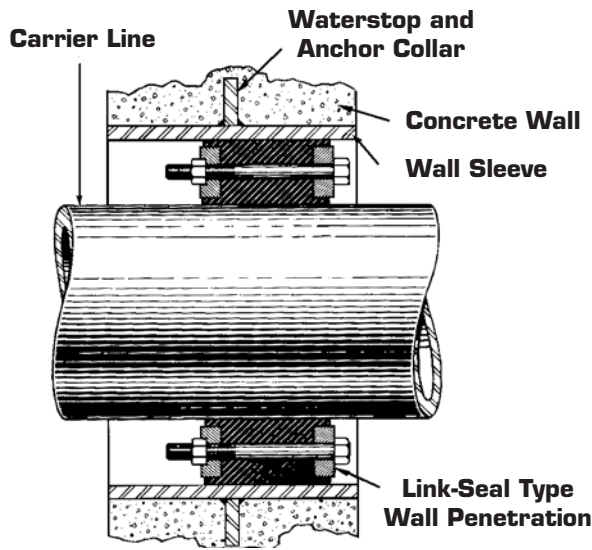


# Wall Sleeves

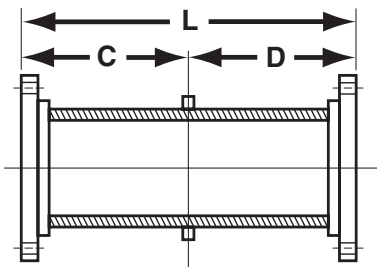
## Wall Sleeves



**Cut-away of completed Link-Seal and sleeve installation.**

For concrete wall or floor penetration we offer fabricated steel wall sleeves. Sleeves are specifically fabricated for use with Link-Seal, which provides hydrostatic sealing of annular space between pipes and sleeves. Link-Seal is available in eight (8) different thicknesses to fit various size spaces.

## Wall Pipe



### ORDERING NOTES:

- Wall Pipe may have screwed on or cast MJ Bell at discretion of manufacturer. Screw on bells may be tapped for stud bolts for flush mount.
- Fabricated Wall Pipe and Wall Sleeves are made to order, and are NOT RETURNABLE.
- Dimensions "C", "D" and "L" are required to enter order. O.D. of seep ring is O.D. of the pipe plus 3-inches.
- Minimum length is 6-inches face to face.

## Link-Seal®

Link-Seals are synthetic rubber interlocking links for sealing pipes through walls, floors and casings.

### Design Considerations:

#### Link-Seal Saves Time And Money

Link-Seal installs in up to 75% less time compared to lead-oakum joints, hand-fitted flashings, mastics, or casing boots. This means important cost savings.

#### Positive Hydrostatic Sealing

Properly installed, Link-Seal is rated at 20 psig (40 feet of head), which exceeds the performance requirements of most applications.

#### Long Seal Life

Link-Seal is designed for use as a permanent seal. Many installations have been in service for 25 years. Seal elements are specially compounded to resist aging, ozone, sunlight, water and a wide range of chemicals.

#### Seals and Pipe

If it's round, Link-Seal can seal it! Applications include concrete, cast iron, steel, copper, plastic, electrical and telecommunications cable.

#### Corrosion Protection

Where insulation against galvanic corrosion (or electrolysis) is required, Link-Seal provides complete separation of pipe and casing. Metal-to-metal contact is eliminated.

#### Compensates for Misalignment

Link-Seal allows for some angular and off-center pipe conditions and still seals effectively.

#### Absorbs Shocks, Sound and Vibration



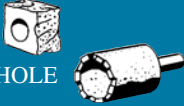
This inherent benefit of Link-Seal helps reduce pipe failures due to fatigue at welds, flanges and threaded connections.

LINK SEAL®	SIZE	PRODUCT NUMBER
	LS-200-C	28275
	LS-275-C	28276
	LS-300-C	28277
	LS-315-C	28278
	LS-325-C	28279
	LS-400-C	28281
	LS-425-C	28283
	LS-475-C	28285
	LS-500-C	28287
	LS-525-C	28289
	LS-575-C	28290
LS-600-C	28291	

# Pipe A-45

# Wall Sleeves

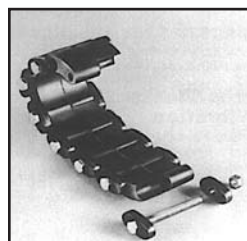
## Link-Seal® For Ductile Iron Pipe (AWWA-Type)

NOM. PIPE SIZE	ACTUAL OUTSIDE DIAMETER (O.D) (inches)	CS MODEL PLASTIC SLEEVE 			STEEL SLEEVE 			CAST OR CORE BIT DRILLED HOLE 		
		PLASTIC SLEEVE MODEL	LINK-SEAL SIZE NO.**	LINKS PER SEAL	STEEL SLEEVE SIZE (inches)	LINK-SEAL SIZE NO.**	LINKS PER SEAL	HOLE I.D.	LINK-SEAL SIZE NO.**	LINKS PER SEAL
2"	2.50	CS-4-*	LS-300-***	6	WS-3½-22-S-*	LS-200-***	8	4.00	LS-300-***	6
2¼"	2.75	CS-4-*	LS-275-***	10	WS-4-23-S-*	LS-200-***	9	4.00	LS-200-***	9
3"	3.96	CS-6-*	LS-340-***	10	WS-6-18-S-*	LS-340-***	10	6.00	LS-315-***	10
4"	4.80	CS-8-*	LS-475-***	8	WS-8-18-S-*	LS-475-***	8	8.00	LS-410-***	7
6"	6.90	CS-10-*	LS-475-***	10	WS-10-36-S-*	LS-410-***	10	10.00	LS-410-***	10
8"	9.05	CS-12-*	LS-400-***	9	WS-12-37-S-*	LS-400-***	9	12.00	LS-400-***	9
10"	11.10	CS-14-*	LS-410-***	15	WS-14-37-S-*	LS-340-***	24	14.00	LS-410-***	15
12"	13.20	CS-18-*	LS-575-***	15	WS-16-37-S-*	LS-340-***	28	16.00	LS-400-***	12
14"	15.30	CS-20-*	LS-575-***	17	WS-20-37-S-*	LS-575-***	17	18.00	LS-360-***	24
16"	17.40	CS-22-*	LS-360-***	28	WS-22-37-S-*	LS-575-***	19	20.00	LS-360-***	27
18"	19.50	CS-24-*	LS-410-***	25	WS-24-37-S-*	LS-575-***	21	22.00	LS-360-***	30
20"	21.60	CS-25-*	LS-400-***	20	WS-26-37-S-*	LS-575-***	23	26.00	LS-525-***	19
24"	25.80	CC-30-**	LS-400-***	23	WS-30-37-S-*	LS-400-***	23	28.00	LS-425-***	23
30"	32.00	CC-38-**	LS-500-***	28	WS-36-37-S-*	LS-400-***	29	36.00	LS-575-***	34
36"	38.30	CC-44-**	LS-500-***	33	WS-44½-37-S-*	LS-500-***	33	43.00	LS-500-***	33
42"	44.50	CC-50-**	LS-500-***	38	WS-50-37-S-*	LS-500-***	38	49.00	LS-525-***	38
48"	50.80	CC-56-**	LS-500-***	43	WS-57-37-S-*	LS-500-***	43	56.00	LS-500-***	43

\*=Specify sleeve length in inches, \*\*=See Cell-Cast® catalog, \*\*\*=Specify LS Model C, S-316, L...etc when ordering (Example LS-475-C-17)  
**NOTE:** WS rolled sleeves (6" & 8") =.1875" wall thickness; (10") = .25" wall thickness.

**NOTE:** See next page for Steel, Plastic and Copper Link-Seal sizes. Link-Seal will work with most other types of pipe and will accommodate odd opening sizes. Please call your local Team EJP sales office for assistance.

### Complete Installation in less than 5 minutes



**1** Link-Seal is shipped as a belt of interconnected rubber links.



**2** Wrap the belt around the pipe. Then connect the first and last links.



**3** Slide the assembly into the space between the pipe and wall.






**4** When the bolts are tightened, Link Seal expands to create a gas and watertight seal.

# Pipe A-46

# Wall Sleeves




## Link-Seal® For Steel and Plastic Pipe With Same Outside Diameter

NOM. PIPE SIZE	ACTUAL OUTSIDE DIAMETER (O.D.)	CS MODEL NON-METALIC SLEEVE 			STEEL SLEEVE 			CAST OR CORE BIT DRILLED HOLE 		
		SLEEVE MODEL	LINK-SEAL SIZE	LINKS PER SEAL	STEEL SLEEVE	LINK-SEAL SIZE	LINKS PER SEAL	HOLE I.D.	LINK-SEAL SIZE	LINKS PER SEAL
1/2"	0.840"	CS-3-*	LS-315-***	4	WS-2-15-S*	LS-275-***	5	2.000	LS-200-***	4
3/4"	1.050"	CS-3-*	LS-315-***	4	WS-2 1/2-20-S*	LS-275-***	6	3.000	LS-315-***	4
1"	1.315"	CS-3-*	LS-300-***	4	WS-2 1/2-20-S*	LS-200-***	5	3.000	LS-300-***	4
1 1/4"	1.660"	CS-3-*	LS-275-***	7	WS-3-21-S*	LS-275-***	8	3.000	LS-275-***	8
1 1/2"	1.900"	CS-3 1/2-*	LS-300-***	5	WS-3-21-S*	LS-200-***	7	4.000	LS-315-***	6
2"	2.375"	CS-4-*	LS-300-***	6	WS-3 1/2-22-S*	LS-200-***	8	4.000	LS-300-***	6
2 1/2"	2.875"	CS-4-*	LS-200-***	9	WS-4-23-S*	LS-200-***	9	4.000	LS-200-***	9
3"	3.500"	CS-5-*	LS-315-***	9	WS-6-28-S*	LS-360-***	7	5.000	LS-300-***	8
3 1/2"	4.000"	CS-6-*	LS-340-***	10	WS-6-18-S*	LS-340-***	10	6.000	LS-315-***	10
4"	4.500"	CS-6-*	LS-300-***	10	WS-6-18-S*	LS-315-***	11	6.000	LS-300-***	10
5"	5.563"	CS-8-*	LS-360-***	10	WS-8-18-S*	LS-360-***	10	8.000	LS-340-***	13
6"	6.625"	CS-10-*	LS-475-***	10	WS-8-18-S*	LS-315-***	15	10.000	LS-475-***	10
8"	8.625"	CS-12-*	LS-475-***	12	WS-10-25-S*	LS-315-***	20	12.000	LS-475-***	12
10"	10.750"	CS-14-*	LS-410-***	15	WS-14-37-S*	LS-360-***	17	14.000	LS-475-***	14
12"	12.750"	CS-18-*	LS-475-***	17	WS-16-37-S*	LS-360-***	20	16.000	LS-475-***	17
14"	14.000"	CS-20-*	LS-340-***	30	WS-18-37-S*	LS-475-***	18	18.000	LS-575-***	16
16"	16.000"	CS-22-*	LS-410-***	21	WS-20-37-S*	LS-475-***	21	20.000	LS-575-***	18
18"	18.000"	CS-24-*	LS-340-***	38	WS-22-37-S*	LS-475-***	23	22.000	LS-575-***	20
20"	20.000"	CS-25-*	LS-500-***	18	WS-24-37-S*	LS-475-***	25	24.000	LS-575-***	22
22"	22.000"	CS-25-*	LS-360-***	34	WS-26-37-S*	LS-475-***	28	26.000	LS-575-***	24
24"	24.000"	CC-30-**	LS-500-***	21	WS-28-37-S*	LS-475-***	30	28.000	LS-575-***	26

\*=Specify sleeve length in inches \*\*=See Cell-Cast® catalog \*\*\*=Specify LS Model C, S-316, L...etc when ordering (Example LS-475-C-17)

**NOTE:** WS rolled sleeves (6" & 8") =.1875" wall thickness; (10") = .25" wall thickness.

## Link-Seal® For Copper Tubing

NOM. PIPE SIZE	ACTUAL OUTSIDE DIAMETER (O.D.)	CS MODEL NON-METALIC SLEEVE 			STEEL SLEEVE 			CAST OR CORE BIT DRILLED HOLE 		
		SLEEVE MODEL	LINK-SEAL SIZE	LINKS PER SEAL	STEEL SLEEVE	LINK-SEAL SIZE	LINKS PER SEAL	HOLE I.D.	LINK-SEAL SIZE	LINKS PER SEAL
1/2"	.625"	CS-2-*	LS-275-***	4	WS-2-15-S*	LS-275-***	5	2.000	LS-275-***	4
3/4"	.875"	CS-3-*	LS-315-***	4	WS-2 1/2-20-S*	LS-275-***	6	2.000	LS-200-***	4
1"	1.13"	CS-3-*	LS-315-***	4	WS-2 1/2-20-S*	LS-275-***	6	3.000	LS-315-***	4
1 1/4"	1.38"	CS-3-*	LS-275-***	8	WS-2 1/2-20-S*	LS-200-***	5	3.000	LS-300-***	4
1 1/2"	1.63"	CS-3-*	LS-275-***	8	WS-3-21-S*	LS-275-***	8	3.000	LS-275-***	8
2"	2.13"	CS-4-*	LS-315-***	6	WS-3 1/2-22-S*	LS-275-***	10	4.000	LS-315-***	6

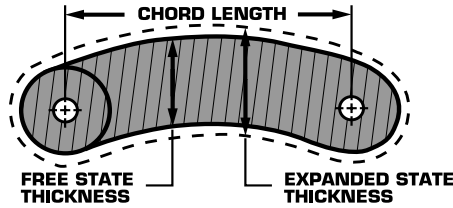
\*=Specify sleeve length in inches \*\*=See Cell-Cast® catalog \*\*\*=Specify LS Model C, S-316, L...etc when ordering (Example LS-475-C-17)

**NOTE:** WS rolled sleeves (6" & 8") =.1875" wall thickness; (10") = .25" wall thickness.

# Pipe A-47

# Wall Sleeves

## Link-Seal Dimensional Chart 1



LINK-SEAL SIZE	FREE STATE THICKNESS*	EXPANDED STATE THICKNESS	CHORD LENGTH
LS-200	0.50"	0.64"	1.120"
LS-275	0.62"	0.80"	0.906"
LS-300	0.71"	0.92"	1.510"
LS-315	0.82"	1.10"	1.469"
LS-325	0.94"	1.14"	3.110"
LS-340	1.05"	1.33"	1.575"
LS-360	1.29"	1.65"	2.106"
LS-400	1.43"	1.87"	3.622"
LS-410	1.48"	1.91"	2.598"
LS-425	1.13"	1.43"	3.622"
LS-475	1.62"	2.08"	2.630"
LS-500	2.37"	2.81"	3.860"
LS-525	2.18"	2.58"	3.860"
LS-575	1.88"	2.35"	3.100"
LS-600	3.20"	4.00"	6.000"

\*= Free State Thickness includes an insertion tolerance and therefore, differs from the actual thickness as listed in Link-Seal modular seal dimensional data.

## Calculation Method For Non-Standard Diameters

If your pipe size does not appear on the two preceding pages call your local Team EJP Sales Office or use this method to select the proper Link-Seal.

First, calculate the Annular Space in order to select your Link-Seal size from the chart on this page. Then determine the number of links required to go around the pipe. Here's how:

**Step A:** The Annular Space is half the difference between your pipe size and the wall opening diameter. Use this formula:

$$\text{Annular Space} = \frac{\text{Wall Opening} - \text{Pipe Diameter}}{2}$$

**Step B:** Now go to Link-Seal Dimensional Chart #1. Select the size closest to the Annular Space just calculated. You have selected the correct size Link-Seal if ... the Free State Thickness is less than the Annular Space... and the Expanded State Thickness is greater than the Annular Space.

**Step C:** Next calculate how many links are required to fit around the pipe and seal the Annual Space. This is a 3-part calculation. First determine the Bolt Circle for your Link-Seal assembly. This is simply the mid-point of the Annular Space:

$$\text{Bolt Circle} = \frac{\text{Wall Opening} + \text{Pipe Diameter}}{2}$$

**Step D:** Second, determine the number of links needed for your assembly. To do this, find the Chord Length of your Link-Seal size from the Link-Seal Dimensional Chart 1. Then multiply the Bolt Circle by 3.14 and divide by the Chord Length.

$$\text{Links Per Seal} = \frac{\text{Bolt Circle} \times 3.14}{\text{Chord Length}}$$

Finally the results must be rounded down to the next whole number. This completes your calculation.

**IMPORTANT:** If the Step D calculation results in 10 or more links, it is accurate. If it indicates fewer than 10 links, please call your local Team EJP Sales Office for further assistance.

LINK-SEAL DIMENSIONAL CHART 2	
SIZE	Suggested O.D. Range
LS-200	1 - 4
LS-275	1 - 8
LS-300	1 - 12
LS-315	1 - 16
LS-325	2 - 20
LS-340	2 - 24
LS-360	2 - 28
LS-400	3 - 32
LS-410	3 - 36
LS-425	3 - 40
LS-475	4 - 44
LS-500	5 - 48
LS-525	5 - 52
LS-575	6 - 56
LS-600	7 - 60

0 1/2 1 2 3 4 8 12 20 30 48 72 120  
PIPE SIZE O.D.

