

Pipe Linx & Wall Sleeves



CALPICO

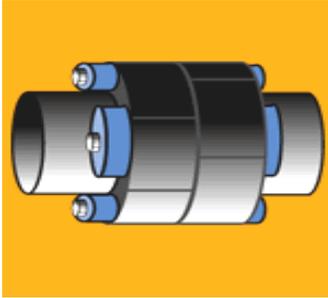
**Manufacturing and supplying
underground piping products
SINCE 1963**

CALPICO
INC.

CALPICO Pipe Linx

Your Supplier
for Pipe
Penetration
Seals

CALPICO Pipe Linx form a mechanical rubber seal between pipes going through walls, floors, vaults, tanks, and pipeline casings. Calpico Pipe Linx make a watertight seal between a pipe and a wall hole. They can also seal the gap between an inner pipe and outer pipe sleeve or pipeline casing. They seal the gap between electrical conduit and the outer conduit, or between electrical conduit and the wall hole it passes through.



CALPICO Pipe Linx are designed to make a hydrostatic seal of up to 20 psig & 40 ft. of head. The linx, in addition to their sealing properties, help absorb vibrations and shocks. They also insulate the inner pipe from all the outer structures, including outer pipe sleeves, pipeline casing, walls, and tanks

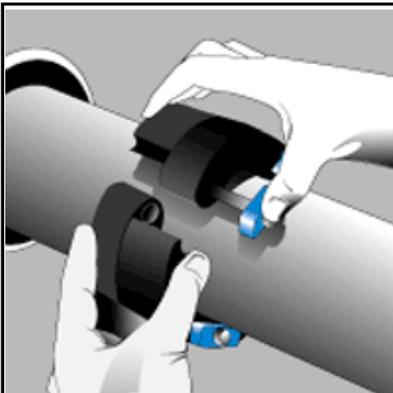


CALPICO Pipe Linx are made from EPDM synthetic rubber with heavy duty plastic pressure plates, which are resistant to sunlight and ozone. Linx are also available in Nitrile for petroleum based applications. All bolts and nuts are plated with an anti-corrosive zinc coating. Stainless steel bolts and nuts, both 304 & 316 grade, are also available. SEE CHART #102 FOR TYPE OF LINX AVAILABLE.

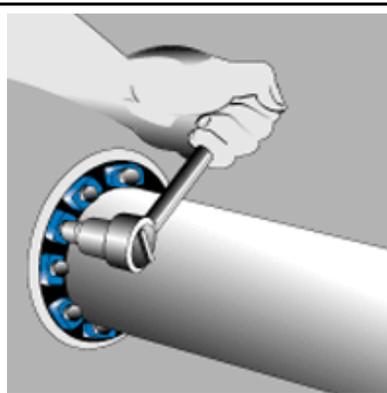
Centering blocks are used in large diameter applications where LINX rubber blocks may require extra support to keep from flattening from the weight of the pipe.

Twelve different sizes of CSL Linx are available, which make up most pipe sizes from 1/2" up to 120"

TYPICAL OVERVIEW:



LINX PRIOR TO TIGHTENING



TIGHTENING OF LINX TO
FORM A AIR TIGHT AND A
WATER TIGHT SEAL.



INSTALLATION COMPLETE

Boxed CSL Linx include Installation Instructions for an easy assembly in a step-by-step manner. Special tools are not required.

Calpico, INC.

1387 San Mateo Ave.

So. San Francisco, CA 94080

Ph: 650 588-2241 or 800 998-9115 Fax: 650 873-6952

IPS = Iron Pipe Size Plastic Pipe Size API Pipe Size Electrical Conduit	EMT = Thin Wall Conduit
DI = Ductile Iron Pipe Plastic Pipe Size	CISW = Cast Iron Service Weight
CTS = Copper Tubing Size Plastic Tubing Size	Or pipe with same O.D.



So. San Francisco, CA
650 588-2241 ph
650 873-6952 fax

Chart No. 101 SIZING SPECIFICATIONS

Nominal Pipe Size	Type of Pipe	Pipe O.D.	Inner Pipe through a Core Drilled Hole			Inner Pipe through a Wall Sleeve		
			Hole Dia.	Qty. of CSL	CSL No.	Sleeve I.D.	Qty. of CSL	CSL No.
1/2"	IPS	.840"	2.0"	4	20	2.067"	4	20
1/2"	CTS	.625"	2.0"	4	27	2.067"	4	27
1/2"	EMT	.706"	2.0"	4	27	2.067"	4	27
3/4"	IPS	1.050"	2.5"	6	27	2.469"	6	27
3/4"	CTS	.875"	2.0"	4	20	2.067"	4	20
3/4"	EMT	.922"	2.0"	4	20	2.067"	4	20
1"	IPS	1.315"	2.5"	5	20	2.469"	5	20
1"	CTS	1.125"	2.5"	6	27	2.469"	6	27
1"	EMT	1.163"	2.5"	6	27	2.469"	6	27
1 1/4"	IPS	1.660"	3.0"	8	27	3.068"	8	27
1 1/4"	CTS	1.375"	2.5"	5	20	2.469"	5	20
1 1/4"	EMT	1.510"	3.0"	4	30	3.068"	4	30
1 1/2"	IPS	1.900"	3.5"	5	30	3.548"	5	30
1 1/2"	CTS	1.625"	3.0"	8	27	3.068"	8	27
1 1/2"	EMT	1.740"	3.0"	8	27	3.068"	8	27
2"	IPS	2.375"	4.0"	6	30	4.026"	6	30
2"	CTS	2.125"	4.0"	6	31	4.026"	6	31
2"	EMT	2.179"	4.0"	6	31	4.026"	6	31
2"	DI	2.500"	4.0"	6	30	4.026"	6	30
2"	CISW	2.300"	4.0"	6	31	4.026"	6	31
2 1/4"	DI	2.750"	4.0"	11	27	4.026"	11	27
2 1/2"	CTS	2.625"	4.0"	11	27	4.026"	11	27
2 1/2"	EMT	2.875"	4.0"	9	20	4.026"	9	20
2 1/2"	IPS	2.875"	4.0"	9	20	4.026"	9	20
3"	CTS	3.125"	5.0"	8	31	5.047"	8	31
3"	EMT	3.500"	5.0"	9	30	5.047"	9	30
3"	IPS	3.500"	5.0"	9	30	5.047"	9	30
3"	DI	3.960"	6.0"	5	32	6.065"	5	32
3"	CISW	3.300"	5.0"	8	31	5.047"	8	31
3 1/2"	IPS	4.000"	6.0"	5	32	6.065"	5	32
4"	CTS	4.125"	6.0"	11	31	6.065"	11	31
4"	DI	4.800"	8.0"	7	41	7.981"	7	41
4"	EMT	4.500"	6.0"	11	30	6.065"	11	30
4"	IPS	4.500"	6.0"	11	30	6.065"	11	30
4"	CISW	4.300"	6.0"	11	31	6.065"	11	31
5"	IPS	5.563"	8.0"	13	34	7.981"	13	34
5"	CISW	5.300"	8.0"	5	42	7.981"	5	42

Nominal Pipe Size	Type of Pipe	Pipe O.D.	Inner Pipe through a Core Drilled Hole			Inner Pipe through a Wall Sleeve		
			Hole Dia.	Qty. of CSL	CSL No.	Sleeve I.D.	Qty. of CSL	CSL No.
6"	CTS	6.125"	10.0"	8	57	10.020"	8	57
6"	DI	6.900"	10.0"	10	41	10.020"	10	41
6"	IPS	6.625"	10.0"	7	40	10.020"	7	40
6"	CISW	6.300"	10.0"	9	47	10.020"	9	47
8"	CTS	8.125"	12.0"	10	57	12.000"	10	57
8"	CTS	8.125"	12.0"	10	57	11.875"*	10	57
8"	DI	9.050"	12.0"	9	40	12.000"	9	40
8"	DI	9.050"	12.0"	9	40	11.875"*	9	42
8"	IPS	8.625"	12.0"	9	40	12.000"	9	40
8"	IPS	8.625"	12.0"	9	40	11.875"*	9	40
8"	CISW	8.380"	12.0"	12	47	12.000"	12	47
8"	CISW	8.380"	12.0"	12	47	11.875"*	12	47
10"	CTS	10.125"	14.0"	12	57	13.250"	10	40
10"	DI	11.100"	14.0"	11	40	13.250"	12	32
10"	IPS	10.750"	14.0"	10	40	13.250"	10	42
10"	CISW	10.500"	14.0"	14	47	13.250"	10	42
12"	CTS	12.125"	16.0"	14	57	15.250"	12	40
12"	DI	13.200"	16.0"	12	42	15.250"	14	32
12"	IPS	12.750"	16.0"	12	40	15.250"	12	42
12"	CISW	12.500"	16.0"	17	47	15.250"	12	42
14"	DI	15.300"	18.0"	14	42	17.250"	16	32
14"	IPS	14.000"	18.0"	16	57	17.250"	13	40
15"	CISW	15.620"	20.0"	18	57	19.250"	21	47
16"	DI	17.400"	20.0"	16	42	21.250"	19	57
16"	IPS	16.000"	19.0"	15	40	19.250"	15	40
18"	DI	19.500"	24.0"	17	52	23.250"	25	47
18"	IPS	18.000"	23.0"	16	50	23.250"	16	50
20"	DI	21.600"	25.0"	20	40	25.250"	28	47
20"	IPS	20.000"	23.0"	18	40	23.250"	18	40
22"	IPS	22.000"	25.0"	20	40	25.250"	20	40
24"	DI	25.800"	29.0"	23	40	29.250"	24	40
24"	IPS	24.000"	29.0"	21	50	29.250"	21	50
26"	IPS	26.000"	29.0"	24	40	29.250"	24	40
28"	IPS	28.000"	33.0"	24	50	33.250"	25	50
28"	IPS	28.000"	31.0"	25	40	31.250"	25	40
30"	DI	32.000"	35.0"	29	40	35.250"	29	40
30"	IPS	30.000"	35.0"	26	50	35.250"	26	50
32"	IPS	32.000"	37.0"	28	50	37.250"	28	50
34"	IPS	34.000"	39.0"	29	50	39.250"	29	50
36"	DI	38.300"	43.0"	33	50	43.250"	33	50
36"	IPS	36.000"	41.0"	31	50	41.250"	31	50
42"	DI	44.500"	49.0"	38	52	49.250"	38	52
42"	IPS	42.000"	47.0"	36	50	47.250"	36	50
48"	DI	50.800"	55.0"	54	57	55.250"	43	52
48"	IPS	48.000"	53.0"	41	50	53.250"	41	50

Note: * PVC Wall Sleeve I.D.

For larger sizes, please call.

This chart is a guide only and we are not responsible for mistakes, omissions, and errors, etc.

PIPE LINX

Nominal Pipe Size	Type of Pipe	Pipe O.D.	Inner Pipe through a Core Drilled Hole			Inner Pipe through a Wall Sleeve		
			Hole Dia.	Qty. of CSL	CSL No.	Sleeve I.D.	Qty. of CSL	CSL No.

Chart No. 103

RECOMMENDED WALL THICKNESS FOR SEALING:	
CSL Model	Wall Thickness
20	2 1/4"
27	2 1/4"
30	3"
31	3"
32	4"
40	5"
42	5"
47	4 1/2"
50	5"
52	5"
57	5"
60	6"



1387 San Mateo Ave.
 South San Francisco, Ca 94080
 Ph: 650-588-2241
 Fax: 650-873-6952

All common sizes of pipe-to-hole or pipe-to-sleeve combinations are shown in Chart No. 101. However, many other size combinations will also work. To calculate any sizes not listed in chart No. 101, please consult chart No. 104.

NON-STANDARD LINX SIZES

Chart No. 104

CSL Style No.	Sealing Range		CSL Multiplier
	(untightened)	(tightened)	
CSL 20	0.500	0.625	1.400
CSL 27	0.593	0.750	1.725
CSL 30	0.687	0.875	1.040
CSL 31	0.820	1.030	1.068
CSL 32	0.935	1.187	0.506
CSL 34	1.020	1.320	0.997
CSL 36	1.250	1.650	0.745
CSL 40	1.437	1.812	0.433
CSL 41	1.410	1.810	0.604
CSL 42	1.125	1.500	0.433
CSL 47	1.625	2.000	0.600
CSL 50	2.375	2.812	0.406
CSL 52	2.187	2.500	0.406
CSL 57	1.810	2.350	0.510
CSL 60	3.200	4.000	0.2617

How to figure Linx size and number of Linx needed to make one seal.

Formula 1: (to figure which CSL Style No. is needed)
 I.D. of Outer Casing or Hole Diameter MINUS O.D. of Inner Pipe = "Y"
 Y divided by 2 = Sealing Range

Find the correct Sealing Range and the corresponding Style No. on Chart No. 104.

Formula 2: (to figure how many of Style CSL Linx needed)
 I.D. of Outer Casing or Hole Diameter PLUS O.D. of Inner Pipe = "Z"
 "Z" multiplied by the corresponding CSL Multiplier = Qty of CSL Linx needed.

Find the corresponding CSL Multiplier on Chart No. 104.

EXAMPLE 4" DIP into a 10" core dilled hole: Outer I.D. of hole = 10.00" / Inner O.D. of pipe = 4.80"

Formula 1 10.00"-4.80"=Y (Y=5.20)

5.20" ÷ 2 = 2.600"

5.20" ÷ 2 = 2.600"

Formula 2: 10.00" + 4.80"=Z (Z=14.80")

CSL multiplier for CSL 50 = .406

14.80" x .406 = 6.009

xx.79 - Round down to nearest whole number.

xx.80 - Round up to nearest whole number

ANSWER: 6 Linx required per seal - CSL 50



Chart No. 105

Model	Type	Seal Material	Pressure Plates	Bolts & Nuts	Temp. Range	Application
CSL	STANDARD	EPDM Black	GLASS REINFORCED PLASTIC	ZINC PLATED STEEL	(-40 to +250) per ASTM D2000	Suitable for most applications in water, both above ground and direct burial. Provides electrical insulation where cathodic protection is required.
CSL-SS	304 STAINLESS STEEL	EPDM Black	GLASS REINFORCED PLASTIC	304 STAINLESS STEEL	(-40 to +250)	Environments where corrosion resistant hardware required. EPDM rubber resistant to most inorganic acids and alkalis, some organic chemicals (acetone, alcohol, ketones)
CSL-SSS	316 STAINLESS STEEL	EPDM Black	GLASS REINFORCED PLASTIC	316 STAINLESS STEEL	(-40 to +250)	For applications where lower grade Stainless Steel hardware is not suitable and a higher degree of corrosion resistant hardware is required.
CSL-N	OIL RESISTANT	NITRILE Black	GLASS REINFORCED PLASTIC	ZINC PLATED STEEL	(-40 to +210) per ASTM D2000	Nitrile rubber is suitable for most hydrocarbons, fats, oils, greases, hydraulic fluids, chemicals and solvents -- gasoline, jet fuel, water, motor oil, kerosene, methane, etc.
CSL-N-SS	OIL RESISTANT 304 S.S.	NITRILE Black	GLASS REINFORCED PLASTIC	304 STAINLESS STEEL	(-40 to +210)	Combination of stainless steel hardware and oil-resistant rubber.
CSL-N-SSS	OIL RESISTANT 316 S.S.	NITRILE Black	GLASS REINFORCED PLASTIC	316 STAINLESS STEEL	(-40 to +210)	Combination of higher grade stainless steel hardware and oil resistant rubber where the ultimate corrosion protection is desired.
CSL-T	HIGH / LOW TEMP.	SILICONE Grey	ZINC PLATED STEEL	ZINC PLATED STEEL	(-67 to +400) per ASTM D2000	Silicone rubber is ideal for temperature extremes.

PIPE LINX SPECIFICATION - MATERIAL PROPERTIES

PROPERTY	ASTM	EPDM	NITRILE	SILICONE
Hardness -----	D-2240	47+-3	50 +-5	50 +-5
Tensile -----	D-412	1450 psi	1300 psi	860 psi
Elongation -----	D-412	400%	300%	250%
Compression Set ----	2395	15% - 22 hrs.- 158 degree F	45% - 22 hrs.- 212 degree F	40% - 22 hrs.- 350 degree F
Specific Gravity -----	D-297	1.1	1.42	1.4

PRESSURE PLATE SPECIFICATION

PROPERTY	ASTM	VALUE
Izod Impact - Notched	D-256	2.05 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:
Zinc dichromated per ASTM B633, with an additional corrosion inhibiting proprietary organic coating per ASTM B117.
Tensile Strength = 60,000 psi, min.

Stainless Steel:
304 Grade
316 Grade

For assistance, call:
650 588-2241

**CALPICO
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Fax: (650) 873-6952

WALL SLEEVES



P

* Standard Sleeves are avail.
in all sizes of Sch. 40 PVC &
Steel.

V

* Special Sleeves available,
contact factory.

* Standard Water Stop is 2"
high to prevent water leaks.
Full weld 360° both sides.

* Standard Sleeve length is
12". Other sizes available.

C

MODEL C-PWS

PVC Sleeve Standard Specifications:

	ASTM:	VALUE:
Izod-Impact		
lbs/inch/notched:	D256	1.10 - 1/25
Tensile Strength:	D368	5500 - 6300 psi
Elasticity:	D368	400,000 - 500,000 psi
Dielectric Strength:	D149	1100

MODEL C-SWS

STEEL Sleeve Standard Specifications:

- * Pipe per ASTM A53, GR B, ERW.
 - * Steel plate per ASTM A36.
 - * Full weld 360° both sides.
 - * Black Steel or
 - * Hot Dipped Galvanized or
 - * Epoxy Coated 3-4 Mil thick
 - * 304 & 316 PIPE PER ASTM A778
 - * 304 & 316 WEEP RING ASTM A24
- COMBINATION PIPE LINX & WALL SLEEVE:**



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Some of the products available from CALPICO:

**Pipe Linx
Casing Insulators
Flange Insulation Kits
Pipe Identification Markers
Cut Flange Gaskets
Valve Identification Tags
Locater and Tracer Tape
Wall Sleeves
Manhole Adapter Seals
Anodes
Cathodic Protection
...and other piping & electrical products.**

Your satisfaction is our success....

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2019