

ChemDrain[®]

DC-CD

CHARLOTTE
PIPE AND FOUNDRY COMPANY

DIMENSIONAL CATALOG

ChemDrain[®] CPVC Chemical Waste Drain System

[Updated November 1, 2018]

You can't beat the system.®

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ChemDrain® CPVC Chemical Waste Drain System Dimensions



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

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Download our Tech Tools App for dimensional info, tech calculators and more on your mobile device.

This catalog accurately reflects dimensional information to the best of our knowledge. If the dimensions on your job are critical, please verify dimensional information with our factory.

This dimensional catalog accurately reflects our product line at the time the catalog was printed. However, we add items on an ongoing basis to better serve our customers. Please refer to our current list price sheets for an accurate listing of items offered.

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, or couplings not manufactured or sold by Charlotte Pipe and Foundry.

Charlotte Pipe and ChemDrain are registered trademarks of Charlotte Pipe and Foundry Company.

ChemDrain® CPVC Pipe

Possession of this price list shall not be construed as an offer to sell the products listed.
 ChemDrain is a registered trademark of Charlotte Pipe and Foundry Company.



ChemDrain® CPVC Schedule 40 Pipe, Type IV, Grade 1

ASTM F 2618

CPVC SCHEDULE 40 (LIGHT GRAY)			PLAIN END		CPVC 4120	
PART NO.	NOM. SIZE	UPC # 611942-	QTY. PER SKID	AVG. OD (IN.)	MIN. WALL (IN.)	WT. PER 100 FT. (LBS.)
AW 14015	1½" x 10'	10732	1650'	1.900	.145	55.3
AW 14002	2" x 10'	10733	1110'	2.375	.154	74.3
AW 14003	3" x 10'	10734	1040'	3.500	.216	154.2
AW 14004	4" x 10'	10735	600'	4.500	.237	219.6
AW 14006	6" x 10'	10736	330'	6.625	.280	386.1
AW 14008	8" x 10'	11363	180'	8.625	.322	581.1

NOTE: Full skids of pipe are polyethylene wrapped for cleanliness and UV protection.

NSF Listed. Meets All Requirements of ASTM F 2618.

WARNING

Testing with or use of compressed air or gas in PVC / ABS / CPVC 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 PVC / ABS / CPVC pipe or fittings.
- NEVER test PVC / ABS / CPVC pipe or fittings with compressed air or gas, or air over water boosters.
- ONLY use PVC / ABS / CPVC pipe or fittings for water or approved chemicals.
- Refer to warnings on PPFAs website and ASTM D 1785.

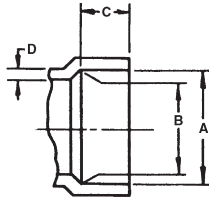
All products manufactured by Charlotte Pipe and Foundry Company are proudly made in the U.S.A.



ChemDrain® CPVC Fittings

CHEM
DRAIN
CPVC
FITTINGS

Hub Dimensions



CPVC

SIZE	A	B	C	D
1½	1.915	1.895	.687	.156
2	2.390	2.370	.750	.156
3	3.520	3.495	1.500	.218
4	4.520	4.495	1.750	.250
6	6.647	6.614	3.000	.281
8	8.655	8.610	4.000	.322

PART NO. AW 95C

**Transition Coupling - ChemDrain CPVC to
Steel, Cast Iron, Plain-end Glass or Any
Other Schedule 40 or 80 IPS Size
Plastic or Metallic Pipe
(300 Series Stainless Steel with
Fluoroelastomer Gasket)**

SIZE	SHIELD WIDTH	NUMBER OF CLAMPS
1½	2 ⅛	2
2	2 ⅛	2
3	2 ⅛	2
4	2 ⅛	2
6	3	4
8	4	4


PART NO. AW 96C

**Transition Coupling - ChemDrain CPVC to
Plain-end High-silicon Iron
(300 Series Stainless Steel with
Fluoroelastomer Gasket)**

SIZE	SHIELD WIDTH	NUMBER OF CLAMPS
2	2 ⅛	2
3	2 ⅛	2
4	2 ⅛	2

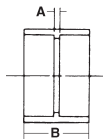

PART NO. AW 1C

ChemDrain Low-VOC Solvent Cement

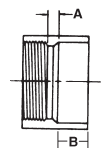


PART NO. AW 100C

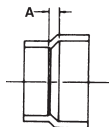
Coupling HUB X HUB		
SIZE	A	B
1½	1/8	1 ⁹ / ₁₆
2	15/64	1¾
3	3/16	3 ³ / ₁₆
4	¼	3¾
6	¼	6¼
8	¼	8¼


PART NO. AW 101C

Female Adapter FPT X HUB		
SIZE	A	B
1½	¼	¾
2	¼	7/8
3	5/16	1½
4	11/32	1¾
6	¼	3

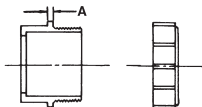

PART NO. AW 102C

Pipe Increaser-Reducer HUB X HUB	
SIZE	A
1½ x 2	17/32
1½ x 3	13/32
2 x 3	7/8
2 x 4	13/8
3 x 4	15/16
3 x 6	2
4 x 6	1¾

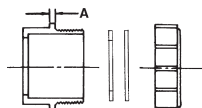


PART NO. AW 103PC
Trap Adapter-Male
 SPIGOT X SLIP WITH PLASTIC NUT

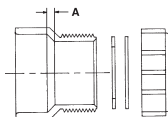
SIZE	A
1½	3/16


PART NO. AW 103RC
Trap Adapter-Male
 with 1½" Plastic Nut and Washer
 SPIGOT X SLIP WITH PLASTIC NUT

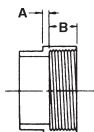
SIZE	A
1½	3/16


PART NO. AW 104RC
Trap Adapter-Female
 with 1½" Plastic Nut and Washer
 HUB X SLIP WITH PLASTIC NUT

SIZE	A
1½	3/16

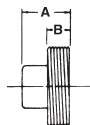

PART NO. AW 105XC
Fitting Cleanout Adapter
 with Cleanout Plug (See AW 106C Dimensions)
 SPIGOT X FPT

SIZE	A	B
1½	5/32	5/8
2	5/32	5/8
3	7/32	3/4
4	1/4	7/8
6	5/16	17/16

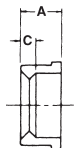


PART NO. AW 106C
Cleanout Plug
 MPT

SIZE	A	B
1½	1¾	5/8
2	1¾	5/8
3	1¾	¾
4	1¾	7/8
6	2	1


PART NO. AW 107C
Flush Bushing
 SPIGOT X HUB

SIZE	A	C
2 x 1½	1/16	5/16
3 x 1½	1¾	1
3 x 2	1¾	7/8
4 x 2	2	1 1/8
4 x 3*	1 51/64	1/4
6 x 3	3 13/32	1 57/64
6 x 4	3 1/2	1 3/4
8 x 4	4 5/8	2 7/8
8 x 6	4 9/16	1 5/8

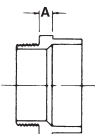


* 4 x 3 differs slightly in appearance

PART NO. AW 109C
Male Adapter
 MPT X HUB

(Note: Not a trap adapter. Will not accept a tail piece.)

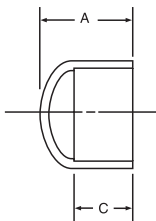
SIZE	A
1½	3/16
2	3/16
3	3/8
4	3/8
6	1 1/16



(Octagon shoulders for tightening purposes.)

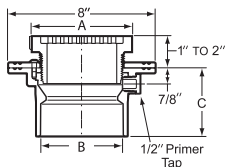
PART NO. AW 116C

SIZE	Cap SOCKET	
	A	C
1½	1 ¹⁵ / ₁₆	1 ⁵ / ₁₆
2	2 ⁵ / ₃₂	1 ³ / ₈
3	2 ¹⁵ / ₁₆	1 ²⁹ / ₃₂
4	3 ¹ / ₈	2 ¹ / ₃₂
6	4 ³ / ₄	3 ⁵ / ₈


PART NO. AW 150MC

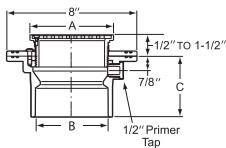
**Floor Drain with CPVC Adjustable Top
with 5" Round Grate and Membrane Collar**

SIZE	A	B	C
1½ x 5	5	1½	4 ³ / ₁₆


PART NO. AW 160MS**

**Floor Drain with Stainless Steel
Adjustable Top with 6" Round Grate and
Membrane Collar**

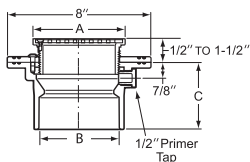
SIZE	A	B	C
1½ x 6	6	1½	4 ³ / ₁₆



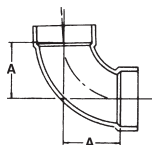
** Floor drains with Stainless Steel tops are rated as "Heavy Duty" per ASME A 112.6.3. Stainless Steel drain tops, grates on floor drains and floor cleanouts are purchased items and not of domestic manufacture.

PART NO. AW 180MS**
**Floor Drain with Stainless Steel
Adjustable Top with 8" Round Grate
and Membrane Collar**

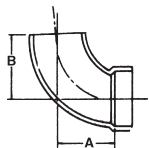
SIZE	A	B	C
1½ X 8	8	1½	4 ³ / ₁₆
2 X 8	8	2	4


PART NO. AW 300C
**1/4 Bend
(Sanitary 90° Ell)
ALL HUB**

SIZE	A
1½	1¾
2	2 ⁵ / ₁₆
3	3 ¹ / ₁₆
4	3 ⁷ / ₈
6	5
8	6


PART NO. AW 302C
**1/4 Bend, Street
(Sanitary 90° Street Ell)
SPIGOT X HUB**

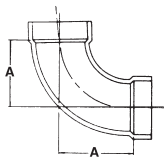
SIZE	A	B
1½	1¾	2½
2	2 ⁵ / ₁₆	3 ³ / ₁₆
3	3 ¹ / ₁₆	4 ⁹ / ₁₆
4	3 ⁷ / ₈	5 ⁵ / ₈
6	5 ³ / ₁₆	8 ¹ / ₈



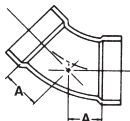
** Floor drains with Stainless Steel tops are rated as "Heavy Duty" per ASME A 112.6.3. Stainless Steel drain tops, grates on floor drains and floor cleanouts are purchased items and not of domestic manufacture.

PART NO. AW 304C
Long Sweep 1/4 Bend
 HUB X HUB

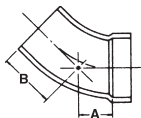
SIZE	A
1½	2¾
2	3¼
3	4 ¹ / ₁₆
4	4 ¹⁵ / ₁₆


PART NO. AW 321C
1/8 Bend
 (45° Ell)
 HUB X HUB

SIZE	A
1½	1 ¹ / ₈
2	1½
3	1¾
4	2 ³ / ₁₆
6	2 ¹ / ₁₆
8	2 ¹ / ₁₆


PART NO. AW 323C
1/8 Bend, Street
 (45° Street Ell)
 SPIGOT X HUB

SIZE	A	B
1½	1 ¹ / ₈	1 ⁷ / ₈
2	1½	2 ³ / ₈
3	1¾	3¼
4	2 ³ / ₁₆	3 ¹⁵ / ₁₆
6	2 ¹ / ₁₆	5 ¹⁵ / ₆₄
8	2	6 ³ / ₃₂



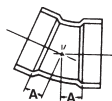
PART NO. AW 324C

1/16 Bend

(22½° Ell)

HUB X HUB

SIZE	A
1½	½
2	11/16
3	13/16
4	1
6	1½



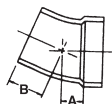
PART NO. AW 326C

1/16 Bend, Street

(22½° Street Ell)

SPIGOT X HUB

SIZE	A	B
1½	½	1¼
2	11/16	1½
3	13/16	25/16
4	1	2¾
6	1½	53/64
8	1¾	55/8

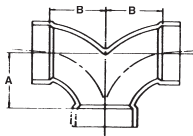


PART NO. AW 327C

Double 1/4 Bend

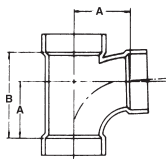
ALL HUB

SIZE	A	B
1½	1¾	1¾
2	25/16	25/16
3	31/16	31/16

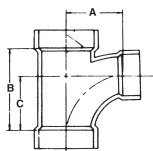


PART NO. AW 400C
Sanitary Tee
 ALL HUB

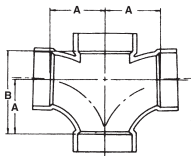
SIZE	A	B
1½	1¾	2¾
2	2 ⁵ / ₁₆	3 ¹¹ / ₁₆
3	3 ¹ / ₁₆	4 ⁷ / ₈
4	3 ⁷ / ₈	6 ¹ / ₈
6	5	8½
8	6	10½


PART NO. AW 401C
Sanitary Tee, Reducing
 ALL HUB

SIZE	A	B	C
2 x 1½ x 1½	2 ³ / ₁₆	3 ¹ / ₈	1 ¹⁵ / ₁₆
2 x 1½ x 2	2 ⁵ / ₁₆	3 ¹¹ / ₁₆	2 ⁵ / ₁₆
2 x 2 x 1½	2 ³ / ₁₆	3 ¹ / ₈	1 ¹⁵ / ₁₆
3 x 3 x 1½	2 ⁹ / ₁₆	2 ¹¹ / ₁₆	1¾
3 x 3 x 2	2 ⁷ / ₈	3 ⁵ / ₁₆	2 ¹ / ₈
4 x 4 x 2	3 ⁵ / ₁₆	3 ³ / ₁₆	2 ¹ / ₁₆
4 x 4 x 3	3 ⁹ / ₁₆	4¾	3
6 x 6 x 4	4 ²⁷ / ₃₂	6 ³ / ₆₄	3 ²⁵ / ₃₂
8 x 8 x 4	8¼	6¾	4 ¹ / ₈


PART NO. AW 428C
Double Sanitary Tee
 (Sanitary Cross)
 ALL HUB

SIZE	A	B
1½	1¾	2¾
2	2 ⁵ / ₁₆	3 ¹¹ / ₁₆
3	3 ¹ / ₁₆	4 ⁷ / ₈
4	3 ⁷ / ₈	6 ¹ / ₈



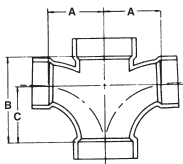
PART NO. AW 429C

Double Sanitary Tee, Reducing

(Sanitary Cross)

ALL HUB

SIZE	A	B	C
2 X 2 X 1½ X 1½	2 ³ / ₁₆	3 ¹ / ₈	1 ¹⁵ / ₁₆
3 X 3 X 1½ X 1½	2 ⁹ / ₁₆	2 ¹¹ / ₁₆	1 ³ / ₄
3 X 3 X 2 X 2	2 ⁷ / ₈	3 ⁵ / ₁₆	2 ¹ / ₈
4 X 4 X 2 X 2	3 ⁵ / ₁₆	3 ³ / ₁₆	2 ¹ / ₁₆
4 X 4 X 3 X 3	3 ⁹ / ₁₆	4 ³ / ₄	3



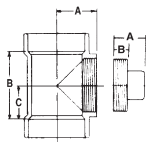
PART NO. AW 444XC

Cleanout Tee

with Cleanout Plug

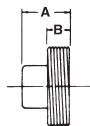
HUB X HUB X FPT

SIZE	A	B	C
1½	1 ¹⁵ / ₁₆	2 ³ / ₈	1 ³ / ₁₆
2	2 ¹ / ₄	3	1½
3	2 ¹¹ / ₁₆	3 ⁷ / ₈	1 ¹⁵ / ₁₆
4	3 ³ / ₈	5 ¹ / ₈	2 ⁹ / ₁₆
6	4	8	4


Cleanout Plug

MPT

SIZE	A	B
1½	1 ³ / ₈	5 ⁵ / ₈
2	1 ³ / ₈	5 ⁵ / ₈
3	1 ³ / ₄	3 ³ / ₄
4	1 ⁷ / ₈	7 ⁷ / ₈
6	2	1

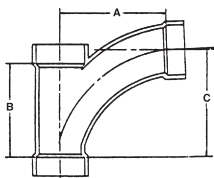


PART NO. AW 501C
Combination Wye and 1/8 Bend

(One Piece)

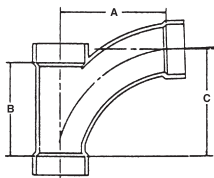
ALL HUB

SIZE	A	B	C
1½	3 ⁵ / ₁₆	3½	3 ¹⁵ / ₁₆
2	5 ¹ / ₈	4 ⁷ / ₁₆	5 ¹ / ₈
3	7 ⁹ / ₁₆	6½	7 ⁹ / ₁₆
4	10	8½	10


PART NO. AW 502C
Combination Wye and 1/8 Bend,
Reducing
 (One Piece)

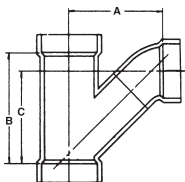
ALL HUB

SIZE	A	B	C
2 x 1½ x 1½	4 ³ / ₁₆	3½	3 ¹⁵ / ₁₆
2 x 2 x 1½	4 ³ / ₁₆	3½	3 ¹⁵ / ₁₆
3 x 3 x 1½	4¾	3½	3 ¹⁵ / ₁₆
3 x 3 x 2	5 ¹¹ / ₁₆	4 ⁷ / ₁₆	5 ¹ / ₈
4 x 4 x 2	6 ¹ / ₈	4½	5 ¹ / ₈
4 x 4 x 3	8 ¹ / ₁₆	6½	7 ⁹ / ₁₆


PART NO. AW 503C
Combination Wye and 1/8 Bend

ALL HUB

SIZE	A	B	C
6**	11 ¹⁵ / ₃₂	10 ⁵ / ₃₂	11 ⁹ / ₆₄
8**	14 ¹⁹ / ₃₂	14 ¹ / ₃₂	14 ²³ / ₃₂



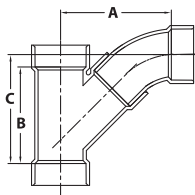
** Two pieces

PART NO. AW 504C
**Combination Wye and 1/8 Bend,
 Reducing
 ALL HUB**

SIZE	A	B	C
6 x 6 x 3**	9 ³ / ₈	7 ⁵ / ₆₄	7 ¹⁹ / ₃₂
6 x 6 x 4*	8 ¹⁵ / ₁₆	8 ⁵ / ₈	7 ¹³ / ₁₆

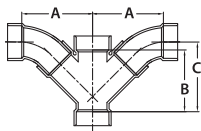
* One piece short pattern

** Two pieces


PART NO. AW 507C
**Double Combination Wye and 1/8 Bend
 ALL HUB**

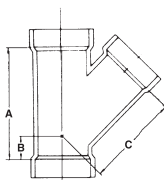
SIZE	A	B	C
1 ¹ / ₂ †	3 ³ / ₈	3 ⁷ / ₈	3 ³ / ₈
2†	5 ¹⁷ / ₆₄	5 ³ / ₈	4 ²⁷ / ₆₄
2x2x1 ¹ / ₂ x1 ¹ / ₂ †	4 ⁵ / ₃₂	4 ⁷ / ₃₂	3 ⁶¹ / ₆₄
3†	6 ¹ / ₄	7 ⁵ / ₈	6 ⁵ / ₁₆
3x3x2x2†	6 ⁵ / ₆₄	5 ⁵ / ₃₂	5 ¹¹ / ₆₄
4†	9 ¹³ / ₃₂	8 ³ / ₁₆	9 ⁵ / ₃₂
4x4x2x2†	7 ⁵ / ₁₆	5	6
4x4x3x3†	8 ¹⁹ / ₆₄	6 ⁹ / ₁₆	7 ¹⁹ / ₃₂
6†	11 ²¹ / ₃₂	11 ¹¹ / ₃₂	10 ³ / ₁₆
6x6x3x3†	12 ¹ / ₈	10 ⁹ / ₆₄	11 ⁵ / ₈
6x6x4x4†	12 ¹ / ₈	10 ⁹ / ₆₄	11 ⁵ / ₈

† Three pieces.

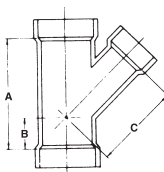


PART NO. AW 600C

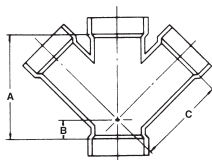
SIZE	Wye (45° Wye) ALL HUB		
	A	B	C
1½	4	1⅛	2⅞
2	5	1⅜	3⅝
3	6⅝	1⅝	5
4	8¼	1⅞	6⅜
6	10 ³ / ₁₆	1¾	8 ⁷ / ₁₆
8	14⅛	2⅜	11¾


PART NO. AW 601C

SIZE	Wye, Reducing (45° Wye) ALL HUB		
	A	B	C
2 x 1½ x 1½	3½	1 ¹ / ₁₆	2 ¹⁵ / ₁₆
2 x 2 x 1½	4½	1	3 ⁷ / ₁₆
3 x 3 x 1½	4¼	½	4 ⁵ / ₁₆
3 x 3 x 2	5	7/8	4 ⁵ / ₈
4 x 4 x 2	5 ¹ / ₁₆	3/8	5 ⁹ / ₁₆
4 x 4 x 3	6 ⁵ / ₈	1 ¹ / ₁₆	6
6 x 6 x 4	6 ⁷ / ₈	3/16	7½
8 x 8 x 4	10 ½	1	11 ⁹ / ₁₆
8 x 8 x 6	10½	1	9 ¹³ / ₁₆

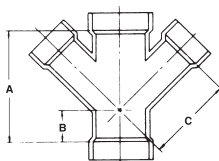

PART NO. AW 611C

SIZE	Double Wye (Double 45° Wye) ALL HUB		
	A	B	C
1½	4	1⅛	2⅞
2	5	1⅜	3⅝
3	6⅝	1⅝	5
4	8¼	1⅞	6⅜
6	10 ³ / ₁₆	1¾	8 ⁷ / ₁₆

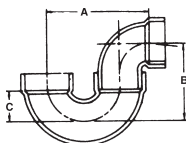


PART NO. AW 612C
Double Wye, Reducing
 (Double 45° Wye)

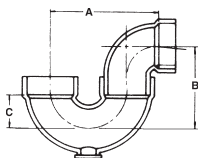
SIZE	ALL HUB		
	A	B	C
2 x 2 x 1½ x 1½	4 ³ / ₈	1 ¹ / ₁₆	3 ⁷ / ₁₆
3 x 3 x 2 x 2	5	7 ⁷ / ₈	4 ⁵ / ₈
4 x 4 x 3 x 3	6 ⁵ / ₈	1 ¹ / ₁₆	6
6 x 6 x 4 x 4	10 ³ / ₁₆	1 ³ / ₄	10 ³ / ₁₆


PART NO. AW 706XC
P-Trap with Solvent Weld Joint

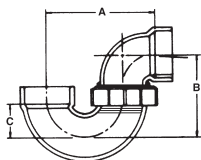
SIZE	HUB X HUB		
	A	B	C
1½	4 ⁵ / ₈	3 ¹⁵ / ₁₆	1¾
2	6 ¹³ / ₁₆	4 ⁷ / ₈	2 ³ / ₈
3	8 ¹⁵ / ₁₆	6 ¹⁵ / ₁₆	3 ¹ / ₁₆
4	11 ¹ / ₁₆	8 ⁷ / ₁₆	3 ¹¹ / ₁₆


PART NO. AW 707XC
**P-Trap with Cleanout,
Solvent Weld Joint**

SIZE	HUB X HUB		
	A	B	C
1½	4 ⁵ / ₈	3 ¹⁵ / ₁₆	1¾
2	6 ¹³ / ₁₆	4 ⁷ / ₈	2 ³ / ₈


PART NO. AW 708PC
P-Trap with Union
 HUB X HUB WITH PLASTIC NUT

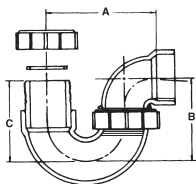
SIZE	HUB X HUB WITH PLASTIC NUT		
	A	B	C
1½	4 ⁵ / ₈	3 ¹⁵ / ₁₆	1¾
2	6 ¹³ / ₁₆	4 ⁷ / ₈	2 ³ / ₈



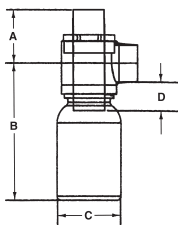
PART NO. AW 711PC
L.A. Pattern P-Trap with Union
 SLIP X HUB WITH PLASTIC NUTS

SIZE	A	B	C
1½	4⅝	3 ¹⁵ / ₁₆	3¾

§ Nut is sized to fit tubular sink tailpieces.

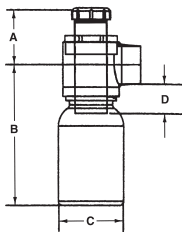

PART NO. AW 712C
Jar Trap
 SLIP X HUB

SIZE	A	B	C	D
1½	3⅛	8¼	3⅞	2


PART NO. AW 712PC
Jar Trap with Tail Piece Adaptor
 SLIP X HUB WITH PLASTIC NUTS

SIZE	A	B	C	D
1½	3 ⁵ / ₁₆	8 ⁵ / ₃₂	3⅞	2

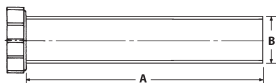
§ Nut is sized to fit tubular sink tailpieces.


PART NO. AW 1512PC
CPVC Tail Piece with Nut‡
 (May be cut to length)

Supplied with a Fluoroelastomer Gasket

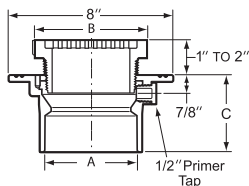
SIZE	A	B
1½ X 12	12	1½

‡ Tubular O.D.

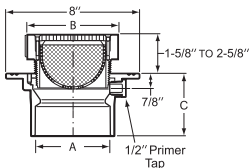


PART NO. AW 1500C*
**Floor Drain with CPVC Adjustable Top
with 5" Round Grate**

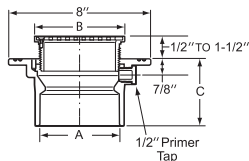
SIZE	A	B	C
1½ x 5	1½	5	4¾


PART NO. AW 1520C*
**Floor Drain with CPVC Adjustable Top
with 5" Round Grate and Strainer**

SIZE	A	B	C
1½ x 5	1½	5	4¾
2 x 5	2	5	4


PART NO. AW 1600S**
**Floor Drain with Stainless Steel
Adjustable Top with 6" Round Grate**

SIZE	A	B	C
1½ x 6	1½	6	4¾

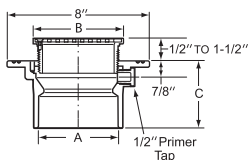
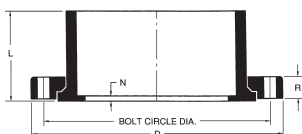


* Floor drains with CPVC tops are rated as "Light Duty" per ASME A 112.6.3. Any metallic screws or hardware are 304 SS. All floor drains are supplied with ½" FPT tapped connection for a trap primer. All drains and clean-outs are based on 4" body with smaller connection sizes factory bushed.

** Floor drains with Stainless Steel tops are rated as "Heavy Duty" per ASME A 112.6.3. Stainless Steel drain tops, grates on floor drains and floor cleanouts are purchased items and not of domestic manufacture.

PART NO. AW 1800S**
**Floor Drain with Stainless Steel
Adjustable Top with 8" Round Grate**

SIZE	A	B	C
1½ X 8	1½	8	4 ³ / ₁₆


PART NO. AW 8530C

**Van Stone Flange
SOCKET**

Size	D	L	N	R
1½	4 ¹⁵ / ₁₆	1 ⁹ / ₁₆	3/ ₃₂	23/ ₃₂
2	5 ⁷ / ₈	2 ²³ / ₃₂	3/ ₃₂	13/ ₁₆
3	7 ⁷ / ₁₆	2 ¹ / ₈	1/ ₈	29/ ₃₂
8	13 ¹¹ / ₃₂	4 ⁵ / ₁₆	3/ ₁₆	1 ¹ / ₂

Size	BOLT CIRCLE DIA.	BOLT HOLE DIA.	NO. OF BOLT HOLES	BOLT DIA.	MIN. BOLT LENGTH*
1½	3 ⁷ / ₈	5/ ₈	4	1/ ₂	2 ¹ / ₂
2	4 ³ / ₄	3/ ₄	4	5/ ₈	3
3	6 ⁵ / ₈	3/ ₄	4	5/ ₈	3 ¹ / ₄
8	11 ³ / ₄	29/ ₃₂	8	3/ ₄	4 ¹ / ₂

* Bolt lengths were calculated using two Charlotte flanges.
Lengths may vary when mating with other brands or accessories.

** Floor drains with Stainless Steel tops are rated as "Heavy Duty" per ASME A 112.6.3. Stainless Steel drain tops, grates on floor drains and floor cleanouts are purchased items and not of domestic manufacture.

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.

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

WARNING

Testing with or use of compressed air or gas in PVC / ABS / CPVC / 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 PVC / ABS / CPVC / Cast Iron pipe or fittings.
- NEVER test PVC / ABS / CPVC / Cast Iron pipe or fittings with compressed air or gas, or air over water boosters.
- ONLY use PVC / ABS / CPVC / Cast Iron pipe or fittings for water or approved chemicals.
- Refer to warnings on PPFA's website and ASTM D 1785.

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.

4/24/15

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