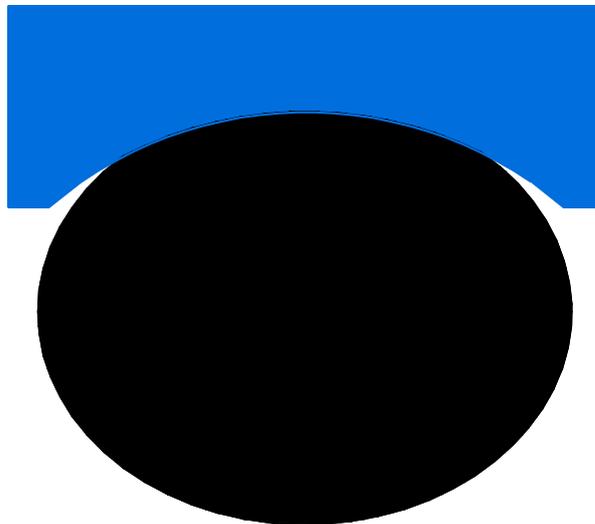




O.L. Seals A/S

Piston Seals

Kefloy O-Cap® Type 2544-



Double acting piston 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 2544-

O-Cap® type 2544 is a double acting piston seal. It uses the same groove dimensions as O-Ring + 1 Back-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
- Fits Swedish 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
- Compatible with virtually all fluids

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		
Water	Aluminium	Kefloy® 25
Water hydraulic	Stainless steel	
Steam	Bronze	
Non lubricating fluids	Soft metals	Kefloy® 28 Kefloy® 90
Air, dry or lubricated	Steel	
	Chrome plated steel	
	Cast iron	
	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, Light Duty Series is recommended.

ries is recommended.

Where space limitations make it necessary the light Duty Series should be chosen.

Heavy Duty Series

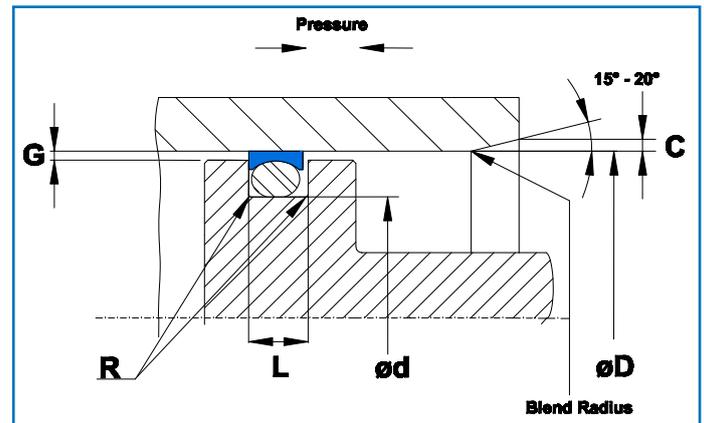
Where a very long service life is required the Heavy Duty Series should be chosen.

Ordering Example

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

Piston diameter: 252.4 mm

Part no 25444-2524-25
 O-Cap® Type _____
 Series _____
 Piston dia. x 10 _____
 Compound no _____
 O-Ring size 240.67 x 7.00
 O-Ring to be ordered separately



Installation Dimension

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: 25444-2524-25N

Type No.	Standard Series Bore diam	d Groove diam.	L Groove width	R Radius	G Radial gap				C Chamfer	O-ring Cross section
					2MPa (20 bar)	10MPa (100 bar)	20MPa (200 bar)	35MPa (350 bar)		
	H9	h9	+0.2 -0	Max.					Min.	
25440	5-13.9	D-2.90	3,80	0.4	0.10	0.10	0.08	0.05	1.40	1.78
25441	14-24.9	D-4.50	4,60	0.4	0.15	0.15	0.10	0.07	1.80	2.62
25442	25-45.9	D-6.20	5,70	0.6	0.25	0.20	0.15	0.08	2.40	3.53
25443	46-124.9	D-9.40	8,50	0.8	0.35	0.25	0.20	0.10	3.20	5.33
25444	125-669.9	D-12.20	11,20	0.8	0.50	0.30	0.25	0.15	4.00	6.99

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.