



Positive sealing	<p>Architects, engineers, building and pipeline companies appreciate the advantages of LINK SEALS:</p> <ul style="list-style-type: none"> - independent of auxiliary internal or external pressure - gas tight to 0.9 bar and pressure tight to 1.5 bar.
Cathodic Protection	<p>Electrical isolation is achieved as a result of all metal parts being encased in rubber.</p>
Easy installation	<p>Owing to the special design of the Link Seal, it can be rapidly installed. The link seal is supplied in an assembled condition with the required number of links. The seal is achieved by tightening the relevant number of bolts. These bolts pull together two pressure plates that are situated on either side of a rubber link. This expands the link, thus forming a seal.</p>
Protection against fire & high temperatures	<p>Sealing of fire walls has been tested in accordance with ASTM, E-119-76 (type T resists flames for one hour, type FD and FS resist flames for three hours at temperatures up to 1000 Deg C).</p>
Absorption of shocks, sound and vibration	<p>The rubber material absorbs shocks and noise and also reduces the vibration load on the pipes.</p>
Long life	<p>The link seals thick section design ensures excellent protection against brittleness, tearing, aging and other hazards of ground burial. As the link seal is located inside the casing pipe, it cannot be damaged by external impact.</p>

Pipeline Maintenance Limited

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LINK SEAL TORQUE SETTINGS

There are many factors which affect the required tightening torque to obtain a leak-tight seal and the seal's maximum pressure rating. For a given Link Seal these factors include:

- Annular space: Defines the amount the seal must expand
- Surface texture: Too rough a surface prevents filling the voids or scratches the rubber.
Too smooth a surface allows slippage of the seal on the pipe or sleeve.
- Seal materials: Rubber durometer and type of fasteners affect required torque. Model's "O", "T", "FD" and "FS" will require slightly higher torque

Following an extensive test program, we can present approximate bolt torque recommendations. Our "C" models were tested using commercial steel pipe and wall sleeves. Since there are many variables involved, the table presented below is to be used as a guideline only.

LINK-SEAL MODEL	BOLT TORQUE			
	MINIMUM		MAXIMUM	
	(in-lb)	(N/m)	(in-lb)	(N/m)
LS-200	27	3.05	34	3.8
LS-275	42	4.74	52	5.87
LS-300	80	9.03	100	11.30
LS-315	90	10.16	112	12.65
LS-325	105	11.86	130	14.68
LS-400	265	29.94	330	37.28
LS-425	230	25.98	290	32.76
LS-475	230	25.98	290	32.76
LS-500	445	50.27	540	61.01
LS-525	445	50.27	540	61.01
LS-575	420	47.45	540	61.01

In all cases, the Link Seal models tested exceeded 100 psig. Considering a safety factor, our recommended maximum working pressure remains at 20 psig. Should your application have higher working pressures, please contact **pml** for technical support.

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Application ranges Link Seals have proven effective in pipelines, tank farms, casings in crossings, wall openings in buildings for gas, water, oil, heating, ventilation and air conditioning systems. Link seals are also used for fire and noise protection as well as in pipe systems for water treatment, sewer plants, waste incineration plants, chemical plants and cooling towers.

TYPE	MODEL	TEMP. RANGE	APPLICATION RANGE
C	Standard	-40 to +120 degC	General application at normal atmosphere in water or humid environment. Suitable for electrical insulation and cathodic protection
S316	Standard S. Steel	-40 to +120 deg C	High resistance against water, most other inorganic substances (acids & alkalis) and against most organic substances (acid & acetone)
O	Oil- resistant	-40 to +120 degC	Good resistance against oils, aromatic fuels, solvents and other mineral oil base products
OS	Oil- resistant	-40 to +120 degC	Good resistance against oils, aromatic fuels, solvents and other mineral oil base products.
T	Resistant to low & high temps	-55 to +230 deg C	No insulating properties, especially suitable for extreme temperatures and as a flame barrier for up to one hour
FD/FS	Fireproof	-55 to +230 deg C	No insulating properties, especially suitable for extreme temperatures and as a flame barrier for up to 3 hours.

Model	Free state thickness mm	Expanded state thickness mm	Chord length mm
LS 200	127	16.0	300
LS 275	16.0	20.0	251
LS 300	18.0	22.5	401
LS 315	21.1	26.5	38.4
LS 325	23.2	30.0	794
LS 400	36.3	46.0	93.1
LS 425	28.4	37.0	93.1
LS 475	41.4	48.5	68.3
LS 500	60.2	71.5	99.1
LS 525	55.4	63.5	98.9
LS 575	48.0	60.0	79.5
LS 600	81.6	102.0	155.0

These dimensions were selected to suit easy insertion and to compensate for eccentricity between pipe and wall opening, wall sleeve or casing. Select the model whose sealing range corresponds to the available annular space

Determine the annular space in order to select your Link Seal size from the above table.

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