

You can't beat the system.®

Submittal Package

Edge Service
HP IRON™

System

(Updated April 16, 2025)

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SUBMITTAL PACKAGE

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SUBMITTAL FOR CHARLOTTE PIPE® EDGE HP IRON SERVICE PIPE AND FITTINGS

Date: _____

Job Name: _____

Location: _____

Engineer: _____

Contractor: _____

► Scope:

This specification covers Edge HP Service 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, aggressive DWV applications.

► Specification:

Edge HP Iron Service pipe and fittings shall be marked with the collective trademark of the Cast Iron Soil Pipe Institute® and listed by NSF® International. The inside of each pipe shall be reamed prior to coating to decrease the coefficient of friction. The pipe coating shall consist of chemically deposited zinc-phosphate pretreatment layer followed by an electrically deposited, high performance cathodic epoxy coating, and finally an electrically deposited, high performance anodic epoxy top coat. The fitting coating shall consist of a chemically deposited zinc-phosphate pretreatment layer followed by an electrically deposited, high performance cathodic epoxy coating, and finally an epoxy acrylic powder top coat.

► Installation:

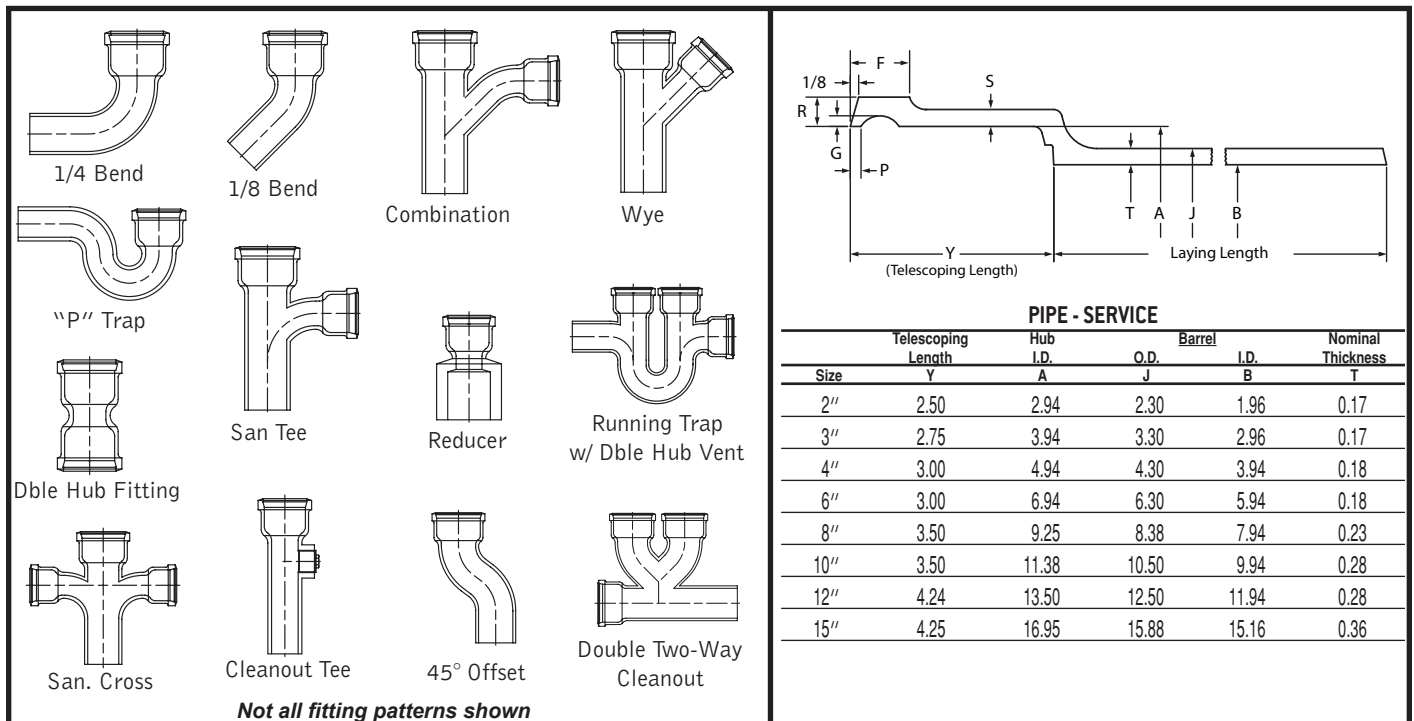
Installation shall comply with the latest installation instructions published by Charlotte Pipe and Foundry Company® and shall conform to all applicable plumbing, fire, and building code requirements. The system shall be hydrostatically tested after installation to 10 ft. of head (4.3 psi maximum).

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



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CHARLOTTE

PIPE AND FOUNDRY COMPANY®

Note: Dimensions and tolerances for Extra Heavy pipe and fittings are published in Charlotte Pipe's Cast Iron Dimensional Catalog and also Charlotte Pipe's Cast Iron Technical Manual.

CHARLOTTE® CAST IRON SOIL PIPE AND FITTINGS SPECIFICATIONS

This is to certify that products manufactured by Charlotte Pipe and Foundry, Cast Iron Division, are manufactured in the United States and conform to the following standards:

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 the performance requirements of EN 877
Listed by NSF® International to the UP Code
ISO 9001:2015 Certified
ICC-ES PMG-1082/1083

COMPRESSION GASKETS

ASTM C 564
CISPI HSN 85

Charlotte Pipe products are manufactured to the applicable ASTM 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.

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.

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

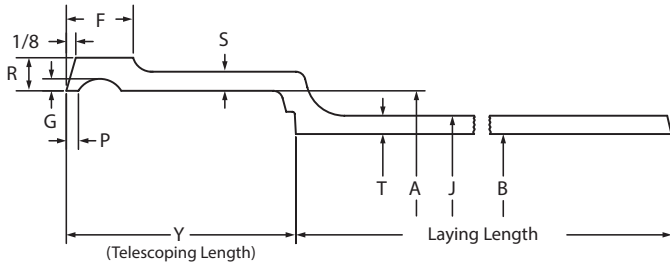
Composition of Gray Iron

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%

Service Edge[®]

HP 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.

Service Cast Iron Soil Pipe

Size ^A Availability ^B	Inside Diameter of Hub ^B	Outside Diameter of Barrel	Telescoping Length	Inside Diameter of Barrel	Thickness of Barrel	
	A	J	Y	B	T	
					Nom	Min
2"	2.94	2.30	2.50	1.96	0.17	0.14
3"	3.94	3.30	2.75	2.96	0.17	0.14
4"	4.94	4.30	3.00	3.94	0.18	0.15
6"	6.94	6.30	3.00	5.94	0.18	0.15
8"	9.25	8.38	3.50	7.94	0.23	0.17
10"	11.38	10.50	3.50	9.94	0.28	0.22
12"	13.50	12.50	4.25	11.94	0.28	0.22
15"	16.95	15.88	4.25	15.16	0.36	0.30

Size ^A	Thickness of Hub		Width of Hub Bead	Distance from Lead Groove to End, Pipe and Fittings ^B	Depth of Lead Groove	
	Hub Body	Over Bead				
	S (min)	R (min)	F(min)	P	G (min)	G (max)
2"	0.13	0.34	0.75	0.22	0.10	0.19
3"	0.16	0.37	0.81	0.22	0.10	0.19
4"	0.16	0.37	0.88	0.22	0.10	0.19
6"	0.18	0.37	0.88	0.22	0.10	0.19
8"	0.19	0.44	1.19	0.38	0.15	0.22
10"	0.27	0.53	1.19	0.38	0.15	0.22
12"	0.27	0.53	1.44	0.47	0.15	0.22
15"	0.30	0.58	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.

Service Edge

HP IRON™

Service Edge HP Soil Pipe

Part No. HP SV 3
Edge HP Pipe, 10' Lengths, Single Hub



Size	Weight
2"x10'	40.1
3"x10'	59.5
4"x10'	75.1
6"x10'	122.8
8"x10'	189.9
10"x10'	276.1
12"x10'	345.9
15"x10'	525.1

Part No. HP SV 4
Edge HP Pipe, 30" Lengths, Double Hub



Size	Weight
2"x30"	13.8
3"x30"	18.8
4"x30"	27.1
6"x30"	38.2

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



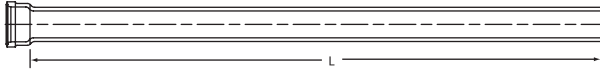
- NEVER test with or transport/store compressed air or gas in Cast Iron pipe or fittings.
- NEVER test Cast Iron pipe or fittings with compressed air or gas.
- ONLY use Cast Iron pipe and fittings for drain, waste and vent or sanitary sewer applications.

Service Edge

HP IRON™

Weights are approximate and are for shipping purposes only.

PART NO. HP SV 3



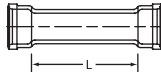
Edge HP Pipe, 10' Lengths, Single Hub

Size	L	Weight
2" x 10'	10'	40.1
3" x 10'	10'	59.5
4" x 10'	10'	75.1
6" x 10'	10'	122.8
8" x 10'	10'	189.9
10" x 10'	10'	276.1
12" x 10'	10'	345.9
15" x 10'	10'	525.1

PART NO. HP SV 4

Edge HP Pipe, 30" Lengths, Double Hub

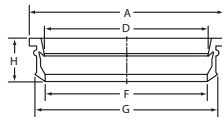
Size	L	Weight
2" x 30"	25"	13.8
3" x 30"	24 1/2"	18.8
4" x 30"	24"	27.1
6" x 30"	24"	38.2



PART NO. SV 900

Service Weight Charlotte Seal Gasket

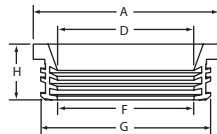
Size	A	D	F	G	H	Weight
2	3 1/2	2 3/16	2 1/8	3 1/8	1 31/32	0.3
3	4 1/2	3 3/16	3 1/8	4 1/8	2 1/16	0.4
4	5 1/2	4 3/16	4 1/8	5 1/4	2 9/32	0.5
6	7 1/2	6 3/16	6 1/8	7 1/4	2 1/4	0.8
8	9 3/4	8 13/32	8 9/16	9 9/32	3	1.5
10	12 7/16	10 1/2	10 5/16	11 11/16	2 3/4	2.4



PART NO. SV 950

Service Weight Quik-Tite Gasket

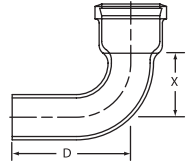
Size	A	D	F	G	H	Weight
2	3 1/2	2 1/16	2	3 1/4	1 3/32	0.3
3	4 7/8	3 1/16	3 1/16	4 3/8	1 3/4	0.4
4	5 3/4	4	4	5 9/16	1 3/4	0.5
6	8	6 5/16	6 5/16	7 11/32	2 5/32	0.8
8	10	8 3/16	8 3/16	8 1/2	2 1/2	1.5
10	12 1/4	10 1/4	10	11 1/2	2 1/2	2.3
12	14 3/8	12 1/4	12	14	2 7/8	3.0



PART NO. HP SV 5

Edge HP Quarter Bend

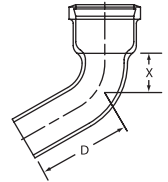
Size	D	X	Weight
2	6	3 1/4	5.1
3	7	4	7.7
4	8	4 1/2	13.1
6	9	5 1/2	21.7
8	11 1/2	6 5/8	39.9
10	12 1/2	7 5/8	57.3
12	15	8 3/4	90.9
15	(XH)	(XH)	(XH)



PART NO. HP SV 7

Edge HP Sixth Bend

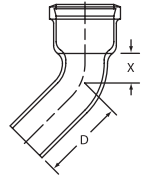
Size	D	X	Weight
2	4 3/4	2	4.3
3	5 1/2	2 1/2	6.9
4	6 5/16	2 13/16	10.8
6	6 7/8	3 3/8	16.4
8	9	4 1/8	32.5



PART NO. HP SV 8

Edge HP Eighth Bend

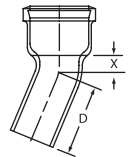
Size	D	X	Weight
2	4 1/4	1 1/2	4.2
3	4 15/16	1 15/16	6.5
4	5 1/16	2 3/16	10.7
6	6 1/16	2 9/16	16.6
8	8	3 1/8	32.3
10	8 3/8	3 1/2	44.1
12	10 5/16	4 1/16	70.4
15	(XH)	(XH)	(XH)



PART NO. HP SV 9

Edge HP Sixteenth Bend

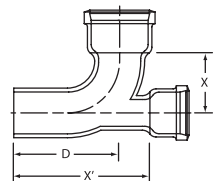
Size	D	X	Weight
2	3 5/8	7/8	3.4
3	4 9/16	1 3/16	6.0
4	4 13/16	1 5/16	8.8
6	5	1 1/2	13.8
8	6 11/16	1 13/16	26.0
10	6 7/8	2	37.1
12	8 5/8	2 3/8	63.3
15	(XH)	(XH)	(XH)



PART NO. HP SV 10

Edge HP Quarter Bend with Low Heel Inlet

Size	D	X	X'	Weight
3 x 2	7	4	9	9.8
4 x 2	8	4 1/2	10 1/2	13.0

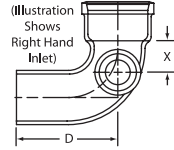


(XH) Please see Edge HP Extra Heavy dimensions

PART NO. HP SV 12

Edge HP Quarter Bend with Side Opening

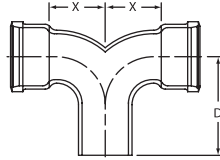
Size	D	X	Weight
4W2LH	8	3 1/2	16.2
4W2RH	8	3 1/2	16.5



PART NO. HP SV 15

Edge HP Double Quarter Bend

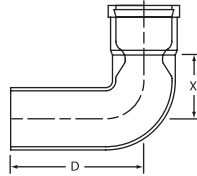
Size	D	X	Weight
4	8	4 1/2	16.1



PART NO. HP SV 18

Edge HP Reducing Quarter Bend

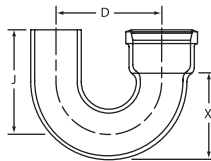
Size	D	X	Weight
3 x 2	7	3 3/8	6.3
4 x 2	7 1/2	4 1/2	11.7
4 x 3	8 1/8	4 3/8	9.1



PART NO. HP SV 23

Edge HP Single Hub Return Bend

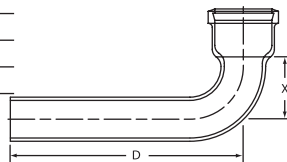
Size	D	X	J	Weight
3	5 5/8	5	5 7/8	10.0
4	7 1/2	6 11/32	7 9/16	16.4



PART NO. HP SV 25

Edge HP Long Quarter Bend

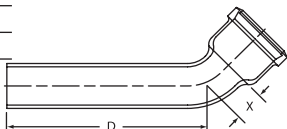
Size	D	X	Weight
2 x 12	12	3 1/4	6.9
3 x 12	12	4	10.3
4 x 12	12	4 1/2	15.4
4 x 16	16	4 1/2	20.4
4 x 18	18	4 1/2	21.4
4 x 24	24	4 1/2	27.9



PART NO. HP SV 26

Edge HP Long Eighth Bend

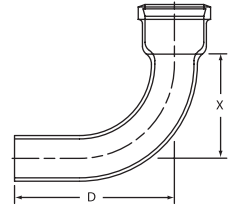
Size	D	X	Weight
2 x 12	12	1 1/2	6.2
3 x 12	12	1 5/16	10.6
3 x 18	18	1 5/16	12.4
4 x 12	12	2 3/16	15.6
4 x 18	18	2 3/16	20.6
6 x 18	18	2 9/16	29.3



PART NO. HP SV 29

Edge HP Short Sweep Bend

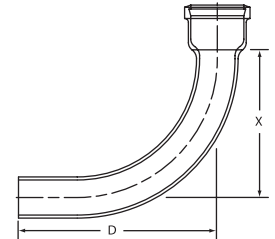
Size	D	X	Weight
2	8	5 1/4	6.2
3	9	6	9.4
4	10	6 1/2	16.6
6	11	7 1/2	26.6
8	13 1/2	8 5/8	39.5
10	14 1/2	9 5/8	75.3
12	17	10 3/4	109.3



PART NO. HP SV 30

Edge HP Long Sweep Bend

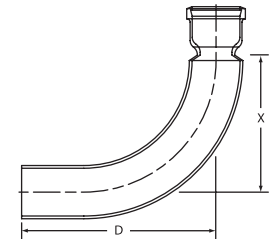
Size	D	X	Weight
2	11	8 1/4	7.6
3	12	9	12.2
4	13	9 1/2	21.2
6	14	10 1/2	29.9
8	16 1/2	11 5/8	52.9
10	17 1/2	12 5/8	82.6
12	20	13 3/4	103.5
15	(XH)	(XH)	(XH)



PART NO. HP SV 31

Edge HP Reducing Long Sweep Bend

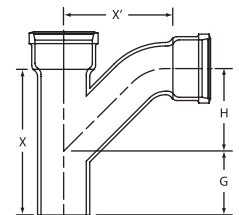
Size	D	X	Weight
3 x 2	12	9	11.2
4 x 3	13	9 1/2	17.6



PART NO. HP SV 32

Edge HP Combination Wye & Eighth Bend
(Charlotte Pattern)

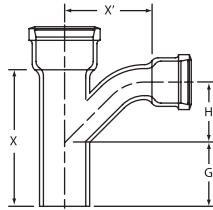
Size	G	H	X	X'	Weight
4	5 7/16	4 3/8	11 3/8	6 1/2	20.3



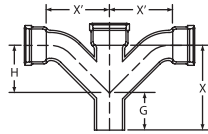
(XH) Please see Edge HP Extra Heavy dimensions

PART NO. HP SV 33**Edge HP Combination Wye & Eighth Bend
(Long Turn Pattern)**

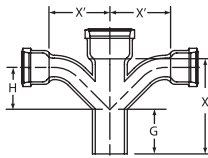
Size	G	H	X	X'	Weight
2 x 2	4	3 ³ / ₈	8	4 ⁷ / ₈	8.6
3 x 2	4 ⁹ / ₁₆	4	9	5 ³ / ₄	11.1
3 x 3	5	5 ¹ / ₁₆	10 ¹ / ₂	7	14.8
4 x 2	3 ¹ / ₁₆	4 ¹ / ₂	9	6 ¹ / ₄	15.5
4 x 3	4 ¹ / ₂	5 ⁹ / ₁₆	10 ¹ / ₂	7 ¹ / ₂	19.2
4 x 4	4 ¹ / ₂	7 ¹ / ₂	12	9	25.7
6 x 2	2 ¹ / ₁₆	5 ¹ / ₂	9	7 ¹ / ₄	19.6
6 x 3	3 ¹ / ₈	6 ⁹ / ₁₆	10 ¹ / ₂	8 ¹ / ₂	24.7
6 x 4	4 ¹ / ₄	7 ³ / ₁₆	12	10	31.7
6 x 6	5 ³ / ₄	10 ⁵ / ₁₆	15	12 ⁷ / ₈	44.1
8 x 2	3 ¹ / ₈	6 ¹ / ₂	10 ¹ / ₂	8 ¹ / ₄	34.0
8 x 4	4 ³ / ₄	8 ¹³ / ₁₆	13 ¹ / ₂	11	43.2
8 x 6	6 ⁵ / ₁₆	11 ⁵ / ₁₆	16 ¹ / ₂	13 ³ / ₈	55.7
8 x 8	7 ¹ / ₁₆	13 ³ / ₈	19 ¹ / ₂	17	85.6

**PART NO. HP SV 35****Edge HP Double Combination Wye & Eighth Bend
(Charlotte Pattern)**

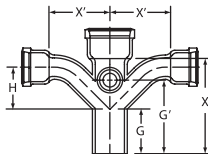
Size	G	H	X	X'	Weight
4	5 ⁷ / ₁₆	4 ³ / ₈	11 ³ / ₈	6 ¹ / ₂	26.6

**PART NO. HP SV 35 F****Edge HP Double Combination Wye & Eighth Bend
(Long Turn Pattern)**

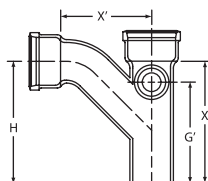
Size	G	H	X	X'	Weight
2 x 2	4	3 ³ / ₈	8	4 ⁷ / ₈	12.0
3 x 2	4 ⁹ / ₁₆	4	9	5 ³ / ₄	14.6
3 x 3	5	5 ¹ / ₁₆	10 ¹ / ₂	7	22.0
4 x 2	3 ¹ / ₁₆	4 ¹ / ₂	9	6 ¹ / ₄	19.7
4 x 3	4 ¹ / ₂	5 ⁹ / ₁₆	10 ¹ / ₂	7 ¹ / ₂	26.5
4 x 4	5 ¹ / ₄	6 ¹³ / ₁₆	12	9	36.2
6 x 4	4 ¹ / ₄	7 ¹³ / ₁₆	12	10	45.0
6 x 6	5 ³ / ₄	10 ⁵ / ₁₆	15	12 ⁷ / ₈	69.6

**PART NO. HP SV 35 F****Edge HP Double Combination Wye & Eighth Bend with 2" Cup Hub Inlet**

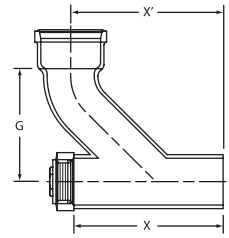
Size	G	G'	H	X	X'	Weight
4	4 ¹ / ₄	10	6 ¹³ / ₁₆	12	9	39.8

**PART NO. HP SV 39 A****Edge HP Combination Wye & Eighth Bend
with Side Inlet**

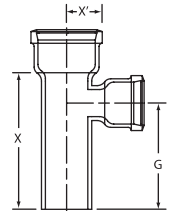
Size	G'	H	X	X'	Weight
4w/2RH	10	12 ¹ / ₁₆	12	9	27.3
4w/2LH	10	12 ¹ / ₁₆	12	9	28.3

**PART NO. HP SV 41****Edge HP Combination Wye & Eighth Bend
with Cleanout on Main**

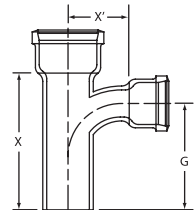
Size	IPS Tap	G	X	X'	Weight
4	3 ¹ / ₂	9	12 ³ / ₁₆	12 ¹ / ₄	19.6

**PART NO. HP SV 42****Edge HP Straight Tee**

Size	G	X	X'	Weight
2 x 2	6 ¹ / ₄	8	1 ³ / ₄	7.0
3 x 2	7	9	2 ¹ / ₂	9.0
3 x 3	7 ¹ / ₂	10	2 ¹ / ₂	11.3
4 x 2	7	9	3	12.7
4 x 3	7 ¹ / ₂	10	3	13.2
4 x 4	8	11	3	16.6
6 x 4	8	11	4	21.5
6 x 6	9	13	4	22.7
8 x 4	9 ⁵ / ₈	12 ⁷ / ₈	5 ¹ / ₄	33.2

**PART NO. HP SV 43****Edge HP Sanitary Tee**

Size	G	X	X'	Weight
2 x 2	6 ¹ / ₄	8	2 ³ / ₄	7.9
3 x 2	7	9	4	10.9
3 x 3	7 ¹ / ₂	10	4	11.9
4 x 2	7	9	4 ¹ / ₂	14.2
4 x 3	7 ¹ / ₂	10	4 ¹ / ₂	16.9
4 x 4	8	11	4 ¹ / ₂	18.6
6 x 2	7	9	5 ¹ / ₂	15.7
6 x 3	7 ¹ / ₂	10	5 ¹ / ₂	21.1
6 x 4	8	11	5 ¹ / ₂	22.8
6 x 6	9	13	5 ¹ / ₂	29.8
8 x 4	9 ³ / ₄	13	6 ¹ / ₂	35.7
8 x 6	10 ³ / ₄	15	6 ¹ / ₂	43.0
8 x 8	11 ³ / ₄	17	6 ⁵ / ₈	54.0
10 x 4	9 ³ / ₄	13	7 ¹ / ₂	52.0
10 x 6	10 ³ / ₄	15	7 ¹ / ₂	61.6
10 x 8	11 ³ / ₄	17	7 ⁵ / ₈	68.0
10 x 10	12 ³ / ₄	19	7 ⁵ / ₈	75.9
12 x 6	12	16 ¹ / ₂	8 ¹ / ₂	79.0
12 x 8	13	18 ¹ / ₂	8 ⁵ / ₈	94.6
12 x 10	14	20 ¹ / ₂	8 ⁵ / ₈	107.0
12 x 12	15	22 ¹ / ₂	8 ³ / ₄	124.6
15 x 6	12	16 ¹ / ₂	10	135.6
15 x 8	13	18 ¹ / ₂	10 ¹ / ₈	158.9
15 x 12	15	22 ¹ / ₂	10 ¹ / ₄	189.6
15 x 15	(XH)	(XH)	(XH)	(XH)

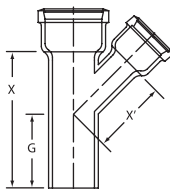


(XH) Please see Edge HP Extra Heavy dimensions

PART NO. HP SV 44

Edge HP Wye

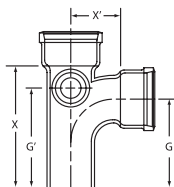
Size	G	X	X'	Weight
2 x 2	4	8	4	8.3
3 x 2	4 ³ / ₁₆	9	5	10.9
3 x 3	5	10 ¹ / ₂	5 ¹ / ₂	12.2
4 x 2	3 ⁵ / ₈	9	5 ³ / ₄	15.5
4 x 3	4 ⁷ / ₁₆	10 ¹ / ₂	6 ¹ / ₄	16.8
4 x 4	5 ¹ / ₄	12	6 ³ / ₄	21.9
6 x 2	2 ⁹ / ₁₆	9	7 ¹ / ₄	19.7
6 x 3	3 ³ / ₈	10 ¹ / ₂	7 ³ / ₄	23.7
6 x 4	4 ³ / ₁₆	12	8 ¹ / ₄	26.7
6 x 6	5 ³ / ₄	15	9 ¹ / ₄	36.5
8 x 2	3 ¹ / ₈	10 ¹ / ₂	8 ¹ / ₂	32.7
8 x 3	3 ¹⁵ / ₁₆	12	9	36.6
8 x 4	4 ³ / ₄	13 ¹ / ₂	9 ¹ / ₂	38.3
8 x 6	6 ⁵ / ₁₆	16 ¹ / ₂	10 ¹ / ₂	49.6
8 x 8	7 ¹¹ / ₁₆	19 ¹ / ₂	11 ¹³ / ₁₆	58.4
10 x 3	2 ³ / ₄	12	10 ³ / ₄	54.0
10 x 4	3 ⁹ / ₁₆	13 ¹ / ₂	11 ¹ / ₈	55.4
10 x 6	5 ¹ / ₈	16 ¹ / ₂	12 ¹ / ₈	67.6
10 x 8	6 ¹ / ₂	19 ¹ / ₂	13 ⁷ / ₁₆	86.9
10 x 10	8	22 ¹ / ₂	14 ¹ / ₂	111.1
12 x 4	4 ¹ / ₈	15	12 ⁷ / ₁₆	75.3
12 x 6	5 ¹¹ / ₁₆	18	13 ⁷ / ₁₆	94.2
12 x 8	7 ¹ / ₁₆	21	14 ³ / ₄	110.0
12 x 10	8 ⁹ / ₁₆	24	15 ¹³ / ₁₆	131.0
12 x 12	10 ¹ / ₈	27	16 ⁷ / ₈	162.0
15 x 4	6 ³ / ₈	15	15	138.5
15 x 6	4	18	15 ³ / ₄	153.6
15 x 8	5 ³ / ₈	21	17 ¹ / ₁₆	187.1
15 x 10	6 ⁷ / ₈	24	18 ¹ / ₈	225.0
15 x 12	8 ⁷ / ₁₆	27	19 ³ / ₁₆	244.4
15 x 15	(XH)	(XH)	(XH)	(XH)



PART NO. HP SV 56

Edge HP Sanitary Tee with Left Hand Side Inlet

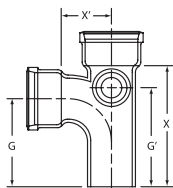
Size	G	G'	X	X'	Weight
4w/2	8	9	11	4 ¹ / ₂	20.2



PART NO. HP SV 56 B

Edge HP Sanitary Tee with Right Hand Side Inlet

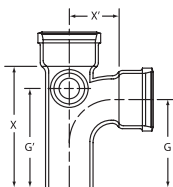
Size	G	G'	X	X'	Weight
4w/2	8	9	11	4 ¹ / ₂	21.5



PART NO. HP SV 56 C

Edge HP Sanitary Tee with Right and Left Hand Side Inlets

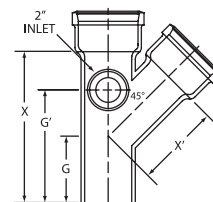
Size	G	G'	X	X'	Weight
4w/2	8	9	11	4 ¹ / ₂	23.1



PART NO. HP SV 57

Edge HP Wye with Left Hand Side Cup Hub Inlet

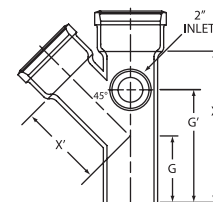
Size	G	G'	X	X'	Weight
4w/2	5 ¹ / ₄	10	12	6 ³ / ₄	23.8



PART NO. HP SV 57 A

Edge HP Wye with Right Hand Side Cup Hub Inlet

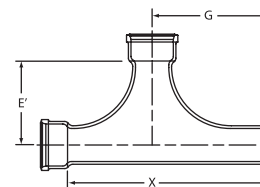
Size	G	G'	X	X'	Weight
4w/2	5 ¹ / ₄	10	12	6 ³ / ₄	23.8



PART NO. HP SV 71 A

Edge HP Single Two-Way Cleanout

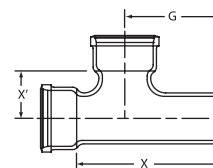
Size	X	E'	G	Weight
4	22 ⁷ / ₁₆	9 ³ / ₈	12 ³ / ₄	33.5



PART NO. HP SV 71 B

Edge HP Short Special Two-Way Cleanout

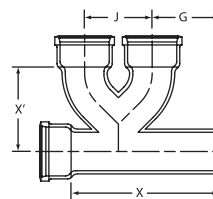
Size	G	X	X'	Weight
4	8	12	4	16.7



PART NO. HP SV 72

Edge HP Double Two-Way Cleanout

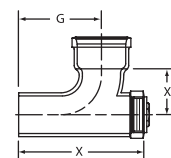
Size	G	J	X	X'	Weight
4	6 ¹ / ₂	6 ⁷ / ₁₆	13 ⁵ / ₈	7 ¹ / ₂	32.9
6 x 4 x 4	6 ¹ / ₂	6 ⁷ / ₁₆	13 ⁵ / ₈	8 ¹ / ₄	39.1



PART NO. HP SV 76

Edge HP Sanitary Tee with Cleanout on Main

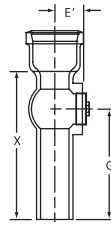
Size	IPS Tap	G	X	X'	Weight
4	3 ¹ / ₂	8	12 ¹ / ₈	4 ¹ / ₂	15.1



PART NO. HP SV 79

Edge HP Washington Test Tee with
Southern Raised-Head Brass Plug
Installed

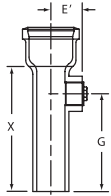
Size	IPS Tap	E'	G	X	Weight
2	2	1 ³ / ₄	7	9	6.5
3	4	2 ⁷ / ₈	7 ¹ / ₈	10 ³ / ₄	13.6
4	4	3 ¹ / ₄	7 ¹ / ₄	10 ⁵ / ₈	16.8
6	6	4	8 ³ / ₄	13	26.9
8	8	5	11	16 ³ / ₈	44.5



PART NO. HP SV 80

Edge HP Cleanout Tee with Southern
Raised-Head Brass Plug Installed

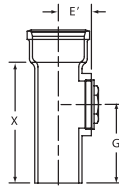
Size	IPS Tap	E'	G	X	Weight
3	2	2 ¹ / ₂	7	9	8.8
4	3	3	8	11	14.5
6	4	4 ¹ / ₄	9	13	25.3
12	8	8	13	18 ¹ / ₂	94.5



PART NO. HP SV 81 S

Edge HP Miami Test Tee with Southern
Raised-Head Brass Plug Installed

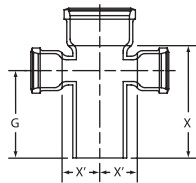
Size	IPS Tap	E'	G	X	Weight
2	2	2 ¹ / ₃₂	6 ¹ / ₂	9	7.3
3	3	2 ¹ / ₂	6 ⁵ / ₈	9 ⁵ / ₈	9.6
4	4	3	7 ¹ / ₄	11	16.4
6	6	4	9	13 ¹ / ₄	25.0



PART NO. HP SV 108

Edge HP Straight Cross

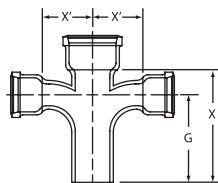
Size	G	X	X'	Weight
4 x 2	7	9	3	15.6
4	8	11	3	18.1



PART NO. HP SV 109

Edge HP Sanitary Cross

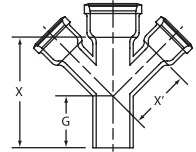
Size	G	X	X'	Weight
2	6 ¹ / ₄	8	2 ³ / ₄	10.8
3 x 2	7	9	4	13.7
3	7 ¹ / ₂	10	4	15.6
4 x 2	7	9	4 ¹ / ₂	14.6
4 x 3	7 ¹ / ₂	10	4 ¹ / ₂	20.0
4	8	11	4 ¹ / ₂	22.9
6 x 4	8	11	5 ¹ / ₂	29.0
6	9	13	5 ¹ / ₂	32.8
8	11 ³ / ₄	17	6 ⁵ / ₈	57.7



PART NO. HP SV 110

Edge HP Double Wye

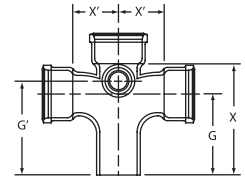
Size	G	X	X'	Weight
2	4	8	4	9.7
3 x 2	4 ³ / ₁₆	9	5	14.0
3	5	10 ¹ / ₂	5 ¹ / ₂	19.1
4 x 2	3 ⁵ / ₈	9	5 ³ / ₄	16.2
4 x 3	4 ⁷ / ₁₆	10 ¹ / ₂	6 ¹ / ₄	21.0
4	5 ¹ / ₄	12	6 ³ / ₄	27.2
6 x 3	3 ³ / ₈	10 ¹ / ₂	7 ³ / ₄	24.6
6 x 4	4 ³ / ₁₆	12	8 ¹ / ₄	31.8
6	5 ³ / ₄	15	9 ¹ / ₄	47.8
8 x 4	4 ³ / ₄	13 ¹ / ₂	9 ¹ / ₂	47.6
8 x 6	6 ⁵ / ₁₆	16 ¹ / ₂	10 ¹ / ₂	57.3
8	7 ¹ / ₁₆	19 ¹ / ₂	11 ³ / ₁₆	92.4
10 x 6	5 ¹ / ₈	16 ¹ / ₂	12 ¹ / ₈	73.7
10 x 8	6 ¹ / ₂	19 ¹ / ₂	13 ⁷ / ₁₆	99.0
10	8	22 ¹ / ₂	14 ¹ / ₂	159.6
12 x 6	5 ¹ / ₁₆	18	13 ⁷ / ₁₆	103.2
12 x 8	7 ¹ / ₁₆	21	14 ³ / ₄	125.1
12	10 ¹ / ₈	27	16 ⁷ / ₈	216.1
15	(XH)	(XH)	(XH)	(XH)



PART NO. HP SV 114

Edge HP Sanitary Cross with
2" Side Cup Hub Inlet

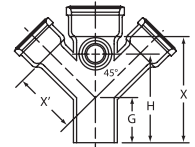
Size	G	G'	X	X'	Weight
4	8	9	11	4 ¹ / ₂	27.4



PART NO. HP SV 115

Edge HP Double Wye with
2" Side Cup Hub Inlet

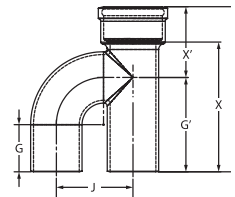
Size	G	H	X	X'	Weight
4 x 4	5 ¹ / ₄	10	12	6 ³ / ₄	31.8



PART NO. HP SV 134

Edge HP Vent Branch

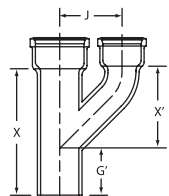
Size	X	X'	J	G	G'	Weight
4	11	6	6 ¹ / ₂	4	8	19.6



PART NO. HP SV 135

Edge HP "H" Branch

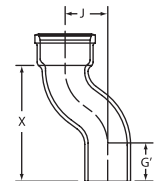
Size	X	X'	J	G	Weight
4 x 3	12 ³ / ₁₆	7 ⁹ / ₁₆	6	4 ¹ / ₂	17.0
4	13 ¹⁵ / ₁₆	8 ¹¹ / ₁₆	6 ¹ / ₂	5 ¹ / ₄	19.6



PART NO. HP SV 141

Edge HP 45° Offset

Size/Offset	X	G'	J	Weight
4 x 4	11	4	4	11.6
4 x 6	13	4	6	13.8
4 x 8	15	4	8	15.6

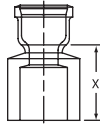


(XH) Please see Edge HP Extra Heavy dimensions

PART NO. HP SV 143

Edge HP Reducer

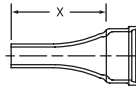
Size	X	Weight
3 x 2	4 ³ / ₄	4.6
4 x 2	5	6.0
4 x 3	5	7.0
6 x 2	5	8.2
6 x 3	5	9.9
6 x 4	5	10.4
8 x 3	6	14.3
8 x 4	6	16.6
8 x 6	6	16.8
10 x 4	6	20.0
10 x 6	6	22.2
10 x 8	6	26.5
12 x 4	6 ¹ / ₂	32.2
12 x 6	6 ¹ / ₂	34.4
12 x 8	6 ¹ / ₂	37.2
12 x 10	6 ¹ / ₂	38.4
15 x 6	6 ¹ / ₂	52.3
15 x 8	6 ¹ / ₂	50.1
15 x 10	6 ¹ / ₂	55.7
15 x 12	6 ¹ / ₂	68.7



PART NO. HP SV 144

Edge HP Increaser

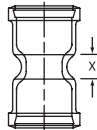
Size	X	Weight
2 x 4	9	9.4
3 x 4	9	8.8
4 x 6	9	15.2
4 x 8	12	25.9
6 x 8	12	24.0
8 x 10	12	40.3



PART NO. HP SV 153

Edge HP Double Hub Fitting

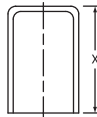
Size	X	Weight
2	1 ¹ / ₄	4.7
3	1 ¹ / ₄	7.0
4	1 ¹ / ₂	9.1
6	1 ¹ / ₂	13.3
8	1 ¹ / ₂	24.5
10	1 ¹ / ₂	36.3
12	1 ¹ / ₂	46.3
15	(XH)	(XH)



PART NO. HP SV 155

Edge HP Pipe Plug

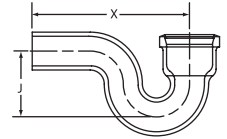
Size	X	Weight
2	3 ¹ / ₂	1.4
3	3 ³ / ₄	2.5
4	4	4.1
6	4	7.5
8	4 ¹ / ₂	12.4
10	4 ¹ / ₂	17.7
12	5 ¹ / ₄	25.9
15	(XH)	(XH)



PART NO. HP SV 169

Edge HP "P" Trap

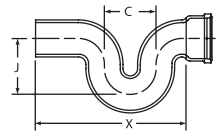
Size	J	X	Weight
2	4	9 ¹ / ₂	7.1
3	5 ¹ / ₂	12	13.1
4	6 ¹ / ₂	14	23.2
6	8 ¹ / ₂	17	42.0
8	10 ¹ / ₂	22 ¹ / ₁₆	86.2



PART NO. HP SV 170

Edge HP Running Trap

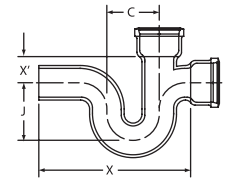
Size	X	C	J	Weight
4	17 ¹ / ₂	6	6 ¹ / ₂	19.3
6	21 ¹ / ₂	8	8 ¹ / ₂	45.1



PART NO. HP SV 174

Edge HP Running Trap with Single Hub Vent

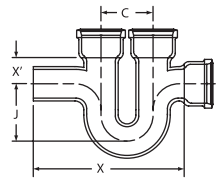
Size	Vent Size	C	J	X	X'	Weight
3	3	5	5 ¹ / ₂	15	2 ¹ / ₂	17.7
4	4	6	6 ¹ / ₂	17 ¹ / ₂	3	28.3
6	4	8	8 ¹ / ₂	21 ¹ / ₂	4	45.9
8	4	10	11	27 ⁵ / ₈	5 ¹ / ₄	104.3
8	6	10	11	27 ⁵ / ₈	5 ¹ / ₄	99.7



PART NO. HP SV 175

Edge HP Running Trap with Double Hub Vent

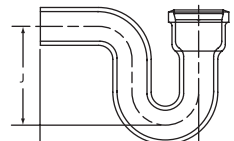
Size	Vent Size	C	J	X	X'	Weight
3	3	5	5 ¹ / ₂	15	2 ¹ / ₂	19.7
4	4	6	6 ¹ / ₂	17 ¹ / ₂	3	36.3
6	4	8	8 ¹ / ₂	21 ¹ / ₂	4	57.3
6	6	8	8 ¹ / ₂	21 ¹ / ₂	4	61.5
8	4	10	11	27 ⁵ / ₈	5 ¹ / ₄	104.3
8	6	10	11	27 ⁵ / ₈	5 ¹ / ₄	107.4
10	8	12	13	31 ⁵ / ₈	6 ¹ / ₄	187.0
12	10	15	15	38 ³ / ₄	7 ¹ / ₄	287.6
15	12	18 ¹ / ₂	18 ¹ / ₂	45	9	460.0



PART NO. HP SV 180

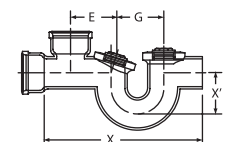
Edge HP Deep Seal "P" Trap

Size	X	J	Weight
2	9 ¹ / ₂	6	8.1
3	12	7	14.3
4	14	8	29.0
6	17	9 ¹ / ₂	40.4

PART NO. HP SV 184⁽¹⁾

Edge HP Improved Running Trap with Double Cleanout and Tee Branch

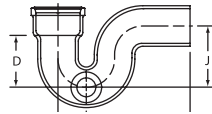
Vent Size	Size	E	G	X	X'	Weight
4	3	5 ¹ / ₄	6 ¹ / ₄	20 ¹ / ₂	5 ¹ / ₂	34.3
4	4	5 ³ / ₈	6 ¹ / ₄	20 ¹ / ₂	5 ¹ / ₂	32.3

⁽¹⁾ Note: 3¹/₂" IPS tap

PART NO. HP SV 188^(†)

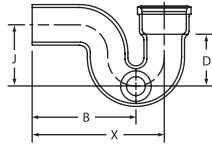
Edge HP "P" Trap with Cleanout Right Side

Size	X	J	B	D	Weight
4	14	6 1/2	11	5 1/2	20.5

Part No. HP SV 188 A^(†)

Edge HP "P" Trap with Cleanout Left Side

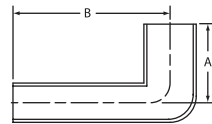
Size	X	J	B	D	Weight
4	14	6 1/2	11	5 1/2	19.4



PART NO. HP SV 200

Edge HP Closet Bend, Plain - Less Collar

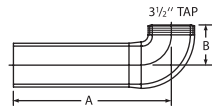
Size	A	B	Weight
3 x 4	6	12	10.7
3 x 4	6	16	12.0
3 x 4	8	18	14.0
3 x 4	10	16	16.1
3 x 4	12	12	15.9
3 x 4	16	16	20.6
3 x 4	18	18	22.6
3	16	16	16.7
4	4	12	11.5
4	4	16	14.3
4	4	18	17.3
4	6	12	12.5
4	6	16	16.9
4	6	18	14.0
4	8	16	18.4
4	8	18	19.8
4	10	12	14.5
4	10	16	19.6
4	12	12	14.0
4	12	16	20.8
4	12	18	19.0
4	14	16	22.6
4	14	18	24.0
4	16	16	23.8
4	16	18	24.6
4	18	18	27.4



PART NO. HP SV 206

Edge HP Tapped Closet Bend with Southern Code Brass Plug

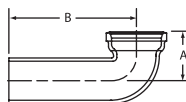
Size	A	B	Weight
3 1/2 x 4 x 4 x 18	18	4	17.7



PART NO. HP SV 208

Edge HP Hub-End Closet Bend, Low Hub

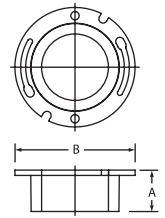
Size	A	B	Weight
4	4 5/8	12	14.2
4	4 5/8	14	15.4
4	4 5/8	16	17.5
4	4 5/8	18	18.9



PART NO. HP SPL 220*

Edge HP Notched and Slotted Closet Flange
(Fits over 4" pipe for caulked joints.)

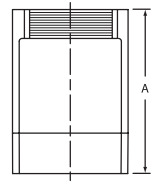
Size	A	B	Weight
4 x 1	1	7 9/16	2.2
4 x 2	2	7 9/16	3.0
4 x 2 1/2	2 1/2	7 9/16	3.6
4 x 3	3	7 9/16	4.5
4 x 4	4	7 9/16	4.7
4 x 6	6	7 9/16	5.3



PART NO. HP SV 228 S

Edge HP Iron Body Cleanout Ferrule with Southern Raised-Head Brass Plug Installed

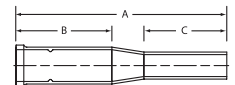
Size	Tap Size	A	Weight
2	1 1/2	3 1/2	1.4
3	2 1/2	3 3/4	2.4
4	3	4 1/4	4.1
6	5	4 1/4	6.5
8	6	4 1/2	13.9
10	6	4 1/2	18.5
12	6	5 1/4	27.7
4 x 12	3 1/2	12	9.9



PART NO. HP SV 253

Edge HP Sission Insertable Joint

Size	A	B	C	Weight
2	14	6	6	7.0
3	16	8	6 3/4	11.6
4	14 1/2	7	6	12.9
6	16 3/16	8 1/2	6	20.4
8	18	10	6 3/4	37.0



* Caulk type to go over pipe.

† Four-bolt pattern. Test cap configuration not offered.

‡ Three-bolt pattern. Available with or without test cap.

§ Three-bolt reducing pattern, with test cap.

^(†) Note: 3 1/2" IPS tap

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"-15" 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.

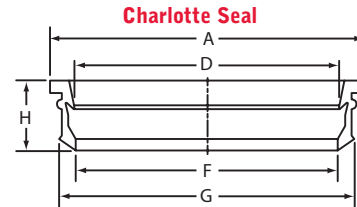
SUBMITTAL FOR CHARLOTTE® SEAL AND QUIK-TITE COMPRESSION GASKETS

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.



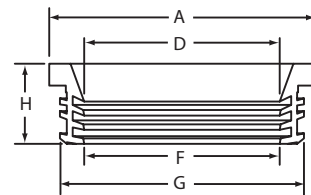
Dimensional Diagrams



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

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

Quik-Tite



Service						
	2"	3"	4"	6"	8"	10"
A	3½	4⅞	5¾	8	10	12¼
D	2⅞	3⅞	4	6⅞	8⅞	10¼
F	2	3⅞	4	6⅞	8⅞	10
G	3¼	4⅞	5⅞	7⅞	8½	11½
H	1⅜	1¾	1¾	2⅝	2½	2⅞

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

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.

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.

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.

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NOTES

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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NORTH CAROLINA 28235

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(800) 438-6091

FAX (800) 553-1605

WWW.CHARLOTTEPIPE.COM



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