

Link-Seal® Modular Seal Model Properties

WITH EPDM SEAL ELEMENTS



EPDM (Black)

* = Sustained operation near temperature limits may affect life expectancy.

Model "C" Link-Seal® Modular Seal

Suitable for use in water, direct ground burial and atmospheric conditions. Provides electrical isolation where cathodic protection is required.

Type: Standard

Seal Element: EPDM (Black)

Pressure Plates: Reinforced Nylon Polymer

Bolts & Nuts: Steel with 2-part Zinc Dichromate & proprietary corrosion inhibiting coating.

Temp. Range: -40 to +250°F (-40 to +121°C)*

Model "S-316" Link-Seal® Modular Seal

For chemical processing & waste water treatment. EPDM rubber is resistant to most inorganic acids and alkalis, some organic chemicals (acetone, alcohol, ketones).

Type: Stainless

Seal Element: EPDM (Black)

Pressure Plates: Reinforced Nylon Polymer

Bolts & Nuts: 316 Stainless Steel

Temp. Range: -40 to +250°F (-40 to +121°C)*

WITH EPDM SEAL ELEMENTS



EPDM (Blue) Low Durometer

* = Sustained operation near temperature limits may affect life expectancy.

Model "L" Link-Seal® Modular Seal

Low Durometer EPDM specifically designed for use with fragile pipe and tubing. Suitable for use in water, direct ground burial and atmospheric conditions. Provides electrical isolation where cathodic protection is required.

Type: Standard

Seal Element: EPDM (Blue)

Pressure Plates: Reinforced Nylon Polymer

Bolts & Nuts: Steel with 2-part Zinc Dichromate & proprietary corrosion inhibiting coating.

Temp. Range: -40 to +250°F (-40 to +121°C)*

Model "LS-316" Link-Seal® Modular Seal

Low Durometer EPDM specifically designed for use with fragile pipe and tubing. For chemical processing & waste water treatment. EPDM rubber is resistant to most inorganic acids and alkalis, some organic chemicals (acetone, alcohol, ketones).

Type: Stainless

Seal Element: EPDM (Blue)

Pressure Plates: Reinforced Nylon Polymer

Bolts & Nuts: 316 Stainless Steel

Temp. Range: -40 to +250°F (-40 to +121°C)*

WITH NITRILE SEAL ELEMENTS



Nitrile (Green)

* = Sustained operation near temperature limits may affect life expectancy.

Model "O" Link-Seal® Modular Seal

Nitrile rubber is resistant to oils, fuel and many solvents (gasoline, motor oil, kerosene, methane, jet fuel, hydraulic fluid, water, etc.)

Type: Oil Resistant

Seal Element: Nitrile (Green)

NOTE: Not U.V resistant

Pressure Plates: Reinforced Nylon Polymer

Bolts & Nuts: Steel with 2-part Zinc Dichromate & proprietary corrosion inhibiting coating

Temp. Range: -40 to +210°F (-40 to +99°C)*

Model "OS-316" Link-Seal® Modular Seal

Combination of oil resistant rubber and stainless steel hardware

Type: Oil Resistant

Seal Element: Nitrile (Green)

NOTE: Not U.V resistant

Pressure Plates: Reinforced Nylon Polymer

Bolts & Nuts: 316 Stainless Steel

Temp. Range: -40 to +210 °F (-40 to +99°C)*

WITH SILICONE SEAL ELEMENTS



Silicone (Grey)

* = Sustained operation near temperature limits may affect life expectancy.

NOTE: Sustains a constant temp. of 325°F (163° C)

Model "T" Link-Seal® Modular Seal

Silicone rubber is ideal for temperature extremes. The "T" model is one-hour Factory Mutual approved.

Type: High/Low Temperature

Seal Element: Silicone (Grey)

Pressure Plates: Steel Zinc Dichromate

Bolts: Steel with 2-part Zinc Dichromate & proprietary corrosion inhibiting coating.

Temp. Range: -67 to +400°F (-55 to +204°C)*

Model "FD/FS" Link-Seal® Modular Seal

Double seal for added protection

Type: Fire Seals

Seal Element: Silicone (Grey)

Pressure Plates: Steel zinc dichromate

Bolts: Steel with 2-part Zinc Dichromate & proprietary corrosion inhibiting coating.

Temp. Range: -67 to +400°F (-55 to +204°C)*

Link-Seal® NSF Certified Product



EPDM (Black)

* = Sustained operation near temperature limits may affect life expectancy.

Model "S61" Link-Seal® Modular Seal

NSF 61 Certified for use in potable water (drinking water)

Type: Stainless

Seal Element: EPDM (Black)

Pressure Plates: Blue Reinforced Nylon Polymer

Bolts & Nuts: 316 Stainless Steel

Temp. Range: -40 to +250°F (-40 to +121°C)*



NSF Certificate # C0162325-01

The Model "S61" is made from Black NSF 61 certified EPDM materials, with Blue reinforced Nylon Polymer Pressure plates and 316 Stainless Steel hardware. Each shipment is packaged with a defining "NSF 61" label and batch number for traceability.

SPECIFICATIONS:

- » **Type:** Potable water
- » **Seal Element:** Black EPDM NSF 61 Certified
- » **Pressure Plates:** Blue Reinforced Nylon Polymer
- » **Bolts & Nuts:** 316 Stainless Steel
- » **Temperature Range:** -40°F to 250°F (-40°C to 121°C)
- » Certified to NSF/ANSI Standard 61

IDEAL FOR:

- » Hospital lines
- » Laboratories
- » Water treatment plants
- » Processes where purity is important
- » All potable water applications
- » Process water for manufacturing operations
- » Food service
- » Food OEM's
- » Sanitary milk service
- » Food transportation

MATERIAL PROPERTIES OF LINK-SEAL® MODULAR SEAL ELEMENTS

Property	ASTM Method	EPDM (EPDM L)	Nitrile	Silicone
Hardness (shore A)	D-2240	50 ±5 (40 ±5)	50 ±5	50 ±5
Tensile	D-412	1450 psi	1300 psi	860 psi
Elongation	D-412	400%	300%	250%
Compression Set	S-395	15% 22 hrs. @ 158° F (70° C)	45% 22 hrs. @ 212° F (100° C)	40% 22 hrs. @ 350° F (177° C)
Specific Gravity	D-297	1.10	1.15	1.40

MATERIAL PROPERTIES OF COMPOSITE PRESSURE PLATES

Property	ASTM Method	Value
Izod Impact - Notched	D-256	1.11 ft-lb/in
Tensile Strength @ Yield	D-638	20,000 psi
Tensile Strength - Break	D-638	20,250 psi
Flexural Strength @ Yield	D-790	30,750 psi
Flexural Modulus	D-790	1,124,000 psi
Elongation, Break	D-638	11.07%
Specific Gravity	D-792	1.38
Moisture Content	–	0.18%

BOLT & NUT SPECIFICATION

Carbon Steel



Carbon steel, zinc dichromated per ASTM B633, with an additional corrosion inhibiting proprietary organic coating. (passes 1470 hour salt spray test)
Tensile Strength = 60,000 psi, minimum.

An independent 1,470 hour salt spray test run in accordance to ASTM B117-97 has proven Link-Seal® modular seals' Zinc Dichromated Carbon Steel bolts, with proprietary corrosion inhibiting coating, to be superior when compared with competitive manufactures.

Stainless Steel

ANSI Type = 316, Per ASTM F593-95
Tensile Strength = 85,000 psi, average

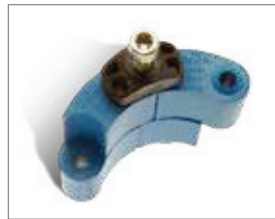


Link-Seal® Model	Tool Size/ Type Req.	Bolt Head Type
LS-200, LS-275	4mm, Allen	
LS-300, LS-315	6mm, Allen	
LS-325, LS-340, LS-360	13mm, Hex	
LS-400, LS-410, LS-425, LS-475	17mm, Hex	
LS-500, LS-525, LS-575	19mm, Hex	
LS-615	24mm, Hex	
LS-650	19mm, Hex	

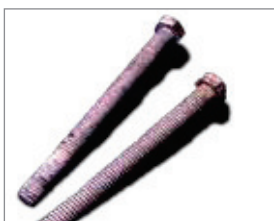
To provide consistency and worldwide compatibility, GPT now offers all Link-Seal® Modular Seal sizes with metric bolts. The new bolts adhere to metric specifications as used by most all countries outside the U.S.A. Smaller Link-Seal® Modular Seals (sizes LS-200, LS-275, LS-300, and LS-315) will consist of metric Allen head or socket cap bolt heads while the balance of the line will use standard hex head metric bolts.

INDEPENDENT LABORATORY TEST

The Newly Engineered Force Dispersion Pressure Plates have been fully tested by an independent laboratory to ensure design theory translates into the capability to handle the rigors of real world applications.

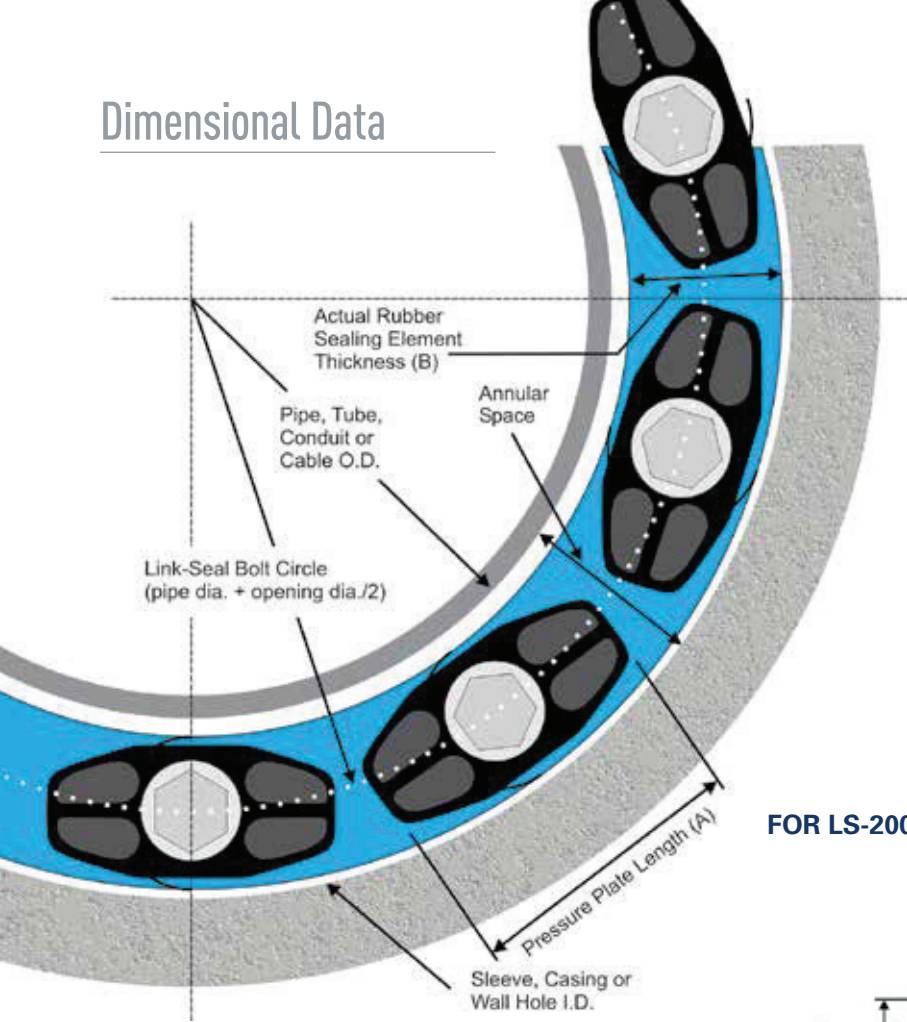


In addition, the new design has an average of 15% more strength than previous Link-Seal® Modular Seal versions.

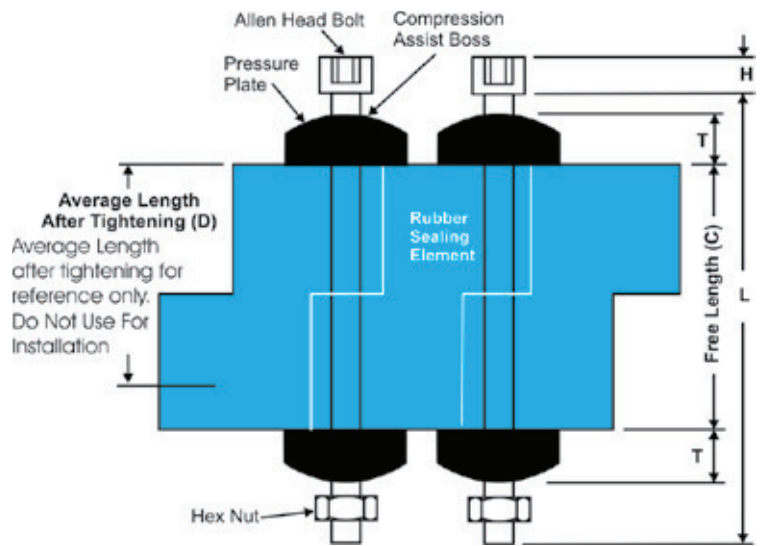


1,470 hour salt spray test run in accordance to ASTM B117-97 has proven Link-Seal® modular seals' Zinc Dichromated Carbon Steel bolts, with proprietary corrosion inhibiting coating, to be superior when compared with competitive manufactures. Test Results are available on request.

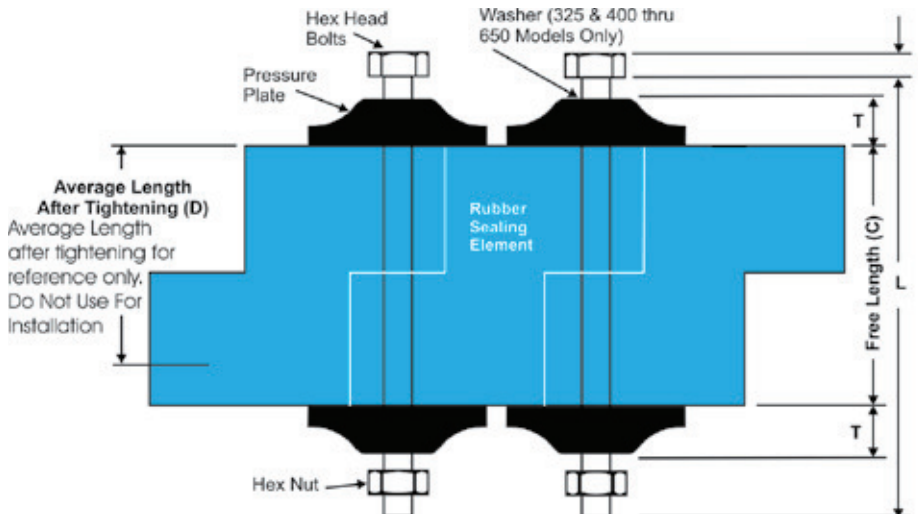
Dimensional Data



FOR LS-200 THROUGH LS-315



FOR LS-325 THROUGH LS-650



*** DIMENSIONAL DATA FOR MODELS C, L, O, S-316, S61, LS-316 & OS-316**

Link-Seal Model No.	Rubber Sealing Elements			Pressure Plates		Bolts				Weight for 10 Link Sections (lbs)	Min. Required Seating Width
	Actual Thinckness (B)	Free Length (C)	Avg. Length After Tightening (D)	(A)	(T)	Allen Head Hex Across Flats	(H)	Thread Size	(L)		
LS-200-*	0.48"	1.75"	1.38"	1.06"	0.31"	4mm Allen (0.157")	4.95mm (0.195")	M5-0.8	65mm (2.559")	0.70	2.25"
LS-275-*	0.61"	1.75"	1.38"	0.97"	0.31"	4mm Allen (0.157")	4.95mm (0.195")	M5-0.8	65mm (2.559")	0.75	2.25"
LS-300-*	0.69"	2.37"	1.87"	1.56"	0.44"	6mm Allen (0.236")	7.87mm (0.310")	M8-1.25	90mm (3.543")	2.15	3.00"
LS-315-*	0.81"	2.37"	1.87"	1.44"	0.44"	6mm Allen (0.236")	7.87mm (0.310")	M8-1.25	90mm (3.543")	2.30	3.00"
LS-325-*	0.88"	2.63"	2.00"	3.13"	1.00"	13mm (0.511")	5.30mm (0.215")	M8-1.25	110mm (4.33")	5.50	4.00"
LS-340-*	1.00"	2.70"	2.25"	1.48"	0.66"	13mm (0.511")	5.30mm (0.215")	M8-1.25	110mm (4.33")	3.30	4.00"
LS-360-*	1.24"	2.70"	2.25"	2.05"	0.77"	13mm (0.511")	5.30mm (0.215")	M8-1.25	110mm (4.33")	5.10	4.00"
LS-400-*	1.38"	3.50"	2.75"	3.50"	1.06"	17mm (0.669")	6.40mm (0.250")	M10-1.5	130mm (5.118")	12.00	5.00"
LS-410-*	1.43"	3.37"	2.87"	2.52"	0.88"	17mm (0.669")	6.40mm (0.250")	M10-1.5	130mm (5.118")	8.20	5.00"
LS-425-*	1.06"	3.00"	2.25"	3.50"	1.19"	17mm (0.669")	6.40mm (0.250")	M10-1.5	130mm (5.118")	10.00	5.00"
LS-475-*	1.56"	3.38"	2.63"	2.63"	0.88"	17mm (0.669")	6.40mm (0.250")	M10-1.5	130mm (5.118")	10.00	5.00"
LS-500-*	2.25"	3.75"	2.75"	3.63"	1.06"	19mm (0.748")	7.50mm (0.300")	M12-1.75	140mm (5.511")	22.50	5.00"
LS-525-*	2.06"	3.75"	2.87"	3.63"	1.06"	19mm (0.748")	7.50mm (0.300")	M12-1.75	140mm (5.511")	21.00	5.00"
LS-575-*	1.81"	3.75"	3.00"	3.00"	1.00"	19mm (0.748")	7.50mm (0.300")	M12-1.75	140mm (5.511")	15.50	5.00"
LS-615-*	3.09"	4.00"	3.00"	6.00"	1.90"	24mm (0.944")	10.57mm (0.416")	5/8-11	185mm (7.280")	60.60	6.00"
LS-650-*	2.71"	3.98"	3.00"	3.96"	1.19"	19mm (0.748")	7.50mm (0.300")	M12-1.75	140mm (5.511")	26.10	6.00"