.L. Seals A/S

Rod Seals

Kefloy O-Cap® Type 2543-



Double acting rod seal for reciprocating movements.

Consists of a thin ring of Kefloy energized by a rubber O-ring.

Eliminates frictional problems of O-rings.

Designed for British Standard and American Standard O-ring grooves.



O-Cap® Type 2543-

O-Cap® type 2543- is a double acting rod seal. It uses the same groove dimensions as O-Ring + 1 Buck-Up Ring according to British and American standard. It consists of a Kefloy® ring energized by a rubber O-Ring. The O-Cap® is designed to eliminate the frictional - and wear problems, which may occur with rubber O-Rings.

O-Cap® is pressure responsive.

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

O-Cap® is designed to replace rubber O-Rings where they cause frictional - or wear problems.

O-Caps® should not be used for new designs.



Working Range

Pressure

Up to 35 MPa. For pressures exceeding 35 MPa, please contact your O.L. Seals distributor.

Temperature

-50°C to + 200°C, though limited by O-ring. 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. 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

- Fits British standard and American standard O-Ring grooves
- Small installation dimensions
- Good wear resistance

- Low friction
- No stick-slip
- Simple groove design
- Available for all diameters up to 2.500 mm

Material Selection Guide

| Fluid | Mating surface | O-Cap® compound |
|------------------------|---------------------|-----------------|
| Hydraulic oil | Steel | Kefloy® 32 |
| Motor oil | Chrome plated steel | |
| Grease | Cast iron | |
| Other mineral oils | Aluminium | Kefloy® 25 |
| Water | Stainless steel | Kefloy® 90 |
| Water hydraulic | Bronze | |
| Steam | Soft metals | |
| Non lubricating fluids | Steel | Kefloy® 25 |
| Air, dry or lubricated | 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, dry or 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 double acting applications the Standard Series is the best choice.
Can be used for single acting applications where the fluid is a gas.

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.

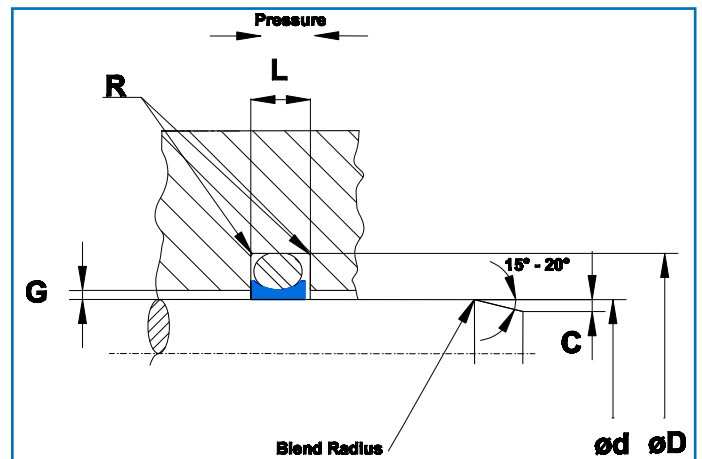
Ordering Example

O-Cap for British and American standard O-Ring groove for O-Ring with one back-up ring.

Rod diameter: 20.3 mm

Part no 25432-0203-90

O-Cap® Type _____
Series _____
Rod dia. x 10 _____
Compound no _____
O-Ring size 20.22 x 3.53
O-Ring to be ordered separately



Installation Dimensions

Notches

In systems with rapid pressure changes, e.g. power steering systems, it is necessary to furnish the O-Cap® with sidewall notches. The notches ensure a quick seal response to pressure changes.

To order O-Cap® with notches – add suffix “N” behind the compound code.
Example: 25432-0203-90N.

| Type No. | Standard Series Rod dia. | D Groove diam. | L Groove width | R Radius | G Radial gap | | | | C Chamfer | B O-ring ID | O-ring Cross section |
|----------|--------------------------|----------------|----------------|----------|---------------|-----------------|-----------------|-----------------|-----------|-------------|----------------------|
| | | | | | 2MPa (20 bar) | 10MPa (100 bar) | 20MPa (200 bar) | 35MPa (350 bar) | | | |
| | f8/h9 | H9 | +0.2 -0 | Max. | | | | | Min. | | |
| 25430 | 4-9.9 | d + 2.90 | 3.80 | 0.4 | 0.10 | 0.10 | 0.08 | 0.05 | 0.70 | d+0.0 | 1.78 |
| 25431 | 10-19.9 | d + 4.50 | 4.60 | 0.4 | 0.15 | 0.15 | 0.10 | 0.07 | 1.00 | d+0.5 | 2.62 |
| 25432 | 20-39.9 | d + 6.20 | 5.70 | 0.6 | 0.25 | 0.20 | 0.15 | 0.08 | 1.30 | d+0.5 | 3.53 |
| 25433 | 40-119.9 | d + 9.40 | 8.50 | 0.8 | 0.35 | 0.25 | 0.20 | 0.10 | 2.00 | d+1.0 | 5.33 |
| 25434 | 120-649.9 | d + 12.20 | 11.20 | 0.8 | 0.50 | 0.30 | 0.25 | 0.15 | 2.50 | d+1.0 | 6.99 |

O-Ring Size

O-Ring cross section according to installation dimensions.
O-Ring I.D. as close to dia. d+1 as possible.
O-Ring I.D. not bigger than (d+1) +3%
O-Ring I.D. not smaller than (d+1) -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.