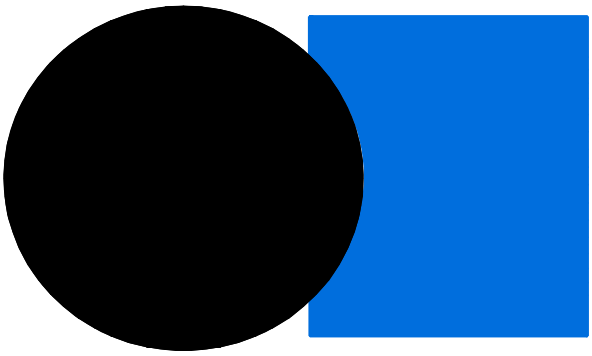
O.L. Seals A/S

Back-Up Rings

Kefloy Heavy Duty BakRing® Type H-



Heavy Duty BakRing® Type H-

Heavy Duty BakRing® is used to prevent extrusion of rubber O-Rings and rubber X-Rings. It is a solid ring with a concave cross section. The concave contact surface against the O-Ring protects the O-Ring against deformation. It can be used for static as well as for reciprocating and rotating applications.

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 400 MPa depending on temperature, gap and BakRing® Compound.
Dynamic up to 100 MPa depending on temperature, gap and BakRing® Compound.
For pressures exceeding above mentioned values, please contact your O.L. Seals distributor.

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

Velocity
Reciprocating or rotating up to 2 m/sec. depending on pressure and compounds.
Can be used for rotating applications in uncut execution.

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

Heavy Duty 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	300	70
Kefloy® 13	PTFE / Bronze	400	100
Kefloy® 22	PTFE / Carbon / Graphite	400	100
Kefloy® 60	PTFE / Glass fibre Light blue	400	100
Kefloy® 72	PTFE / Glass fibre White	400	100

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

- Maximum protection of the O-Ring
- Available for all diameters up to 2.500 mm

Seal Selection Guide

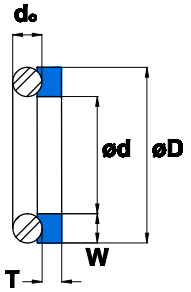
Ordering Example

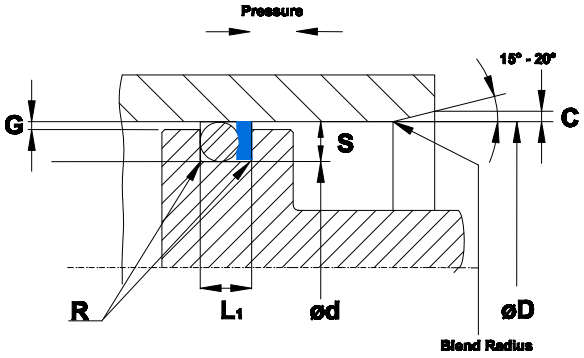
External groove diameter:	75.3 mm
Internal groove diameter:	70.8 mm
O-Ring cross section:	2.62 mm

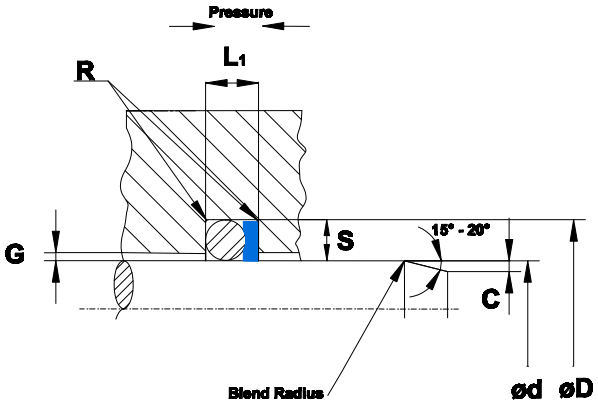
Part no H-0753-0708-14-22
BakRing® Type
Internal groove diameter x 10
External groove diameter x 10
BakRing® width x 10
Compound no

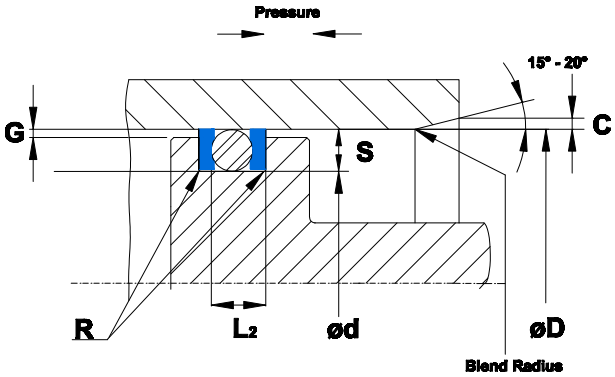
Heavy Duty BakRing type H can also be delivered in cut execution. Add suffix “C” to the compound code to order this execution. Example: H-0753-0708-14-22C

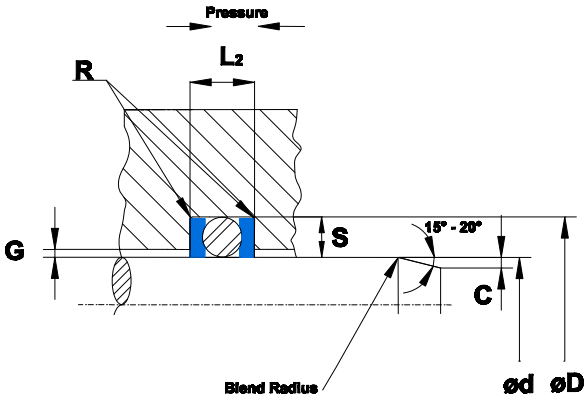
Type "H" Heavy











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.