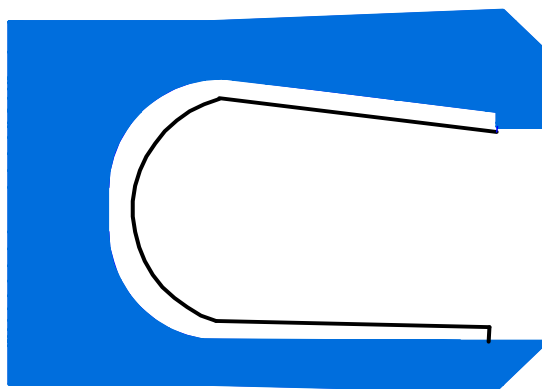




O.L. Seals A/S

Piston Seals

MupuSeal® Type 3042- and Type 3044-



Spring energized piston seal for dynamic applications



MupuSeal® Type 3042- and type 3044-

Are single acting spring energized piston seals for dynamic applications. MupuSeal® consists of jacket of a Kefloy® energized by a V-shaped corrosion resistant steel spring.



The steel spring is available in three different chemical resistant alloys.

- | | |
|--------------------|---|
| • Stainless steel | AISI 301; DIN 1.4310 |
| • Hastelloy® C-276 | EN ISO 15156; NACE MR-01-75 |
| • Elgiloy® | ASTM F1058; EN ISO 15156; NACE MR-01-75 |

Hastelloy® is a registered trademark of Haynes International
Elgiloy® is a registered trademark of Elgiloy Specialty Metals

MupuSeal type 3042- and type 3044- have asymmetric design of the sealing lips. The outer lip is designed for the dynamic motion against the bore. The inner lip is designed to give maximum sealing efficiency against the groove.

MupuSeal® can be used with virtually all fluids.

MupuSeal® is pressure responsive.

Working Range

Pressure

Up to 45 MPa in standard execution. For pressures exceeding 45 MPa, 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.

Temperature

-70°C to + 260°C. For temperatures exceeding this temperature range, please contact your O.L. Seals distributor.

Fluids

Kefloy® is compatible with virtually all fluids – liquids as well as gases. By selecting the right Alloy for the spring energizer, it is possible to cover almost all fluids.

Applications

Due to its unique properties MupuSeal is used in a great variety of applications

- | | |
|---------------------------|-----------------|
| - Extreme temperatures | - Electronic |
| - Aggressive environments | - Machine tools |
| - Food and drug | - Aviation |
| - Offshore | - Defence |
| - Chemical processes | |
| - Refrigeration | |
| - Energy | |

Advantages

- Very good sealing efficiency
- Compatible with virtually all fluids
- Covers a very big thermal range
- No contamination of fluids
- Can be sterilised
- No ageing
- No vulcanisation to mating surface
- Unlimited shelf life
- Good wear resistance
- Low friction
- No stick-slip
- Simple groove design
- Standard grooves according to ISO 3771 and MIL G 5514F
- NACE compatible spring alloys available
- Available for all diameters up to 2.500 mm

Material Selection Guide

Fluid	Mating surface	MupuSeal® compound
Water	Steel	Kefloy® 25
Water hydraulic	Chrome plated steel	Kefloy® 28
Steam	Cast iron	Kefloy® 40
Non lubricating fluids	Aluminium	Kefloy® 90
Air, dry or lubricated	Stainless steel	
	Bronze	
	Soft metals	
Hydraulic oil	Steel	Kefloy® 13
Motor oil	Chrome plated steel	Kefloy® 32
Grease	Cast iron	
Other mineral oils	Aluminium	Kefloy® 25
	Stainless steel	Kefloy® 28
	Bronze	Kefloy® 32
	Soft metals	Kefloy® 40
		Kefloy® 90

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

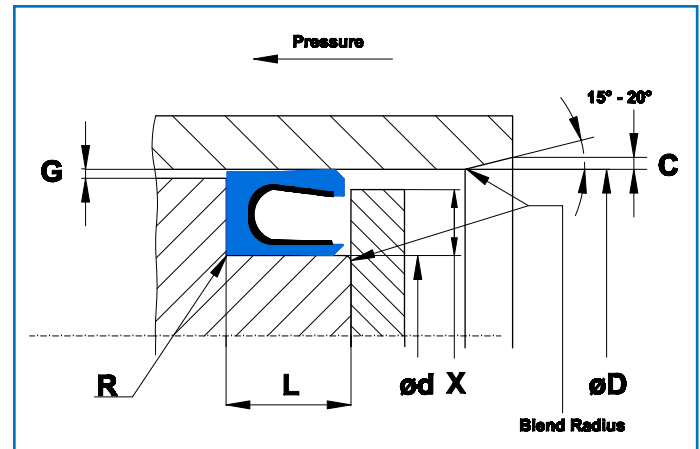
Seal Selection Guide

Ordering Example

Piston diameter: 85.5 mm

Part no. 30423-0855-40-H
 MupuSeal® type _____
 Series _____
 Rod dia. x 10 _____
 Jacket compound no. _____
 Spring material _____
 Sil-Clean * (Option)

* As an option the spring groove can be filled with silicone. This will make the MupuSeal® easier to clean. The silicone is FDA approved.



Installation dimensions for MupuSeal type 3042- (With standard groove width).

MupuSeal Dynamic Cross section		øD Bore	ød Groove	L	R	X	G Radial gap				Recomm. dia/cross
Part no.	Series	Min. Dia. H9	Dia. h9	+ 0.2 - 0	Max.	Min.	2 MPa (20 bar)	10 MPa (100 bar)	20 MPa (200 bar)	40 MPa (400 bar)	
30420	000	6.0	øD-2.90	2.40	0.4	0.4	0.20	0.10	0.08	0.05	6 - 13.99
30421	100	13.0	øD-4.50	3.60	0.4	0.6	0.25	0.15	0.10	0.07	14 - 24.99
30422	200	18.0	øD-6.20	4.80	0.6	0.7	0.35	0.20	0.15	0.08	25 - 45.99
30423	300	28.0	øD-9.40	7.10	0.8	0.8	0.50	0.25	0.20	0.10	46 - 124.99
30424	400	45.0	øD-12.20	9.50	0.8	0.9	0.60	0.30	0.25	0.12	125 - 629.99
30425	500	100.0	øD-19.00	15.00	0.8	1.5	0.90	0.50	0.40	0.20	630 -

Installation dimensions for MupuSeal type 3044- (With extended groove width).

MupuSeal Dynamic Cross section		øD Bore	ød Groove	L	R	X	G Radial gap				Recomm. dia/cross
Part no.	Series	Min. Dia. H9	Dia. h9	+ 0.2 - 0	Max.	Min.	2 MPa (20 bar)	10 MPa (100 bar)	20 MPa (200 bar)	40 MPa (400 bar)	
30440	000	6.0	øD-2.90	3.80	0.4	0.4	0.25	0.15	0.10	0.07	6 - 13.99
30441	100	13.0	øD-4.50	4.65	0.4	0.6	0.35	0.20	0.15	0.08	14 - 24.99
30442	200	18.0	øD-6.20	5.70	0.6	0.7	0.50	0.25	0.20	0.10	25 - 45.99
30443	300	28.0	øD-9.40	8.50	0.8	0.8	0.60	0.30	0.25	0.12	46 - 124.99
30444	400	45.0	øD-12.20	11.20	0.8	0.9	0.90	0.50	0.40	0.20	125 - 629.99
30445	500	100.0	øD-19.00	20.00	0.8	1.5	0.95	0.60	0.45	0.25	630 -

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.