

You can't beat the system.®

Submittal Package Cast Iron Extra Heavy System

(Updated May 6, 2026)

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SUBMITTAL PACKAGE

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SUBMITTAL FOR CHARLOTTE PIPE® EXTRA HEAVY CAST IRON SOIL PIPE AND FITTINGS

Date: _____

Job Name: _____

Location: _____

Engineer: _____

Contractor: _____

Scope:

This specification covers Extra Heavy Cast Iron pipe, fittings, and compression gaskets used in sanitary drain, waste and vent (DWV), sewer, and storm drainage applications. This system is intended for use in non-pressure applications.

Specification:

Pipe and fittings shall comply with ASTM A 74. Compression gaskets shall comply with ASTM C 564. All pipe and fitting shall be made in the United States, and marked with the collective trademark of the Cast Iron Soil Pipe Institute, . Extra heavy cast iron pipe and fittings are listed by NSF® International to the UP Code.

Installation:

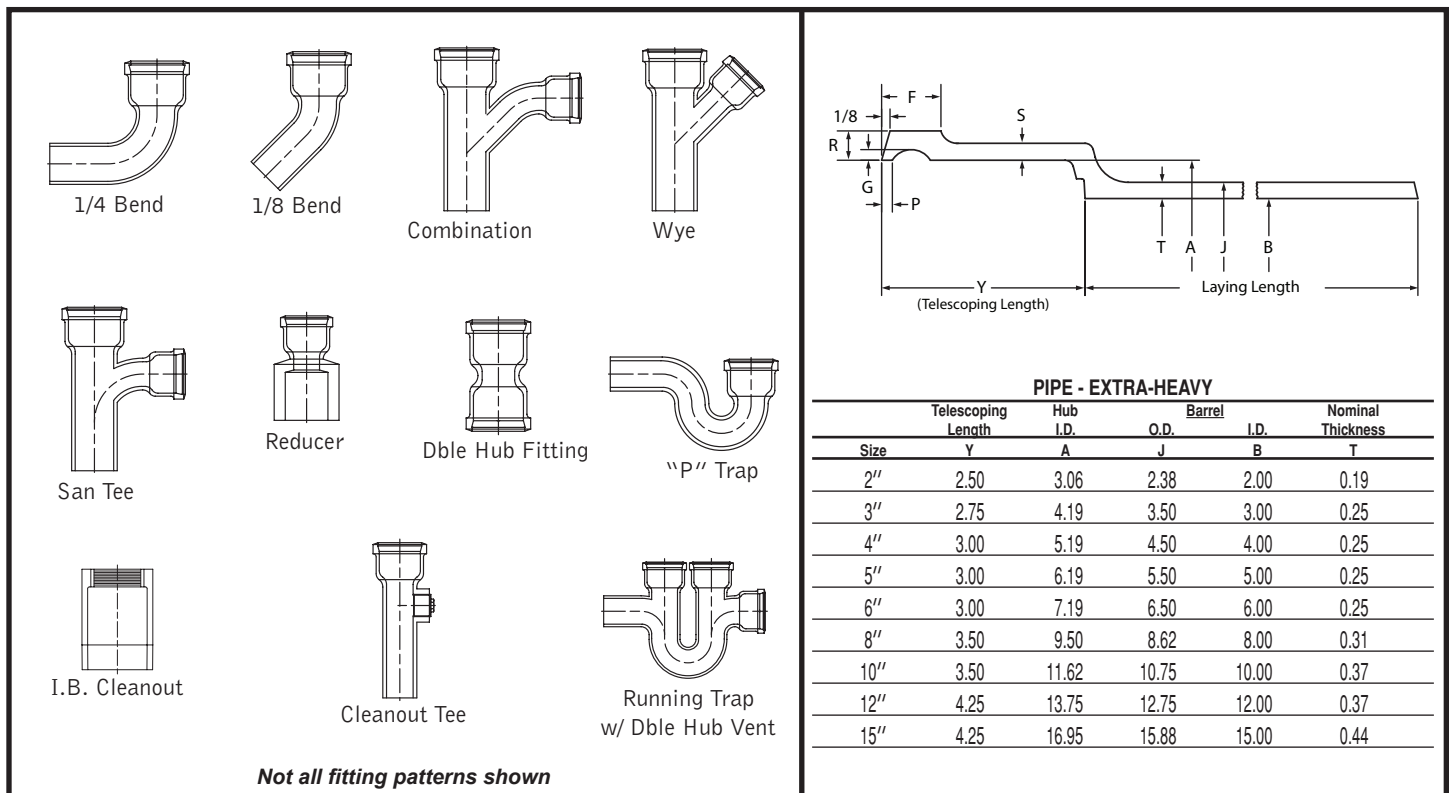
Installation shall comply with the latest installation instructions published by Charlotte Pipe and Foundry Company® and shall conform to all applicable plumbing, fire, and building code requirements. The system shall be hydrostatically tested after installation to 10 ft. of head (4.3 psi maximum).

WARNING! Never test with or transport/store compressed air or gas in Cast Iron pipe or fittings. Doing so can result in explosive failures and cause severe injury or death.

Referenced Standards:

ASTM A 74: Cast Iron Soil Pipe and Fittings

ASTM C 564: Rubber Gaskets for Cast Iron Soil Pipe and Fittings



Charlotte Pipe and Foundry Company • P.O. Box 35430 Charlotte, NC 28235 • (800) 438-6091 • www.charlottepipe.com

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CHARLOTTE

PIPE AND FOUNDRY COMPANY

This is to certify that all Cast Iron Pipe and Fittings Manufactured by Charlotte Pipe and Foundry Company are manufactured in the United States and conform to the following standards.

SERVICE HUB AND SPIGOT PIPE AND FITTINGS

All cast iron soil pipe and fittings shall be marked with the collective trademark of the Cast Iron Soil Pipe Institute (CISPI).
ASTM A 74
Listed by NSF® International to the UP Code
ICC-ES PMG-1082/1083

EDGE HP SERVICE HUB AND SPIGOT PIPE AND FITTINGS

All cast iron soil pipe and fittings shall be marked with the collective trademark of the Cast Iron Soil Pipe Institute (CISPI).
ASTM A 74
Meets or exceeds the coating performance requirements of EN 877
Listed by NSF® International to the UP Code
ICC-ES PMG-1082/1083

EXTRA HEAVY HUB AND SPIGOT PIPE AND FITTINGS

All cast iron soil pipe and fittings shall be marked with the collective trademark of the Cast Iron Soil Pipe Institute (CISPI).
ASTM A 74
Listed by NSF® International to the UP Code
ICC-ES PMG-1082/1083

EDGE HP EXTRA HEAVY HUB AND SPIGOT PIPE AND FITTINGS

All cast iron soil pipe and fittings shall be marked with the collective trademark of the Cast Iron Soil Pipe Institute (CISPI).
ASTM A 74
Meets or exceeds the coating performance requirements of EN 877
listed by NSF® International to the UP Code
CC-ES PMG-1082/1083

NO-HUB PIPE AND FITTINGS

All cast iron soil pipe and fittings shall be marked with the collective trademark of the Cast Iron Soil Pipe Institute (CISPI).
CISPI Standard 301
ASTM A 888
Listed by NSF® International to the UP Code
ICC-ES PMG-1082/1083
CSA B 70 Listed on specified products

EDGE HP NO-HUB (HUBLESS) PIPE AND FITTINGS

All cast iron soil pipe and fittings shall be marked with the collective trademark of the Cast Iron Soil Pipe Institute (CISPI).
CISPI Standard 301
ASTM A 888
Meets or exceeds the coating performance of EN 877
Listed by NSF® International to the UP Code
ICC-ES PMG-1082/1083
CSA B 70 Listed on specified products

NO-HUB STANDARD COUPLINGS

CISPI Standard 310
ASTM C 1277
Certified by NSF® International

NO-HUB HEAVY DUTY (MD) COUPLINGS

ASTM C 1540
Factory Mutual 1680

NO-HUB HEAVY DUTY (HD) COUPLINGS

ASTM C 1540
Factory Mutual 1680

COMPRESSION GASKETS

ASTM C 564
CISPI HSN 85

Very truly yours,



Hooper Hardison, CEO



Notary Public

My commission expires March 10, 2029

MICHELLE R. WEBB NOTARY PUBLIC Mecklenburg County, North Carolina My Commission Expires March 10, 2029
--

Reference Standards Cast Iron

AMERICAN SOCIETY FOR TESTING AND MATERIALS

ASTM	TITLE
A 74	SPECIFICATION FOR CAST IRON SOIL PIPE AND FITTINGS HUB AND SPIGOT (SERVICE AND EXTRA HEAVY)
SCOPE:	THIS SPECIFICATION COVERS CAST IRON PIPE AND FITTINGS USED IN SANITARY DRAIN, WASTE, AND VENT (DWV), SEWER, AND STORM DRAINAGE APPLICATION. THIS SYSTEM IS INTENDED FOR USE IN NONPRESSURE APPLICATIONS.
C 564	SPECIFICATION FOR RUBBER GASKETS FOR CAST IRON SOIL PIPE AND FITTINGS
SCOPE:	THIS SPECIFICATION COVERS PREFORMED RUBBER GASKETS USED TO SEAL JOINTS IN CAST IRON SOIL PIPE AND FITTINGS.
C 1277	SPECIFICATION FOR COUPLING FOR USE IN CONNECTION WITH HUBLESS CAST IRON PIPE AND FITTINGS FOR SANITARY AND STORM DRAIN, WASTE, AND VENT PIPING APPLICATION (REGULAR HUBLESS COUPLING)
SCOPE:	THE PURPOSE OF THIS SPECIFICATION IS TO ESTABLISH CRITERIA FOR MATERIAL DIMENSIONS AND TOLERANCES FOR ONE TYPE OF COUPLING USED IN HUBLESS CAST IRON SOIL PIPE AND FITTING FOR SANITARY AND STORM DRAIN, WASTE AND VENT PIPING APPLICATIONS.
C 1540	SPECIFICATION FOR SHIELDED COUPLINGS JOINING HUBLESS CAST IRON SOIL PIPE AND FITTINGS (HEAVY DUTY COUPLINGS)
SCOPE:	THIS SPECIFICATION COVERS THE EVALUATION OF THE PERFORMANCE OF SHIELDED HUBLESS COUPLINGS TO JOIN CAST IRON SOIL PIPE AND FITTINGS.

CAST IRON SOIL PIPE INSTITUTE

CISPI	TITLE
301	SPECIFICATION FOR HUBLESS CAST IRON SOIL PIPE AND FITTINGS FOR SANITARY AND STORM DRAIN, WASTE, AND VENT PIPING APPLICATIONS
SCOPE:	THE PURPOSE OF THIS STANDARD IS TO ESTABLISH STANDARDS COVERING MATERIAL, DIMENSIONS, AND TOLERANCE FOR PIPE AND FITTINGS FOR HUBLESS CAST IRON SANITARY AND STORM DRAIN, SANITARY WASTE, AND VENT PIPING APPLICATIONS.
310	SPECIFICATION FOR COUPLING FOR USE IN CONNECTION WITH HUBLESS CAST IRON PIPE AND FITTINGS FOR SANITARY AND STORM DRAIN, WASTE, AND VENT PIPING APPLICATION (REGULAR HUBLESS COUPLING)
SCOPE:	THE PURPOSE OF THIS SPECIFICATION IS TO ESTABLISH CRITERIA FOR MATERIAL DIMENSIONS AND TOLERANCES FOR ONE TYPE OF COUPLING USED IN HUBLESS CAST IRON SOIL PIPE AND FITTING FOR SANITARY AND STORM DRAIN, WASTE AND VENT PIPING APPLICATIONS.

Gray Iron Physical Properties

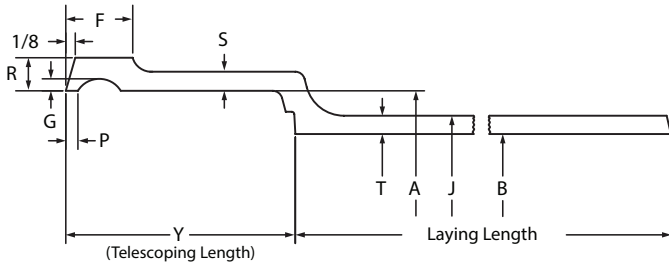
Tensile Strength	20,000 p.s.i. — 60,000 p.s.i. (21,000 p.s.i.)
Elastic Modulus (Young's modulus)	10 - 23 x 10 ⁶ p.s.i.
Hardness (Brinell)	150 - 250 BHN
Thermal Conductivity	0.110 - 0.137 calories/cm ² /Sec/cm/ °C
Thermal Expansion	10 x 10 ⁻⁶ / °C 6 x 10 ⁻⁶ / °F
Density	0.25 - 0.28 lb./in ³ 6.95 - 7.35 gm/cm ³
Specific Heat	0.13 BTU / lb / °F 0.13 cal / gm / °C

Composition of Gray Iron

The following are typical ranges of elements present in unalloyed gray cast iron normally produced in commercial practice:

Carbon (C)	2.60 - 3.85%
Silicon (Si)	1.25 - 2.90%
Manganese (Mn)	0.40 - 1.00%
Phosphorus (P)	0.02 - 0.90%
Sulfur (S)	0.04 - 0.20%

Extra Heavy Cast Iron



WARNING

Testing with or use of compressed air or gas in Cast Iron pipe or fittings can result in explosive failures and cause severe injury or death.

AIR/GAS



- NEVER test with or transport/store compressed air or gas in Cast Iron pipe or fittings.
- NEVER test Cast Iron pipe or fittings with compressed air or gas.
- ONLY use Cast Iron pipe and fittings for drain, waste and vent or sanitary sewer applications.

Extra Heavy Cast Iron Soil Pipe and Fittings:

Size ^A Availability ^B	Inside Diameter of Hub ^B	Outside Diameter of Barrel ^B	Telescoping Length ^B	Inside Diameter of Barrel ^B	Thickness of Barrel ^B	
	A	J	Y	B	T	
					Nom	Min
2"	3.06	2.38	2.50	2.00	0.19	0.16
3"	4.19	3.50	2.75	3.00	0.25	0.22
4"	5.19	4.50	3.00	4.00	0.25	0.22
5"	6.19	5.50	3.00	5.00	0.25	0.22
6"	7.19	6.50	3.00	6.00	0.25	0.22
8"	9.50	8.62	3.50	8.00	0.31	0.25
10"	11.62	10.75	3.50	10.00	0.37	0.31
12"	13.75	12.75	4.25	12.00	0.37	0.31
15"	16.95	15.88	4.25	15.00	0.44	0.38

Size ^A	Thickness of Hub		Width of Hub Bead ^B	Distance from Lead Groove to End, Pipe and Fittings ^B	Depth of Lead Groove	
	Hub Body	Over Bead				
	S (min)	R (min)	F	P	G (min)	G (max)
2"	0.18	0.37	0.75	0.22	0.10	0.19
3"	0.25	0.43	0.81	0.22	0.10	0.19
4"	0.25	0.43	0.88	0.22	0.10	0.19
5"	0.25	0.43	0.88	0.22	0.10	0.19
6"	0.25	0.43	0.88	0.22	0.10	0.19
8"	0.34	0.59	1.19	0.38	0.15	0.22
10"	0.40	0.65	1.19	0.38	0.15	0.22
12"	0.40	0.65	1.44	0.47	0.15	0.22
15"	0.46	0.71	1.44	0.47	0.15	0.22

^ANominal inside diameter.

^BFor tolerances, please refer to the chart Dimensional Tolerances for Extra Heavy and Service Cast Iron Soil Pipe and Fittings.

WARNING

Cast Iron pipe and fittings are only intended for DWV (drain, waste and vent) non-pressure applications. Using cast iron pipe and fittings in pressure applications could result in explosive failures, causing serious injury or death or property damage.

Extra Heavy Cast Iron

Extra Heavy Cast Iron Soil Pipe

Part No. XH 1 Pipe, 5' Lengths, Single Hub



Size	Weight
2"x5'	25.0
3"x5'	46.8
4"x5'	59.6
5"x5'	73.7
6"x5'	81.4
8"x5'	141.1
10"x5'	206.6
12"x5'	245.2
15"x5'	350.0

Part No. XH 3 Pipe, 10' Lengths, Single Hub



Size	Weight
2"x10'	45.3
3"x10'	83.9
4"x10'	110.2
5"x10'	134.3
6"x10'	156.6
8"x10'	246.1
10"x10'	375.4
12"x10'	471.0
15"x10'	676.4

Part No. XH 4 Pipe, 30" Lengths, Double Hub



Size	Weight
2"x30"	16.7
3"x30"	25.3
4"x30"	33.5



WARNING

Testing with or use of compressed air or gas in Cast Iron pipe or fittings can result in explosive failures and cause severe injury or death.

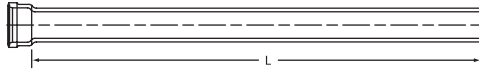
AIR/GAS



- NEVER test with or transport/store compressed air or gas in Cast Iron pipe or fittings.
- NEVER test Cast Iron pipe or fittings with compressed air or gas.
- ONLY use Cast Iron pipe and fittings for drain, waste and vent or sanitary sewer applications.

Extra Heavy Cast Iron

PART NO. XH 1

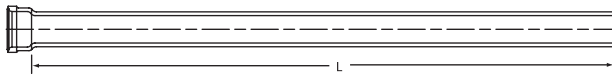


Pipe, 5' Lengths, Single Hub

Size	L	Weight
2" x 5'	5'	25.0
3" x 5'	5'	46.8
4" x 5'	5'	59.6
5" x 5'	5'	73.7
6" x 5'	5'	81.4
8" x 5'	5'	141.1
10" x 5'	5'	206.6
12" x 5'	5'	245.2
15" x 5'	5'	350.0

Weights are approximate and are for shipping purposes only.

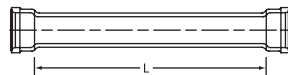
PART NO. XH 3



Pipe, 10' Lengths, Single Hub

Size	L	Weight
2" x 10'	10'	45.3
3" x 10'	10'	83.9
4" x 10'	10'	110.2
5" x 10'	10'	134.3
6" x 10'	10'	156.6
8" x 10'	10'	246.1
10" x 10'	10'	375.4
12" x 10'	10'	471.0
15" x 10'	10'	676.4

PART NO. XH 4



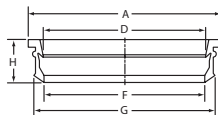
Pipe, 30" Lengths, Double Hub

Size	L	Weight
2" x 30"	25"	16.7
3" x 30"	24 1/2"	25.3
4" x 30"	24"	33.5

PART NO. XH 900

Extra Heavy Charlotte Seal Gasket

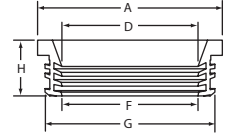
Size	A	D	F	G	H	Weight
2	3 1/2	2 3/8	2 9/32	3 9/16	1 7/8	0.3
3	4 15/16	3 1/2	3 1/2	4 1/2	2 1/4	0.4
4	5 3/4	4 7/32	4 13/32	5 7/16	2 1/4	0.6
5	6 3/4	5 1/2	5 1/2	6 9/16	2 1/2	0.7
6	8	6 1/2	6 1/2	7 3/8	2 1/2	0.9
8	10	8 1/2	8 5/16	9 1/2	3	1.6
10	12 1/2	10 9/4	10 11/32	11 1/2	3	2.0
12	14 7/16	12 5/8	12 5/8	14	3	2.8



PART NO. XH 950

Extra Heavy Quick-Tite Gasket

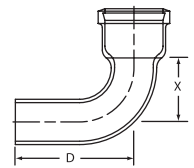
Size	A	D	F	G	H	Weight
4	6 1/8	4 1/4	4 13/32	5 11/16	1 13/16	0.6
15	17 3/4	15 13/32	15	16 7/8	3 1/4	5.0



PART NO. XH 5

Quarter Bend
(90° Ell)

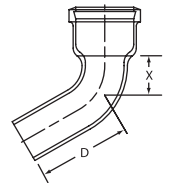
Size	D	X	Weight
2	6	3 1/4	6.2
3	7	4	11.1
4	8	4 1/2	15.0
5	8 1/2	5	19.7
6	9	5 1/2	25.0
8	11 1/2	6 5/8	46.3
10	12 1/2	7 5/8	77.2
12	15	8 3/4	114.9
15	16 1/2	10 1/4	173.9



PART NO. XH 7

Sixth Bend
(60° Ell)

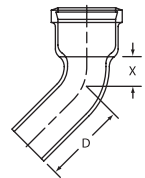
Size	D	X	Weight
2	4 3/4	2	5.9
3	5 1/2	2 1/2	9.1
4	6 5/16	2 13/16	12.7
6	6 7/8	3 3/8	21.0



PART NO. XH 8

Eighth Bend
(45° Ell)

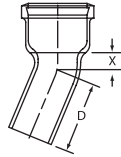
Size	D	X	Weight
2	4 1/4	1 1/2	4.7
3	4 15/16	1 15/16	8.7
4	5 11/16	2 3/16	12.0
5	5 7/8	2 3/8	16.6
6	6 1/16	2 9/16	18.2
8	8	3 1/8	38.4
10	8 3/8	3 1/2	61.6
12	10 5/16	4 1/16	85.5
15	10 15/16	4 11/16	122.0



PART NO. XH 9

Sixteenth Bend
(22 1/2° Ell)

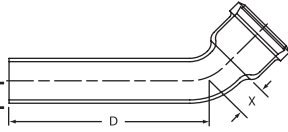
Size	D	X	Weight
2	3 ⁵ / ₈	7 ⁷ / ₈	4.1
3	4 ³ / ₁₆	1 ³ / ₁₆	7.7
4	4 ¹³ / ₁₆	1 ⁵ / ₁₆	9.8
5	4 ⁷ / ₈	1 ³ / ₈	13.1
6	5	1 ¹ / ₂	15.3
8	6 ¹¹ / ₁₆	1 ¹³ / ₁₆	33.4
10	6 ⁷ / ₈	2	50.7
12	8 ⁵ / ₈	2 ³ / ₈	68.4
15	8 ⁷ / ₈	2 ⁵ / ₈	108.6



PART NO. XH 26

Long Eighth Bend

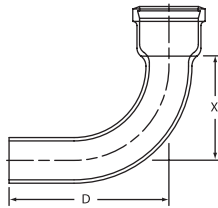
Size	D	X	Weight
4 x 18	18	2 ⁹ / ₁₆	25.5



PART NO. XH 29

Short Sweep Bend

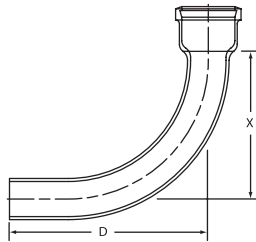
Size	D	X	Weight
2	8	5 ¹ / ₄	7.2
3	9	6	12.7
4	10	6 ¹ / ₂	17.6
5	10 ¹ / ₂	7	25.0
6	11	7 ¹ / ₂	29.2
8	13 ¹ / ₂	8 ⁵ / ₈	57.0
10	14 ¹ / ₂	9 ⁵ / ₈	90.0
12	17	10 ³ / ₄	122.6



PART NO. XH 30

Long Sweep Bend

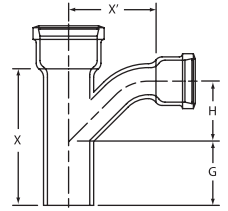
Size	D	X	Weight
2	11	8 ¹ / ₄	8.9
3	12	9	17.7
4	13	9 ¹ / ₂	23.4
5	13 ¹ / ₂	10	30.0
6	14	10 ¹ / ₂	38.6
8	16 ¹ / ₂	11 ⁵ / ₈	66.4
10	17 ¹ / ₂	12 ⁵ / ₈	104.2
12	20	13 ³ / ₄	136.0
15	21 ¹ / ₂	15 ¹ / ₄	213.3



PART NO. XH 33

Combination Wye & Eighth Bend
(Long Turn Pattern)

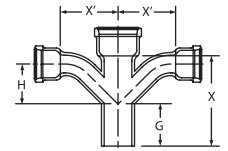
Size	G	H	X	X'	Weight
2 x 2	4	3 ³ / ₈	8	4 ⁷ / ₈	9.9
3 x 2	4 ³ / ₁₆	4	9	5 ³ / ₄	14.6
3 x 3	5	5 ¹ / ₁₆	10 ¹ / ₂	7	18.6
4 x 2	3 ¹¹ / ₁₆	4 ¹ / ₂	9	6 ¹ / ₄	17.9
4 x 3	4 ¹ / ₂	5 ⁹ / ₁₆	10 ¹ / ₂	7 ¹ / ₂	23.6
4 x 4	4 ¹ / ₂	7 ¹ / ₂	12	9	28.0
5 x 4	4 ¹ / ₄	7 ⁵ / ₁₆	12	9 ¹ / ₂	29.8
5 x 5	5 ¹ / ₂	8 ⁵ / ₈	13 ¹ / ₂	11	33.7
6 x 2	2 ¹¹ / ₁₆	5 ¹ / ₂	9	7 ¹ / ₄	24.9
6 x 3	3 ¹ / ₈	6 ⁹ / ₁₆	10 ¹ / ₂	8 ¹ / ₂	30.7
6 x 4	4 ¹ / ₄	7 ¹³ / ₁₆	12	10	37.3
6 x 6	5 ³ / ₄	10 ⁹ / ₁₆	15	12 ⁷ / ₈	55.4
8 x 4	4 ³ / ₄	8 ¹³ / ₁₆	13 ¹ / ₂	11	55.6
8 x 6	6 ⁵ / ₁₆	11 ⁵ / ₁₆	16 ¹ / ₂	13 ³ / ₈	73.4
8 x 8	7 ¹¹ / ₁₆	13 ⁷ / ₈	19 ¹ / ₂	17	113.1



PART NO. XH 35F

Double Combination Wye & Eighth Bend
(Long Turn Pattern)

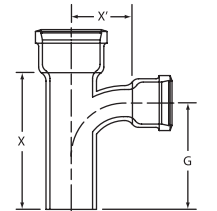
Size	G	H	X	X'	Weight
4 x 4	5 ¹ / ₄	6 ¹³ / ₁₆	12	9	41.0
6 x 4	4 ¹ / ₄	7 ¹³ / ₁₆	12	10	49.4



PART NO. XH 43

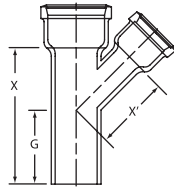
Sanitary Tee

Size	G	X	X'	Weight
2 x 2	6 ¹ / ₄	8	2 ⁷ / ₈	8.6
3 x 2	7	9	4	14.1
3 x 3	7 ¹ / ₂	10	4	16.8
4 x 2	7	9	4 ¹ / ₂	17.1
4 x 3	7 ¹ / ₂	10	4 ¹ / ₂	18.5
4 x 4	8	11	4 ¹ / ₂	22.1
5 x 5	8 ¹ / ₂	12	5	28.0
6 x 3	7 ¹ / ₂	10	5 ¹ / ₂	26.1
6 x 4	8	11	5 ¹ / ₂	28.8
6 x 6	9	13	5 ¹ / ₂	35.3
8 x 4	9 ³ / ₄	13	6 ¹ / ₂	50.8
8 x 6	10 ³ / ₄	15	6 ¹ / ₂	54.5
8 x 8	11 ³ / ₄	17	6 ⁵ / ₈	72.4
10 x 6	10 ³ / ₄	15	7 ¹ / ₂	75.2
10 x 8	11 ³ / ₄	17	7 ⁵ / ₈	90.6
10 x 10	12 ³ / ₄	19	7 ⁵ / ₈	106.0
12 x 8	13	18 ¹ / ₂	8 ⁵ / ₈	126.0
12 x 12	15	22 ¹ / ₂	8 ³ / ₄	152.7
15 x 8	13	18 ¹ / ₂	10 ¹ / ₈	163.4
15 x 15	16 ¹ / ₂	25 ¹ / ₂	10 ¹ / ₄	240.6



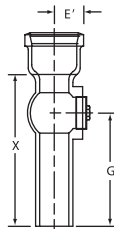
PART NO. XH 44

Wye				
Size	G	X	X'	Weight
2 x 2	4	8	4	8.9
3 x 2	4 ³ / ₁₆	9	5	14.2
3 x 3	5	10 ¹ / ₂	5 ¹ / ₂	16.9
4 x 2	3 ⁵ / ₈	9	5 ³ / ₄	16.3
4 x 3	4 ⁷ / ₁₆	10 ¹ / ₂	6 ¹ / ₄	20.0
4 x 4	5 ¹ / ₄	12	6 ³ / ₄	22.7
5 x 3	3 ⁷ / ₈	10 ¹ / ₂	7	24.0
5 x 4	4 ¹ / ₁₆	12	7 ¹ / ₂	27.2
5 x 5	5 ¹ / ₂	13 ¹ / ₂	8	31.6
6 x 3	3 ⁹ / ₈	10 ¹ / ₂	7 ³ / ₄	28.1
6 x 4	4 ³ / ₁₆	12	8 ¹ / ₄	31.3
6 x 5	4 ⁵ / ₁₆	13 ¹ / ₂	8 ³ / ₄	37.2
6 x 6	5 ³ / ₄	15	9 ¹ / ₄	43.0
8 x 4	4 ³ / ₄	13 ¹ / ₂	9 ¹ / ₂	52.7
8 x 6	6 ⁵ / ₁₆	16 ¹ / ₂	10 ¹ / ₂	63.8
8 x 8	7 ¹ / ₁₆	19 ¹ / ₂	11 ³ / ₁₆	84.5
10 x 4	3 ⁹ / ₁₆	13 ¹ / ₂	11 ¹ / ₈	71.9
10 x 6	5 ¹ / ₈	16 ¹ / ₂	12 ¹ / ₈	88.2
10 x 8	6 ¹ / ₂	19 ¹ / ₂	13 ⁷ / ₁₆	101.7
10 x 10	8	22 ¹ / ₂	14 ¹ / ₂	137.0
12 x 6	5 ¹ / ₁₆	18	13 ⁷ / ₁₆	108.0
12 x 8	7 ¹ / ₁₆	21	14 ³ / ₄	140.0
12 x 10	8 ⁹ / ₁₆	24	15 ³ / ₁₆	159.4
12 x 12	10 ¹ / ₈	27	16 ⁷ / ₈	198.0
15 x 4	6 ⁷ / ₈	15	15	135.8
15 x 8	5 ³ / ₈	21	17 ¹ / ₁₆	192.2
15 x 10	6 ⁷ / ₈	24	18 ¹ / ₈	229.0
15 x 12	8 ⁷ / ₁₆	27	19 ³ / ₁₆	251.1
15 x 15	10 ³ / ₄	31 ¹ / ₂	20 ³ / ₄	309.4



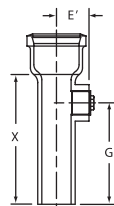
PART NO. XH 79

Washington Test Tee					
Size	IPS Tap	E'	G	X	Weight
3	4	2 ⁷ / ₈	7 ¹ / ₈	10 ³ / ₄	15.3
4	4	3 ¹ / ₄	7 ¹ / ₄	10 ⁵ / ₈	18.7
5	5	3 ⁵ / ₈	7	11	27.2
6	6	4	8 ³ / ₄	13	27.4
8	8	5	11	16 ³ / ₈	54.8



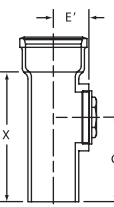
PART NO. XH 80

Cleanout Tee with Brass Plug					
Size	IPS Tap	E'	G	X	Weight
3	2	2 ¹ / ₂	7	9	10.9
4	3	3	8	11	17.4
5	4	3 ¹ / ₂	8 ¹ / ₂	12	23.6
6	4	4 ¹ / ₄	9	13	26.9



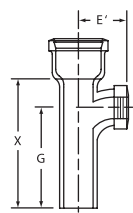
PART NO. XH 81S

Miami Test Tee					
Size	IPS Tap	E'	G	X	Weight
4	4	3	7 ¹ / ₄	11	16.7



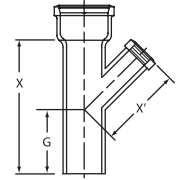
PART NO. XH 84

Sanitary Tapped Tee				
Size	E'	G	X	Weight
4 x 2	4 ¹ / ₁₆	7	9	14.3



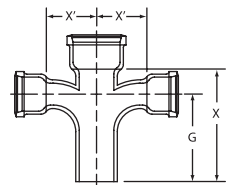
PART NO. XH 85

Tapped Wye				
Size	G	X	X'	Weight
4 x 2	4 ¹ / ₄	9	6	14.2



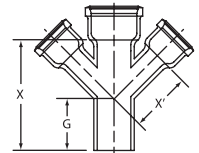
PART NO. XH 109

Sanitary Cross				
Size	G	X	X'	Weight
4	8	11	4 ¹ / ₂	28.5



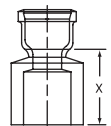
PART NO. XH 110

Double Wye				
Size	G	X	X'	Weight
2	4	8	4	13.1
4 x 3	4 ⁷ / ₁₆	10 ¹ / ₂	6 ¹ / ₄	26.9
4	5 ¹ / ₄	12	6 ³ / ₄	29.7
6 x 4	4 ³ / ₁₆	12	8 ¹ / ₄	39.8
6	5 ³ / ₄	15	9 ¹ / ₄	48.3
8	7 ¹ / ₁₆	19 ¹ / ₂	11 ³ / ₁₆	119.0
10	8	22 ¹ / ₂	14 ¹ / ₂	182.0
12	10 ¹ / ₈	27	16 ⁷ / ₈	278.0
15	10 ³ / ₄	31 ¹ / ₂	22	384.8



PART NO. XH 143

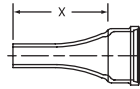
Reducer		
Size	X	Weight
3 x 2	4 ³ / ₄	5.8
4 x 2	5	7.2
4 x 3	5	8.8
5 x 3	5	9.2
5 x 4	5	10.4
6 x 3	5	11.7
6 x 4	5	12.0
6 x 5	5	13.9
8 x 4	6	19.8
8 x 5	6	19.5
8 x 6	6	20.1
10 x 4	6	28.0
10 x 6	6	28.4
10 x 8	6	33.8
12 x 4	6 ¹ / ₂	36.8
12 x 6	6 ¹ / ₂	40.2
12 x 8	6 ¹ / ₂	44.4
12 x 10	6 ¹ / ₂	45.4
15 x 8	6 ¹ / ₂	59.4
15 x 10	6 ¹ / ₂	57.0
15 x 12	6 ¹ / ₂	66.5



PART NO. XH 144

Reducer In increaser

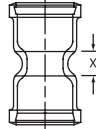
Size	X	Weight
4 x 6	9	17.0
6 x 8	12	35.5



PART NO. XH 153

Double Hub Fitting

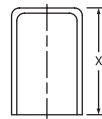
Size	X	Weight
2	1 1/4	5.0
4	1 1/2	10.2
5	1 1/2	11.8
6	1 1/2	13.0
8	1 1/2	30.4
10	1 1/2	43.1
12	1 1/2	66.6
15	1 1/2	81.9



PART NO. XH 155

Pipe Plug

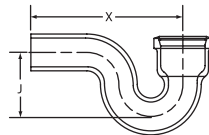
Size	X	Weight
2	3 1/2	1.6
4	4	4.7
6	4	7.7
8	4 1/2	14.9
10	4 1/2	25.1
12	5 1/4	32.0
15	5 1/4	46.1



PART NO. XH 169

"P" Trap

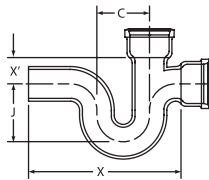
Size	J	X	Weight
2	4	9 1/2	7.9
3	5 1/2	12	17.1
4	6 1/2	14	26.5
6	8 1/2	17	47.4
8	10 1/2	22 1/16	102.0



PART NO. XH 174

Running Trap with Single Hub Vent

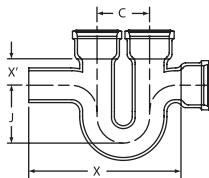
Size	Vent Size	C	J	X	X'	Weight
3	3	5	5 1/2	15	2 1/2	22.8
4	4	6	6 1/2	17 1/2	3	37.6
5	4	7	7 1/2	19 1/2	3 1/2	43.7
6	4	8	8 1/2	21 1/2	4	59.0



PART NO. XH 175

Running Trap with Double Hub Vent

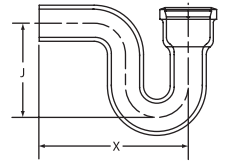
Size	Vent Size	C	J	X	X'	Weight
3	3	5	5 1/2	15	2 1/2	27.5
4	4	6	6 1/2	17 1/2	3	38.5
5	4	7	7 1/2	19 1/2	3 1/2	50.6
6	4	8	8 1/2	21 1/2	4	65.5
6	6	8	8 1/2	21 1/2	4	71.0
8	4	10	11	27 5/8	5 1/4	127.0
8	6	10	11	27 5/8	5 1/4	125.9
10	8	12	13	31 5/8	6 1/4	204.9
12	6	15	15	38 3/4	7 1/4	247.6



PART NO. XH 180

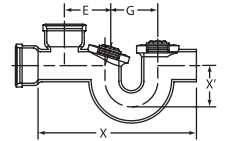
Deep Seal "P" Trap

Size	X	J	Weight
2	9 1/2	6	9.8
3	12	7	19.9
4	14	8	31.2

PART NO. XH 184⁽¹⁾

Improved Running Trap with Double Cleanout and Tee Branch

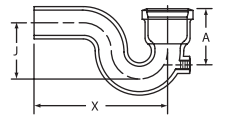
Size	Vent Size	E	G	X	X'	Weight
4	3	5 1/4	6 1/4	20 1/2	5 1/2	41.1
4	4	5 3/8	6 1/4	20 1/2	5 1/2	41.8



PART NO. XH 198

"P" Trap with 1/2" Heel Tap

Size	X	J	A	Weight
2	9 1/2	4	4	9.0
3	12	5 1/2	4 3/8	17.2
4	14	6 1/2	4 5/8	27.2



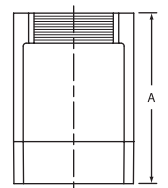
PART NO. XH 230

Iron Body Cleanout, Body Only, Less Brass Plug

and PART NO. XH 230S

Iron Body Cleanout, with Southern Raised-Head Brass Plug Installed

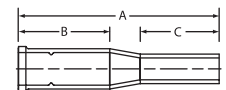
Size	Tap Size	A	XH 230 Weight	XH 230S Weight
2"	1 1/2	3 1/2	-	1.7
3"	2 1/2	3 3/4	-	3.2
4	3 1/2	4 1/4	4.0	4.7
5"	4	4 1/4	-	6.5
6	5	4 1/4	8.6	8.6
8	6	4 1/2	20.1	15.5
10	6	4 1/2	19.7	23.2
12	6	5 1/4	29.9	33.1
15	6	5 1/4	73.4	74.9



PART NO. XH 253

Sission Insertable Joint

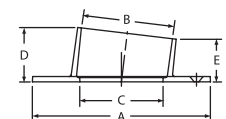
Size	A	B	C	Weight
4	14 1/2	7	6	17.1
6	16 3/16	8 1/2	6	26.6



PART NO. XH 549

Roof Iron

Size	A	B	C	D	E	Weight
4	10 7/16	5 3/8	4 13/16	3 3/16	2 1/2	8.2

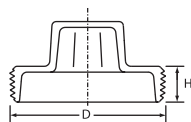
⁽¹⁾ Note: 3 1/2" IPS tap^(S) Size available only with Southern Raised-Head Brass Plug installed

Plugs

PART NO. PLG 410

Ohio Code Brass Plug

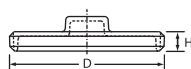
Size	D	H	Weight
10	10 ²³ / ₃₂	2 ¹ / ₃₂	10.7



PART NO. PLG 430

Southern Code Brass Plug

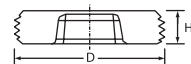
Size	D	H	Weight
1 ¹ / ₂	1 ⁵⁷ / ₆₄	49/ ₆₄	0.2
2	2 ²³ / ₆₄	49/ ₆₄	0.3
2 ¹ / ₂	2 ⁵⁵ / ₆₄	51/ ₆₄	0.4
3	3 ¹⁵ / ₃₂	57/ ₆₄	0.5
3 ¹ / ₂	3 ⁶³ / ₆₄	57/ ₆₄	0.7
4	4 ³¹ / ₆₄	61/ ₆₄	0.9
5	5 ³⁵ / ₆₄	61/ ₆₄	1.2
6	6 ¹⁹ / ₃₂	17/ ₃₂	2.2
8	8 ³⁹ / ₆₄	19/ ₃₂	3.5



PART NO. PLG 440

Southern Code Countersunk Brass Plug

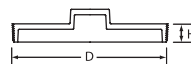
Size	D	H	Weight
1 ¹ / ₂	1 ⁵⁷ / ₆₄	13/ ₃₂	0.2
2	2 ²³ / ₆₄	7/ ₁₆	0.3
3	3 ¹⁵ / ₃₂	33/ ₆₄	0.6
3 ¹ / ₂	3 ⁶³ / ₆₄	33/ ₆₄	0.7
4	4 ³¹ / ₆₄	35/ ₆₄	0.9
5	5 ³⁵ / ₆₄	11/ ₁₆	1.3
6	6 ¹⁹ / ₃₂	11/ ₁₆	2.2



PART NO. PLG 450

Cast Iron Plug

Size	D	H	Weight
6	6 ³⁵ / ₆₄	1 ¹⁷ / ₆₄	4.2
10	10 ³⁹ / ₆₄	1 ³¹ / ₃₂	9.8



WARNING

Testing with or use of compressed air or gas in Cast Iron pipe or fittings can result in explosive failures and cause severe injury or death.

AIR/GAS



- NEVER test with or transport/store compressed air or gas in Cast Iron pipe or fittings.
- NEVER test Cast Iron pipe or fittings with compressed air or gas.
- ONLY use Cast Iron pipe and fittings for drain, waste and vent or sanitary sewer applications.

SUBMITTAL FOR CHARLOTTE® SEAL AND QUIK-TITE COMPRESSION GASKETS

Charlotte Seal Gasket

Charlotte Seal Gaskets are used for joining Hub and Spigot Cast Iron pipe and fittings conforming to ASTM A 74.

Material:

Charlotte Seal Gaskets are a molded one-piece gasket made from Neoprene. Neoprene is one of the few elastomers that is well suited for direct burial because it has the ability to withstand the natural corrosive components of soil as well as sanitary effluent. Neoprene has a maximum operating temperature of 212°F and has a maximum joint deflection of 5 degrees.

Gasket Specification:

Charlotte Seal Gaskets are produced in conformance with ASTM C 564.

Features:

The molded bead design locks into the lead bead groove on Charlotte Pipe® Hub and Spigot Cast Iron Pipe and Fittings to provide a secure, leak free seal.



Molded Bead

Charlotte Seal Gasket

Available for 2"-10" Service and 2"-12" Extra Heavy Cast Iron Systems

Quik-Tite Gasket

Quik-Tite Gaskets are used for joining Hub and Spigot Cast Iron pipe and fittings conforming to ASTM A 74.

Material:

Quik-Tite Gaskets are a molded one-piece gasket made from Neoprene. Neoprene is one of the few elastomers that is well suited for direct burial because it has the ability to withstand the natural corrosive components of soil as well as sanitary effluent. Neoprene has a maximum operating temperature of 212°F and has a maximum joint deflection of 5 degrees.

Gasket Specification:

Quik-Tite Gaskets are produced in conformance with ASTM C 564.



Quik-Tite Gasket

Available for 2"-12" Service and 4" & 15" Extra Heavy Cast Iron Systems



For more information, call us at 1-800-438-6091 or log on to www.charlottepipe.com.

SUBMITTAL FOR CHARLOTTE® SEAL AND QUIK-TITE COMPRESSION GASKETS

Installation

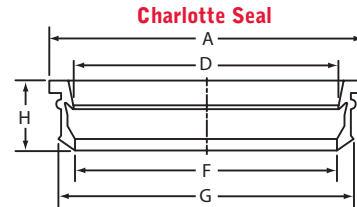
1. Clean the hub and spigot so they are free of all dirt, mud, sand, gravel, and other foreign materials.
2. Remove sharp edges by filing or tapping with a ball-peen hammer. Insert the gasket into the hub.
3. The gasket must be completely inserted into the hub. Only the gasket's flange that shows identification information should remain exposed outside the hub.
4. Lubricate the gasket following the pipe joint lubrication manufacturer's recommendations. For small-diameter pipe and fittings (2" - 4"), coat the inside of the gasket with lubricant using a paint brush or rag, and then coat the outside of the spigot. For large-diameter pipe and fittings (5" - 15"), we recommend that an adhesive lubricant be used to ensure a water-tight seal. Adhesive lubricants should be applied to the inside of the gasket, the outside of the spigot and the inside of the hub.
5. Align the pipe so that it is straight, then push or pull the spigot through all the sealing rings of the gasket. Charlotte plain-end pipe is manufactured with beveled ends to make insertion easy. As the spigot barrel is forced into the gasket, the gasket is compressed and completely seals the joint in both displacement and compression. When seated correctly, you will feel the spigot end of the pipe "bottom" in the hub.



NOTICE

Charlotte Pipe and Foundry Company strongly recommends that its cast iron hub and spigot pipe and fittings be joined with compression gaskets sold by our Company. Our hub and spigot pipe and fittings are manufactured to very specific manufacturing tolerances which conform to ASTM A 74. Our gaskets, produced in conformance with ASTM C 564, are especially designed to work with our pipe and fitting tolerances.

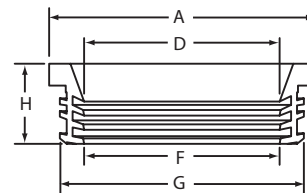
Dimensional Diagrams



Service								
	2"	3"	4"	5"	6"	8"	10"	
A	3½	4½	5½	6½	7½	9¾	12⅞	
D	2⅞	3⅞	4⅞	5⅞	6⅞	8⅜	10½	
F	2⅞	3⅞	4⅞	5⅞	6⅞	8⅞	10⅞	
G	3⅞	4⅞	5¼	6¼	7¼	9⅝	11⅞	
H	1⅜	2⅞	2⅝	2⅝	2¼	3	2¾	

Extra Heavy								
	2"	3"	4"	5"	6"	8"	10"	12"
A	3½	4⅝	5¾	6¾	8	10	12½	14⅞
D	2⅞	3½	4⅞	5½	6½	8½	10¾	12⅞
F	2⅝	3½	4⅜	5½	6½	8⅞	10⅝	12⅞
G	3⅞	4½	5⅞	6⅞	7⅞	9½	11½	14
H	1⅞	2¼	2¼	2½	2½	3	3	3

Quik-Tite



Service								
	2"	3"	4"	5"	6"	8"	10"	12"
A	3½	4⅞	5¾	6¾	8	10	12¼	14⅞
D	2⅞	3⅞	4	5	6⅞	8⅞	10¼	12¼
F	2	3⅞	4	5	6⅞	8⅞	10	12
G	3¼	4⅞	5⅞	6	7⅝	8½	11½	14
H	1⅝	1¾	1¾	2⅞	2⅝	2½	2½	2⅞

Extra Heavy

	4" XH	15" XH
A	6⅞	17¾
D	4¼	15⅜
F	4⅜	15
G	5⅞	16⅞
H	1⅜	3¼

NOTICE

Service Weight gaskets should only be used with Service Weight pipe and fittings, where Extra Heavy gaskets should be used with Extra Heavy pipe and fittings. Due to dimensional variances between systems, the two are not interchangeable.

For more information, call us at 1-800-438-6091 or log on to www.charlottepipe.com.

LIMITED WARRANTY

Charlotte Pipe and Foundry Company® (Charlotte Pipe®) Products are warranted to be free from manufacturing defects and to conform to currently applicable ASTM standards for a period of five (5) years from date of delivery. Buyer's remedy for breach of this warranty is limited to replacement of, or credit for, the defective product. This warranty excludes any expense for removal or reinstallation of any product and any other incidental, consequential, or punitive damages. **This limited warranty is the only warranty made by seller and is expressly in lieu of all other warranties, express and implied, including any warranties of merchantability and fitness for a particular purpose.** No statement, conduct or description by Charlotte Pipe or its representative, in addition to or beyond this Limited Warranty, shall constitute a warranty. This Limited Warranty may only be modified in writing signed by an officer of Charlotte Pipe.

This Limited Warranty will not apply if:

- 1) The Products are used for purposes other than their intended purpose as defined by local plumbing and building codes, and the applicable ASTM standard.
- 2) The Products are not installed in good and workmanlike manner consistent with normal industry standards; installed in compliance with the latest instructions published by Charlotte Pipe and good plumbing practices; and installed in conformance with all applicable plumbing, fire and building code requirements.
- 3) This limited warranty does not apply when the products of Charlotte Pipe are used with the products of other manufacturers that do not meet the applicable ASTM or CISPI standards or that are not marked in a manner to indicate the entity that manufactured them.
- 4) In hubless cast iron installations, this warranty will not apply if products are joined with unshielded hubless couplings. Charlotte Pipe requires that its hubless cast iron pipe and fittings be joined only with shielded hubless couplings manufactured in accordance with CISPI 310, ASTM C 1277 and certified by NSF® International or with Heavy Duty Couplings meeting ASTM C 1540.
- 5) The Products fail due to defects or deficiencies in design, engineering, or installation of the piping system of which they are a part.
- 6) The Products have been the subject of modification; misuse; misapplication; improper maintenance or repair; damage caused by the fault or negligence of anyone other than Charlotte Pipe; or any other act or event beyond the control of Charlotte Pipe.
- 7) The Products fail due to the freezing of water in the Products.
- 8) The Products fail due to contact with chemical agents, fire stopping materials, thread sealant, plasticized vinyl products, or other aggressive chemical agents that are not compatible.
- 9) Pipe outlets, sound attenuation systems or other devices are permanently attached to the surface of Charlotte® PVC, ABS or CPVC products with solvent cement or adhesive glue.

Charlotte Pipe products are manufactured to the applicable ASTM or CISPI standard. Charlotte Pipe and Foundry **cannot** accept responsibility for the performance, dimensional accuracy, or compatibility of pipe, fittings, gaskets, or couplings not manufactured or sold by Charlotte Pipe and Foundry.

This Limited Warranty will not apply unless written notice of a claim is mailed to Charlotte Pipe at the address below within 30 days of discovery of the allegedly defective product.

Any Charlotte Pipe products alleged to be defective **must** be made available to Charlotte Pipe at the following address for verification, inspection and determination of cause:

Charlotte Pipe and Foundry Company
Attention: Technical Services
2109 Randolph Road
Charlotte, North Carolina 28207

Purchaser must obtain a return materials authorization and instructions for return shipment to Charlotte Pipe of any product claimed defective or shipped in error.

Any Charlotte Pipe product **proved** to be defective in manufacture will be replaced F.O.B. point of original delivery, or credit will be issued, at the discretion of Charlotte Pipe.

5/19/23

Charlotte, Charlotte Pipe and "You can't beat the system" are registered trademarks of Charlotte Pipe and Foundry Company.

PO BOX 35430 CHARLOTTE, NORTH CAROLINA 28235
SALES PHONE (704) 348 6450 (800) 572 4199
TECHNICAL PHONE (800) 438 6091 FAX (800) 553 1605
WWW.CHARLOTTEPIPE.COM

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

CHARLOTTE

PIPE AND FOUNDRY COMPANY®

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All products manufactured by
Charlotte Pipe and Foundry Company
are proudly made in the U.S.A.