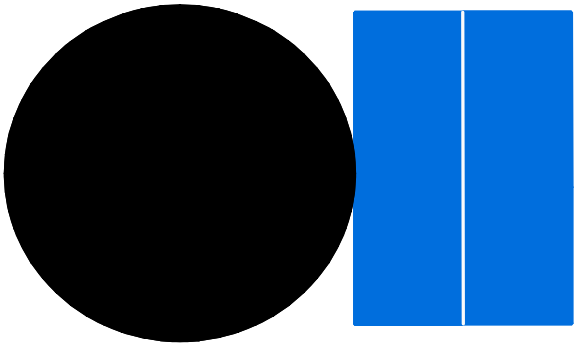
O.L. Seals A/S

Back-Up Rings

Kefloy Spiral BakRing® Type S-



Spiral BakRing® Type S-

Spiral BakRing® is used to prevent extrusion of rubber O-Rings and rubber X-Rings. It consists as standard of two windings which in the ends are cut in an angle. It can be used for static as well as for dynamic applications. It should not be used for rotating applications. As it is “open” it can be installed at places where solid Back-up Rings are impossible to install. It adapts easily to big temperature changes.

Working Range

The values should be considered as recommendations. A combination of maximum values should be avoided. Values stated below are related to the BakRings and not to the rubber seal they back up.

Pressure
Static up to 250 MPa depending on temperature, gap and BakRing® Compound.
Reciprocating up to 40 MPa depending on temperature, gap and BakRing® Compound.

Temperature
-200°C to + 260°C depending on compound.

Velocity
Reciprocating up to 2 m/sec.
Should not be used for rotating applications.

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

Compounds

Spiral BakRings are normally made in the very extrusion resistant Kefloy® 60, which is a blue, glass fibre filled modified PTFE.
Where the BakRing® is in direct contact with food or drugs, Kefloy 11 is recommended.

Compound	Materials	Static applications	Dynamic applications
		Pressure MPa	Pressure MPa
Kefloy® 11	Virgin PTFE	220	40
Kefloy® 13	PTFE / Bronze	270	60
Kefloy® 22	PTFE / Carbon / Graphite	270	60
Kefloy® 60	PTFE / Glass fibre Light blue	270	60
Kefloy® 72	PTFE / Glass fibre White	270	60

A range of other compounds are available on request.

do O-Ring Cross Sec. BS	do O-Ring Cross Sec. SMS	d Internal diameter.	D External diameter.	L1 Groove width	L2 Groove width	R Radius	G Radial gab	C Chamfer	W Bak Ring thickness	T Bak Ring Width
		h9	H9	+0.2/-0	+0.2/-0	Max.	Max.	Min.		
	1.6	D - 2.6	d + 2.6	3.00	4.00	0.2	0.05	0.5	1.30	1.0
1.78		D - 2.9	d + 2.9	3.80	5.30	0.3	0.06	0.6	1.45	1.4
	2.4	D - 4.0	d + 4.0	4.60	6.00	0.3	0.06	0.6	2.00	1.4
2.62		D - 4.5	d + 4.5	4.60	6.20	0.3	0.07	1.0	2.25	1.4
	3.0	D - 5.0	d + 5.0	5.40	6.80	0.3	0.07	1.0	2.50	1.4
3.53		D - 6.2	d + 6.2	5.70	7.70	0.5	0.08	1.3	3.10	1.4
5.33		D - 9.4	d + 9.4	8.50	10.80	0.5	0.10	2.0	4.70	1.7
	5.7	D-10.0	d+10.0	9.30	11.10	0.5	0.10	2.0	5.00	1.7
7.0		D-12.2	d+12.2	11.20	14.70	0.6	0.13	2.5	6.10	2.5
	8.4	D-15.0	d+15.0	13.20	15.40	0.6	0.13	3.0	7.50	2.5

Advantages

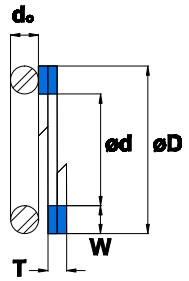
- Easy to install
- Available for all diameters up to 3.000 mm

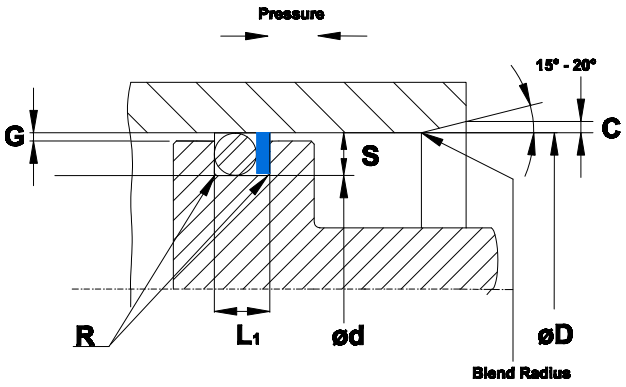
Seal Selection Guide

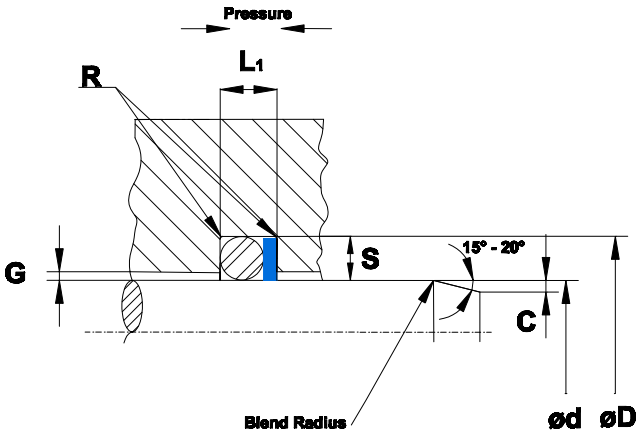
Ordering Example
External groove diameter: 50.5 mm
Internal groove diameter: 44.3 mm
Groove width: 5.7 mm

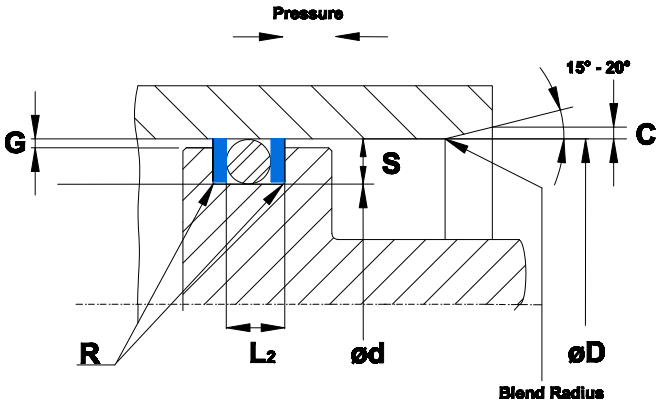
Part no S-0443-0505-14-11
Back-Up Ring® Type
Internal groove dia. x 10
External groove dia. x 10
Back-Up ring width x 10
Compound no
O-Ring size 44.04 x 3.53
O-Ring to be ordered separately

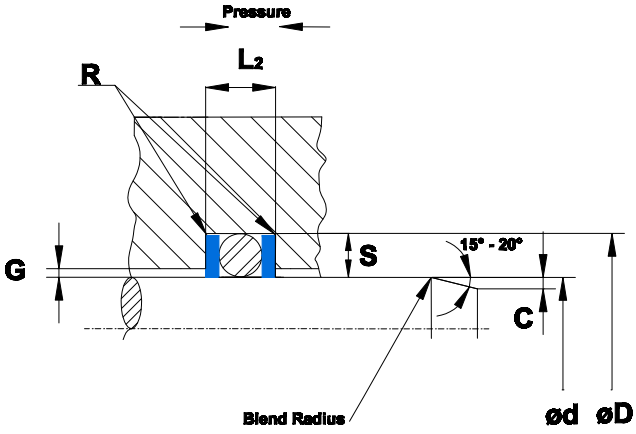
Type "S" Spiral











O-Ring Size
O-Ring cross section according to installation dimensions.
O-Ring I.D. as close to dia. d as possible.
O-Ring I.D. not bigger than d +5%
O-Ring I.D. not smaller than d -10%

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 dertermines the combinations of maximum values.