

Table of Contents for Cast Iron Extra Heavy Submittal Package

	Page
Submittal Form for Cast Iron Extra Heavy Service Pipe & Fittings	3
Certifications	4
ASTM & CISPI Reference Standards	5
Gray Iron Properties & Composition	6
Dimensional Information	7-13
Submittal Form for Charlotte Seal and Quik-Tite Compression Gaskets	14-15
Limited Warranty	16



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:

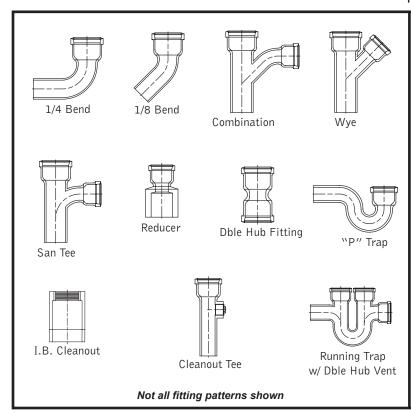
Installation shall comply with the latest installation instructions published by Charlotte Pipe and Foundry Company® and shall conform to all applicable plumbing, fire, and building code requirements. The system shall be hydrostatically tested after installation to 10 ft. of head (4.3 psi maximum). **WARNING!**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

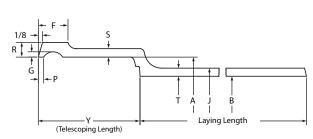
Referenced Standards:

ASTM A 74: Cast Iron Soil Pipe and Fittings

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







	Telescoping	Hub	Bai	rrel	Nominal
	Length	I.D.	O.D.	I.D.	Thickness
Size	Υ	Α	J	В	T
2"	2.50	3.06	2.38	2.00	0.19
3"	2.75	4.19	3.50	3.00	0.25
4"	3.00	5.19	4.50	4.00	0.25
5"	3.00	6.19	5.50	5.00	0.25
6''	3.00	7.19	6.50	6.00	0.25
8''	3.50	9.50	8.62	8.00	0.31
10"	3.50	11.62	10.75	10.00	0.37
12"	4.25	13.75	12.75	12.00	0.37
15"	4.25	16.95	15.88	15.00	0.44

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



Certifications

This is to verify that products manufactured by Charlotte Pipe and Foundry, Cast Iron Division, 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 ISO 9001:2008 Certified

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 ISO 9001:2008 Certified

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
Listed by NSF® International to the UP Code
ISO 9001:2008 Certified

HUBLESS COUPLINGS

CISPI Standard 310 ASTM C 1277 Certified by NSF® International

HUBLESS HEAVY DUTY COUPLINGS

Meets ASTM C 1540

COMPRESSION GASKETS

ASTM C 564 CISPI HSN 85

Very truly yours.

Hooper Hardison, President

Notary Public

My commission expires March 10, 2024

Jopen Handrson

Michelle R. Well

MICHELLE R WEBB NOTARY PUBLIC MECKLENBURG COUNTY, NC My Commission Expires 3-10-2024



LC-CI (6-22-22)



Reference Standards Cast Iron

AMERICAN SOCIETY FOR TESTING AND MATERIALS

ASTM	TITLE
A 74 SCOPE:	SPECIFICATION FOR CAST IRON SOIL PIPE AND FITTINGS HUB AND SPIGOT (SERVICE AND EXTRA HEAVY) 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 SCOPE:	SPECIFICATION FOR RUBBER GASKETS FOR CAST IRON SOIL PIPE AND FITTINGS THIS SPECIFICATION COVERS PREFORMED RUBBER GASKETS USED TO SEAL JOINTS IN CAST IRON SOIL PIPE AND FITTINGS.
C 1277 SCOPE:	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) 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 SCOPE:	SPECIFICATION FOR SHIELDED COUPLINGS JOINING HUBLESS CAST IRON SOIL PIPE AND FITTINGS (HEAVY DUTY COUPLINGS) 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.
	ALL LIGATIONS.

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/cm²/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

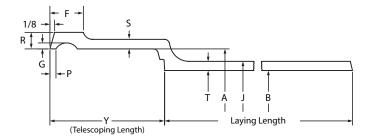
Composition of Gray Iron

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



A 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.



- 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	Thick of Ba	
	Α	J	Υ	В	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

	Thickness of Hub			Distance from	D. H. G. LO	
Size ^A	Hub Body Over B	Over Bead	Width of Hub d Bead ^B F	Lead Groove to End, Pipe and Fittings ^B	Depth of Lead Groove	
	S (min)	R (min)		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

^{*}Nominal inside diameter.



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.

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

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'	44.4
4"x5'	59.6
5"x5'	73.7
6"x5"	81.4
8"x5'	141.1
10"x5'	196.7
12"x5'	245.2
15"x5'	350.0

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

SUPCO THE VIOLET PARE OUSA CHARLOTTE	E PIPE (CUSA 3 SV (40 ASTM A 74 DS 29 DS 12 27
Size	Weight
2"x10'	45.3
3"x10'	83.9
4"x10'	104.9
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"	15.0	
3"x30"	26.0	
4"x30"	33.0	

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.



- 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′	44.4		
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′	196.7		
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

1 .pc, ±0	Longuis	, onigio riub	
Size	L	Weight	
2" x 10"	10′	45.3	
 3" x 10"	10′	83.9	
 4" x 10"	10'	104.9	
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	

33.0

PART NO. XH 4



Pipe, 30''	Lengths, I	Double Hub	
Size	L	Weight	
2" x 30"	25''	15.0	
3" x 30"	241/2"	26.0	

PART NO. XH 900

Extra Heavy Charlotte Seal Gasket

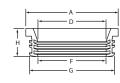
	LXII a	IICav	y Cilalic	1116 36	ai Gasn	C
Size	Α	D	F	G	Н	Weight
2	31/2	23/8	29/32	33/16	17/8	0.3
3	415/16	31/2	31/2	41/2	21/4	0.4
4	53/4	47/32	413/32	57/16	21/4	0.6
5	63/4	51/2	51/2	63/16	21/2	0.7
6	8	61/2	61/2	7 ³ /8	21/2	0.9
8	10	81/2	85/16	91/2	3	1.6
10	121/2	103/4	1011/32	111/2	3	2.0
12	147/16	12 ⁵ / ₈	12 ⁵ / ₈	14	3	2.8



PART NO. XH 950

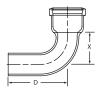
Extra Heavy Quick-Tite Gasket

			. J +			
Size	Α	D	F	G	Н	Weight
4	61/8	41/4	413/32	511/16	113/16	0.6
15	173/4	1513/32	15	167/s	31/4	5.0



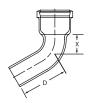
PART NO. XH 5

Quarter Bend					
Size	D	Х	Weight		
2	6	31/4	6.3		
3	7	4	11.1		
4	8	41/2	15.5		
5	81/2	5	18.5		
6	9	51/2	25.8		
8	111/2	65/8	47.0		
10	121/2	7 ⁵ /8	80.0		
12	15	83/4	142.0		
15	161/2	101/4	173.9		

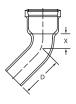


PART NO. XH 7

Sixth Bend					
Size	D	Х	Weight		
2	43/4	2	6.0		
3	51/2	21/2	7.2		
4	65/16	213/16	14.0		
6	67/9	33/2	21.0		



Eighth Bend					
Size	D	Х	Weight		
2	41/4	11/2	4.7		
3	415/16	115/16	8.8		
4	5 ¹¹ / ₁₆	23/16	12.4		
5	57/8	23/8	15.0		
6	61/16	29/16	18.9		
8	8	31/8	36.2		
10	83/8	31/2	59.7		
12	105/16	41/16	90.0		
15	10 ¹⁵ / ₁₆	411/16	122.0		



PART NO. XH 9

Sixteenth Bend				
Size	D	Х	Weight	
2	35/8	7/8	4.6	
3	43/16	13/16	9.1	
4	413/16	15/16	9.5	
5	47/8	13//8	13.8	
6	5	11/2	16.0	
8	611/16	113/16	31.8	
10	6 ⁷ /8	2	53.0	
12	85/8	23/8	65.0	
15	87/8	25/8	103.0	

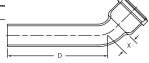


PART NO. XH 26

 Long Eighth Bend

 Size
 D
 X
 Weight

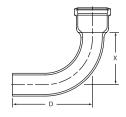
 4 x 18
 18
 23/16
 26.0



PART NO. XH 29

Short	Sweep	Bend

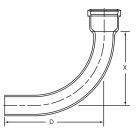
	Siloi (Sweeh Della				
Size	D	Х	Weight		
2	8	51/4	7.2		
3	9	6	13.0		
4	10	61/2	18.2		
5	101/2	7	23.8		
6	11	71/2	28.4		
8	131/2	85/8	57.0		
10	141/2	95/8	90.0		
12	17	103/4	136.0		



PART NO. XH 30

Lan a Couran Bar

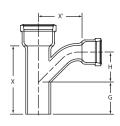
Long Sweep Bend					
Size	D	Х	Weight		
2	11	81/4	9.0		
3	12	9	16.6		
4	13	91/2	23.6		
5	131/2	10	30.0		
6	14	101/2	38.2		
8	161/2	115/8	58.6		
10	171/2	12 ⁵ / ₈	109.0		
12	20	133/4	136.0		
15	211/2	151/4	213.3		



PART NO. XH 33

Combination Wye & Eighth Bend

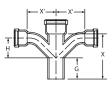
(Long lurn Pattern)							
Size	G	Н	Χ	X'	Weight		
2 x 2	4	33/8	8	47/8	9.7		
3 x 2	43/16	4	9	53/4	16.0		
3 x 3	5	51/16	101/2	7	18.2		
4 x 2	311/16	41/2	9	61/4	18.9		
4 x 3	41/2	5%16	101/2	71/2	22.0		
4 x 4	41/2	71/2	12	9	28.1		
5 x 4	41/4	75/16	12	91/2	29.3		
5 x 5	51/2	85/8	131/2	11	33.7		
6 x 2	211/16	51/2	9	71/4	22.0		
6 x 3	31/8	69/16	101/2	81/2	30.4		
6 x 4	41/4	713/16	12	10	38.5		
6 x 6	53/4	105/16	15	12 ⁷ /8	53.5		
8 x 4	43/4	813/16	131/2	11	54.0		
8 x 6	65/16	115/16	161/2	137/s	70.5		
8 x 8	711/16	137/s	191/2	17	107.4		



PART NO. XH 35F

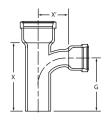
Double Combination Wye & Eighth Bend

(Long Turn Pattern)					
Size G H X X' W					
4 x 4	51/4	613/16	12	9	44.0
6 x 4	41/4	713/16	12	10	43.0



Sanitary Tee

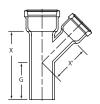
	30	annically ic		
Size	G	Х	X'	Weight
2 x 2	61/4	8	27/8	8.7
3 x 2	7	9	4	14.2
3 x 3	71/2	10	4	17.1
4 x 2	7	9	41/2	17.4
4 x 3	71/2	10	41/2	18.3
4 x 4	8	11	41/2	22.5
5 x 5	81/2	12	5	28.0
6 x 3	71/2	10	51/2	24.4
6 x 4	8	11	51/2	28.0
6 x 6	9	13	51/2	35.4
8 x 4	93/4	13	61/2	51.0
8 x 6	103/4	15	61/2	54.5
8 x 8	113/4	17	65/8	72.0
10 x 6	103/4	15	71/2	77.0
10 x 8	113/4	17	75/8	95.0
10 x 10	123/4	19	75/8	115.0
12 x 8	13	181/2	85/8	126.0
12 x 12	15	221/2	83/4	173.0
15 x 8	13	181/2	10½	180.0
15 x 15	161/2	251/2	101/4	280.0





PART NO. XH 44

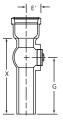
Wye Size G X 2 x 2 4 8 3 x 2 43/16 9 3 x 3 5 10½ 4 x 2 35/8 9 4 x 3 47/16 10½ 4 x 4 5¼ 12 5 x 3 37/8 10½ 5 x 4 4½ 12 5 x 5 5½ 13½ 5 x 5 5½ 13½	4 5 5 ¹ / ₂ 5 ³ / ₄	9.0 13.2
2x2 4 8 3x2 43/16 9 3x3 5 101/2 4x2 35/8 9 4x3 47/16 101/2 4x4 51/4 12 5x3 37/8 101/2 5x4 411/16 12 5x5 51/2 131/2	4 5 5 ¹ / ₂ 5 ³ / ₄	9.0 13.2
3 x 2 43/16 9 3 x 3 5 10 ¹ / ₂ 4 x 2 35/ ₈ 9 4 x 3 47/ ₁₆ 10 ¹ / ₂ 4 x 4 5 ¹ / ₄ 12 5 x 3 37/ ₈ 10 ¹ / ₂ 5 x 4 4 ¹ / ₁₆ 12 5 x 5 5 ¹ / ₂ 13 ¹ / ₂	5 5 ¹ / ₂ 5 ³ / ₄	13.2
3 x 3 5 10½ 4 x 2 35/8 9 4 x 3 47/16 10½ 4 x 4 5½ 12 5 x 3 37/8 10½ 5 x 4 4½ 12 5 x 5 5½ 13½	5 ¹ / ₂ 5 ³ / ₄	
4 x 2 35/8 9 4 x 3 47/16 10½ 4 x 4 51/4 12 5 x 3 37/8 10½ 5 x 4 411/16 12 5 x 5 5½ 13½	53/4	17.2
4x3 47/16 101/2 4x4 51/4 12 5x3 37/8 101/2 5x4 411/16 12 5x5 51/2 131/2	• , .	16.8
4 x 4 5½ 12 5 x 3 3% 10½ 5 x 4 4½ 12 5 x 5 5½ 13½	61/4	20.6
5 x 3 37/8 10½ 5 x 4 41½ 12 5 x 5 5½ 13½		23.7
5 x 4 4 ¹¹ / ₁₆ 12 5 x 5 5 ¹ / ₂ 13 ¹ / ₂		23.7
5 x 5 5½ 13½		28.3
		31.6
6×3 $3\frac{3}{8}$ $10\frac{1}{2}$	-	26.8
6 x 4 4 ³ / ₁₆ 12		31.9
6 x 5 4 ¹⁵ / ₁₆ 13 ¹ / ₂		33.8
6 x 6 5 ³ / ₄ 15		41.2
8 x 4 43/4 131/2	91/2	50.2
8 x 6 65/16 161/2	101/2	61.5
8 x 8 7 ¹¹ / ₁₆ 19 ¹ / ₂ 1	113/16	86.6
10 x 4 3% ₁₆ 13½	111/8	72.0
10 x 6 5½ 16½	12½	84.0
10 x 8 6½ 19½	137/16 1	01.7
	141/2 1	37.0
12 x 6 5 ¹¹ / ₁₆ 18	137/16 1	08.0
12 x 8 7 ¹ / ₁₆ 21	143/4 1	40.0
12 x 10 89/16 24 1	5 ¹³ / ₁₆ 1	80.0
12 x 12 10 ¹ / ₈ 27	167/s 1	98.0
15 x 4 67/8 15	15 1	53.0
15 x 8 53/8 21 1	171/16 2	19.0
15 x 10 67/8 24	18½ 2	29.0
15 x 12 8 ⁷ / ₁₆ 27 1	193/16 2	36.0
15 x 15 10 ³ / ₄ 31 ¹ / ₂	ιψ / Ib	



PART NO. XH 79

Washington Te	est Tee
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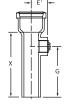
	IPS				
Size	Tap	E'	G	Х	Weight
3	4	27/8	7½	103/4	13.9
4	4	31/4	71/4	105/8	19.9
5	5	35/8	7	11	24.4
6	6	4	83/4	13	42.2
8	8	5	11	16 ³ / ₈	58.5



PART NO. XH 80

Cleanout Tee with Brass Plug

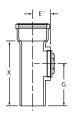
	IPS				<u> </u>
Size	IPS Tap	E'	G	Х	Weight
3	2	21/2	7	9	11.3
4	3	3	8	11	15.5
5	4	31/2	81/2	12	22.9
6	4	41/4	9	13	26.9



PART NO. XH 81S

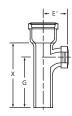
Miami	lest	iee

	IPS				
Size	Tap	E'	G	Х	Weight
4	4	3	71/4	11	16.0



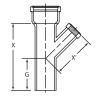
PART NO. XH 84

	Sanita	nitary Tapped Tee			
Size	E'	G	Х	Weight	
4 v 2	41/16	7	q	143	



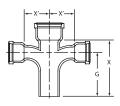
PART NO. XH 85

Tapped Wye					
Size	G	χ	X'	Weight	
4 x 2	41/4	9	6	13.8	



PART NO. XH 109

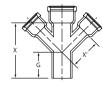
Sanitary Cross						
Size	G	Х	X'	Weight		
4	8	11	41/2	27.0		



PART NO. XH 110

	Double Wy
_	v

Size	G	Х	X'	Weight
2	4	8	4	13.1
4 x 3	47/16	101/2	61/4	26.9
4	51/4	12	63/4	28.2
6 x 4	43/16	12	81/4	39.8
6	53/4	15	91/4	45.0
8	711/16	191/2	1113/16	119.0
10	8	221/2	141/2	182.0
12	101/8	27	167/ ₈	295.0
15	103/4	311/2	22	384.8



D. J.

	Reducer	
Size	Χ	Weight
3 x 2	43/4	6.0
4 x 2	5	7.0
4 x 3	5 5 5	8.9
5 x 3	5	11.0
5 x 4	5	11.0
6 x 3	5	12.0
6 x 4	5	12.2
6 x 5	5	12.6
8 x 4	6	19.1
8 x 5	6	19.5
8 x 6	6	19.0
10 x 4	6	28.0
10 x 6	6	30.0
10 x 8	6	35.0
12 x 4	61/2	36.8
12 x 6	61/2	46.0
12 x 8	61/2	43.0
12 x 10	61/2	50.0
15 x 8	61/2	55.5
15 x 10	61/2	57.0
15 x 12	61/2	62.0



PART NO. XH 144

 2-4				
zea	ucer	ing	rea	ser

	Mcddcci ilicica	1361
Size	Х	Weight
4 x 6	9	15.8
6 x 8	12	33.8



PART NO. XH 153

Double Hub Fitting

Dodnie Dan Littillä				
Size	Χ	Weight		
2	11/4	5.0		
4	11/2	9.4		
5	11/2	12.0		
6	11/2	14.0		
8	11/2	28.0		
10	11/2	43.0		
12	11/2	54.0		
15	11/2	80.0		



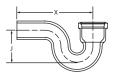
PART NO. XH 155

	Pipe Plug	
Size	Х	Weight
2	31/2	1.4
4	4	4.7
6	4	8.0
8	41/2	15.0
10	41/2	29.0
12	51/4	32.0
15	51/4	44.0



PART NO. XH 169

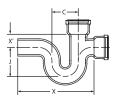
"P" Trap					
Size	J	Х	Weight		
2	4	91/2	7.9		
3	51/2	12	17.2		
4	61/2	14	27.2		
6	81/2	17	45.2		
8	101/2	221/16	120.0		



PART NO. XH 174

Running Trap with Single Hub Vent

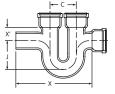
		<u>6</u>			,	,,,,
	Vent					
Size	Size	С	J	Х	X'	Weight
3	3	5	51/2	15	21/2	22.8
4	4	6	61/2	171/2	3	35.6
5	4	7	71/2	191/2	31/2	46.0
6	4	8	81/2	211/2	4	59.0



PART NO. XH 175

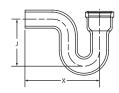
Running Trap with Double Hub Vent

	WIGH DOUDIE HUD VEHIC					
Size	Vent Size	С	J	Х	χ'	Weight
3	3	5	51/2	15	21/2	30.0
4	4	6	61/2	171/2	3	37.4
5	4	7	71/2	191/2	31/2	50.0
6	4	8	81/2	211/2	4	65.5
6	6	8	81/2	211/2	4	71.0
8	4	10	11	27 ⁵ /8	51/4	127.0
8	6	10	11	27 ⁵ /8	51/4	119.6
10	8	12	13	31%	61/4	193.0
12	6	15	15	383/4	71/4	274.0



PART NO. XH 180

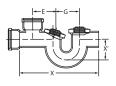
Deep Seal "P" Trap						
Size	Х	J	Weight			
2	91/2	6	9.8			
3	12	7	20.3			
4	14	8	29.0			



PART NO. XH 184^(T)

Improved Running Trap with Double Cleanout and Tee Branch

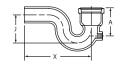
	Vent					
Size	Size	E	G	Х	X'	Weight
4	3	51/4	61/4	201/2	51/2	41.8
4	4	53/8	61/4	201/2	51/2	42.9



PART NO. XH 198

"P" Trap with 1/2" Heel Tap

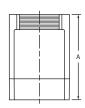
Size	Χ	J	Α	Weight
2	91/2	4	4	9.0
3	12	51/2	43/8	17.0
4	14	61/2	45/8	27.0



PART NO. XH 230

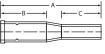
Iron Body Cleanout,

Body Only, Less Brass Plug								
Size	Tap Size	Α	Weight					
2 ^(S)	11/2	31/2	1.7					
3 ^(S)	21/2	33/4	3.2					
4	31/2	41/4	4.3					
5 ^(S)	4	41/4	6.5					
6	5	41/4	6.6					
8	6	41/2	13.1					
10	6	41/2	21.0					
12	6	51/4	38.0					
15	6	51/4	52.8					

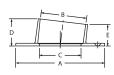


PART NO. XH 253

Sission Insertable Joint							
Size	Α	В	С	Weight			
4	141/2	7	6	17.1			
6	163/16	81/2	6	26.2			



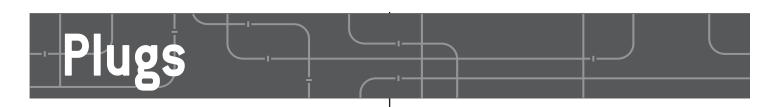
Roof Iron								
Size	Α	В	С	D	Е	Weight		
4	107/16	53/8	413/16	33/16	21/2	8.2		



⁽T) Note: 31/2" IPS tap

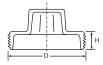
⁽S) Size available only with Southern Raised-Head Brass Plug installed





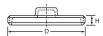
PART NO. PLG 410

Ohio Code Brass Plug							
D	Н	Weight					
1023/32	21/32	10.6					
	Ohio Code	Ohio Code Brass Plug					



PART NO. PLG 430

Southern Code Brass Plug									
Size	D	Н	Weight						
11/2	1 ⁵⁷ / ₆₄	49/64	0.2						
2	2 ²³ / ₆₄	49/64	0.3						
21/2	255/64	51/64	0.4						
3	315/32	57/64	0.6						
31/2	363/64	57/64	0.7						
4	431/64	61/64	1.1						
5	535/64	61/64	1.5						
6	6 ¹⁹ /32	17/32	2.5						
8	839/64	19/32	4.0						



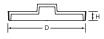
PART NO. PLG 440

Souther	Southern Code Countersunk Brass Plug							
Size	D	Н	Weight					
11/2	1 ⁵⁷ / ₆₄	13/32	0.2					
2	223/64	7/16	0.3					
3	315/32	33/64	0.6					
31/2	363/64	33/64	0.8					
4	431/64	35/64	0.9					
5	535/64	11/16	1.7					
6	619/32	11/16	2.3					



PART NO. PLG 450

	Cast Iron Plug							
Size	D	Н	Weight					
6	635/64	117/64	4.2					
10	1039/64	131/32	9.0					



A 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.



- 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.

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.



Molded Bead

Charlotte Seal Gasket

Available for 2"-10" Service and 2"-15" Extra Heavy Cast Iron Systems



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 ballpeen 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 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

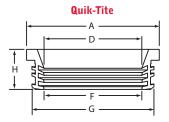
Charlotte Pipe and Foundry Company strongly recommends that its cast iron hub and spigot pipe and fittings be joined with compression gaskets sold by our Company. Our hub and spigot pipe and fittings are manufactured to very specific manufacturing tolerances which conform to ASTM A 74. Our gaskets, produced 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"		
А	3½	41/2	5½	61/2	7½	93/4	121/16		
D	23/16	33/16	43/16	5¾16	63/16	813/32	10½		
F	21//8	31/8	41/8	51/8	61/8	83/16	105/16		
G	31//8	41/8	51/4	61/4	71/4	9%32	1111/16		
Н	131/32	21/16	2%32	2%32	21/4	3	2 3/4		

	Extra Heavy									
	2"	3"	4"	5"	6"	8"	10"	12"		
А	31/2	415/16	53/4	63/4	8	10	121/2	147/16		
D	23/8	31/2	47/32	5½	61/2	81/2	10¾	125/8		
F	2%32	31/2	413/32	5½	6½	85/16	1011/32	125/8		
G	33/16	41/2	57/16	63/16	73/8	91/2	11½	14		
Н	1%	21/4	21/4	21/2	21/2	3	3	3		



	Service								
	2"	3"	4"	5"	6"	8"	10"	12"	
А	31/2	47/8	53/4	63/4	8	10	121/4	143/8	
D	21/16	31/16	4	5	65/16	83/16	101/4	121/4	
F	2	31/16	4	5	65/16	83/16	10	12	
G	31/4	43/8	53/16	6	711/32	81/2	11½	14	
Н	13/32	13/4	13/4	21/16	25/32	21/2	21/2	27/8	

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.

Extra Heavy		
	4" XH	15" XH
А	61/8	17¾
D	41/4	1513/32
F	413/32	15
G	511/16	167/8
Н	113/16	31/4

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 defective 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.

4/20/21

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



P0 B0X 35430

CHARLOTTE

NORTH CAROLINA 28235

PHONE (704) 348-6450

(800) 438-6091

FAX (800) 553-1605

WWW.CHARLOTTEPIPE.COM



