

Logan Clay Products Catalog

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Vitrified Clay is the only pipe material that does not change or degrade over time. It resists corrosion, abrasion, has exceptional compressive strength and leak-free joints. These attributes make vitrified clay pipe the right choice for municipalities seeking the best long-term value.



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ASTM C700 Extra-Strength Clay Pipe Specification Data

Specify Logan Clay Pipe

Over the Long-Term, VCP is the Best Value.

- **Longevity & Sustainability** – A demonstrated service life of over 200-years in the U.S. is the longest proven service life in the industry.
- **Operations & Maintenance** – Aggressive cleaning options reduce annual maintenance costs by reducing SSOs and dig-ups over the service life of the installation.



120-year-old pipe recently replaced to upsize the service line.

Dimensions of Extra-Strength Logan Clay Pipe (ASTM C700)

Pipe Size (I.D.)		Available Lengths							Average O.D.*		Crushing Strength**		Nominal Length of Ys & Ts
Inches	MM	1'	2'	3'	4'	5'	6'	7'	Bell	Spigot	Lbs. per Linear Ft	KN per Linear M	
4"	100	✓	✓		✓				7.05	4.81	2000	29.2	2'
6"	150	✓	✓	✓	✓				10.51	7.48	2000	29.2	2'
8"	200	✓	✓	✓		✓			12.60	9.69	2200	32.1	2'
10"	250	✓	✓	✓		✓			15.46	12.12	2400	35.0	2'
12"	300	✓	✓	✓			✓		18.15	14.54	2600	37.9	2'
15"	375	✓	✓	✓				✓	22.28	18.14	2900	42.3	3'
18"	450	✓	✓	✓				✓	26.91	21.59	3300	48.2	3'
21"	525	✓	✓	✓				✓	31.20	25.48	3850	56.2	3'
24"	600	✓	✓	✓				✓	35.45	29.05	4400	64.2	3'

✓ = Standard length for each dimension
 ✓ = Also available in these lengths

* All measurements are +/- 2%
 ** Minimum crushing strength per ASTM C700

Product Variance Data

Pipe Size	Limit of Minus Variation (per foot)	Max. Difference in Length of Opposite Sides	I.D. Limit of Minus Variation from Nominal Size
4"	1/4"	5/16"	3/16"
6"	1/4"	3/8"	1/4"
8"	1/4"	7/16"	5/16"
10"	1/4"	7/16"	3/8"
12"	1/4"	7/16"	7/16"
15"	1/4"	1/2"	9/16"
18"	1/4"	1/2"	11/16"
21"	1/4"	9/16"	13/16"
24"	3/8"	9/16"	15/16"



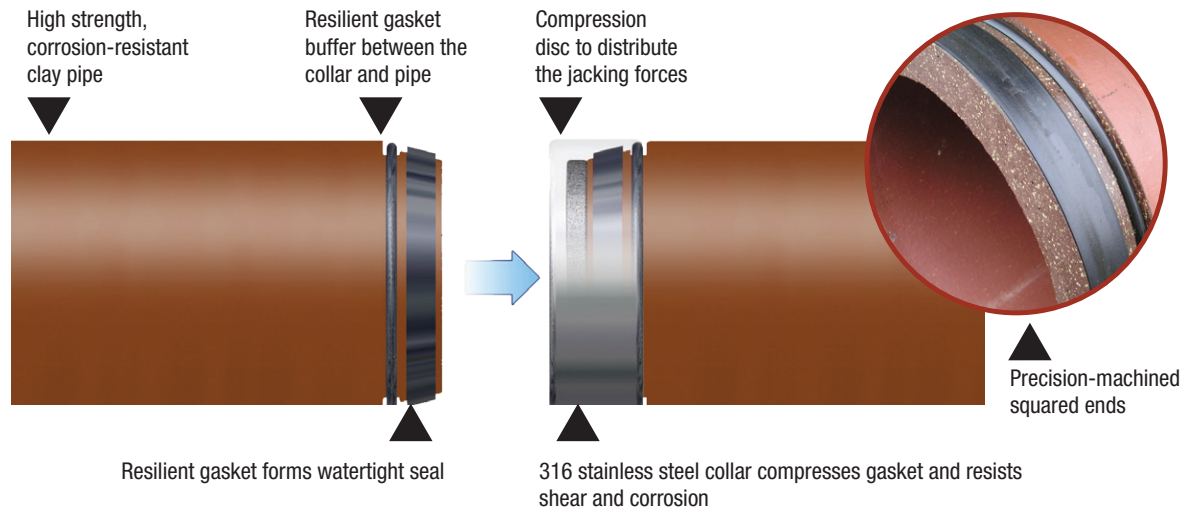
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NO-DIG Pipe

Vitrified Clay Jacking Pipe is used for more Pilot Tube projects than any other Jacking Pipe.

- Use with the Pilot Tube Method of Guided Boring for **on-target** line and grade
- Unsurpassed axial strengths
- 316 stainless steel collars
- Available in 1- and 2- meter standard lengths
- Chemically resistant
- Works below the water table
- Exceeds the standard for ASTM C1208 *Standard Specification for Vitrified Clay Pipe and Joints for Use in Microtunneling, Sliplining, Pipe Bursting, and Tunnels*
- Highly sustainable – doesn't degrade over time
- May reduce the need for lift stations



NO-DIG Pipe Data

Nominal I.D.	Average O.D.	Approx. Pipe Weight lbs. per ft.	Allowable Safe Jacking Load (in Tons)		
			2.5 SF*	3.0 SF*	3.5 SF*
8"	11"	41	41	34	29
10"	13 5/16"	65	60	50	43
12"	15 1/2"	78	78	65	55
15"	18 7/8"	106	109	91	78
18"	22"	133	141	117	100
21"	25 1/2"	178	189	158	135
24"	29 1/8"	222	230	192	165

Diameters are subject to normal manufacturing variation and should be confirmed. For precise dimensions, clearance applications, computation of tunnel overcut, sizing of casing spacers and manhole connections, call 800-848-2141.

*SF = Safety Factor – SF numbers are based on 7000 psi compressive strength (the minimum requirement of ASTM C1208). NO-DIG Pipe consistently exceeds the minimum requirement.



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ASTM C700 Extra-Strength Clay Pipe Shipping Pack Data

Logan Clay Shipping Pack Data

Logan's palletizing and delivery systems bring more pipe to you when and where you need it... minimizing breakage...maximizing production and cutting your in-the-trench costs.



Logan Pack Data

Size	Length	Pieces/ Pallet	Feet/ Pallet	Weight (lbs.)	
				Piece	Pack
4"	2'	98	196	21	2,058
4"	4'	49	196	32	1,568
6"	2'	50	100	44	2,200
6"	4"	25	100	77	1,925
8"	2'	32	64	70	2,240
8"	5'	16	80	145	2,320
10"	2'	18	36	100	1,800
10"	5'	9	45	225	2,025
12"	2'	12	24	143	1,716
12"	6'	9	54	377	3,393
15"	7'	4	28	650	2,600
18"	7'	4	28	908	3,632
21"	7'	Ea.	--	1,358	--
24"	7'	Ea.	--	1,700	--

Logan recommends 1 case (4 gallons) of O-Ring lubricant per truckload.

Truckload Quantities*

Size	Length	Feet	Pieces
4"	4'	5,096	1,274
6"	4'	2,200	550
8"	5'	1,440	288
10"	5'	900	180
12"	6'	684	114
15"	7'	476	68
18"	7'	336	48
21"	7'	224	32
24"	7'	168	24

* Less-than-truckload quantities require a stopover charge and time to fill out the truck with another part order.

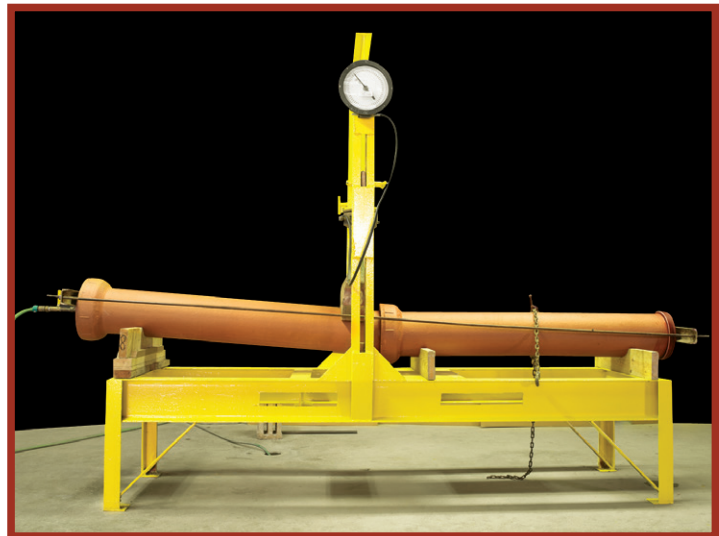
Logan's O-Ring Joint

Field Tested – Field Proven

The clay pipe sewers installed early in our nation's history were not supplied with a joint. The installers joined pipe by applying tar or mortar in the trench. These joints allowed significant infiltration which was beneficial as it diluted the effluent and cleaned the lines. These sewers generally discharged into waterways without treatment.

As cities began treating sewage, infiltration became an expense. Logan Clay responded by introducing factory applied joints. Each generation of factory applied joints improved upon the last until the O-Ring joint was developed, achieving the leak-free performance that communities require.

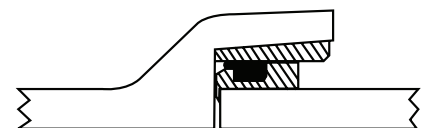
The Logan O-Ring joint has proven to be a reliable, watertight joint for more than 50 years. When installed in accordance with ASTM C12 specifications, our pipe and O-Ring joints eliminate the infiltration that was prevalent in early clay pipe lines.



For this test of 8-inch pipe, the pipe on the right provides the basis of a straight pipeline. The pipe on the left is intentionally misaligned to simulate a deflected joint. The bell end is 2 1/2 inches higher than the spigot end (1/2-inch deflection per foot length). The spigot end is unsupported while a shear load of 1,200 lbs. (150 lbs. per inch diameter or 150 x 8 = 1,200 lbs.) is then applied from above. This combination simulates a field condition of both misalignment of the joint and improper support of the barrel. In this condition, the joint must withstand the 1,200 lbs. shear load while maintaining 4.3 psi of water pressure (10 ft. head) without leaking.

Deflection Allowed by ASTM Specification

Normal Diameter	Deflection of Pipe
4-12" (101-305 mm), inclusive	1/2" (42 mm)
15-24" (381-610 mm), inclusive	3/8" (31 mm)



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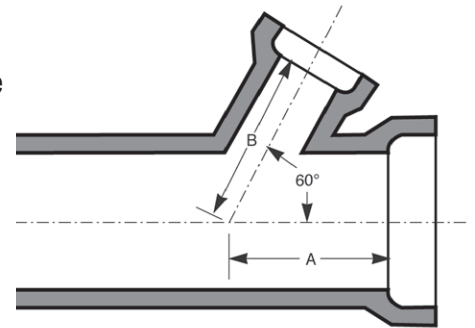
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Pipe Fittings – Y-Branches

Logan Y-Branch Spurs are carefully attached to the barrels at an angle of 60° and will correspond in every way to the dimensions specified for pipe of the same size.

A wide variety of Double Ys are also available. Please call our customer service department for availability and shipping information.

Y-Branches not shown are available on special order or by adapting with an increaser. Please call our office for assistance.



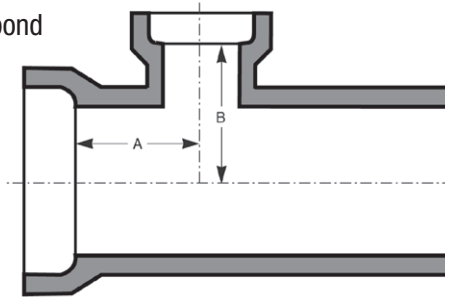
Barrel Diameter	Spur Diameter	Laying Length	Approximate Dimensions		Approximate Shipping Weight (lbs.)	Pack Data
			A	B		
4"	4"	2'	8 ¹ / ₄ "	6 ³ / ₄ "	25	42
6"	4"	2'	9 ¹ / ₄ "	8"	45	30
	6"		12 ¹ / ₄ "	10 ¹ / ₂ "	70	20
8"	4"	2'	9"	9 ¹ / ₄ "	66	16
	6"		12"	10 ¹ / ₄ "	80	
	8"		14 ³ / ₄ "	12 ³ / ₄ "	90	
10"	4"	2'	11 ¹ / ₄ "	12"	105	12
	6"		12 ³ / ₄ "	11 ¹ / ₄ "	125	
	8"		16 ¹ / ₄ "	14 ³ / ₄ "	130	
	10"		18 ¹ / ₄ "	16"	150	
12"	4"	2'	12"	13"	151	8
	6"		13 ¹ / ₄ "	14 ¹ / ₄ "	159	
	8"		17"	16 ¹ / ₄ "	173	
	10"		19 ¹ / ₄ "	17 ¹ / ₂ "	185	
	12"		18 ³ / ₄ "	19 ¹ / ₄ "	230	
15"	6"	3'	14 ¹ / ₂ "	13 ¹ / ₂ "	325	4
	8"		17"	16 ¹ / ₂ "	328	
	10"		19 ¹ / ₂ "	18"	320	
	12"		21"	20"	346	
	15"		28 ¹ / ₄ "	26 ¹ / ₄ "	430	
18"	6"	3'	16"	17 ¹ / ₄ "	463	2
	8"		17 ¹ / ₄ "	18"	480	
	10"		20 ¹ / ₄ "	21 ¹ / ₂ "	482	
	12"		22 ¹ / ₂ "	20 ¹ / ₄ "	489	
	15"		24"	24 ³ / ₄ "	510	
	18"		32"	29 ¹ / ₄ "	590	
21"	6"	3'	19 ¹ / ₄ "	22 ¹ / ₂ "	680	each
	8"		18"	21"	614	
	10"		23 ³ / ₄ "	22"	617	
	12"		23"	19 ¹ / ₂ "	632	
24"	6"	3'	17 ¹ / ₂ "	19 ¹ / ₄ "	747	each
	8"		18 ¹ / ₂ "	21 ¹ / ₂ "	772	
	10"		22 ³ / ₄ "	26 ¹ / ₄ "	780	
	12"		21 ¹ / ₂ "	24 ³ / ₄ "	797	

Pipe Fittings – T-Branches

Logan T-Branch Spurs are carefully attached to the barrels and will correspond in every way to the dimensions specified for pipe of the same size.

A wide variety of Double Tees are also available. Please call our customer service department for availability and shipping information.

T-Branches not shown are available on special order or by adapting with an increaser. Please call our office for assistance.

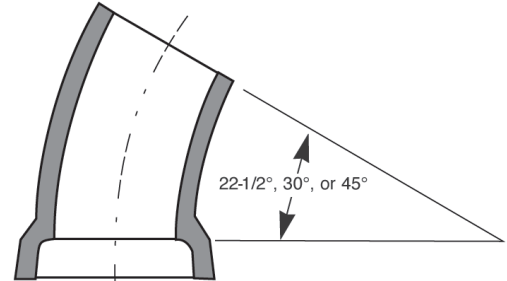


Barrel Diameter	Spur Diameter	Laying Length	Approximate Dimensions		Approximate Shipping Weight (lbs.)	Pack Data
			A	B		
4"	4"	2'	5"	4 ¹ / ₄ "	23	42
6"	4"	2'	5 ³ / ₄ "	5 ³ / ₄ "	44	30
	6"		6 ¹ / ₄ "	6"	57	20
8"	4"	2'	5 ¹ / ₄ "	7"	64	24
	6"		6 ¹ / ₂ "	7"	79	16
	8"		7"	8"	83	
10"	4"	2'	6"	8 ³ / ₄ "	100	12
	6"		7 ¹ / ₂ "	8 ¹ / ₂ "	108	
	8"		9"	9"	110	
	10"		9 ³ / ₄ "	9"	120	
12"	4"	2'	7 ¹ / ₂ "	10"	151	8
	6"		8"	9 ¹ / ₂ "	153	
	8"		9 ¹ / ₂ "	9 ¹ / ₂ "	159	
	10"		11"	10 ¹ / ₂ "	165	
	12"		11 ¹ / ₄ "	10 ³ / ₄ "	190	
15"	6"	3'	8 ³ / ₄ "	11 ¹ / ₄ "	315	4
	8"		10 ¹ / ₄ "	12"	318	
	10"		13"	14"	323	
	12"		12 ¹ / ₂ "	12"	341	
	15"		15 ¹ / ₂ "	14 ¹ / ₂ "	383	
18"	6"	3'	9"	13 ³ / ₄ "	454	4
	8"		11 ¹ / ₂ "	13 ³ / ₄ "	475	2
	10"		11 ³ / ₄ "	14 ³ / ₄ "	480	
	12"		12 ¹ / ₂ "	14"	493	
	15"		16 ¹ / ₄ "	16"	511	
	18"		16 ¹ / ₄ "	15 ¹ / ₂ "	538	
21"	6"	3'	10 ¹ / ₂ "	16 ¹ / ₄ "	617	each
	8"		12"	16 ¹ / ₂ "	625	
	10"		13"	16 ¹ / ₄ "	635	
	12"		14 ¹ / ₂ "	15 ¹ / ₂ "	640	
24"	6"	3'	11 ¹ / ₂ "	16 ³ / ₄ "	742	each
	8"		11 ¹ / ₂ "	17 ¹ / ₄ "	747	
	10"		11 ³ / ₄ "	17"	772	
	12"		12"	18 ¹ / ₂ "	852	

Pipe Fittings – Curves

Short Radius Curves 22½°, 30°, 45°

Pipe Size	Approx. Center Line Length	Approx. Shipping Weight (Lbs.)	Fittings per Pack
4"	12"	10	90
6"	12"	24	48
8"	17"	48	20



Longs available only in 30° & 45°

Medium Radius Curves 30°, 45°

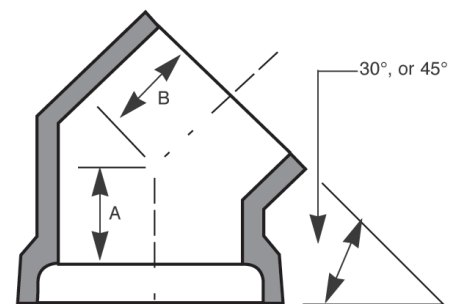
Pipe Size	Approx. Center Line Length	Approx. Shipping Weight (Lbs.)	Fittings per Pack
4"	18"	14	65
6"	18"	40	40

Long Radius Curves 30°, 45°

Pipe Size	Approx. Center Line Length	Approx. Shipping Weight (Lbs.)	Fittings per Pack
4"	24"	18	60
6"	24"	41	25
8"	24"	74	17

Cut Curves 30°

Pipe Size	Approximate Dimensions		Approx. Shipping Weight (Lbs.)	Fittings per Pack
	A	B		
10"	8¾"	4¾"	65	18
12"	9¼"	5⅜"	85	12
15"	12¾"	5"	168	8
18"	13"	6"	275	Each
21"	16⅝"	7½"	432	Each
24"	22½"	11¼"	742	Each



Cut Curves 45°

Pipe Size	Approximate Dimensions		Approx. Shipping Weight (Lbs.)	Fittings per Pack
	A	B		
10"	7¼"	5⅝"	65	18
12"	8½"	6¾"	85	12
15"	10¼"	6¾"	168	8
18"	10½"	9"	275	Each
21"	11⅝"	12"	432	Each
24"	19¾"	12"	742	Each

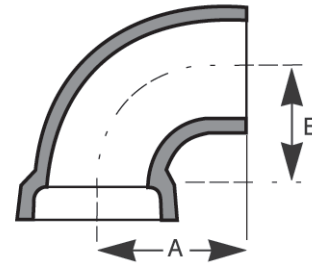
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Pipe Fittings – Elbows

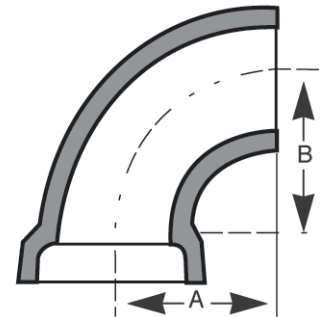
Short Radius Elbows 90°

Pipe Size	Approximate Dimensions		Approx. Shipping Weight (Lbs.)	Fittings per Pack
	A	B		
4"	6 ³ / ₄ "	7"	11	100
6"	8 ¹ / ₂ "	10"	30	40



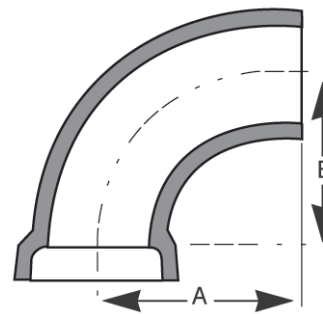
Medium Radius Elbows 90°

Pipe Size	Approximate Dimensions		Approx. Shipping Weight (Lbs.)	Fittings per Pack
	A	B		
4"	12 ¹ / ₂ "	12 ¹ / ₄ "	14	60
6"	13 ¹ / ₄ "	13"	40	30



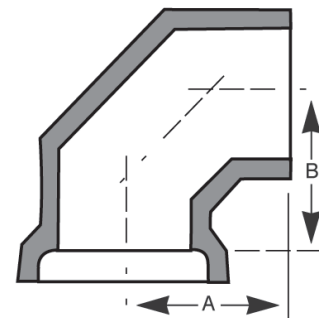
Long Radius Elbows 90°

Pipe Size	Approximate Dimensions		Approx. Shipping Weight (Lbs.)	Fittings per Pack
	A	B		
4"	16 ¹ / ₂ "	14 ³ / ₄ "	21	50
6"	15"	13"	45	23



Cut Elbows 90°

Pipe Size	Approximate Dimensions		Approx. Shipping Weight (Lbs.)	Fittings per Pack
	A	B		
8"	9"	10 ¹ / ₂ "	56	20
10"	13"	12"	95	18
12"	14 ¹ / ₄ "	13 ³ / ₄ "	132	8
15"	16 ¹ / ₄ "	15 ¹ / ₂ "	237	Each
18"	17"	17 ¹ / ₄ "	425	Each



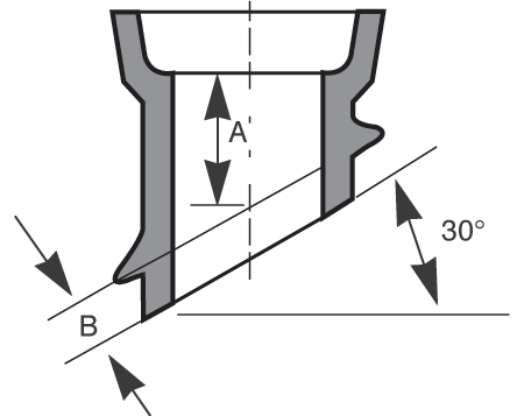
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Pipe Fittings – Saddles

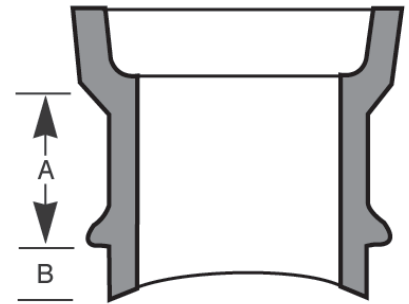
Y-Saddle (With Flange)

Pipe Size	Approximate Dimensions		Approx. Shipping Weight (Lbs.)	Fittings per Pack
	A	B		
4"	5 1/4"	1 1/2"	12	100
6"	6"	1 1/2"	30	40
8"	5 1/2"	1 1/2"	50	20
10"	10"	2"	67	16
12"	10"	2"	95	12



T-Saddle (With Flange)

Pipe Size	Approximate Dimensions		Approx. Shipping Weight (Lbs.)	Fittings per Pack
	A	B		
4"	4 1/2"	1 1/2"	10	100
6"	6"	1 1/2"	23	80
8"	8"	1 1/2"	40	60
10"	6"	2"	75	24
12"	6"	1"	82	15



Y-Saddle



T-Saddle



LOGAN

Today's Clay Pipe

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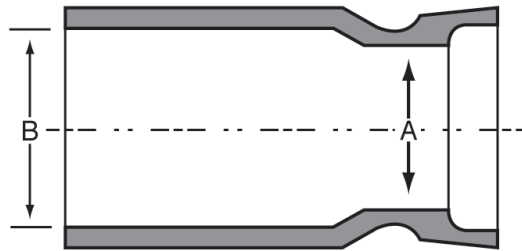
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Pipe Fittings – Increasers & Reducers

Increasers

Used to increase size of the line to a larger diameter. The bell is on the smaller end.

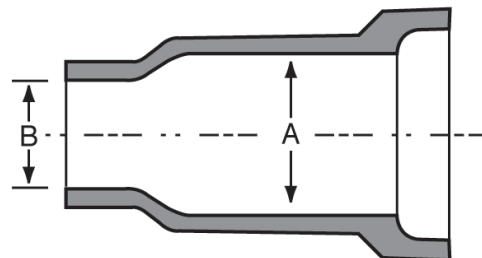
Pipe Size		Nominal Laying Length	Approx. Shipping Weight (Lbs.)
A	B		
4"	5"	12"	13
4"	6"	3"	8
4"	8"	11"	25
5"	6"	5"	11
6"	8"	4"	18
6"	10"	12"	44



Reducers

Used to decrease the size of the line to a smaller diameter. The bell is on the larger end.

Pipe Size		Nominal Laying Length	Approx. Shipping Weight (Lbs.)
A	B		
6"	4"	12"	20
8"	4"	12"	40
8"	6"	12"	40
10"	6"	12"	55



Logan Clay Products LLC

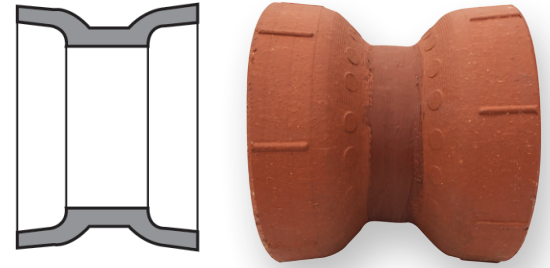
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Pipe Fittings – Double Hubs & Stoppers

Double Hubs

Used to join two spigots together.

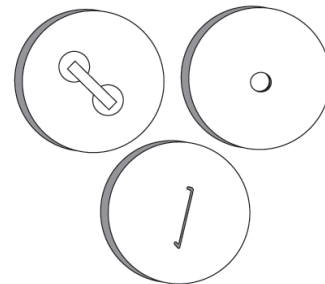
Pipe Size	Nominal Laying Length	Approx. Shipping Weight (Lbs.)	Fittings per Pack
4"	3"	9	70
6"	4"	25	56
8"	5"	36	32
10"	5"	55	30
12"	7"	82	24



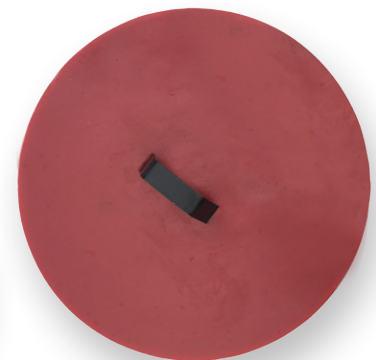
Stoppers

For closing branches. Available in O-Ring, plain and concrete.

Pipe Size	O-Ring		Plain Clay		Concrete	
	O.D.	Thickness	O.D.	Thickness	O.D.	Thickness
4"	5 1/2"	1 3/8"	5"	7/8"	N/A	N/A
6"	8 1/4"	1 3/8"	8 3/4"	1 1/8"	N/A	N/A
8"	10 3/4"	1 5/8"	10"	1 1/8"	10 1/2"	2"
10"	13 1/4"	1 3/4"	12 1/2"	1 1/4"	13 1/4"	2"
12"	15 5/8"	2"	15"	1 1/4"	15 1/4"	2"
15"	19 1/4"	2 1/8"	18"	1 1/2"	18 3/4"	2 1/8"
18"	23 1/8"	2 3/8"	20 5/8"	1 1/2"	21"	2 1/8"
21"	27"	3"	N/A	N/A	26"	2 1/8"
24"	30 7/8"	3"	N/A	N/A	29"	2 1/8"



All O-Ring stoppers have handles. The 10" and 12" concrete stoppers have lifting holes, the 15" and above have handles. The plain clay stoppers have no handles. O-Ring stoppers can be wired or banded in O-Ring pipe.

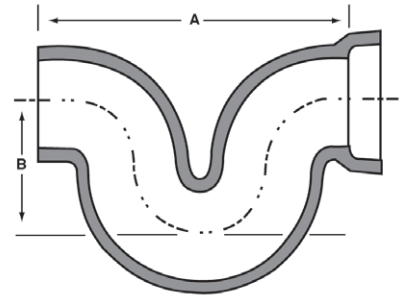


Pipe Fittings – Traps

To prevent sewer gas from passing into the house, Logan traps are formed with a deep bend below the flow line in which gasses are trapped in a liquid seal.

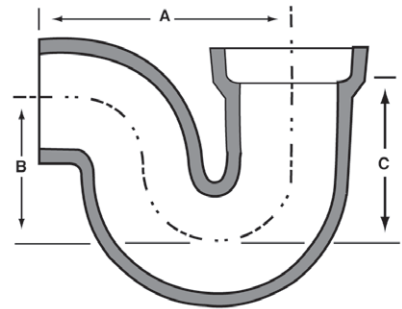
Running Traps

Pipe Size	Approximate Dimensions		Approx. Shipping Weight (Lbs.)	Fittings per Pack
	A	B		
4"	19"	8"	23	30
6"	21 ³ / ₄ "	9"	63	12



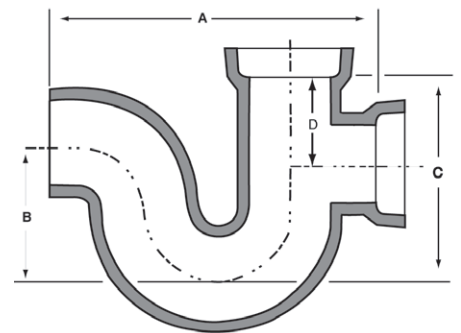
P-Traps

Pipe Size	Approximate Dimensions			Approx. Shipping Weight (Lbs.)	Fittings per Pack
	A	B	C		
4"	15"	7 ¹ / ₄ "	8"	19	60
6"	17"	9"	10"	47	20



Shoulder Hand Hole Traps (SHH)

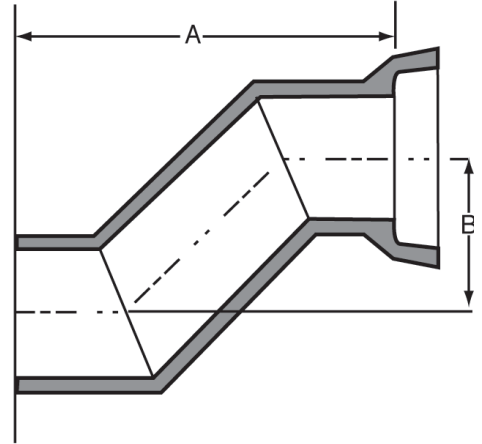
Pipe Size	Approximate Dimensions				Approx. Shipping Weight (Lbs.)	Fittings per Pack
	A	B	C	D		
4"	18"	7"	11 ¹ / ₄ "	4"	24	50
6"	23 ³ / ₄ "	11"	15 ¹ / ₄ "	6 ¹ / ₄ "	69	12



Pipe Fittings – Traps (cont'd)

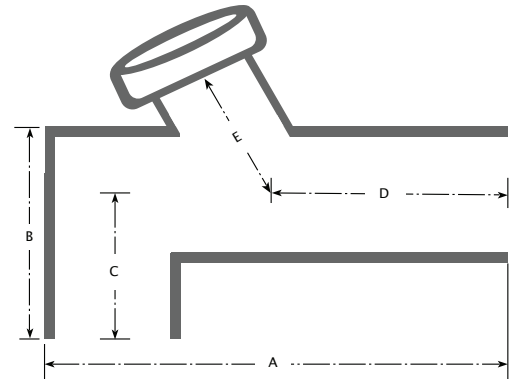
Half Traps

Pipe Size	Approx. Laying Length A	Approx. Dimension B	Approx. Shipping Weight (Lbs.)	Fittings per Pack
6"	21"	8 ¹ / ₄ "	44	28
8"	24"	10 ¹ / ₄ "	66	16
10"	25"	11 ¹ / ₄ "	112	9
12"	27"	11 ¹ / ₂ "	164	6



Catch Basin Traps

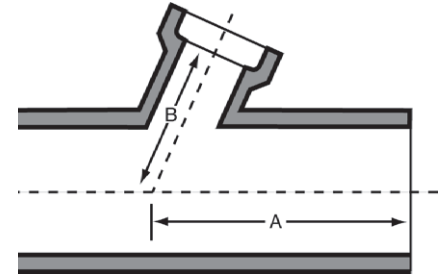
Pipe Size	Inlet	Approximate Dimensions					Approx. Shipping Weight (Lbs.)	Fittings per Pack
		A	B	C	D	E		
6"	4"	24"	12"	8"	15"	9"	52	20



Pipe Fittings – Repair Ys & Ts

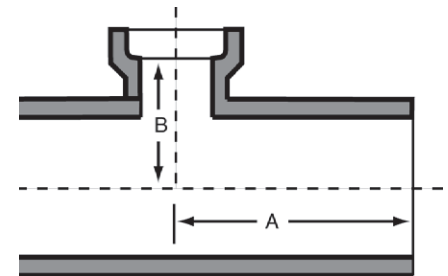
Repair Ys

Barrel I.D.	Spur I.D.	Laying Length	Approximate Dimensions		Approximate Weight (lbs.)
			A	B	
6"	6"	2'	14"	10.50"	44
8"	6"			10.25"	58
8"	8"			12.75"	61
10"	6"			11.25"	85
10"	8"			14.75"	88
12"	6"			14.25"	112



Repair Ts

Barrel I.D.	Spur I.D.	Laying Length	Approximate Dimensions		Approximate Weight (lbs.)
			A	B	
6"	6"	2'	12"	6"	42
8"	6"			7"	54
8"	8"			8"	56
10"	6"			8.5"	80
10"	8"			9"	93
12"	6"			9.5"	111



Repair Y



Repair T

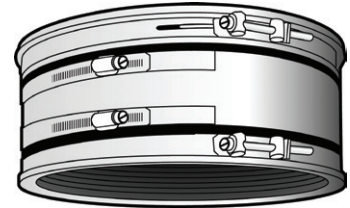
Point Repairs/Laterals for Existing Lines

Adding a New Connection or Repairing an Existing Line

Whether you are adding a new connection or repairing a damaged section of pipe, the process is the same.

Two couplings will be needed for each new section of pipe to be installed. Couplings are available in 4"-12" diameters. Larger sizes are available by special order. Clay pipe fittings can be furnished without bells for easy installation.

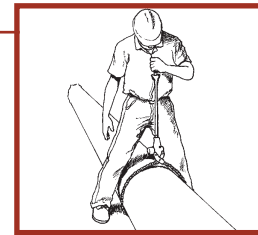
The replacement branch can be a plain or O-Ring joint pipe.



Shielded rubber couplings are recommended

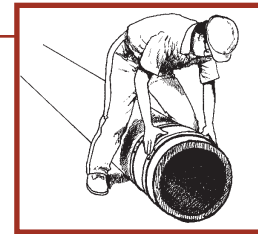
STEP 1

Using a diamond blade saw or chain cutter, cut out desired length of pipe for insertion of branch or repair section of pipe.



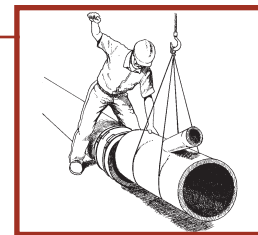
STEP 2

With section of pipe removed, slide rubber couplings onto both pipeline ends.



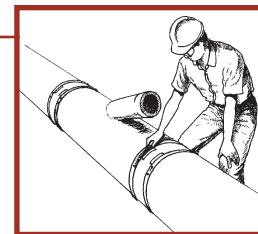
STEP 3

Insert branch or repair section.



STEP 4

Slide rubber coupling over the center of joints and tighten. Joints are now watertight and shear resistant.



Installation of point repairs should follow ASTM C12 *Standard Practice for Installing Vitrified Clay Pipe Lines*.

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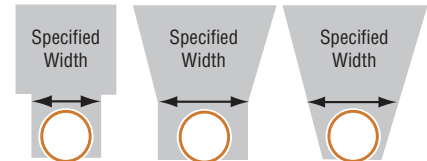
Installation

Proper installation is fundamental to ensuring the performance of all pipe products. The following illustrations show some suggestions for installing Logan Clay pipe in an open trench.

1

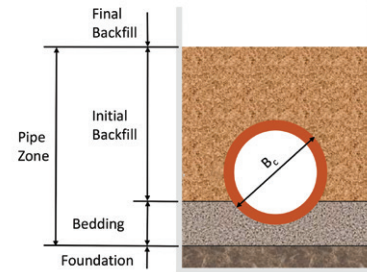
The trench width at the top of the pipe should not exceed the specification. (The specification must allow adequate room for shovel slicing the haunches.) An increase in the trench width may create an overload on the pipe.

Various Trench Styles



2

The foundation must be firm and unyielding before bedding placement. Keep water out of the trench bottom. Where the trench bottom is soft and unsuitable to support the pipe, bedding and backfill, removal and replacement of foundation material is necessary. Consult the design engineer or a geotechnical engineer to ensure the foundation can support the load.

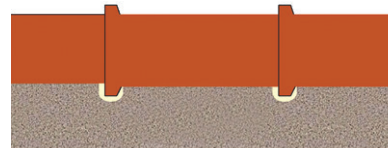


Trench Cross Section (Class C shown)

3

Dig bell or coupling holes before pipe is laid ensuring the bells or couplings support no part of the load.

Bell or Coupling Holes



4

Clean bell and spigot, including the O-Ring groove. Equalize the tension in the O-Ring by running a screwdriver or smooth tool completely around the spigot, under the O-Ring.



Lubricate both the spigot and the socket ends liberally to allow pipe to slide home. Make sure the gasket is in place by running your fingers completely around the assembled joint.



When working in cold weather, it is recommended that O-Ring gaskets be stored inside vehicles or construction offices until they are needed to assure ease of installation.

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Installation, cont'd.

5

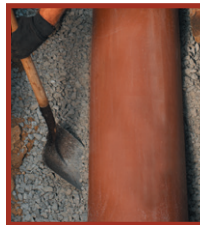
Pipe sections must be in straight alignment prior to homing. If a bar is used to shove the pipe home, use a block of wood to cushion the bell.



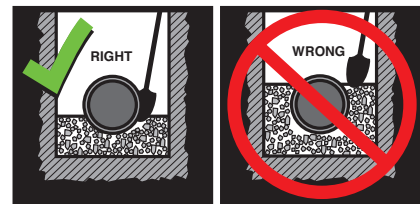
6

Shovel slicing must be done before the bedding is no higher than the quarter point of the pipe, it helps create uniform circumferential support of the pipe barrel.

Shovel slice bedding material into the pipe haunches for the entire length of the pipe barrel to ensure uniform support. Do not shovel slice under the bell.



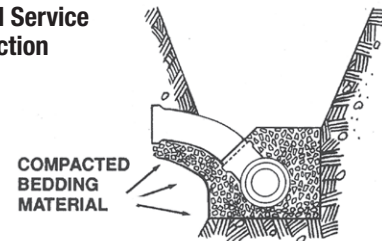
Haunching/Shovel Slicing



7

Make sure the fittings, stubs and risers are well-supported. Tamp or shovel slice bedding into the haunches of the pipe and fittings.

Typical Service Connection



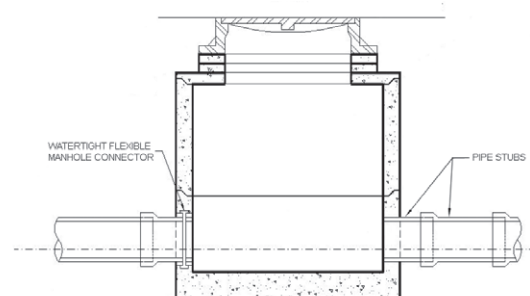
8

Two points of flexibility should be used within 36 in. of each manhole connection. This can be accomplished by using:

- two short lengths (stubs of 24 in. or less)

OR

- one short length and one flexible manhole connector.



Installation, cont'd.

9

Do not let rocks or large dirt clods in the pipe zone. They can damage the pipe and alter the alignment.

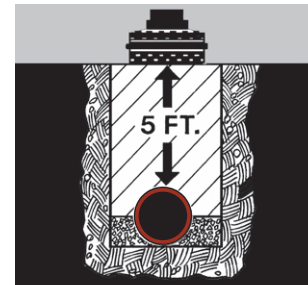


10

Suitable compaction equipment must be selected with care. A falling weight “stomper” or drop hammer should never be used. Walk behind and handheld light compaction equipment can be used within the trench and at cover depths of less than 5 feet.

Extreme care should be taken when using heavy mechanical compaction equipment. A minimum of 5 feet of cover over the top of the pipe is required before any heavy mechanical compaction equipment is used.

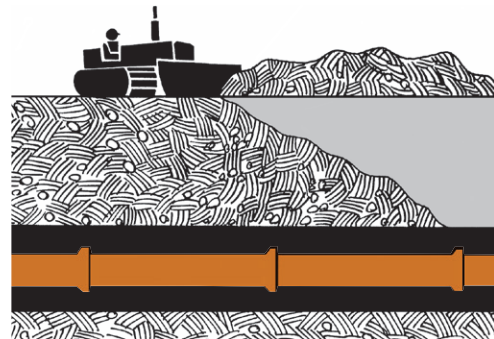
Compaction



11

Place the final backfill into the trench at an angle. This keeps impact on the installed line to a minimum.

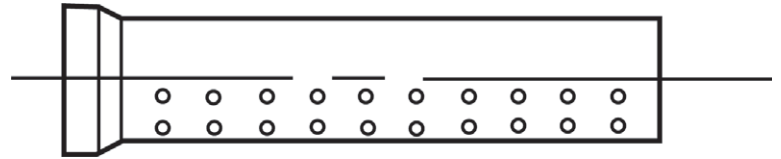
Final Backfill



All installation of vitrified clay pipe lines should follow ASTM C12 *Standard Practice for Installing Vitrified Clay Pipe Lines*.

Perforated Clay Pipe

Soggy, low-lying areas can be reclaimed as water is channeled away from the area by creating the path of least resistance for water to follow.



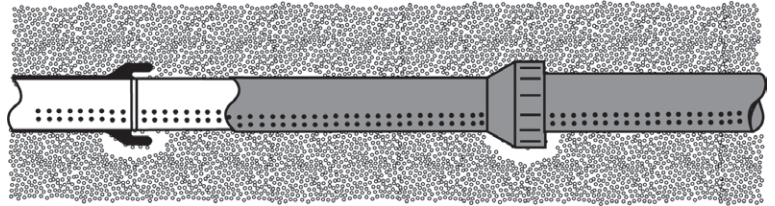
Perforated pipe installed with the perforations down creates the path of least resistance.

Perforations below the horizontal axis of the pipe leave the soil in place, while the ground water flows into the pipe. Quarter-inch perforations combine maximum infiltration capacity with a minimum of silting.

Corrosive soils in brownfields have no effect on Logan perforated clay pipe because it is inert.

Installation

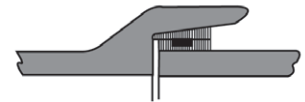
In most cases, perforated pipe is installed in the same way any clay pipe would be installed—with a controlled grade, appropriate bedding and backfill and with bell holes in the trench bottom to ensure a straight invert for smooth flow.



For more installation information, give us a call at 800-848-2141.

Joints

The O-Ring joints available with our perforated pipe are the same watertight compression joints used with our ASTM C700 sewer pipe for consistent ease of installation.



Pipe Size (I.D.)	Minimum Strength (lb/linear foot)	Laying Length	Rows of Perforations	Perforations per Row
*4"	1250	4'	4	13
*6"	1600	4'	4	13
*8"	1600	5'	4	13
10"	1600	5'	6	13
12"	1800	6'	6	17

* Stock items. Other sizes available on special order. 4- 6- & 8-inch sizes available with self-centering joints. Packaging and weight data is the same as for standard pipe (see page 3 of this catalog or visit our website).

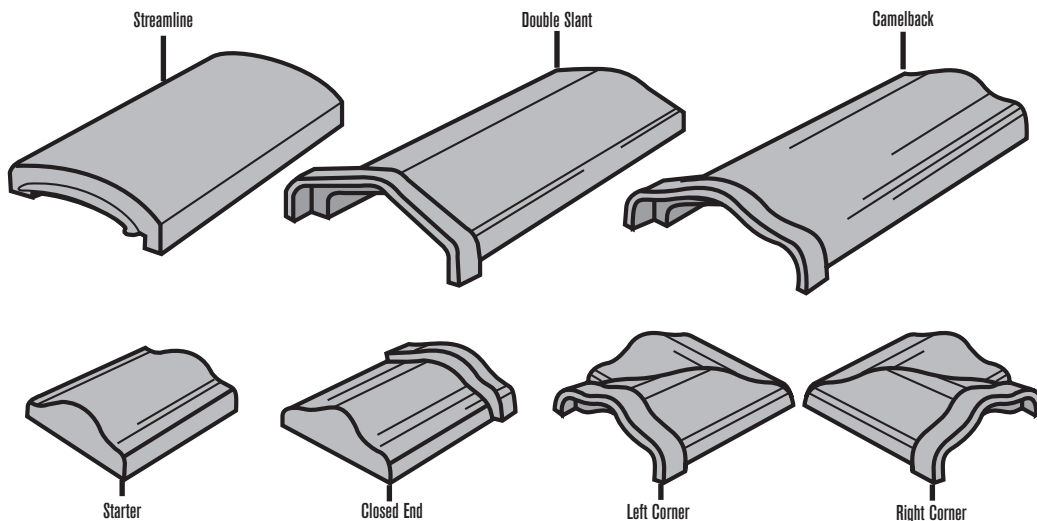
Logan Clay Wall Coping

Clay wall coping adds a touch of elegance and distinction to any wall. Logan's clay wall coping is vacuum extruded from the finest clays and fired to 2000°F.

Because vitrified clay is inert, it is immune to the ravages of moisture, corrosion, decay and chemical action. Glazes do not add to the weather resistance or general durability of clay wall coping.

Logan's complete line of wall coping offers a selection of styles to complement any style of architecture—brick, stone or other masonry. In renovation work, Logan Clay wall coping provides a level of authenticity that is unmatched.

When properly installed on top of the wall and sealed with mortar, no moisture should run into the wall. Clay coping is the most durable and economical coping available.



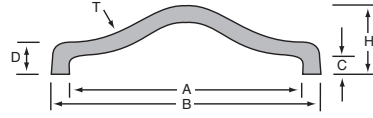
Directions for Installation

Coping is manufactured and shipped as a block 2-feet long, yielding 4 lineal feet per block. To split the block on the jobsite, use a wide mason's chisel and hammer in the kerf. Tap one to two times at the bottom, middle and top of each side or until the block separates.

Coping should be embedded in a thick bed of mortar laid on top of the wall. All socket joints must be completely filled and the exposed mortar carefully pointed. On sloping walls, sockets must be laid downslope to prevent water from running into the socket joints.

Logan Clay Wall Coping (cont'd)

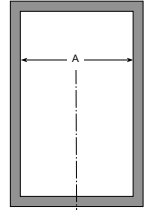
Camelback Wall Coping Straight Sections



Nominal Size - A	Length	Approximate Dimensions					Weight per Piece (lbs.)	Pieces per Pallet	Blocks per Pallet	Feet per Pallet
		B	C	D	H	T				
9"	24"	11"	1.25"	2"	3.25"	1"	24	56	28	112
13"		15"	1.75"	2.5"	4.5"		38	30	15	60

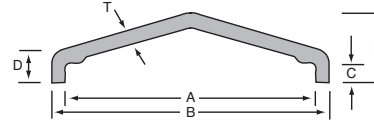
Starters and Ends Right and Left Corners

Nominal Size - A	Length	Weight (lbs.)	Nominal Size - A	Approximate Dimensions		Weight (lbs.)		Pieces per Box
				A	B	Each	Box	
9"	24"	28	9"	6.5"	10"	18	1,296	72 (36 Lefts, 36 Rights)
13"		42	13"	8"	14"	34	1,156	34 (17 Lefts, 17 Rights)



Starter

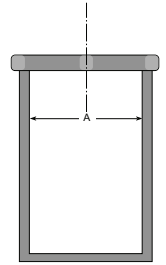
Double Slant Wall Coping Straight Sections



Nominal Size - A	Length	Approximate Dimensions					Weight per Piece (lbs.)	Pieces per Pallet	Blocks per Pallet	Feet per Pallet
		B	C	D	H	T				
9"	24"	11"	1.5"	2.25"	3.5"	1"	24	48	24	96
13"		15"	2"	2.75"	4"		32	30	15	60

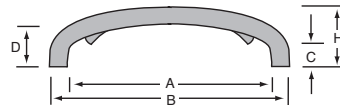
Starters and Ends Right and Left Corners

Nominal Size - A	Length	Weight (lbs.)	Nominal Size - A	Approximate Dimensions		Weight (lbs.)		Pieces per Box
				A	B	Each	Box	
9"	24"	30	9"	7"	9.5"	20	1,440	72 (36 Lefts, 36 Rights)
13"		47	13"	9"	13.5"	40	1,360	34 (17 Lefts, 17 Rights)



End

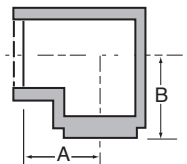
Streamline Wall Coping Straight Sections



Nominal Size - A	Length	Approximate Dimensions					Weight per Piece (lbs.)	Pieces per Pallet	Blocks per Pallet	Feet per Pallet
		B	C	D	H	T				
9"	24"	11"	1"	2"	3.25"	1"	28	56	28	112
13"		15"	1"	2"	3.25"		36	42	21	84

Starters and Ends Right and Left Corners

Nominal Size - A	Length	Weight (lbs.)	Nominal Size - A	Approximate Dimensions		Weight (lbs.)		Pieces per Box
				A	B	Each	Box	
9"	24"	30	9"	7.25"	8.5"	19	1,368	72 (36 Lefts, 36 Rights)
13"		36	13"	9.50"	12"	28	952	34 (17 Lefts, 17 Rights)



Corner

Logan Clay Products LLC

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Flue Liners

At Logan Clay, we stand by our commitment to ship our flue liners to you quickly and accurately. Logan Clay Flues are the only liners in the industry that are imprinted with the product size to facilitate convenient inventory management.



Rectangular & Modular Flue Liners 2-ft. Lengths

Outside Dimensions (Approximate)	Flues Per Pallet	Weight Per Piece (lbs.)	Weight Per Pallet (lbs.)
8" x 8"	84	32	2,668
8 1/2" x 8 1/2"	84	33	2,772
8" x 12"	60	50	3,000
8 1/2" x 13"	60	55	3,300
12" x 12"	40	60	2,400
13" x 13"	40	71	2,840
8 1/2" x 18"	36	92	3,312
13" x 18"	24	112	2,688
16" x 20"	18	142	2,556
18" x 18"	18	150	2,700
24" x 24"	12	270	3,240
11 1/2" x 15 1/2"	32	85	2,720
15 1/2" x 15 1/2"	24	115	2,760
19 1/2" x 19 1/2"	18	170	3,060
19 1/2" x 23 1/2"	18	220	3,960

Round Flues 2-ft. Lengths

Inside Diameter	Flues Per Pallet	Weight Per Piece (lbs.)	Weight Per Pallet (lbs.)
6"	84	24	2,016
7"	50	35	1,750
8"	46	42	1,932
9"	32	52	1,664
10"	28	65	1,820
12"	16	85	1,360



To see our complete line of chimney tops, visit our website at www.loganclaymasonry.com

Flue Rings

Inside Diameter	Lengths Available
6"	6", 9", 12", 15", 18"
7"	6", 9", 12", 15", 18"
8"	6", 9", 12", 15", 18"
9"	6", 9", 12", 15", 18"
10"	6", 9", 12", 15", 18"
12"	6", 9", 12", 15", 18"

Flue Liners w/ Opening

Outside Dimensions (approximately)	Opening Size
8" x 8"	6"
8 1/2" x 8 1/2"	6"
8" x 12"	10"
8 1/2" x 13"	10"
12" x 12"	10"
13" x 13"	10"

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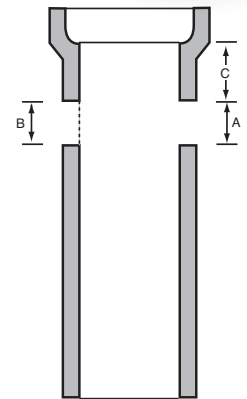
Clay Sump Pipe and Meter Boxes

Pipe With Holes and Knockouts

Logan manufactures pipe with holes in the side of the barrel and a knockout on the opposite side. The knockout may be left in place or removed as needed. This pipe can be used as sump tile, catch basins and grease traps. Holes are cut 6" in diameter to accommodate a 4" pipe for inlet or outlet.



Barrel I.D.	Height of Barrel	Hole Size A	Knockout Size B	Hole Placement C	Weight per Piece (lbs.)	Pack Data
8"	24"	6"	6"	5"	60	32
10"	24"	6"	6"	5"	100	18
12"	24"	6"	6"	5½"	125	18
15"	24"	6"	6"	6"	200	8
18"	24"	6"	6"	6½"	320	8
21"	24"	6"	6"	6½"	440	Each
24"	24"	6"	6"	6½"	370	Each

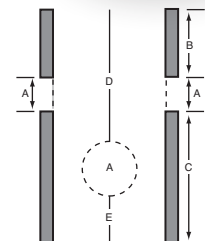


Sump Tile

Clay tile is the ideal product to use for basement sumps. Once in place, it will last a lifetime. This product is manufactured with four knockouts. The knockouts are 6" in diameter and located at the three, six, nine and twelve o'clock positions at two different heights. You may remove any or all of the knockouts and turn the product end-over-end to achieve maximum installation flexibility.



Barrel I.D.	Height of Barrel	Knockout					Weight per Piece (lbs.)	Pack Data
		A	B	C	D	E		
15"	24"	6"	8"	10"	10"	8"	125	8
18"							170	8
15"	30"	6"	8"	16"	16"	14"	160	8
18"							210	8



Logan Clay Products LLC

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