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APPROVED
THE INDUSTRY'S HEAVY DUTY
PENETRATION SEAL



Information and sizing charts updated 2-08.



Pocket Guide

for quick sizing of Link-Seal® Modular Seals.

The contractors choice...
there are no equals!

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Link-Seal® modular seals are considered to be the premier method for permanently sealing pipes of any size passing through walls, floors and ceilings. In fact, any cylindrical object may be quickly, easily and permanently sealed, as they pass through barriers, by the patented Link-Seal modular seal design.



Ductile iron, concrete, metal as well as plastic pipes may be hydrostatically sealed within walls to hold up to 20 psig (40 feet of static head).

Electrical or telecommunications cable may be sealed within conduit as they enter vaults or manholes. The annular space between carrier pipes passing through casings may also be sealed against the entry of water, soil or backfill material.

With a wide variety of hardware/elastomer combinations, Link-Seal modular seals are easily configured to achieve the best possible match for service conditions encountered. High temperature seals, fire seals (Factory Mutual Approved) and oil resistant seals may be ordered to meet special or unique service applications.

For the system approach, metal or non-conductive Century-Line® sleeves with water stops may be ordered with Link-Seal modular



seals to ensure correct positioning and a water tight seal of the installation within poured concrete walls.

This Pocket Guide is designed for the contractor working on field applications on standard size Link-Seal modular seals for use with Century-Line Model CS sleeves, Model WS (Steel) sleeves or cast/core drilled holes.



Certificate No. NACB7895



Certificate No. 10125

Table of Contents

Useful Information Prior to Sizing/Installation

Suggested Pipe O.D. Range	2
Minimum Required Seating Width	2
Frequently Asked Questions	3

Sizing

Sizing Charts for Standard Pipe Century-Line Sleeves	4-9
Sizing Charts for Standard Pipe WS Steel Wall Sleeves	10-15
Sizing Charts for Standard Pipe Cast/Core Bit Drilled Hole	16-21

Installation Techniques

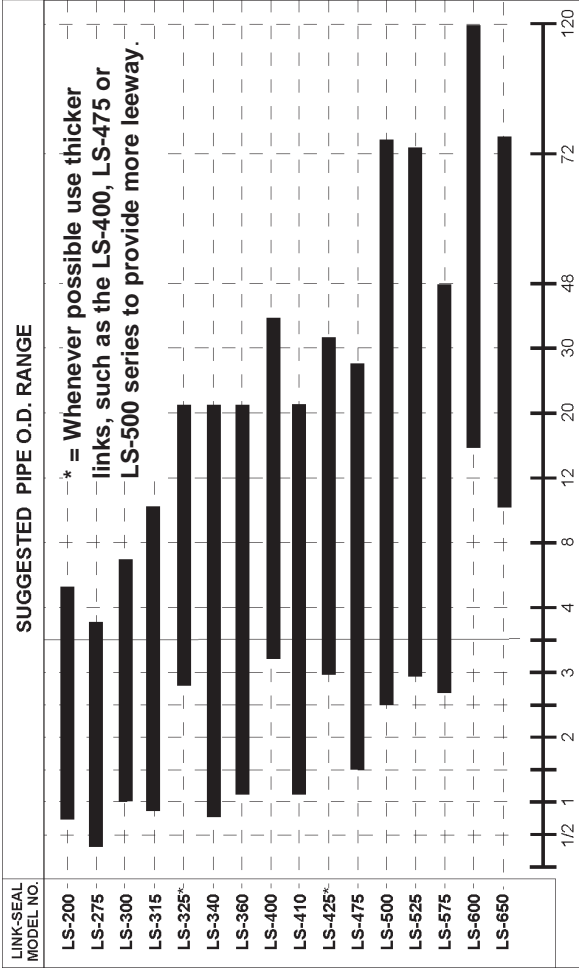
Link-Seal® Modular Seal Installation	22-23
Century-Line® Sleeve Installation	24-26
Cell-Cast® Disk Installation	26-28

For Complete Product Information use the Link-Seal Engineering Manual or Selection Guide. Available on-line at www.linkseal.com

Updated engineering catalogs, literature, CAD Drawings, installation videos, sizing program and installation techniques are available on-line at: www.linkseal.com

Performance data included in this manual is intended for guideline purposes only. Performance suitability for any specific application should be determined by the user. Variation in temperature, pressure, concentration or mixtures acting synergistically may preclude recommended service use.

Suggested Pipe O.D. Range



Link-Seal® Model Selected for Penetration	Minimum Required Seating Width
LS-200/275	2.25"
LS-300/315	3.00"
LS-325/340/360	4.00"
LS-400/410/425/475	5.00"
LS-500/525/575	5.00"
LS-600/650	6.00"

Frequently Asked Questions

1) Q - How do I install Link-Seal® modular seals over weld-bead?

A - Weld-beads and all other irregularities on the pipe or opening should be addressed in accordance with the manufacturer's and/or project engineer's suggestions to provide a round, smooth and clean surface for Link-Seal installation.

2) Q - How much angular pipe movement will Link-Seal modular seals allow and still maintain a seal?

A - Link-Seal modular seals may allow angular pipe movement or misalignment depending on the ratio of annular space of the penetration to the expanded range of the Link-Seal model sized for the penetration. Please call PSI for more information.

3) Q - Is it necessary to use WS or CS sleeves when installing Link-Seal modular seals?

A - WS model steel and CS model plastic sleeves are specially designed for use with Link-Seal modular seals. When installed with Link-Seal modular seals these sleeves provide the best possible assurance of a quality wall penetration system.

4) Q - Sometimes when installing a belt of Link-Seal modular seals, it hangs loose on the pipe even though all my sizing calculations are correct. Why does it appear that I have too many links?

A - Link-Seal modular seals are basically sized to fit the opening, not the pipe. Use the assemblies suggested by the charts or calculation. It may not look right,

but it will fit.

5) Q - Can Link-Seal modular seals be used for penetrations where the pipe is off-center to the opening?

A - Centering is very important. Contact PSI for more information.

6) Q - Is it necessary to use riser clamps, pipe saddles and hanger supports with Link-Seal modular seals?

A - Designed as a penetration seal, Link-Seal modular seals are not intended to be a structural support. Standard pipe hanger practice should always be applied.

7) Q - What tools are required to install Link-Seal modular seals?

A - A socket or offset wrench with 5/16", 1/2", 3/8", 9/16", 3/4" & 1-3/16" sockets will handle all installations. A low speed (450 RPM or less) power tool is suggested for multiple installations to increase efficiency. (see next question)

8) Q - Can I use power tools when installing Link-Seal modular seals with 316 stainless steel bolts?

A - No, please see suggested installation techniques.

9) Q - Can Link-Seal modular seals be used with manhole vault installed thimbles, not sleeves?

A - No, only if the area creates a penetration cylinder, such that the axis of the cylinder is parallel to the axis of the pipe going through it.

How to Order:**Using the Provided Sizing Charts**

1. Determine Link-Seal® modular seal model to be used (See Link-Seal Selection Guide or Engineering Manual for technical information).
2. Locate charts on pages 6 through 9 that corresponds to the type and size pipe being used.
3. Verify that your pipe O.D. matches the actual outside diameter shown on the chart.
4. To order Link-Seal modular seals choose Link-Seal modular seal size (from SIZE column), Link-Seal modular seal model (C, S-316, L, LS-316, O, OS-316, T or FD/FS) and indicate number of links required per seal (from LINKS PER SEAL column).

[Example: LS-575-C-10]

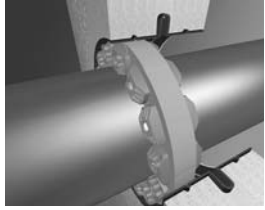
5. To order corresponding Century-Line sleeves indicate model number (from MODEL NUMBER column), length of sleeve and quantity required.

[CS Example: CS-10-12"-1]

Note: Contact PSI (1-800-423-2410) or your local distributor if your pipe sizing solution is not listed in the provided charts.

Century-Line® Sleeves**Model CS (16" length)****Weights and Dimensional Data**

MODEL	I.D. (In.)	I.D. (mm)	lbs.	Kg.
CS-2	1.98	50.3	0.70	0.32
CS-3	2.94	74.7	1.30	0.59
CS-3-1/2	3.38	85.9	1.50	0.68
CS-4	4.03	102.4	2.00	0.90
CS-5	5.14	130.6	2.80	1.27
CS-6	6.14	156.0	3.60	1.63
CS-8	8.21	208.5	4.80	2.18
CS-10	10.19	258.8	6.40	2.90
CS-12	12.26	311.4	7.20	3.27
CS-14	14.14	359.2	11.20	5.08
CS-16	16.18	411.0	12.00	5.44
CS-18	17.45	443.2	15.50	7.03
CS-20	19.12	485.6	17.50	7.94
CS-22	20.32	516.1	21.00	9.53
CS-24	22.76	578.1	22.00	9.98
CS-25	24.81	630.2	23.00	10.43



Sizing Charts for Standard Pipe when using Link-Seal® Modular Seals and Century-Line® Sleeves with:

- SDR-35 Gravity Sewer Pipe
- Steel and Plastic Pipe with Same Outside Diameter (IPS)
- Ductile Iron Pipe (DIPS, AWWA-C900, AWWA-C905, PVC Water Pipe)
- Copper Tubing
- Cast Iron Soil Pipe (Extra Heavy)
- Cast Iron Soil Pipe (Service Weight)
- Electrical Metallic Tubing (EMT)
- Thin Wall Intermediate Metal Conduit (IMC)
- Rigid (RSC), Aluminum (ASC), Galvanized (GSC), Non-Metallic Conduit (NRC)

Link-Seal® Modular Seal Models:

EPDM Seal Elements _____

Model C = Standard EPDM (black)

Model L = Low Durometer EPDM (blue)

Model S-316 = 316 Stainless Steel Hardware

Model LS-316 = 316 Stainless Steel Hardware

Nitrile Seal Elements _____

Model O = Standard Nitrile (green) Oil Resistant

Model OS-316 = with 316 Stainless Steel Hardware

Silicone Seal Elements _____

Model T = Silicone (grey) High Temp.

Model FD/FS = Double Silicone Seal

SDR-35 Gravity Sewer Pipe

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
4	4.22	CS-6-*	LS-315-***	11
6	6.28	CS-8-*	LS-315-***	15
8	8.40	CS-10-*	LS-325-***	9
10	10.50	CS-14-*	LS-475-***	14
12	12.50	CS-18-*	LS-500-***	12
15	15.30	CS-20-*	LS-475-***	20
18	18.70	CS-24-*	LS-575-***	21
21	22.05	CC-30-**	LS-600-***	13
24	24.80	CC-30-**	LS-525-***	21
27	27.95	CC-32-**	LS-400-***	25
30	32.00	CC-38-**	LS-500-***	28

Grey Area = See Cell-Cast® Disk Literature

Steel and Plastic Pipe with Same Outside Diameter (IPS)

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
1/2	0.840	CS-2-*	LS-200-***	4
3/4	1.050	CS-3-*	LS-315-***	4
1	1.315	CS-3-*	LS-300-***	4
1-1/4	1.660	CS-3-*	LS-275-***	7
1-1/2	1.900	CS-3-1/2-*	LS-300-***	5
2	2.375	CS-4-*	LS-300-***	6
2-1/2	2.875	CS-4-*	LS-200-***	9
3	3.500	CS-5-*	LS-300-***	8
3-1/2	4.000	CS-6-*	LS-340-***	10
4	4.500	CS-6-*	LS-300-***	10
5	5.563	CS-8-*	LS-360-***	10
6	6.625	CS-10-*	LS-475-***	10
8	8.625	CS-12-*	LS-475-***	12
10	10.750	CS-14-*	LS-410-***	15
12	12.750	CS-16-*	LS-475-***	17
14	14.000	CS-16-*	LS-340-***	30
16	16.000	CS-20-*	LS-410-***	21
18	18.000	CS-22-*	LS-340-***	38
20	20.000	CS-25-*	LS-500-***	18
22	22.000	CS-25-*	LS-360-***	34
24	24.000	CC-30-**	LS-500-***	21
26	26.000	CC-30-**	LS-400-***	23
28	28.000	CC-32-**	LS-400-***	25
30	30.000	CC-36-**	LS-500-***	26
32	32.000	CC-38-**	LS-500-***	28
34	34.000	CC-38-**	LS-400-***	30
36	36.000	CC-42-**	LS-500-***	31
42	42.000	CC-48-**	LS-500-***	36
48	48.000	CC-54-**	LS-500-***	40

Grey Area = See Cell-Cast® Disk Literature

Ductile Iron Pipe (DIPS, AWWA-C900, AWWA-C905, PVC Water Pipe)

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
2	2.500	CS-4-*	LS-300-***	6
2-1/4	2.750	CS-4-*	LS-275-***	10
3	3.960	CS-6-*	LS-340-***	10
4	4.800	CS-8-*	LS-475-***	8
6	6.900	CS-10-*	LS-475-***	10
8	9.050	CS-12-*	LS-400-***	9
10	11.100	CS-14-*	LS-410-***	15
12	13.200	CS-18-*	LS-575-***	15
14	15.300	CS-20-*	LS-475-***	20
16	17.400	CS-22-*	LS-360-***	28
18	19.500	CS-24-*	LS-410-***	25
20	21.600	CS-25-*	LS-400-***	20
24	25.800	CC-30-**	LS-400-***	23
30	32.000	CC-38-**	LS-500-***	28
36	38.300	CC-44-**	LS-500-***	33
42	44.500	CC-50-**	LS-500-***	38
48	50.800	CC-56-**	LS-500-***	43

Grey Area = See Cell-Cast® Disk Literature

Copper Tubing

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
1/2	0.625	CS-2-*	LS-275-***	4
3/4	0.875	CS-2-*	LS-200-***	4
1	1.125	CS-3-*	LS-315-***	4
1-1/4	1.375	CS-3-*	LS-275-***	8
1-1/2	1.625	CS-3-*	LS-275-***	8
2	2.125	CS-4-*	LS-315-***	6
2-1/2	2.625	CS-4-*	LS-275-***	12
3	3.125	CS-5-*	LS-340-***	8
4	4.125	CS-6-*	LS-315-***	11
6	6.125	CS-8-*	LS-315-***	15
8	8.125	CS-12-*	LS-575-***	10
10	10.125	CS-12-*	LS-340-***	22
12	12.125	CS-16-*	LS-575-***	14

NOTES:

* = Specify sleeve length in inches

** = See Cell-Cast Literature

*** = Specify LS Model C, S-316, L...etc when ordering (Example LS-475-C-17).

Technically there is no limit to the pipe size that can be sealed using Link-Seal® modular seals. Please contact factory for sizes not listed and for CS model plastic sleeves for walls less than 8" thick.

Cast Iron Soil Pipe (Extra Heavy)

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
2	2.380	CS-4-*	LS-300-***	6
3	3.500	CS-5-*	LS-315-***	9
4	4.500	CS-8-*	LS-475-***	8
5	5.500	CS-8-*	LS-360-***	10
6	6.500	CS-8-*	LS-315-***	15
8	8.620	CS-12-*	LS-475-***	12
10	10.750	CS-14-*	LS-410-***	15
12	12.750	CS-16-*	LS-475-***	17
15	15.880	CS-20-*	LS-410-***	21

Cast Iron Soil Pipe (Service Weight)

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
2	2.300	CS-4-*	LS-300-***	6
3	3.300	CS-5-*	LS-300-***	8
4	4.300	CS-6-*	LS-300-***	10
5	5.300	CS-8-*	LS-410-***	8
6	6.300	CS-8-*	LS-315-***	15
8	8.380	CS-10-*	LS-325-***	9
10	10.500	CS-14-*	LS-475-***	14
12	12.500	CS-18-*	LS-500-***	12
15	15.620	CS-20-*	LS-475-***	20

Electrical Metallic Tubing (EMT) Thin Wall Conduit

CONDUIT SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
1/2	0.706	CS-2-*	LS-275-***	4
3/4	0.922	CS-2-*	LS-200-***	4
1	1.163	CS-3-*	LS-315-***	4
1-1/4	1.510	CS-3-*	LS-275-***	8
1-1/2	1.740	CS-3-1/2-*	LS-300-***	5
2	2.197	CS-4-*	LS-315-***	6
2-1/2	2.875	CS-4-*	LS-200-***	9
3	3.500	CS-5-*	LS-315-***	9
4	4.500	CS-8-*	LS-475-***	8

Intermediate Metal Conduit (IMC)

CONDUIT SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
1/2	0.815	CS-2-*	LS-200-***	4
3/4	1.029	CS-2-*	LS-200-***	4
1	1.290	CS-3-1/2-*	LS-315-***	5
1-1/4	1.638	CS-3-*	LS-275-***	8
1-1/2	1.883	CS-3-1/2-*	LS-300-***	5
2	2.360	CS-4-*	LS-300-***	6
2-1/2	2.857	CS-4-*	LS-200-***	9
3	3.476	CS-5-*	LS-315-***	9
3-1/2	3.970	CS-6-*	LS-340-***	10
4	4.466	CS-6-*	LS-315-***	11

Rigid (RSC), Aluminum (ASC), Galvanized (GSC), Non-Metallic Conduit (NRC)

CONDUIT SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
1/2	0.840	CS-2-*	LS-200-***	4
3/4	1.050	CS-3-*	LS-315-***	4
1	1.315	CS-3-*	LS-300-***	4
1-1/4	1.660	CS-3-*	LS-275-***	7
1-1/2	1.900	CS-3-1/2-*	LS-300-***	5
2	2.375	CS-4-*	LS-300-***	6
2-1/2	2.875	CS-4-*	LS-200-***	9
3	3.500	CS-5-*	LS-300-***	8
3-1/2	4.000	CS-6-*	LS-340-***	10
4	4.500	CS-6-*	LS-300-***	10
5	5.563	CS-8-*	LS-360-***	10
6	6.625	CS-10-*	LS-475-***	10

NOTES:

* = Specify sleeve length in inches

*** = Specify LS Model C, S-316, L...etc when ordering
(Example LS-475-C-17).

Technically there is no limit to the pipe size that can be sealed using Link-Seal® modular seals. Please contact factory for sizes not listed and for CS model plastic sleeves for walls less than 8" thick.

How to Order:

Using the Provided Sizing Charts

1. Determine Link-Seal® modular seal model to be used (See Link-Seal Selection Guide or Engineering Manual for technical information).
2. Locate charts on pages 12 through 15 that corresponds to the type and size pipe being used.
3. Verify that your pipe O.D. matches the actual outside diameter shown on the chart.
4. To order Link-Seal modular seals choose Link-Seal modular seal size (from SIZE column), Link-Seal modular seal model (C, S-316, L, LS-316, O, OS-316, T or FD/FS) and indicate number of links required per seal (from LINKS PER SEAL column).

[Example: LS-575-C-10]

5. To order corresponding WS Steel sleeves indicate model number (from MODEL NUMBER column), length of sleeve and quantity required.

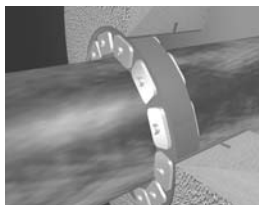
[WS Example: WS-10-12"-1]

Note: Contact PSI (1-800-423-2410) or your local distributor if your pipe sizing solution is not listed in the provided charts.



Model WS (12" length)

MODEL	I.D.	lbs.	Kg.
WS-2-15-S-12	2.07	5.53	2.51
WS-2-1/2-20-S-12	2.47	7.91	3.58
WS-3-21-S-12	3.07	9.93	4.51
WS-3-1/2-22-S-12	3.55	11.70	5.31
WS-4-23-S-12	4.03	13.61	6.17
WS-5-25-S-12	5.05	17.91	8.12
WS-6-28-S-12	6.07	22.73	10.31
<u>ws</u> -6-18-S-12	6.25	14.82	6.72
WS-8-32-S-12	7.98	33.55	15.22
<u>ws</u> -8-18-S-12	8.25	21.94	9.95
WS-10-36-S-12	10.02	46.12	20.92
<u>ws</u> -10-25-S-12	10.25	33.67	15.27
WS-12-37-S-12	12.00	60.14	27.28
WS-14-37-S-12	13.25	62.04	28.14
WS-16-37-S-12	15.25	71.04	32.22
WS-18-37-S-12	17.25	79.98	36.28
WS-20-37-S-12	19.25	90.00	40.82
WS-22-37-S-12	21.25	98.00	44.45
WS-24-37-S-12	23.25	107.00	48.53



Sizing Charts for Standard Pipe when using Link-Seal® Modular Seals and WS Steel Sleeves with:

- SDR-35 Gravity Sewer Pipe
- Steel and Plastic Pipe with Same Outside Diameter (IPS)
- Ductile Iron Pipe (DIPS, AWWA-C900, AWWA-C905, PVC Water Pipe)
- Copper Tubing
- Cast Iron Soil Pipe (Extra Heavy)
- Cast Iron Soil Pipe (Service Weight)
- Electrical Metallic Tubing (EMT)
- Thin Wall Intermediate Metal Conduit (IMC)
- Rigid (RSC), Aluminum (ASC), Galvanized (GSC), Non-Metallic Conduit (NRC)

Link-Seal® Modular Seal Models:

EPDM Seal Elements _____

Model C = Standard EPDM (black)

Model L = Low Durometer EPDM (blue)

Model S-316 = 316 Stainless Steel Hardware

Model LS-316 = 316 Stainless Steel Hardware

Nitrile Seal Elements _____

Model O = Standard Nitrile (green) Oil Resistant

Model OS-316 = with 316 Stainless Steel Hardware

Silicone Seal Elements _____

Model T = Silicone (grey) High Temp.

Model FD/FS = Double Silicone Seal

Note: WS sizes thru. 10" are schedule 40. WS sizes 12" and up have a standard .375" wall thickness.

SDR-35 Gravity Sewer Pipe

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
4	4.22	WS-6-28-S-*	LS-315-***	10
6	6.28	WS-8-32-S-*	LS-315-***	15
8	8.40	WS-10-36-S-*	LS-315-***	19
10	10.50	WS-14-37-S-*	LS-360-***	17
12	12.50	WS-16-37-S-*	LS-360-***	20
15	15.30	WS-20-37-S-*	LS-575-***	17
18	18.70	WS-22-37-S-*	LS-360-***	29
21	22.05	WS-26-37-S-*	LS-475-***	28
24	24.80	WS-28-37-S-*	LS-425-***	22
27	27.95	WS-32-37-S-*	LS-400-***	25
30	32.00	WS-36-37-S-*	LS-400-***	29

Steel and Plastic Pipe with Same Outside Diameter (IPS)

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
1/2	0.840	WS-2-15-S-*	LS-275-***	5
3/4	1.050	WS-2-1/2-20-S-*	LS-275-***	6
1	1.315	WS-2-1/2-20-S-*	LS-200-***	5
1-1/4	1.660	WS-3-21-S-*	LS-275-***	8
1-1/2	1.900	WS-3-21-S-*	LS-200-***	7
2	2.375	WS-3-1/2-22-S-*	LS-200-***	8
2-1/2	2.875	WS-4-23-S-*	LS-200-***	9
3	3.500	WS-6-28-S-*	LS-360-***	7
3-1/2	4.000	WS-6-28-S-*	LS-340-***	9
4	4.500	WS-6-28-S-*	LS-300-***	10
5	5.563	WS-8-32-S-*	LS-340-***	13
6	6.625	WS-10-36-S-*	LS-475-***	10
8	8.625	WS-12-37-S-*	LS-475-***	12
10	10.750	WS-14-37-S-*	LS-425-***	10
12	12.750	WS-16-37-S-*	LS-425-***	12
14	14.000	WS-18-37-S-*	LS-475-***	18
16	16.000	WS-20-37-S-*	LS-475-***	21
18	18.000	WS-22-37-S-*	LS-475-***	23
20	20.000	WS-24-37-S-*	LS-475-***	25
22	22.000	WS-26-37-S-*	LS-475-***	28
24	24.000	WS-28-37-S-*	LS-475-***	30
26	26.000	WS-30-37-S-*	LS-400-***	23
28	28.000	WS-32-37-S-*	LS-400-***	25
30	30.000	WS-34-37-S-*	LS-400-***	27
32	32.000	WS-36-37-S-*	LS-400-***	29
34	34.000	WS-40-37-S-*	LS-500-***	29
36	36.000	WS-42-37-S-*	LS-500-***	31
42	42.000	WS-48-37-S-*	LS-500-***	36
48	48.000	WS-53-37-S-*	LS-525-***	40

Ductile Iron Pipe (DIPS, AWWA-C900, AWWA-C905, PVC Water Pipe)

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
2	2.500	WS-3-1/2-22-S-*	LS-200-***	8
2-1/4	2.750	WS-4-23-S-*	LS-200-***	9
3	3.960	WS-6-28-S-*	LS-340-***	9
4	4.800	WS-8-32-S-*	LS-410-***	7
6	6.900	WS-10-36-S-*	LS-410-***	10
8	9.050	WS-12-37-S-*	LS-400-***	9
10	11.100	WS-14-37-S-*	LS-340-***	24
12	13.200	WS-18-37-S-*	LS-475-***	18
14	15.300	WS-20-37-S-*	LS-575-***	17
16	17.400	WS-22-37-S-*	LS-475-***	23
18	19.500	WS-24-37-S-*	LS-575-***	21
20	21.600	WS-26-37-S-*	LS-475-***	27
24	25.800	WS-30-37-S-*	LS-400-***	23
30	32.000	WS-36-37-S-*	LS-400-***	29
36	38.300	WS-44-1/2-37-S-*	LS-500-***	33
42	44.500	WS-50-37-S-*	LS-500-***	38
48	50.800	WS-57-37-S-*	LS-500-***	43

Copper Tubing

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
1/2	0.625	WS-2-15-S-*	LS-275-***	5
3/4	0.875	WS-2-1/2-20-S-*	LS-275-***	6
1	1.125	WS-2-1/2-20-S-*	LS-275-***	6
1-1/4	1.375	WS-2-1/2-20-S-*	LS-200-***	5
1-1/2	1.625	WS-3-21-S-*	LS-275-***	7
2	2.125	WS-3-1/2-22-S-*	LS-275-***	10
2-1/2	2.625	WS-4-23-S-*	LS-275-***	11
3	3.125	WS-5-25-S-*	LS-315-***	8
4	4.125	WS-6-28-S-*	LS-315-***	10
6	6.125	WS-8-32-S-*	LS-315-***	15
8	8.125	WS-10-36-S-*	LS-315-***	19
10	10.125	WS-14-37-S-*	LS-410-***	14
12	12.125	WS-16-37-S-*	LS-410-***	16

NOTES:

* = Specify sleeve length in inches

*** = Specify LS Model C, S-316, L...etc when ordering (Example LS-475-C-17).

Technically there is no limit to the pipe size that can be sealed using Link-Seal® modular seals. Please contact factory for sizes not listed and for CS model plastic sleeves for walls less than 8" thick.

Cast Iron Soil Pipe (Extra Heavy)

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
2	2.380	WS-3-1/2-22-S-*	LS-200-***	8
3	3.500	WS-6-28-S-*	LS-360-***	7
4	4.500	WS-6-28-S-*	LS-300-***	10
5	5.500	WS-8-32-S-*	LS-340-***	13
6	6.500	WS-10-36-S-*	LS-475-***	10
8	8.620	WS-12-37-S-*	LS-475-***	12
10	10.750	WS-14-37-S-*	LS-425-***	10
12	12.750	WS-16-37-S-*	LS-425-***	12
15	15.880	WS-20-37-S-*	LS-475-***	20

Cast Iron Soil Pipe (Service Weight)

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
2	2.300	WS-4-23-S-*	LS-315-***	6
3	3.300	WS-6-28-S-*	LS-360-***	7
4	4.300	WS-6-28-S-*	LS-315-***	10
5	5.300	WS-8-32-S-*	LS-360-***	9
6	6.300	WS-8-32-S-*	LS-315-***	15
8	8.380	WS-10-36-S-*	LS-315-***	19
10	10.500	WS-14-37-S-*	LS-360-***	17
12	12.500	WS-16-37-S-*	LS-360-***	20
15	15.620	WS-20-37-S-*	LS-475-***	20

Electrical Metallic Tubing (EMT) Thin Wall

CONDUIT SIZE (Nom.)	ACTUAL O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
1/2	0.706	WS-2-15-S-*	LS-275-***	5
3/4	0.922	WS-2-1/2-20-S-*	LS-275-***	6
1	1.163	WS-2-1/2-20-S-*	LS-275-***	6
1-1/4	1.510	WS-3-21-S-*	LS-275-***	6
1-1/2	1.740	WS-3-21-S-*	LS-275-***	8
2	2.197	WS-3-1/2-22-S-*	LS-275-***	10
2-1/2	2.875	WS-4-23-S-*	LS-200-***	9
3	3.500	WS-6-28-S-*	LS-360-***	7
4	4.500	WS-6-28-S-*	LS-300-***	10

Intermediate Metal Conduit (IMC)

CONDUIT ACTUAL SIZE (Nom.)	O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
1/2	0.815	WS-2-15-S-*	LS-275-***	5
3/4	1.029	WS-2-1/2-20-S-*	LS-275-***	6
1	1.290	WS-2-1/2-20-S-*	LS-200-***	5
1-1/4	1.638	WS-3-21-S-*	LS-275-***	8
1-1/2	1.883	WS-3-21-S-*	LS-200-***	7
2	2.360	WS-3-1/2-22-S-*	LS-200-***	8
2-1/2	2.857	WS-4-23-S-*	LS-200-***	9
3	3.476	WS-6-28-S-*	LS-360-***	7
3-1/2	3.970	WS-6-28-S*	LS-340-***	9
4	4.466	WS-6-28-S-*	LS-300-***	10

Rigid (RSC), Aluminum (ASC), Galvanized (GSC), Non-Metallic Conduit (NRC)

CONDUIT ACTUAL SIZE (Nom.)	O.D. (Inches)	MODEL NUMBER	LINK-SEAL® SIZE	LINKS PER SEAL
1/2	0.840	WS-2-15-S-*	LS-275-***	5
3/4	1.050	WS-2-1/2-20-S-*	LS-275-***	6
1	1.315	WS-2-1/2-20-S-*	LS-200-***	5
1-1/4	1.660	WS-3-21-S-*	LS-275-***	8
1-1/2	1.900	WS-3-21-S-*	LS-200-***	7
2	2.375	WS-3-1/2-22-S-*	LS-200-***	8
2-1/2	2.875	WS-4-23-S-*	LS-200-***	9
3	3.500	WS-6-28-S-*	LS-360-***	7
3-1/2	4.000	WS-6-28-S-*	LS-340-***	9
4	4.500	WS-6-28-S-*	LS-300-***	10
5	5.563	WS-8-32-S-*	LS-340-***	13
6	6.625	WS-10-36-S-*	LS-475-***	10

NOTES:

* = Specify sleeve length in inches

*** = Specify LS Model C, S-316, L...etc when ordering (Example LS-475-C-17).

Technically there is no limit to the pipe size that can be sealed using Link-Seal® modular seals. Please contact factory for sizes not listed and for CS model plastic sleeves for walls less than 8" thick.

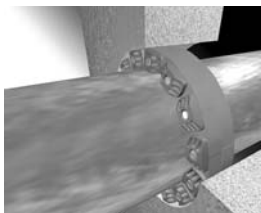
How to Order:

Using the Provided Sizing Charts

1. Determine Link-Seal® modular seal model to be used (See Link-Seal Selection Guide or Engineering Manual for technical information).
2. Locate charts on pages 18 through 21 that corresponds to the type and size pipe being used.
3. Verify that your pipe O.D. matches the actual outside diameter shown on the chart.
4. To order Link-Seal modular seals choose Link-Seal modular seal size (from SIZE column), Link-Seal modular seal model (C, S-316, L, LS-316, O, OS-316, T or FD/FS) and indicate number of links required per seal (from LINKS PER SEAL column).

[Example: LS-575-C-10]

Note: Contact PSI (1-800-423-2410) or your local distributor if your pipe sizing solution is not listed in the provided charts.



Sizing Charts for Standard Pipe when using Link-Seal® Modular Seals in Cast or Core Bit Drilled Holes:

- SDR-35 Gravity Sewer Pipe
- Steel and Plastic Pipe with Same Outside Diameter (IPS)
- Ductile Iron Pipe (DIPS, AWWA-C900, AWWA-C905, PVC Water Pipe)
- Copper Tubing
- Cast Iron Soil Pipe (Extra Heavy)
- Cast Iron Soil Pipe (Service Weight)
- Electrical Metallic Tubing (EMT)
- Thin Wall Intermediate Metal Conduit (IMC)
- Rigid (RSC), Aluminum (ASC), Galvanized (GSC), Non-Metallic Conduit (NRC)

Link-Seal® Modular Seal Models:

EPDM Seal Elements _____

Model C = Standard EPDM (black)

Model L = Low Durometer EPDM (blue)

Model S-316 = 316 Stainless Steel Hardware

Model LS-316 = 316 Stainless Steel Hardware

Nitrile Seal Elements _____

Model O = Standard Nitrile (green) Oil Resistant

Model OS-316 = with 316 Stainless Steel Hardware

Silicone Seal Elements _____

Model T = Silicone (grey) High Temp.

Model FD/FS = Double Silicone Seal

SDR-35 Gravity Sewer Pipe

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	HOLE I.D.	LINK-SEAL® SIZE	LINKS PER SEAL
4	4.22	6.000	LS-315-***	10
6	6.28	8.000	LS-315-***	15
8	8.40	12.000	LS-475-***	12
10	10.50	14.000	LS-475-***	14
12	12.50	16.000	LS-475-***	17
15	15.30	18.000	LS-360-***	24
18	18.70	22.000	LS-475-***	24
21	22.05	26.000	LS-575-***	24
24	24.80	28.000	LS-475-***	31
27	27.95	32.000	LS-575-***	30
30	32.00	36.000	LS-575-***	34

Steel and Plastic Pipe with Same Outside Diameter (IPS)

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	HOLE I.D.	LINK-SEAL® SIZE	LINKS PER SEAL
1/2	0.840	2.000	LS-200-***	4
3/4	1.050	3.000	LS-315-***	4
1	1.315	3.000	LS-300-***	4
1-1/4	1.660	3.000	LS-275-***	8
1-1/2	1.900	4.000	LS-315-***	6
2	2.375	4.000	LS-300-***	6
2-1/2	2.875	4.000	LS-200-***	9
3	3.500	5.000	LS-300-***	8
3-1/2	4.000	6.000	LS-315-***	10
4	4.500	6.000	LS-300-***	10
5	5.563	8.000	LS-340-***	13
6	6.625	10.000	LS-475-***	10
8	8.625	12.000	LS-475-***	12
10	10.750	14.000	LS-475-***	14
12	12.750	16.000	LS-475-***	17
14	14.000	18.000	LS-575-***	16
16	16.000	20.000	LS-575-***	18
18	18.000	22.000	LS-575-***	20
20	20.000	24.000	LS-475-***	26
22	22.000	26.000	LS-575-***	24
24	24.000	28.000	LS-475-***	31
26	26.000	30.000	LS-575-***	28
28	28.000	32.000	LS-575-***	30
30	30.000	34.000	LS-575-***	32
32	32.000	36.000	LS-575-***	34
34	34.000	38.000	LS-575-***	36
36	36.000	40.000	LS-575-***	38
42	42.000	46.000	LS-575-***	44
48	48.000	52.000	LS-575-***	50

Ductile Iron Pipe (DIPS, AWWA-C900, AWWA-C905, PVC Water Pipe)

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	HOLE I.D.	LINK-SEAL® SIZE	LINKS PER SEAL
2	2.500	4.000	LS-300-***	6
2-1/4	2.750	4.000	LS-200-***	9
3	3.960	6.000	LS-315-***	10
4	4.800	8.000	LS-410-***	7
6	6.900	10.000	LS-410-***	10
8	9.050	12.000	LS-400-***	9
10	11.100	14.000	LS-400-***	10
12	13.200	16.000	LS-360-***	21
14	15.300	18.000	LS-360-***	24
16	17.400	20.000	LS-360-***	27
18	19.500	24.000	LS-525-***	17
20	21.600	26.000	LS-525-***	19
24	25.800	28.000	LS-425-***	23
30	32.000	36.000	LS-575-***	34
36	38.300	42.000	LS-575-***	40
42	44.500	50.000	LS-500-***	38
48	50.800	56.000	LS-500-***	43

Copper Tubing

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	HOLE I.D.	LINK-SEAL® SIZE	LINKS PER SEAL
1/2	0.625	2.000	LS-275-***	4
3/4	0.875	2.000	LS-200-***	4
1	1.125	3.000	LS-315-***	4
1-1/4	1.375	3.000	LS-300-***	4
1-1/2	1.625	3.000	LS-275-***	8
2	2.125	4.000	LS-315-***	6
2-1/2	2.625	4.000	LS-275-***	11
3	3.125	5.000	LS-315-***	8
4	4.125	6.000	LS-315-***	10
6	6.125	8.000	LS-315-***	15
8	8.125	12.000	LS-575-***	10
10	10.125	14.000	LS-575-***	12
12	12.125	16.000	LS-575-***	14

NOTES:

*** = Specify LS Model C, S-316, L...etc when ordering (Example LS-475-C-17).

Technically there is no limit to the pipe size that can be sealed using Link-Seal® modular seals. Please contact factory for sizes not listed and for CS model plastic sleeves for walls less than 8" thick.

Cast Iron Soil Pipe (Extra Heavy)

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	HOLE I.D.	LINK-SEAL® SIZE	LINKS PER SEAL
2	2.380	4.000	LS-300-***	6
3	3.500	5.000	LS-300-***	8
4	4.500	6.000	LS-300-***	10
5	5.500	8.000	LS-340-***	13
6	6.500	10.000	LS-475-***	10
8	8.620	12.000	LS-475-***	12
10	10.750	14.000	LS-475-***	14
12	12.750	16.000	LS-475-***	17
15	15.880	18.000	LS-340-***	33

Cast Iron Soil Pipe (Service Weight)

PIPE SIZE (Nom.)	ACTUAL O.D. (Inches)	HOLE I.D.	LINK-SEAL® SIZE	LINKS PER SEAL
2	2.300	4.000	LS-315-***	6
3	3.300	5.000	LS-300-***	8
4	4.300	6.000	LS-300-***	10
5	5.300	8.000	LS-360-***	9
6	6.300	8.000	LS-315-***	15
8	8.380	10.000	LS-315-***	19
10	10.500	14.000	LS-475-***	14
12	12.500	16.000	LS-475-***	17
15	15.620	18.000	LS-425-***	14

Electrical Metallic Tubing (EMT) Thin Wall

CONDUIT SIZE (Nom.)	ACTUAL O.D. (Inches)	HOLE I.D.	LINK-SEAL® SIZE	LINKS PER SEAL
1/2	0.706	2.000	LS-275-***	4
3/4	0.922	2.000	LS-200-***	4
1	1.163	3.000	LS-315-***	4
1-1/4	1.510	3.000	LS-275-***	8
1-1/2	1.740	3.000	LS-200-***	6
2	2.197	4.000	LS-315-***	6
2-1/2	2.875	4.000	LS-200-***	9
3	3.500	5.000	LS-300-***	8
4	4.500	6.000	LS-300-***	10

Intermediate Metal Conduit (IMC)

CONDUIT SIZE (Nom.)	ACTUAL O.D. (Inches)	HOLE I.D.	LINK-SEAL® SIZE	LINKS PER SEAL
1/2	0.815	2.000	LS-200-***	4
3/4	1.029	2.000	LS-200-***	4
1	1.290	3.000	LS-300-***	4
1-1/4	1.638	3.000	LS-275-***	8
1-1/2	1.883	4.000	LS-315-***	6
2	2.360	4.000	LS-300-***	6
2-1/2	2.857	4.000	LS-200-***	9
3	3.476	5.000	LS-300-***	8
3-1/2	3.970	6.000	LS-315-***	10
4	4.466	6.000	LS-300-***	10

Rigid (RSC), Aluminum (ASC), Galvanized (GSC), Non-Metallic Conduit (NRC)

CONDUIT SIZE (Nom.)	ACTUAL O.D. (Inches)	HOLE I.D.	LINK-SEAL® SIZE	LINKS PER SEAL
1/2	0.840	2.000	LS-200-***	4
3/4	1.050	3.000	LS-315-***	4
1	1.315	3.000	LS-300-***	4
1-1/4	1.660	3.000	LS-275-***	8
1-1/2	1.900	4.000	LS-315-***	6
2	2.375	4.000	LS-300-***	6
2-1/2	2.875	4.000	LS-200-***	9
3	3.500	5.000	LS-300-***	8
3-1/2	4.000	6.000	LS-315-***	10
4	4.500	6.000	LS-300-***	10
5	5.563	8.000	LS-340-***	13
6	6.625	10.000	LS-475-***	10

NOTES:

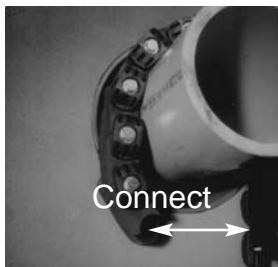
*** = Specify LS Model C, S-316, L...etc when ordering (Example LS-475-C-17).

Technically there is no limit to the pipe size that can be sealed using Link-Seal® modular seals. Please contact factory for sizes not listed and for CS model plastic sleeves for walls less than 8" thick.

Link-Seal® Modular Seal Installation Techniques



1. Center the pipe, cable or conduit in wall opening or casing. Make sure the pipe will be adequately supported on both ends. Link-Seal® modular seals are not intended to support the weight of the pipe.



2. Loosen rear pressure plate with nut just enough so links move freely. Connect both ends of belt around the pipe.



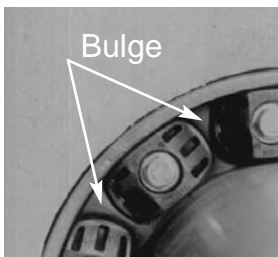
3. Check to be sure all bolt heads are facing the installer. Extra slack or sag is normal. Do not remove links if extra slack exists. **Note:** On smaller diameter pipe, links may need to be stretched.



4. Slide belt assembly into annular space. For larger size belts, start inserting Link-Seal modular seal assembly at the 6 O'Clock position and work both sides up toward the 12 O'Clock position in the annular space.



5. Using a hand socket or off-set wrench **ONLY**, start at 12 O' Clock. Do not tighten any bolt more than 4 turns at a time. Continue in a clockwise manner until links have been uniformly compressed. (Approx. 2 or 3 rotations)



6. Make 2 or 3 more passes at 4 turns per bolt MAXIMUM, tightening all bolts clockwise until all sealing elements “bulge” around all pressure plates. On type 316 stainless steel bolts, hand tighten ONLY without power tool.



7. If the seal doesn't appear to be correct using the instructions provided, Call PSI at 800-423-2410.

Always Wear Safety Equipment When Installing Link-Seal® modular seals!

Do's

1. Make sure pipe is centered.
2. Install the belt with the pressure plates evenly spaced.
3. Install the exact number of links indicated in sizing charts.
4. Check to make sure pipe is supported properly during backfill operations. Note: Link-Seal modular seals are not intended to support the weight of the pipe.
5. Make sure seal assembly and pipe surfaces are free from dirt.
6. For tight fits, use non-polluting liquid detergent to assist installation.



Don'ts

1. Don't Install the belt with the pressure plates aimed in irregular directions. (Staggered)
2. Don't Install Link-Seal® modular seals where weld-beads or other irregular surfaces exist without consideration of the sealing requirements.
3. Don't torque each bolt completely before moving on to the next.
4. Don't use high speed power tools (450 rpm or more)
5. Do not use power tools on Link-Seal modular seal 316 stainless steel bolts.
6. Don't use grease installing Link-Seal modular seals.



Installation Notes:

The Link-Seal® modular seal bolt heads are usually recessed below the wall opening or the edge of casing pipe and therefore a socket or offset wrench must be used.

Hand Tools: Use 5/16" hex or #6 screwdriver for LS-200. 1/2" hex requires 3/8" drive socket wrench. 9/16" and 3/4" hex requires 1/2" drive socket wrench. (Tools not provided.)

Century-Line® Sleeve Installation Techniques



1. Measure the center line to position Century-Line® Sleeve end cap.



2. Nail one of the end caps at the marked center line.



3. Place the Century-Line® Sleeve on the end cap. When field cutting non standard CS sleeve lengths, the sleeve and endcaps total length should be one-fourth (1/4") longer than the thickness of the wall. Cut with a hand or power saw.

Note: To insure minimum water migration, center the water stop in wall by cutting equal lengths from each end of the sleeve, except as noted below.



4. Place second end cap on sleeve. Check to determine that the cap is properly inserted.

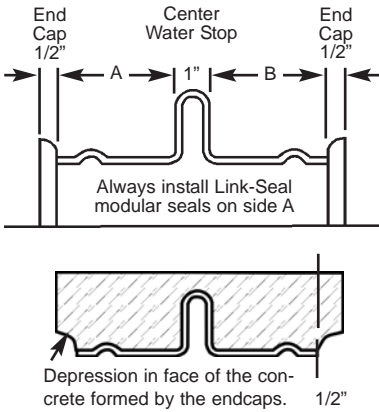


5. For additional stability, it's necessary to secure the sleeve with wire to the rebar. Insert the other end cap firmly, check that second end cap is positioned correctly, confirm sleeve length and close the form.



6. After the concrete is poured and cured, remove end caps with screw driver or crow bar. End caps may be replaced to protect sleeve until pipe penetration is made.

Century-Line® Sleeves are thermoplastic wall or floor pipe penetration sleeves. One person working alone can usually install a Century-Line® Sleeve regardless of the size.



Wall Thickness	Cut From Left End	Dim. A	Cut From Right End	Dim. B
16"	0.0"	7.125"	0.0"	7.125"
14"	.875"	6.125"	.875"	6.125"
12"	1.875"	5.125"	1.875"	5.125"
10"	2.375"	4.625"	3.375"	3.625"
8"	2.375"	4.625"	5.375"	1.625"

Always Wear Safety Equipment When Using Century-Line Sleeves & Link-Seal Modular Seals!

Notes:

1. Example: To convert 16" to 12", cut 1.875" off each end.
2. Endcaps leave 1/2" depression in face of concrete.
3. On sleeves under 12" length, install Link-Seal® modular seal on the "long side" of the waterstop.
 - (a) For Link-Seal® modular seals models LS-200, LS-275, LS-300, LS-315, LS-340 and LS-360 - install with pressure plates flush with outer edge of the sleeve.
 - (b) For Link-Seal® modular seals models LS-325, LS-400, LS-410, LS-425 and LS-475 - install with pressure plates partially inserted into the sleeve. When tightened, the pressure plates will "pull" into the sleeve.
 - (c) For Link-Seal® modular seals models LS-500, LS-525, LS-575, LS-600 and LS-650 - the minimum sleeve length is 10". Follow the instructions in 3 above.

If you should have questions using the techniques provided, **Call PSI at 713-747-6948 or 800-423-2410.**

Century-Line® Sleeve

Alternative Technique Using Threaded Rod



After nailing end cap to form, drive (threaded rod*) through the end plate and form and (thread nut*) on other side. **Note:** Remember to measure the (threaded rod*) to match the length of the sleeve.



Place the sleeve over the end cap nailed to the form.



Place second cap on the sleeve and use a (block of wood*) and (wing nut*) to tighten unit in place. Make certain sleeve is plumb.

Cell-Cast® Disks Installation Techniques



1. Locate center line where the hole is desired. This location will be used as a guide for the threaded centering assist rod.



2. A 2x4 wood nailer is included. Fasten it along with the threaded rod directly to the concrete form. This provides support and helps center the complete Cell-Cast® disk assembly.



3. Slide the first Cell-Cast® disk over the *threaded rod.
Note: Use only 1 threaded rod for equal distribution. More than one rod could take disks out of shape.



4. Secure the edges of the cell to the form using the provided steel spikes.



5. Additional disks are interlocked to accommodate finished wall thickness. Verify thickness is the same as wall.

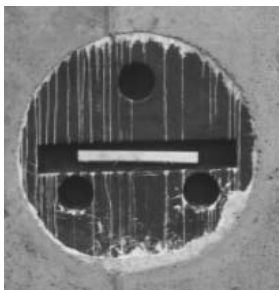


6. Guide the 1" wood block over the threaded rod and secure the assembly with the wing nut provided.



7. Wrap each seam with one wrap of 2" wide tape to bridge any possible gaps.
Note: Tape not included. Finish installing concrete forms and pour concrete.

Always Wear Safety Equipment When Using Cell-Cast® Disks & Link-Seal Modular Seals!



8. After wall cures, wall forms are removed. The Cell-Cast® disk assembly is now ready for removal.



9. Chip excess concrete from the edge of the Cell-Cast® disk assembly and wall.



10. Remove disks by breaking out the entire assembly.



11. Inspect the installation. A smooth opening is important for a proper Link-Seal® modular seal installation. Repair voids and grind smooth any ridges.

Note: For walls greater than 16", please contact PSI.

***Note:** Threaded rod must be requested when ordered.

Make sure TRA is added to the end of the ordering code.

Always Wear Safety Equipment When Using Cell-Cast® Disks & Link-Seal Modular Seals!

If you should have questions using the techniques provided,
Call PSI at 713-747-6948 or 800-423-2410.

Warranty and Conditions of Sale

The seller warrants that all goods furnished under this order will be free from defects in material and workmanship and will conform to Pipeline Seal & Insulator, Inc. published specifications.

The limit of PSI's liability for failure of any of our products to meet the foregoing warranty, or for breach of any other warranty, express, implied or statutory, shall be to supply an equivalent amount of product for any materials returned to us within 12 months of shipment and found to be defective by PSI.

Due to the widely varying conditions under which our products are used or installed, PSI offers no warranty as to their merchantability, length of service or suitability for any particular purpose, express or implied, other than described above.

The Purchaser accepts full responsibility for installation of all goods furnished under this order and for any defects or damage suffered as a result of defective installation of such goods. No instructions, advice, or aid relative to installation given by the Seller to the Purchaser shall be construed as a warranty as to the accuracy or utility of such instructions, advice, or aid, but only as an accommodation to the Purchaser and an opinion of the Seller.

The foregoing conditions of sale shall not be modified or affected in any way whatsoever by reason of Seller's receipt or acknowledgement of Buyer's purchase order or any other related instrument of paper containing additional or different conditions and, to the extent there may be any terms or provisions in such a purchase order, etc. which may be in conflict with or modification of the foregoing, such terms and provisions of such purchase order, etc. shall be deemed to have no force or effect.



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Quick Tips

- Read installation techniques.
- Make sure you have the correct Link-Seal® model and number of links.
- Make sure pipe is centered and supported.
- Do not remove links, install exact number indicated in charts.
- Tighten clock-wise pattern, 2 or more passes at 4 turns per bolt.
- Do not use power tools or zip guns on 316 stainless steel bolts.
- Do not use grease when installing a belt of Link-Seal modular seals. If needed, use non-polluting liquid detergent.



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