

CHARLOTTE
PIPE AND FOUNDRY COMPANY

DIMENSIONAL CATALOG

[Updated May 2004]

Plastics

DC-PL-F

You can't beat the system.®

© 1977-2004 Charlotte Pipe and Foundry Company

Plastic Pipe and Fitting Dimensions

Table of Contents

	<u>Page</u>
ABS "Foam Core" Schedule-40 DWV Pipe Dimensions.....	1
PVC "Foam Core" Schedule-40 DWV Pipe Dimensions.....	2
PVC Schedule-40 DWV and Pressure Pipe Dimensions.....	3-4
Well Casing Dimensions	5
D 3034 PVC Sewer Pipe Dimensions	6
"Foam Core" PVC Gravity Sewer Pipe ASTM F 891 Dimensions	7
PVC and ABS DWV Fittings Dimensions	8-17
PVC and ABS Pipe and Fittings Installation Instructions	18
Warranty	20

This catalog accurately reflects dimensional information to the best of our knowledge. If 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 and delete 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, gaskets, or couplings not manufactured or sold by Charlotte Pipe and Foundry.

ABS Foam Core

Possession of this price list shall not be construed as an offer to sell the products listed.



ABS Schedule 40 DWV Pipe (For Non-Pressure Applications)

ABS SCHEDULE 40 FOAM CORE (BLACK)				PLAIN END			ASTM F 628	
PART NO.	NOM. SIZE	UPC # 611942-	QTY. PER SKID	TRUCKLOAD PERCENT PER SKID	AVG. OD (IN.)	MIN. WALL (IN.)	WT. PER 100 FT. (LBS.)	LIST PRICE PER 100 FT.
ABS 3112	1½" x 10'	03132	1720	2.083	1.900	0.156	28.1	\$113.20
ABS 3112	1½" x 20'	03133	3440	4.165	1.900	0.156	28.1	\$113.20
ABS 3200	2" x 10'	03134	990	1.780	2.375	0.156	37.7	\$151.90
ABS 3200	2" x 20'	03135	1980	3.570	2.375	0.156	37.7	\$151.90
ABS 3300	3" x 10'	03136	1040	4.160	3.500	0.218	77.9	\$314.00
ABS 3300	3" x 20'	03137	920	3.570	3.500	0.218	77.9	\$314.00
ABS 3400	4" x 10'	03138	600	4.160	4.500	0.250	111.4	\$449.00
ABS 3400	4" x 20'	03139	1200	7.144	4.500	0.250	111.4	\$449.00
ABS 3600	6" x 10'	03140	280	4.160	6.625	0.281	196.2	\$914.70
ABS 3600	6" x 20'	03141	560	8.330	6.625	0.281	196.2	\$914.70

NOTE: For truckloads of mixed sizes, multiply skids desired by truckload percent per skid.

All Charlotte Pipe and Foundry Company Products are made in U.S.A.



NSF Listed. Meets All Requirements of ASTM F 628.

You can't beat the system.®

ABS Pipe is not recommended for use with compressed air or gases.

PVC Foam Core

Possession of this price list shall not be construed as an offer to sell the products listed.



PVC Schedule 40 DWV Pipe (For Non-Pressure Applications)

PVC SCHEDULE 40 FOAM CORE (WHITE)				PLAIN END			ASTM F 891	
PART NO.	NOM. SIZE	UPC # 611942-	QTY. PER SKID	TRUCKLOAD PERCENT PER SKID	AVG. OD (IN.)	MIN. WALL (IN.)	WT. PER 100 FT. (LBS.)	LIST PRICE PER 100 FT.
PVC 4112	1 1/2" x 10'	04178	1720	2.083	1.900	0.145	38.1	\$89.00
PVC 4112	1 1/2" x 20'	04177	3440	4.165	1.900	0.145	38.1	\$89.00
PVC 4200	2" x 10'	04174	990	1.780	2.375	0.154	51.2	\$120.00
PVC 4200	2" x 20'	04173	1980	3.570	2.375	0.154	51.2	\$120.00
PVC 4300	3" x 10'	03934	1040	4.160	3.500	0.216	105.0	\$245.00
PVC 4300	3" x 20'	03935	920	3.570	3.500	0.216	105.0	\$245.00
PVC 4400	4" x 10'	03936	600	4.160	4.500	0.237	146.0	\$336.00
PVC 4400	4" x 20'	03937	1200	7.144	4.500	0.237	146.0	\$336.00
PVC 4600	6" x 10'	03938	280	4.160	6.625	0.280	247.0	\$569.00
PVC 4600	6" x 20'	03939	560	8.330	6.625	0.280	247.0	\$569.00
PVC 4800	8" x 20'	03941	360	8.330	8.625	0.322	371.0	\$854.00
PVC 4910	10" x 20'	03942	220	8.330	10.750	0.365	566.0	\$1,425.00
PVC 4912	12" x 20'	03943	120	8.928	12.750	0.406	755.0	\$2,095.00

PVC DWV PIPE

PVC SCHEDULE 40 FOAM CORE (WHITE)				BELL-END				
PART NO.	NOM. SIZE	UPC # 611942-	QTY. PER SKID	TRUCKLOAD PERCENT PER SKID	AVG. OD (IN.)	MIN. WALL (IN.)	WT. PER 100 FT. (LBS.)	LIST PRICE PER 100 FT.
PVC 4300B	3" x 20'	04782	920	3.570	3.500	0.216	105.0	\$245.00
PVC 4400B	4" x 10'	04783	540	4.160	4.500	0.237	146.0	\$336.00
PVC 4400B	4" x 20'	04784	1080	7.144	4.500	0.237	146.0	\$336.00
PVC 4600B	6" x 20'	04786	480	8.330	6.625	0.280	247.0	\$569.00

NOTE: When ordering, please specify plain end or bell-end.
For truckloads of mixed sizes, multiply skids desired by truckload percent per skid.



All Charlotte Pipe and Foundry Company Products are made in U.S.A.

NSF Listed. Meets All Requirements of ASTM F 891.

You can't beat the system.®

PVC Pipe is not recommended for use with compressed air or gases.

PVC Pipe: Drainage, Pressure and Well Casing

Possession of this price list shall not be construed as an offer to sell the products listed.



PVC Schedule 40 DWV and Schedule 40 Pressure Pipe - Plain End

PVC SCHEDULE 40 (WHITE)			PLAIN END			PVC 1120		ASTM D 1785	
PART NO.	NOM. SIZE	UPC # 611942-	TRUCKLOAD PERCENT PER SKID	QTY. PER SKID	AVG. OD (IN.)	MIN. WALL (IN.)	MAX WORK PRESSURE AT 23° C OR 73° F	WT. PER 100 FT. (LBS.)	LIST PRICE PER 100 FT.
PVC 4005	1/2"x20'	03922	4.166	9000'	.840	.109	600 PSI	15.9	\$ 41.60
PVC 4007	3/4"x20'	03925	4.166	7000'	1.050	.113	480 PSI	21.1	\$ 54.00
PVC 4010	1"x20'	03928	4.166	6000'	1.315	.133	450 PSI	31.3	\$ 79.60
PVC 7100*	1 1/4"x10'	03945	1.780	2120'	1.660	.140	370 PSI	42.4	\$106.00
PVC 7100*	1 1/4"x20'	03946	4.166	4240'	1.660	.140	370 PSI	42.4	\$106.00
PVC 7112*	1 1/2"x10'	03947	2.083	1720'	1.900	.145	330 PSI	50.7	\$124.00
PVC 7112*	1 1/2"x20'	03948	4.165	3440'	1.900	.145	330 PSI	50.7	\$124.00
PVC 7200*	2"x10'	03949	1.780	990'	2.375	.154	280 PSI	68.1	\$162.00
PVC 7200*	2"x20'	03950	3.570	1980'	2.375	.154	280 PSI	68.1	\$162.00
PVC 4025*	2 1/2"x20'	04205	3.570	1360'	2.875	.203	300 PSI	108.0	\$257.00
PVC 7300*	3"x10'	03951	4.160	1040'	3.500	.216	260 PSI	141.2	\$326.00
PVC 7300*	3"x20'	03952	3.570	920'	3.500	.216	260 PSI	141.2	\$326.00
PVC 7400*	4"x10'	03953	4.160	600'	4.500	.237	220 PSI	201.2	\$460.00
PVC 7400*	4"x20'	03954	7.144	1200'	4.500	.237	220 PSI	201.2	\$460.00
PVC 7500*	5"x20'	04837	7.144	760'	5.563	.258	190 PSI	272.5	\$630.00
PVC 7600*	6"x10'	03955	4.160	280'	6.625	.280	180 PSI	353.7	\$816.00
PVC 7600*	6"x20'	03956	8.330	560'	6.625	.280	180 PSI	353.7	\$816.00
PVC 7800*	8"x20'	03958	8.330	360'	8.625	.322	160 PSI	532.3	\$1240.00
PVC 7910*	10"x20'	03959	8.330	220'	10.750	.365	140 PSI	754.7	\$1900.00
PVC 7912*	12"x20'	03961	7.144	120'	12.750	.406	130 PSI	997.9	\$2778.00
PVC 7914	14"x20'	04862	4.160	60'	14.000	.437	130 PSI	1180.1	\$3281.00
PVC 7916	16"x20'	04918	5.000	60'	16.000	.500	130 PSI	1543.1	\$4290.00

* Dual marked ASTM D 1785 and ASTM D 2665.

NOTE: When ordering, please specify plain end or bell end.
For truckloads of mixed sizes, multiply skids desired by truckload percent per skid.



All Charlotte Pipe and Foundry Company Products are made in U.S.A.

NSF Listed. Meets All Requirements of ASTM D 1784 and ASTM D 1785.

You can't beat the system.®

PVC Pipe is not recommended for use with compressed air or gases.

PVC - DWV & PRESSURE PIPE

PVC Schedule 40 DWV and Schedule 40 Pressure Pipe - Bell End

PVC SCHEDULE 40 (WHITE)				BELL END			PVC 1120		ASTM D 1785	
PART NO.	NOM. SIZE	UPC # 611942-	TRUCKLOAD PERCENT PER SKID	QTY. PER SKID	AVG. OD (IN.)	MIN. WALL (IN.)	MAX WORK PRESSURE AT 23° C OR 73° F	BELL DEPTH (IN.)	WT. PER 100 FT. (LBS.)	LIST PRICE PER 100 FT.
PVC 4005B**	1/2"x10'	04986	2.083	6000'	.840	.109	600 PSI	2.00	15.9	\$ 41.60
PVC 4005B**	1/2"x20'	03923	4.166	9000'	.840	.109	600 PSI	2.00	15.9	\$ 41.60
PVC 4007B**	3/4"x10'	04987	2.083	4000'	1.050	.113	480 PSI	2.25	21.1	\$ 54.00
PVC 4007B**	3/4"x20'	03926	4.166	7000'	1.050	.113	480 PSI	2.25	21.1	\$ 54.00
PVC 4010B**	1"x10'	04988	1.780	3000'	1.315	.133	450 PSI	2.50	31.3	\$ 79.60
PVC 4010B**	1"x20'	03929	3.570	6000'	1.315	.133	450 PSI	2.50	31.1	\$ 79.60
PVC 4012B§	1 1/4"x10'	04989	2.083	2000'	1.660	.140	370 PSI	2.75	42.4	\$108.40
PVC 4012B§	1 1/4"x20'	03930	3.570	4000'	1.660	.140	370 PSI	2.75	42.4	\$108.40
PVC 4015B§	1 1/2"x10'	04990	2.083	1720'	1.900	.145	330 PSI	3.00	50.7	\$127.60
PVC 4015B§	1 1/2"x20'	03931	4.165	3440'	1.900	.145	330 PSI	3.00	50.7	\$127.60
PVC 4020B†	2"x10'	04991	1.786	990'	2.375	.154	280 PSI	4.00	69.2	\$165.60
PVC 4020B†	2"x20'	03932	3.570	1980'	2.375	.154	280 PSI	4.00	69.2	\$165.60
PVC 4025B‡	2 1/2"x10'	04992	1.786	680'	2.875	.203	300 PSI	4.00	110.0	\$262.00
PVC 4025B‡	2 1/2"x20'	04206	3.570	1360'	2.875	.203	300 PSI	4.00	110.0	\$262.00
PVC 7300B§	3"x10'	04853	4.160	1040'	3.500	.216	260 PSI	4.00	145.1	\$340.00
PVC 4030B†	3"x20'	03933	3.570	920'	3.500	.216	260 PSI	4.00	144.5	\$340.00
PVC 7400B§	4"x10'	04835	4.160	540'	4.500	.237	220 PSI	4.00	207.9	\$489.00
PVC 9400B†	4"x20'	03964	7.144	1080'	4.500	.237	220 PSI	5.00	206.2	\$489.00
PVC 7600B§	6"x10'	04850	4.160	240'	6.625	.280	180 PSI	6.50	371.4	\$852.00
PVC 9600B†	6"x20'	03965	7.144	480'	6.625	.280	180 PSI	6.50	365.5	\$852.00
PVC 9800B†	8"x20'	03967	5.000	200'	8.625	.322	160 PSI	7.00	552.3	\$1296.00
PVC 7910B†	10"x20'	03960	6.250	160'	10.750	.365	140 PSI	9.00	785.4	\$1940.00
PVC 7912B†	12"x20'	03962	7.144	120'	12.750	.406	130 PSI	10.00	1046.7	\$2608.00
PVC 7914B†	14"x20'	04863	4.160	60'	14.000	.437	130 PSI	10.00	1180.1	\$2968.00
PVC 7916B†	16"x20'	04929	5.000	60'	16.000	.500	130 PSI	10.00	1543.1	\$4505.00

** ASTM D 1785

§ Dual Marked ASTM D 1785 & ASTM D 2665

† Triple Marked ASTM D 1785 & ASTM D 2665 & ASTM F 480

‡ Dual Marked ASTM D 1785 & ASTM F 480

NOTE: For truckloads of mixed sizes, multiply skids desired by truckload percent per skid.



All Charlotte Pipe and Foundry Company Products are made in U.S.A.

You can't beat the system.®

PVC Pipe is not recommended for use with compressed air or gases.

PVC DWV & PRESSURE PIPE

PVC Well Casing

PVC SCHEDULE 40 (WHITE)			BELL END WELL CASING			PVC 1120		ASTM F 480	
PART NO.	NOM. SIZE	UPC # 611942-	TRUCKLOAD PERCENT PER SKID	QTY. PER SKID	AVG. OD (IN.)	MIN. WALL (IN.)	BELL DEPTH (IN.)	WT. PER 100 FT. (LBS.)	LIST PRICE PER 100 FT.
PVC 4020B	2"x20'	03932	3.570	1980'	2.375	.154	4.00	69.2	\$ 165.60
PVC 4025B	2 1/2"x20'	04206	3.570	1360'	2.875	.203	4.00	110.0	\$ 262.00
PVC 4030B	3"x20'	03933	3.570	920'	3.500	.216	4.00	144.5	\$ 340.00
PVC 9400B	4"x20'	03964	7.144	1080'	4.500	.237	5.00	206.2	\$ 489.00
PVC 9600B	6"x20'	03965	7.144	480'	6.625	.280	6.50	365.5	\$ 852.00
PVC 9800B	8"x20'	03967	5.000	200'	8.625	.322	7.00	552.3	\$1296.00

SDR 17 and DR 27.6			BELL END WELL CASING			PVC 1120		ASTM F 480		
PART NO.	NOM. SIZE	UPC # 611942-		TRUCKLOAD PERCENT PER SKID	QTY. PER SKID	AVG. OD (IN.)	MIN. WALL (IN.)	BELL DEPTH (IN.)	WT. PER 100 FT. (LBS.)	LIST PRICE PER 100 FT.
PVC 9450B	4 1/2"x20'	04159	SDR 17	8.330	960'	4.950	.291	5.50	278.4	\$657.00
PVC 9625B	6 1/4"x20'	03966	DR 27.6	6.250	360'	6.900	.250	7.00	342.7	\$784.00

PVC SDR Pipe

PR 200		PVC 1120		BELL END			ASTM D 2241		SDR 21	
PART NO.	NOM. SIZE	UPC # 611942-	TRUCKLOAD PERCENT PER SKID	QTY. PER SKID	AVG. OD (IN.)	MIN. WALL (IN.)	MAX WORK PRESSURE AT 23° C OR 73° F	BELL DEPTH (IN.)	WT. PER 100 FT. (LBS.)	LIST PRICE PER 100 FT.
PVC 23155B	*1 1/2"x20'	03991	3.570	9000'	.840	.062	315 PSI	2.00	9.6	\$ 27.00
PVC 20007B	3/4"x20'	03984	3.570	7000'	1.050	.060	200 PSI	2.25	11.8	\$ 32.80
PVC 20010B	1"x20'	03986	4.166	6000'	1.315	.063	200 PSI	2.50	15.7	\$ 42.00
PVC 20012B	1 1/4"x20'	03987	4.166	4000'	1.660	.079	200 PSI	2.75	24.9	\$ 66.00
PVC 20015B	1 1/2"x20'	03988	4.165	3440'	1.900	.090	200 PSI	3.00	32.4	\$ 86.40
PVC 20020B	2"x20'	03989	3.570	1980'	2.375	.113	200 PSI	4.00	50.9	\$126.00

*PR 315 / SDR 13.5

PR 160		PVC 1120		BELL END			ASTM D 2241		SDR 26	
PART NO.	NOM. SIZE	UPC # 611942-	TRUCKLOAD PERCENT PER SKID	QTY. PER SKID	AVG. OD (IN.)	MIN. WALL (IN.)	MAX WORK PRESSURE AT 23° C OR 73° F	BELL DEPTH (IN.)	WT. PER 100 FT. (LBS.)	LIST PRICE PER 100 FT.
PVC 16012B	1 1/4"x20'	04211	4.166	4000'	1.660	.064	160 PSI	2.75	20.3	\$ 52.00
PVC 16015B	1 1/2"x20'	04210	4.165	3440'	1.900	.073	160 PSI	3.00	26.6	\$ 67.00
PVC 16020B	2"x20'	04212	3.570	1980'	2.375	.091	160 PSI	4.00	41.4	\$103.00
PVC 16030B	3"x20'	04222	3.570	920'	3.500	.135	160 PSI	4.00	92.3	\$223.00

NOTE: For truckloads of mixed sizes, multiply skids desired by truckload percent per skid.



All Charlotte Pipe and Foundry Company Products are made in U.S.A.

You can't beat the system.®

PVC Pipe is not recommended for use with compressed air or gases.

PVC Sewer Pipe

Possession of this price list shall not be construed as an offer to sell the products listed.

PVC SDR 35 PSM Pipe

ASTM D 3034 & ASTM F 477

SDR-35		GASKETED - PS 46							
PART NO.	NOM. SIZE	UPC # 611942-	QTY. PER SKID	TRUCKLOAD PERCENT PER SKID	LAYING LENGTH	WT. PER 100 FT. (LBS.)	AVG. OD (IN.)	MIN. WALL (IN.)	LIST PRICE PER 100 FT.
S/M 6004G	4"x13'	04011	780	4.763	13'-0"	110.4	4.215	.120	\$ 286.00
S/M 6004G	4"x20'	04012	1200	7.144	20'-0"	109.7	4.215	.120	286.00
S/M 6006G	6"x13'	04015	364	4.763	13'-0"	249.6	6.275	.180	546.00
S/M 6006G	6"x20'	04016	560	8.330	20'-0"	247.0	6.275	.180	546.00
S/M 6008G	8"x13'	04020	130	3.330	13'-0"	451.0	8.400	.240	928.00
S/M 6008G	8"x20'	04021	200	5.000	20'-0"	442.7	8.400	.240	928.00
S/M 6010G	10"x13'	04023	104	4.160	13'-0"	709.0	10.500	.300	1392.00
S/M 6012G	12"x13'	04026	78	4.763	13'-0"	1024.9	12.500	.360	1960.00
S/M 6015G	15"x13'	04029	78	5.550	13'-0"	1523.2	15.300	.437	2940.00

Weight is approximate and is for shipping purposes only.

SDR-35		SOLVENT WELD - PS 46							
PART NO.	NOM. SIZE	UPC # 611942-	QTY. PER SKID	TRUCKLOAD PERCENT PER SKID	LAYING LENGTH	WT. PER 100 FT. (LBS.)	AVG. OD (IN.)	MIN. WALL (IN.)	LIST PRICE PER 100 FT.
S/M 6004	4"x10'	04008	600	4.160	10'-0"	112.0	4.215	.120	\$ 276.00
S/M 6004	4"x20'	04009	1200	7.144	20'-0"	109.7	4.215	.120	276.00
S/M 6006	6"x10'	04013	280	4.160	10'-0"	252.0	6.275	.180	532.00
S/M 6006	6"x20'	04014	560	8.330	20'-0"	246.0	6.275	.180	532.00

Weight is approximate and is for shipping purposes only.

NOTE: For truckloads of mixed sizes, multiply skids desired by truckload percent per skid.

All Charlotte Pipe and Foundry Company Products are made in U.S.A.



Meets All Requirements of ASTM D 3034.

SDR 35 Gaskets meet or exceed ASTM F 477. Gasketed joints meet ASTM D 3212.

Sewer Pipe is not pressure rated and should not be used for pressure systems.

You can't beat the system.®

PVC Foam Core Sewer Pipe

Possession of this price list shall not be construed as an offer to sell the products listed.

PVC Foam Core Gravity Sewer Pipe

FOAM CORE SEWER PIPE

SOLVENT WELD - PS 50							ASTM F 891	
PART NO.	NOM. SIZE	UPC # 611942-	QTY. PER SKID	TRUCKLOAD PERCENT PER SKID	AVG. OD (IN.)	MIN. WALL (IN.)	WT. PER 100 FT. (LBS.)	LIST PRICE PER 100 FT.
S/M 5400	4"x10'	04002	600	4.160	4.215	.124	82.8	\$218.00
S/M 5400	4"x20'	04003	1200	7.144	4.215	.124	82.8	\$218.00
S/M 5600	6"x10'	04004	280	4.160	6.275	.185	167.0	\$415.00
S/M 5600	6"x20'	04005	560	8.330	6.275	.185	167.0	\$415.00

Weight is approximate and is for shipping purposes only.

NOTE: For truckloads of mixed sizes, multiply skids desired by truckload percent per skid.

All Charlotte Pipe and Foundry Company Products are made in U.S.A.



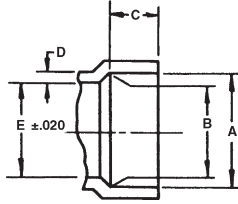
Pipe listed in this section meets or exceeds the requirements of
ASTM F 891 PS 50 Series.

Sewer Pipe is not pressure rated and should not be used for pressure systems.

You can't beat the system.®

PVC and ABS DWV Fittings

HUB DIMENSIONS



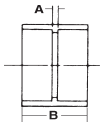
ABS

SIZE	A	B	C	D
1 1/2	1.910	1.895	.750	.156
2	2.385	2.370	.875	.156
3	3.515	3.495	1.500	.218
4	4.515	4.495	1.750	.250
6	6.647	6.614	3.000	.281

PVC

SIZE	A	B	C	D
1 1/4	1.675	1.650	.750	.156
1 1/2	1.915	1.895	.750	.156
2	2.390	2.370	.875	.156
3	3.520	2.495	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
10	10.776	10.737	5.000	.365
12	12.778	12.736	6.000	.406

PART NO. 100

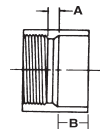


COUPLING

HUB X HUB

SIZE	A	B	C	D
1 1/4	1/8	1 5/8		
1 1/2	1/8	1 5/8		
2	1/8	1 7/8		
3	3/16	1 13/16		
4	1/4	3 3/4		
6	1/4	6 1/4		
8	1/4	8 3/4		
10	5/16	10 15/16		
12	3/8	12 3/8		

PART NO. 101

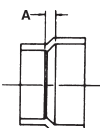


FEMALE ADAPTER

FPT X HUB

SIZE	A	B	C	D
1 1/2	1/4	3/4		
2	1/4	7/8		
3	5/16	1 1/2		
4	11/32	1 3/4		
6	1/4	3		

PART NO. 102

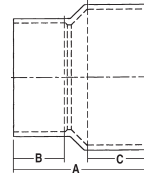


PIPE INCREASER-REDUCER

HUB X HUB

SIZE	A	B	C	D
1 1/2 x 2	17/32			
1 1/2 x 3	1 3/32			
2 x 3	7/8			
2 x 4	1 3/8			
3 x 4	15/16			

PART NO. 102

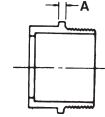


PIPE INCREASER-REDUCER

HUB X HUB

SIZE	A	B	C	D
8 x 10	10 3/4	4 7/32	5 1/32	
8 x 12	12 3/4	4 1/32	6 1/32	
10 x 12	12 3/4	5 7/32	6 1/32	

PART NO. 103



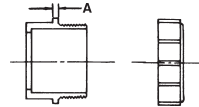
TRAP ADAPTER-MALE

L/WASHER & METAL NUT

SPIGOT X SLIP

SIZE	A	B	C	D
1 1/2 x 1 1/4	3/16			
1 1/2	3/16			
2	3/16			

PART NO. 103-P



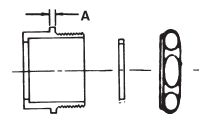
TRAP ADAPTER-MALE

WITH/WASHER & PLASTIC NUT

SPIGOT X SLIP

SIZE	A	B	C	D
1 1/2 x 1 1/4	3/16			
1 1/2	3/16			
2	3/16			

PART NO. 103-X



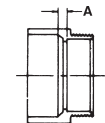
TRAP ADAPTER-MALE

WITH/WASHER & CHROME NUT

SPIGOT X SLIP

SIZE	A	B	C	D
1 1/2 x 1 1/4	3/16			
1 1/2	3/16			
2	3/16			

PART NO. 104



TRAP ADAPTER-FEMALE

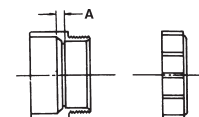
L/WASHER & METAL NUT

(NOTE: NOT A MALE ADAPTER.)

HUB X SLIP

SIZE	A	B	C	D
1 1/2 x 1 1/4	3/16			
1 1/2	3/16			

PART NO. 104-P



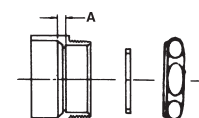
TRAP ADAPTER-FEMALE

WITH/WASHER & PLASTIC NUT

HUB X SLIP

SIZE	A	B	C	D
1 1/2 x 1 1/4	3/16			
1 1/2	3/16			

PART NO. 104-X



TRAP ADAPTER-FEMALE

WITH/WASHER & CHROME NUT

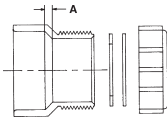
HUB X SLIP

SIZE	A	B	C	D
1 1/4	3/16			
1 1/2 x 1 1/4	3/16			
1 1/2	3/16			

AVAILABLE IN PVC ONLY

PVC & ABS DWV FITTINGS

PART NO. 104-R*

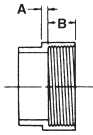


TRAP ADAPTER-FEMALE WITH 1 1/2 PLASTIC NUT AND WASHER AND 1 1/2 X 1 1/4 WASHER HUB X SLIP W/PLASTIC NUT

SIZE	A	B	C	D
1 1/2	3/16			

* ABS ONLY

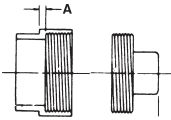
PART NO. 105



FITTING CLEANOUT ADAPTER SPIGOT X FPT

SIZE	A	B	C	D
1 1/2	5/32	3/4		
2	5/32	3/4		
3	7/32	1 13/64		
4	1/4	1 5/16		
6	5/16	1 3/32		

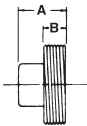
PART NO. 105-X



FITTING CLEANOUT ADAPTER WITH/C.O. PLUG SPIGOT X FPT

SEE PART NO. 105 AND 106

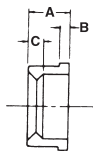
PART NO. 106



CLEANOUT PLUG MPT

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

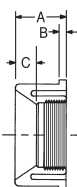
PART NO. 107



FLUSH BUSHING SPIGOT X HUB

SIZE	A	B	C	D
1 1/2 x 1 1/4	15/16	3/16	3/16	
2 x 1 1/4	1 1/16	2/16	5/16	
2 x 1 1/2	1 1/16	3/16	5/16	
3 x 1 1/2	1 3/4	1/4	1	
3 x 2	1 3/4	1/4	7/8	
4 x 2	2	1/4	1 1/8	
4 x 3	2	1/4	1 1/2	
6 x 4	3 1/2	1/2	1 3/4	
8 x 6	4 5/8	5/8	1 5/8	
10 x 8	5 11/32	1/2	1 1/2	
12 x 8	6 13/32	1/2	2 3/8	
12 x 10	6 11/32	1/2	4 11/32	

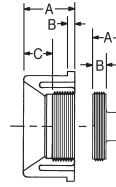
PART NO. 108



FLUSH BUSHING (CLEANOUT ADAPTER) SPIGOT X FPT

SIZE	A	B	C	D
2 x 1 1/2	1 1/16	3/16	5/16	
10 x 8	5 1/2	1/2	1 1/2	
12 x 8	6 1/2	1/2	2 1/2	

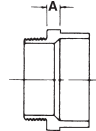
PART NO. 108-X



FLUSH BUSHING (CLEANOUT ADAPTER) WITH PLUG SPIGOT X FPT

SIZE	A	B	C	D
10 x 8	SEE PART NO. 108 AND 106			
12 x 8	SEE PART NO. 108 AND 106			

PART NO. 109



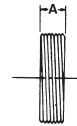
(Octagon shoulders for tightening purposes.)

MALE ADAPTER MPT X HUB

(NOTE: NOT A TRAP ADAPTER. WILL NOT ACCEPT A TAIL PIECE.) SEE 104

SIZE	A	B	C	D
1 1/4	3/16			
1 1/4 x 1 1/2	3/16			
1 1/2	3/16			
2	3/16			
3	3/8			
4	3/8			

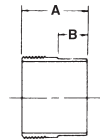
PART NO. 110



FLUSH CLEANOUT PLUG

SIZE	A	B	C	D
2	5/8			
3	3/4			
4	3/4			

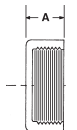
PART NO. 111



MALE FITTING ADAPTER MPT X SPIGOT

SIZE	A	B	C	D
1 1/2	1 13/16	3/4		
2	1 15/16	7/8		

PART NO. 114*

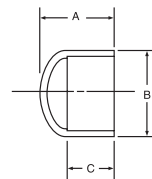


THREADED CAP FPT

SIZE	A	B	C	D
1 1/2	3/4			

* ABS ONLY

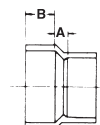
PART NO. 116



CAP SOCKET

SIZE	A	B	C	D
1 1/2	1 15/16	2 1/4	1 5/16	
2	2 1/32	2 3/4	1 7/8	
3	2 15/16	3 11/32	1 29/32	
4	3 1/8	5	2 1/32	
6	4 3/4	7 1/4	3 5/8	
8	6 13/32	9 3/8	4	

PART NO. 117

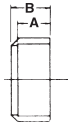


ADAPTER COUPLING (Adapts sewer and drain spigot to DWV spigot) HUB X HUB

SIZE	A	B	C	D
4 x 3	3/4	1 3/4		
4 x 4	1/2	1 3/4		

AVAILABLE IN PVC ONLY

PART NO. 118



ADAPTER BUSHING (Adapts DWV hub to sewer and drain spigot) DWV SPIGOT X HUB

SIZE	A	B	C	D
3	1 1/2	1 3/4		
4	1 3/4	2		

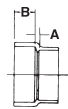
PART NO. 119



NO-HUB ADAPTER (Adapts C.I. No-Hub spigot to DWV spigot) SPIGOT X HUB

SIZE	A	B	C	D
1 1/2	1 5/8			
2	1 7/8			
2 x 1 1/2	1 5/8			
3	1 13/16			
4	1 7/8			
4 x 3	2 1/16			

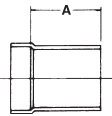
PART NO. 122



SPIGOT ADAPTER, CAST IRON (Adapts cast iron spigot to DWV spigot) HUB X HUB

SIZE	A	B	C	D
2 x 2	3/8	2 1/8		
3 x 3	7/16	2 5/8		
4 x 4	1/2	2 7/8		

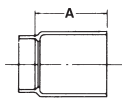
PART NO. 123†



HUB ADAPTER, CAST IRON (Adapts DWV spigot to cast iron hub) HUB X SPIGOT

SIZE	A	B	C	D
2 x 2	3 1/4			
3 x 3	4 1/8			
4 x 4	4 3/8			

PART NO. 123-R†



HUB ADAPTER, CAST IRON, INCREASER (Adapts DWV spigot to cast iron hub) HUB X SPIGOT

SIZE	A	B	C	D
1 1/2 x 2	3 1/2			
3 x 4	4			

† Plain End: Joint can be made with compression gasket or lead and oakum.

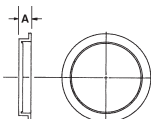
PART NO. 130



REPAIR COUPLING HUB X HUB

SIZE	A	B	C	D
1 1/2	1 5/8			
2	1 7/8			
3	3 3/16			
4	3 3/4			
6	6 1/4			

PART NO. 131*

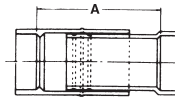


TEST CAP

SIZE	A	B	C	D
1 1/2	9/32			
2	9/32			
3	5/16			
4	3/8			

* ABS ONLY

PART NO. 133**

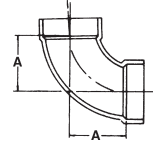


EXPANSION JOINT HUB X HUB

SIZE	A	B	C	D
2	5 1/4			
3	5 1/2			
4	5 1/2			

** Install in neutral position. Fitting has 1" travel in each direction.

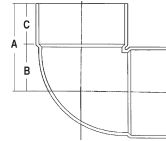
PART NO. 300



1/4 BEND (Sanitary 90° EII) ALL HUB

SIZE	A	B	C	D
1 1/4	1 9/16			
1 1/2	1 3/4			
2	2 5/16			
3	3 1/16			
4	3 7/8			
6	5			
8	6			
10	9 3/8			
12	9 7/16			

PART NO. 300-A

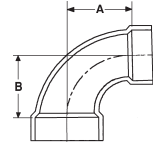


SHORT 1/4 BEND (90° EII) ALL HUB

SIZE	A	B	C	D
*10	11 9/32	6 1/4	5 1/32	
*12	13 9/32	7 1/4	6 1/32	

* Not sanitary pattern

PART NO. 300-R*

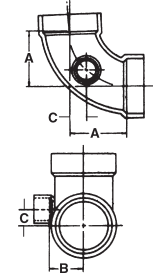


1/4 BEND, REDUCING ALL HUB

SIZE	A	B	C	D
2 x 1 1/2	2 1/16	2 5/16		

* ABS ONLY

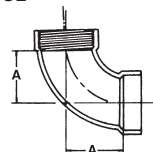
PART NO. 300-S



1/4 BEND W/SIDE INLET HUB X HUB

SIZE	A	B	C	D
3 x 3 x 1 1/2	3 1/16	1 7/8	1	
3 x 3 x 2	3 1/16	1 7/8	1	

PART NO. 301

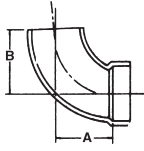


1/4 BEND FPT X HUB

SIZE	A	B	C	D
1 1/2	1 3/4			

AVAILABLE IN PVC ONLY

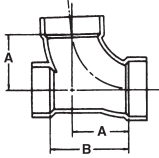
PART NO. 302



1/4 BEND, STREET (Sanitary 90° Street Ell) SPIGOT X HUB

SIZE	A	B	C	D
1 1/4	1 7/16	2 5/16		
1 1/2	1 3/4	2 1/2		
2	2 3/16	3 3/16		
3	3 1/16	4 9/16		
4	3 7/8	5 5/8		
6	5	8		

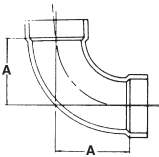
PART NO. 303



1/4 BEND, W/LOW HEEL INLET ALL HUB

SIZE	A	B	C	D
3 x 3 x 1 1/2	3 1/16	4 3/16		
3 x 3 x 2	3 1/16	4 7/16		
4 x 4 x 2	3 7/8	5 7/16		

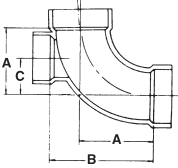
PART NO. 304



LONG SWEEP 1/4 BEND HUB X HUB

SIZE	A	B	C	D
1 1/2	2 3/4			
2	3 1/4			
3	4 1/16			
4	4 15/16			

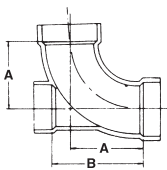
PART NO. 305



LONG SWEEP 1/4 BEND W/HIGH HEEL INLET ALL HUB

SIZE	A	B	C	D
3 x 3 x 2	4 7/16	5 5/8	2 1/4	

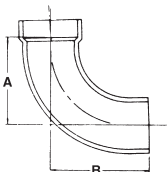
PART NO. 307



LONG SWEEP 1/4 BEND W/LOW HEEL INLET ALL HUB

SIZE	A	B	C	D
3 x 3 x 2	4 7/16	4 15/16		

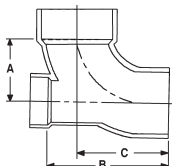
PART NO. 309



LONG SWEEP 1/4 BEND, STREET HUB X SPIGOT

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

PART NO. 310*

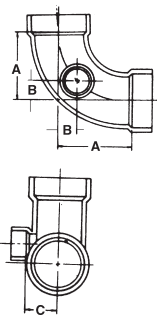


1/4 BEND, STREET W/LOW HEEL INLET HUB X SPIGOT X HUB

SIZE	A	B	C	D
3 x 3 x 2	3 1/16	5 5/16	4 9/16	

*ABS ONLY

PART NO. 311



LONG SWEEP 1/4 BEND, W/SIDE INLET ALL HUB

SIZE	A	B	C	D
3 x 3 x 2	4 1/16	1 3/8	1 3/4	

PART NO. 319



1/6 BEND (60° Ell) HUB X HUB

SIZE	A	B	C	D
1 1/2	1			
2	1 5/16			
3	1 11/16			
4	2 1/16			

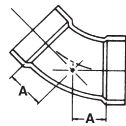
PART NO. 320



1/6 BEND, STREET (60° Street Ell) HUB X SPIGOT

SIZE	A	B	C	D
1 1/2	1	1 3/4		
2	1 5/16	2 3/16		
3	1 11/16	3 3/16		
4	2 1/16	3 13/16		

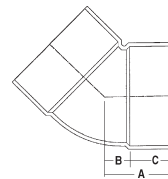
PART NO. 321



1/8 BEND (45° Ell) HUB X HUB

SIZE	A	B	C	D
1 1/4	1			
1 1/2	1 1/8			
2	1 1/2			
3	1 3/4			
4	2 3/16			
6	2 7/16			
8	2 7/16			

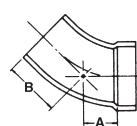
PART NO. 321



1/8 BEND (45° Ell) HUB X HUB

SIZE	A	B	C	D
10	8 5/32	3 7/8	5 1/32	
12	9 1/2	3 11/64	6 1/32	

PART NO. 323

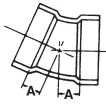


1/8 BEND, STREET (45° Street Ell) SPIGOT X HUB

SIZE	A	B	C	D
1 1/4	1	1 3/4		
1 1/2	1 1/8	1 7/8		
2	1 1/2	2 3/8		
3	1 3/4	3 1/4		
4	2 3/16	3 15/16		
6	2 9/16	5 9/16		
8	2 7/16	6 1/16		
10	3 1/8	8 5/32		
12	3 31/64	9 1/2		

AVAILABLE IN PVC ONLY

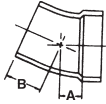
PART NO. 324



1/16 BEND (22 1/2° Ell) HUB X HUB

SIZE	A	B	C	D
1 1/2	1 1/2			
2	1 11/16			
3	1 13/16			
4	1			
6	1 1/2			

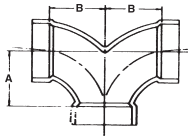
PART NO. 326



1/16 BEND, STREET (22 1/2° Street Ell) SPIGOT X HUB

SIZE	A	B	C	D
1 1/2	1 1/2	1 1/4		
2	1 11/16	1 9/16		
3	1 13/16	2 5/16		
4	1	2 3/4		
6	1 1/2	4 1/2		

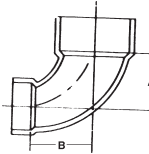
PART NO. 327



DOUBLE 1/4 BEND ALL HUB

SIZE	A	B	C	D
1 1/2	1 3/4	1 3/4		
2	2 7/16	2 5/16		
3	3 1/16	3 1/16		
2 x 1 1/2 x 1 1/2	1 15/16	2 7/16		

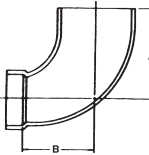
PART NO. 329



CLOSET BEND, REDUCING HUB X HUB

SIZE	A	B	C	D
3 x 4	3	3 3/8		

PART NO. 330



CLOSET BEND, REDUCING HUB X SPIGOT

SIZE	A	B	C	D
3 x 4	6	3 5/8		

PART NO. 330-X*

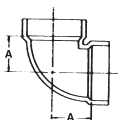
(see diagram for part No. 330)

CLOSET BEND, REDUCING WITH TEST CAP HUB X SPIGOT

SIZE	A	B	C	D
3 x 4	SEE PART NO. 330			

* ABS ONLY

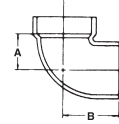
PART NO. 331



VENT ELL (90° Short Turn Ell) HUB X HUB

SIZE	A	B	C	D
1 1/2	1 3/16			
2	1 1/2			
3	1 7/8			

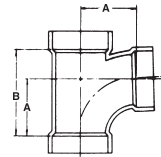
PART NO. 333



VENT ELL, STREET (90° Short Turn Street Ell) HUB X SPIGOT

SIZE	A	B	C	D
1 1/2	1 3/16	2 1/4		
2	1 1/2	2 3/8		
3	1 7/8	3 1/2		

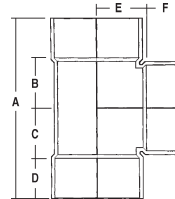
PART NO. 400



SANITARY TEE ALL HUB

SIZE	A	B	C	D
1 1/4	1 9/16	2 5/16		
1 1/2	1 3/4	2 3/4		
2	2 5/16	3 11/16		
3	3 1/16	4 7/8		
4	3 7/8	6 1/8		
6	5	8 1/2		
8	6	10 1/2		

PART NO. 400-A

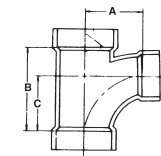


STRAIGHT TEE ALL HUB

SIZE	A	B	C	D	E	F
*10	22 7/16	6 1/4	6 1/4	5 1/32	6 1/4	5 1/32
*12	26 9/16	7 1/4	7 1/4	6 1/32	7 1/4	6 1/32

* Not sanitary pattern

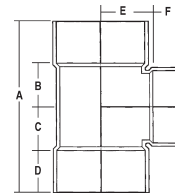
PART NO. 401



SANITARY TEE, REDUCING ALL HUB

SIZE	A	B	C	D
2 x 1 1/2 x 1 1/2	2 7/16	3 1/8	1 15/16	
2 x 1 1/2 x 2	2 5/16	3 11/16	2 5/16	
2 x 2 x 1 1/2	2 7/16	3 1/8	1 15/16	
3 x 3 x 1 1/2	2 9/16	2 11/16	1 3/4	
3 x 3 x 2	2 7/8	3 5/16	2 7/8	
4 x 4 x 1 1/2	3 5/16	3 3/16	2 1/16	
4 x 4 x 2	3 7/16	3 3/16	2 1/16	
4 x 4 x 3	3 9/16	4 3/4	3	
6 x 6 x 4	4 7/8	6 1/16	3 25/32	

PART NO. 401

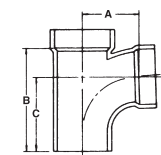


TEE, REDUCING ALL HUB

SIZE	A	B	C	D	E	F
* 10x10x8	20 7/16	5 1/16	5 1/16	5 1/32	6 1/16	4 1/32
* 12x12x8	22 5/16	5 7/8	5 7/8	6 1/32	7 1/8	4 1/32
* 12x12x10	24 7/16	6 1/4	6 1/4	6 1/32	7 1/32	5 1/32

* Not sanitary pattern

PART NO. 403

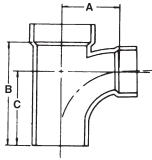


SANITARY TEE, STREET SPIGOT X HUB X HUB

SIZE	A	B	C	D
1 1/2	1 3/4	3 1/2	2 1/2	
2	2 5/16	4 9/16	3 1/16	
3	3 1/16	6 3/8	4 7/16	
4	3 7/8	7 1/8	5 7/8	

AVAILABLE IN PVC ONLY

PART NO. 404

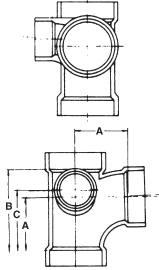


SANITARY TEE, STREET REDUCING SPIGOT X HUB X HUB

SIZE	A	B	C	D
2 x 1 ¹ / ₂ x 1 ¹ / ₂ *	2 ³ / ₁₆	3 ¹¹ / ₁₆	2 ⁹ / ₁₆	
2 x 1 ¹ / ₂ x 2	2 ³ / ₁₆	4 ⁹ / ₁₆	3 ³ / ₁₆	
2 x 2 x 1 ¹ / ₂	2 ³ / ₁₆	4	2 ¹³ / ₁₆	
3 x 3 x 1 ¹ / ₂	2 ⁹ / ₁₆	4 ³ / ₁₆	3 ¹ / ₄	
3 x 3 x 2	2 ⁷ / ₈	4 ¹³ / ₁₆	3 ⁵ / ₈	
4 x 4 x 2	3 ⁵ / ₁₆	4 ¹⁵ / ₁₆	3 ¹³ / ₁₆	

* ABS ONLY

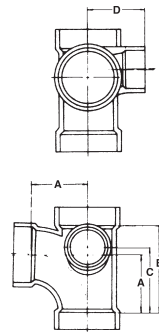
PART NO. 416



SANITARY TEE W/LEFT SIDE INLET ALL HUB

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

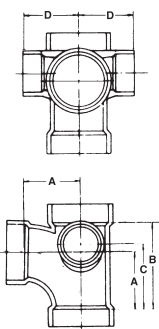
PART NO. 417



SANITARY TEE W/RIGHT SIDE INLET ALL HUB

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

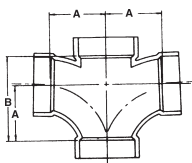
PART NO. 418



SANITARY TEE W/L & R SIDE INLETS ALL HUB

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

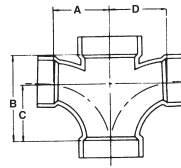
PART NO. 428



DOUBLE SANITARY TEE (Sanitary Cross) ALL HUB

SIZE	A	B	C	D
1 ¹ / ₂	1 ³ / ₄	2 ³ / ₄		
2	2 ⁷ / ₁₆	3 ¹¹ / ₁₆		
3	3 ¹ / ₁₆	4 ⁷ / ₈		
4	3 ⁷ / ₈	6 ⁷ / ₈		

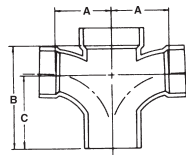
PART NO. 429



DOUBLE SANITARY TEE, REDUCING (Sanitary Cross) ALL HUB

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

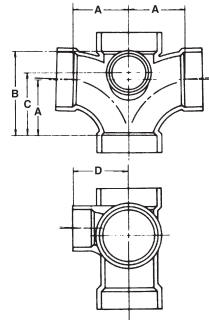
PART NO. 431



DOUBLE SANITARY TEE STREET, REDUCING (Sanitary Cross) SPIGOT X HUB X HUB X HUB

SIZE	A	B	C	D
3 x 3 x 1 ¹ / ₂ x 1 ¹ / ₂	2 ⁹ / ₁₆	4 ³ / ₁₆	3 ¹ / ₄	

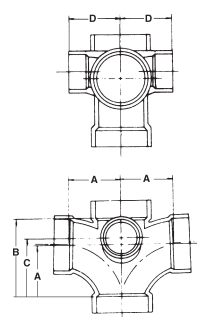
PART NO. 438



DOUBLE SANITARY TEE W/SIDE INLET (Sanitary Cross) ALL HUB

SIZE	A	B	C	D
3 x 3 x 3 x 3 x 2	3 ¹ / ₁₆	4 ⁷ / ₈	3 ¹¹ / ₁₆	2 ⁷ / ₈
4 x 4 x 4 x 4 x 2	3 ⁷ / ₈	6 ⁷ / ₈	5	4 ³ / ₁₆

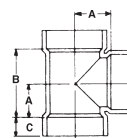
PART NO. 439



DOUBLE SANITARY TEE W/L & R SIDE INLETS (Sanitary Cross) ALL HUB

SIZE	A	B	C	D
3x3x3x3x2x2	3 ¹ / ₁₆	4 ⁷ / ₈	3 ¹¹ / ₁₆	3 ¹³ / ₁₆
4x4x4x4x2x2	3 ⁷ / ₈	6 ⁷ / ₈	5	4 ³ / ₁₆

PART NO. 441

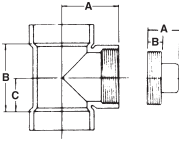


VENT TEE ALL HUB

SIZE	A	B	C	D
1 ¹ / ₂	1 ³ / ₁₆	2 ³ / ₈	1 ¹¹ / ₁₆	
2	1 ¹ / ₂	3	3 ³ / ₄	
3	1 ⁷ / ₈	3 ³ / ₄	1 ¹ / ₂	
4	2 ¹ / ₂	5	1 ³ / ₄	
*8	5 ¹ / ₄	10 ¹ / ₂	4 ¹ / ₃₂	

* Not sanitary pattern

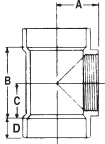
PART NO. 444-X



CLEANOUT TEE HUB X HUB X FPT

SEE PART NO. 445 AND 106

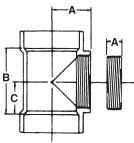
PART NO. 445



CLEANOUT TEE HUB X HUB X FPT

SIZE	A	B	C	D
1 1/2	1 5/16	2 7/8	1 7/16	1 5/16
2	2 1/4	3	1 1/2	1 3/8
3	2 11/16	3 7/8	1 5/16	1 29/32
4	3 3/8	5 1/8	2 1/16	2 1/32
8	6 7/8	10 1/2	5 1/4	4
10 x 10 x 8	10 3/8	10 3/8	5 1/16	5 1/32
12 x 12 x 8	11 5/32	10 1/4	6 1/32	6 1/32

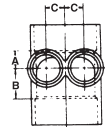
PART NO. 445-X



FLUSH C.O. TEE W/C.O. PLUG

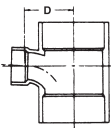
SEE PART NO. 445 AND 110

PART NO. 447

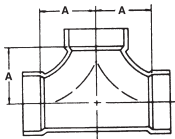


HORIZONTAL TWIN TEE ALL HUB

SIZE	A	B	C	D
3 x 3 x 1 1/2 x 1 1/2	7/8	1 3/4	1 3/32	2 9/16



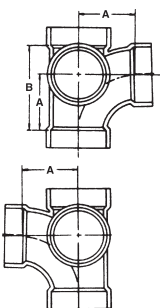
PART NO. 448



TWO-WAY CLEANOUT ALL HUB

SIZE	A	B	C	D
3	4 1/16			
4	4 15/16			

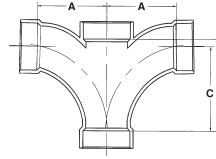
PART NO. 449



UTILITY TEE ALL HUB

SIZE	A	B	C	D
2	2 7/16	3 11/16		

PART NO. 500

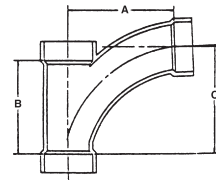


DOUBLE FIXTURE FITTING ALL HUB

SIZE	A	B	C	D
2	3 1/2	4 5/8	4 1/4	4 1/2
2 x 1 1/2 x 1 1/2 x 1 1/2	2 7/8	3 1/2	3 1/8	3 5/8
2 x 1 1/2 x 2 x 2*	3 1/2	4 5/8	4 1/4	4 1/2
2 x 2 x 1 1/2 x 1 1/2	2 7/8	3 1/2	3 1/8	3 5/8
3	4 15/16	6 3/4	6 1/4	6 5/8
3 x 2 x 3 x 3*	4 15/16	6 15/16	6 1/4	6 5/8

*ABS ONLY

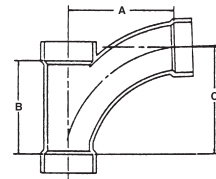
PART NO. 501



COMBINATION WYE & 1/8 BEND ALL HUB (ONE PIECE)

SIZE	A	B	C	D
1 1/2	3 5/16	3 1/2	3 15/16	
2	5 1/8	4 7/16	5 1/8	
3	7 9/16	6 1/2	7 9/16	
4	10	8 1/2	10	

PART NO. 502

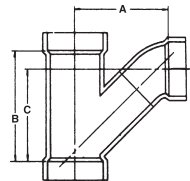


COMBINATION WYE & 1/8 BEND, REDUCING ALL HUB (ONE PIECE)

SIZE	A	B	C	D
2 x 1 1/2 x 1 1/2	4 7/16	3 1/2	3 15/16	
2 x 2 x 1 1/2	4 3/16	3 1/2	3 15/16	
2 x 1 1/2 x 2*	5 1/8	4 7/16	5 1/8	
3 x 3 x 1 1/2	4 3/4	3 1/2	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	4 1/2	5 1/8	
4 x 4 x 3	8 1/16	6 1/2	7 9/16	

*ABS ONLY

PART NO. 503

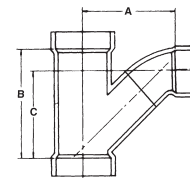


COMBINATION WYE & 1/8 BEND ALL HUB (TWO PIECE)

SIZE	A	B	C	D
3*	6 7/16	7 7/16	6 7/16	
4	8 5/8	10 7/16	8 5/8	
6	12 2/8	10 3/16	11 5/8	
8	14 21/32	14 3/8	14 31/32	

* One-piece short pattern

PART NO. 504



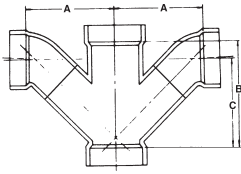
COMBINATION WYE & 1/8 BEND, REDUCING ALL HUB (TWO PIECE)

SIZE	A	B	C	D
4 x 4 x 3	6 7/8	7 7/16	6 7/8	
6 x 6 x 3	8 7/8	7 3/4	8	
6 x 6 x 4*	9	8 1/4	7 1/2	
8 x 8 x 4	11 3/4	10 1/2	11 5/16	

* One-piece short pattern

AVAILABLE IN PVC ONLY

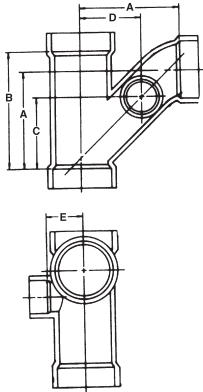
PART NO. 507



DOUBLE COMBINATION WYE & 1/8 BEND ALL HUB

SIZE	A	B	C	D
1 1/2	3 3/8	3 7/8	3 3/8	
2	4 1/2	5 1/2	4 1/2	
3	6 1/4	7 27/64	6 1/4	
4	8 1/4	8 29/32	8 19/32	
2 x 2 x 1 1/2 x 1 1/2	3 5/8	4 1/4	3 11/16	
3 x 3 x 2 x 2	6 5/64	4 47/64	4 11/16	
4 x 4 x 2 x 2	6 31/32	7 25/32	6 7/8	
4 x 4 x 3 x 3	6 7/8	7 7/16	6 3/8	

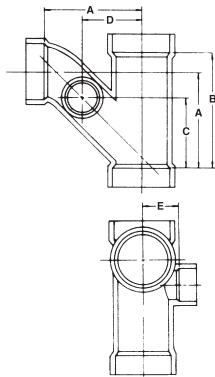
PART NO. 515



COMBINATION WYE & 1/8 BEND W/LEFT SIDE INLET

SIZE	A	B	C	D	E
3 x 3 x 3 x 2	6 5/16	7 7/16	5 1/4	3 3/16	1 7/8

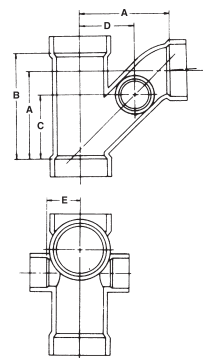
PART NO. 516



COMBINATION WYE & 1/8 BEND W/RIGHT SIDE INLET

SIZE	A	B	C	D	E
3 x 3 x 3 x 2	6 5/16	7 7/16	5 1/4	3 3/16	1 7/8

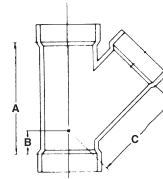
PART NO. 517



COMBINATION WYE & 1/8 BEND W/RIGHT & LEFT SIDE INLET

SIZE	A	B	C	D	E
3 x 3 x 3 x 2 x 2	6 5/16	7 7/16	5 1/4	3 3/16	1 7/8

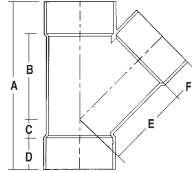
PART NO. 600



WYE (45° WYE) ALL HUB

SIZE	A	B	C	D
1 1/4	3 5/8	1 1/16	2 7/16	
1 1/2	4	1 7/8	2 7/8	
2	5	1 3/8	3 5/8	
3	6 5/8	1 5/8	5	
4	8 1/4	1 7/8	6 3/8	
6	10 3/16	1 3/4	8 1/16	

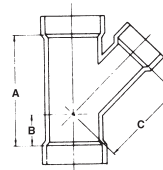
PART NO. 600



WYE ALL HUB

SIZE	A	B	C	D	E	F
8	18 1/8	11 3/4	2 3/8	4	11 3/4	4
10	26 7/16	13 3/8	2 7/8	5 1/32	13 3/8	5 1/32
12	31 3/16	16	3 1/2	6 1/32	16	6 1/32

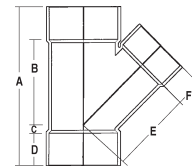
PART NO. 601



WYE, REDUCING (45° WYE) ALL HUB

SIZE	A	B	C	D
2 x 1 1/2 x 1 1/2	4 5/8	1 1/16	3 3/8	
2 x 1 1/2 x 2	4 3/8	1 1/16	3 7/16	
2 x 2 x 1 1/2	4 3/8	1 1/16	3 7/16	
3 x 3 x 1 1/2	4 1/4	1/2	4 9/16	
3 x 3 x 2	5	7/8	4 5/8	
4 x 4 x 1 1/2	4 7/16	0	5	
4 x 4 x 2	5 1/16	3/8	5 9/16	
4 x 4 x 3	6 3/8	1 1/16	6	
6 x 6 x 3	7 1/4	1/4	7 1/2	
6 x 6 x 4	7 1/4	1/4	7 1/2	
8 x 8 x 6	10 1/2	1	9 13/16	

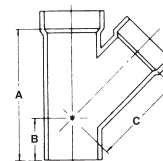
PART NO. 601



WYE, REDUCING ALL HUB

SIZE	A	B	C	D	E	F
8x8x6	18 1/2	9 1/2	1	4	9 13/16	3
10x10x4	see 601 and 107					
10x10x6	see 601 and 107					
10x10x8	24 3/8	13	1 5/16	5 1/32	12 63/64	4 1/32
12x12x4	see 601 and 107					
12x12x6	see 601 and 107					
12x12x8	25 7/8	13 3/16	1/2	6 1/32	13 7/8	4 1/32
12x12x10	29 1/16	15 1/8	1 7/8	6 1/32	14 15/16	5 1/32

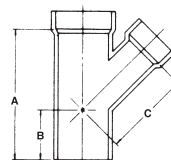
PART NO. 602



WYE, STREET (45° WYE) SPIGOT X HUB X HUB

SIZE	A	B	C	D
1 1/2	4 3/4	1 7/8	2 7/8	
2	5 7/8	2 1/4	3 5/8	
3	8 1/8	3 1/8	5	
4	10	3 5/8	6 3/8	

PART NO. 603

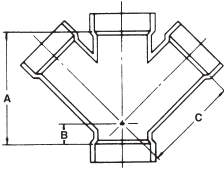


WYE, STREET, REDUCING (45° WYE) SPIGOT X HUB X HUB

SIZE	A	B	C	D
3 x 3 x 1 1/2	5 3/4	2	4 5/16	
3 x 3 x 2	6 1/2	2 3/8	4 5/8	
4 x 4 x 2	6 13/16	2 7/8	5 3/16	
4 x 4 x 3	8 3/8	2 13/16	6	

AVAILABLE IN PVC ONLY

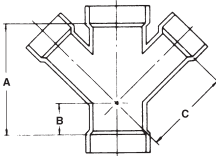
PART NO. 611



DOUBLE WYE (DOUBLE 45° WYE) ALL HUB

SIZE	A	B	C	D
1 1/2	4	1 1/8	2 7/8	
2	5	1 3/8	3 3/8	
3	6 3/8	1 5/8	5	
4	8 1/4	1 7/8	6 3/8	
6	10 3/16	1 3/4	8 7/16	

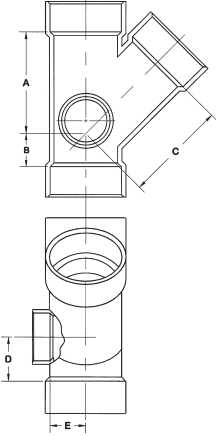
PART NO. 612



DOUBLE WYE, REDUCING (DOUBLE 45° WYE) ALL HUB

SIZE	A	B	C	D
2 x 2 x 1 1/2 x 1 1/2	4 3/8	1 1/16	3 7/16	
3 x 3 x 1 1/2 x 1 1/2	4 1/4	1/2	4 5/16	
3 x 3 x 2 x 2	5	7/8	4 5/8	
4 x 4 x 2 x 2	5 1/16	3/8	5 3/16	
4 x 4 x 3 x 3	6 5/8	1 1/16	6	

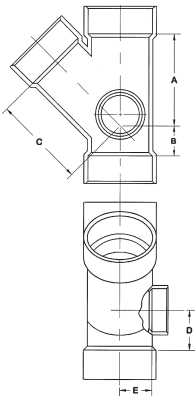
PART NO. 625



WYE W/LEFT SIDE INLET ALL HUB

SIZE	A	B	C	D	E
3 x 3 x 3 x 2	5	1 5/8	5	2 1/4	1 3/4
4 x 4 x 4 x 2	6 3/8	1 7/8	6 3/8	2 1/2	3 5/16

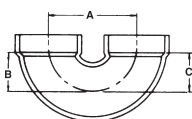
PART NO. 626



WYE W/RIGHT SIDE INLET ALL HUB

SIZE	A	B	C	D	E
3 x 3 x 3 x 2	5	1 5/8	5	2 1/4	1 3/4
4 x 4 x 4 x 2	6 3/8	1 7/8	6 3/8	2 1/2	3 5/16

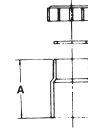
PART NO. 700



RETURN BEND HUB X HUB

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

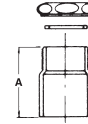
PART NO. 704-P



TAIL PIECE ADAPTER W/PLASTIC NUT & PACKING RING SPIGOT X SLIP

SIZE	A	B	C	D
1 1/2	2 3/16			

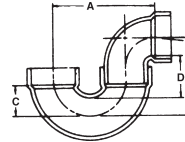
PART NO. 704-X



TAIL PIECE ADAPTER W/CHROME NUT & PACKING RING SPIGOT X SLIP

SIZE	A	B	C	D
1 1/2	2 3/16			

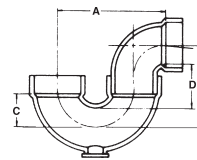
PART NO. 706-X



P-TRAP (w/Solvent Weld Joint) HUB X HUB

SIZE	A	B	C	D
1 1/2	4 23/32	4	1 17/32	2 11/32
2	6 7/8	4 5/8	2 3/8	2 1/2
3	8 7/16	6 5/16	2 5/8	3 1/2
4	10 13/16	7 7/8	3 7/16	3 7/8

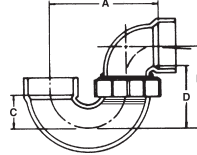
PART NO. 707-X



P-TRAP W/CLEANOUT (w/Solvent Weld Joint) HUB X HUB

SIZE	A	B	C	D
1 1/2	4 23/32	4	1 17/32	2 11/32
2	6 7/8	4 5/8	2 3/8	2 1/2

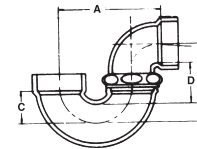
PART NO. 708-P



P-TRAP (w/Union) HUB X HUB W/PLASTIC NUT

SIZE	A	B	C	D
1 1/4	4 7/16	3 1/2	1 7/8	2 13/16
1 1/2	4 23/32	4	1 17/32	2 11/32
2	6 7/8	4 5/8	2 3/8	2 1/2

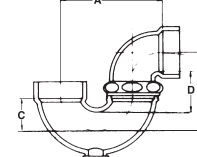
PART NO. 708-X



P-TRAP (w/Union) HUB X HUB W/CHROME NUT

SIZE	A	B	C	D
1 1/2	4 23/32	4	1 17/32	2 11/32

PART NO. 709-X

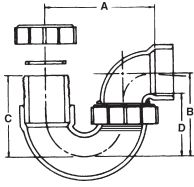


P-TRAP W/CLEANOUT (w/Union) HUB X HUB W/CHROME NUT

SIZE	A	B	C	D
1 1/2	4 23/32	4	1 17/32	2 11/32

AVAILABLE IN PVC ONLY

PART NO. 711-P



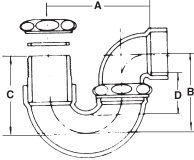
L.A. PATTERN P-TRAP

(w/Union)

SLIP X HUB W/PLASTIC NUT

SIZE	A	B	C	D
1 1/2	4 ²³ / ₃₂	4	3 ²³ / ₃₂	2 ¹¹ / ₃₂

PART NO. 711-X



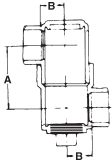
L.A. PATTERN P-TRAP

(w/Union)

SLIP X HUB W/CHROME NUT

SIZE	A	B	C	D
1 1/2	4 ²³ / ₃₂	4	3 ²³ / ₃₂	2 ¹¹ / ₃₂

PART NO. 720-X

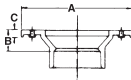


DRUM TRAP

HUB X HUB

SIZE	A	B	C	D
3 x 6 x 1 1/2	4 ²³ / ₃₂	1 ¹¹ / ₁₆		

PART NO. 800 & 800-KO



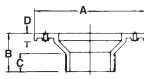
CLOSET FLANGE

HUB END

SIZE	A	B	C	D
4 x 3	7	1 1/4	7/16	
4 x 4*	7	1 1/4	7/16	

*800-KO 4x4 not available in ABS

PART NO. 801

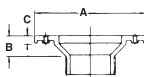


CLOSET FLANGE, REDUCING

SPIGOT

SIZE	A	B	C	D
4 x 3	7	2 3/4	1 ²¹ / ₃₂	7/16

PART NO. PVC 810 AND ABS 811-P



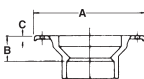
CLOSET FLANGE, ADJUSTABLE

(w/Plastic Ring)

HUB END

SIZE	A	B	C	D
4 x 3	6 3/4	1 1/8	1/4	
4 x 4	6 3/4	1 1/8	1/4	

PART NO. 811



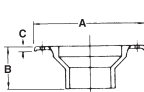
CLOSET FLANGE, ADJUSTABLE

(w/Metal Ring)

HUB END

SIZE	A	B	C	D
4 x 3	6 3/4	1 1/8	1/4	
4 x 4	6 3/4	1 1/8	1/4	

PART NO. 812



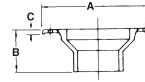
CLOSET FLANGE, ADJUSTABLE

(w/Metal Ring)

SPIGOT

SIZE	A	B	C	D
4 x 3	6 3/4	2 5/8	1/4	
4 x 4	6 3/4	2 5/8	1/4	

PART NO. 812-P



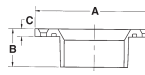
CLOSET FLANGE, ADJUSTABLE

(w/Plastic Ring)

SPIGOT

SIZE	A	B	C	D
4 x 3	6 3/4	2 5/8	1/4	
4 x 4	6 3/4	2 5/8	1/4	

PART NO. 815



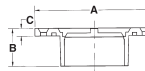
FLUSH CLOSET FLANGE

(Fits Over 3" Pipe or Inside 4" Pipe)

HUB

SIZE	A	B	C	D
4 x 3	7	2 7/8	7/16	
4 x 4	7	2 7/8	7/16	

PART NO. 815 KO



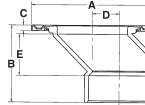
FLUSH CLOSET FLANGE W/ KNOCKOUT

(Fits Over 3" Pipe or Inside 4" Pipe)

HUB

SIZE	A	B	C	D
4 x 3	7	2 7/32	7/16	
4 x 4	7	2 7/32	7/16	

PART NO. 820



OFFSET CLOSET FLANGE, ADJUSTABLE

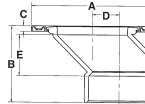
(w/Metal Ring)

(1 1/2" Offset)

HUB

SIZE	A	B	C	D	E
4 x 3	7	4 5/16	5/16	1 1/2	2 5/16

PART NO. 820-P



OFFSET CLOSET FLANGE, ADJUSTABLE

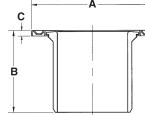
(w/Plastic Ring)

(1 1/2" Offset)

HUB

SIZE	A	B	C	D	E
4 x 3	7	4 5/16	5/16	1 1/2	2 5/16

PART NO. 824*



CLOSET FLANGE, ADJUSTABLE

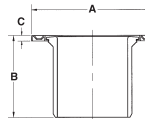
(w/Metal Ring w/4" Ext. Spigot)

SPIGOT

SIZE	A	B	C	D
4*	7	4 ¹¹ / ₁₆	5/16	

*ABS ONLY

PART NO. 824-P*



CLOSET FLANGE, ADJUSTABLE

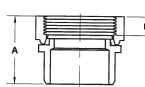
(w/Plastic Ring w/4" Ext. Spigot)

SPIGOT

SIZE	A	B	C	D
4*	7	4 ¹¹ / ₁₆	5/16	

*ABS ONLY

PART NO. 900*



SWIVEL TRAY PLUG ADAPTER

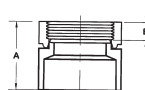
W/WASHER

SPG X FPT

SIZE	A	B	C	D
1 1/2*	1 ²³ / ₃₂	1 ¹⁵ / ₃₂		

*ABS ONLY

PART NO. 910*



SWIVEL TRAY PLUG ADAPTER

W/WASHER

H X FPT

SIZE	A	B	C	D
1 1/2*	1 ¹³ / ₁₆	1 ¹⁵ / ₃₂		

*ABS ONLY

AVAILABLE IN PVC ONLY

Installation Procedures for ABS and PVC Piping Systems

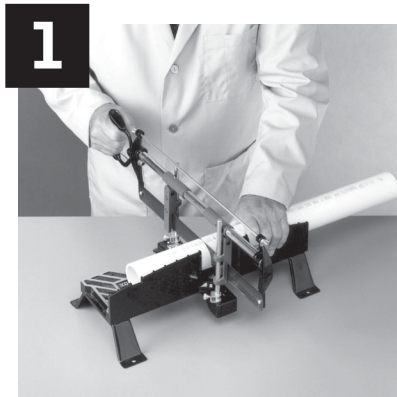
With our reliable, easy-to-install ABS and PVC TrueFit™ systems, Charlotte Pipe and Foundry is doing more than any other supplier to help contractors work more efficiently and productively.

The following information contains suggested installation and testing procedures and does not encompass all of the requirements for the design or installation of a piping system.

- Observe all safety precautions.
- Systems should be installed in a good and workmanlike manner consistent with normal industry standards and in conformance with all local plumbing, fire and building code requirements. Failure to follow proper installation practices, procedures, or techniques can result in system failure, property damage, or personal injury.
- Pipe and fitting systems should be used for their intended purpose as defined by local plumbing and building codes and the applicable ASTM standard.
- Follow manufacturers' instructions for all related products.

1. Cut Pipe

- Cut pipe square. As joints are sealed at the base of the fitting hub. An angled cut may result in joint failure.
- Acceptable tools include miter saw, mechanical cut off saw or wheel cutter. Wheel type cutters must employ a blade designed for plastics.



2. Remove Burr And Bevel

- Remove all pipe burr from inside and outside diameter of pipe with a knife-edge, file, or deburring tool.
- Chamfer (bevel) the end of the pipe 10° -15° as shown to the right.



3. Clean and Dry Pipe and Fittings

- Remove surface dirt, grease, or moisture with a clean dry cloth.



4. Dry Fit

- With light pressure, pipe should go one half to one third of the way into the fitting hub. Pipe and fittings that are too tight or too loose should not be used.



5. Applicator

- Use an applicator that is one half the pipe diameter. (See table on page 19.)
- Too large an applicator will force excessive cement into the inside of small diameter fittings. Too small an applicator will not apply sufficient cement to large diameter systems.



Nominal Pipe Size (in.)	Applicator Type		
	Dauber	Brush Width (in.)	Roller Length (in.)
1/4	A	1/2	NR
3/8	A	1/2	NR
1/2	A	1/2	NR
3/4	A	1	NR
1	A	1	NR
1 1/4	A	1	NR
1 1/2	A	1 - 1 1/2	NR
2	A	1 - 1 1/2	NR
2 1/2	NR	1 1/2 - 2	NR
3	NR	1 1/2 - 2 1/2	NR
4	NR	2 - 3	3
5	NR	3 - 5	3
6	NR	3 - 5	3
8	NR	4 - 6	7
10	NR	6 - 8	7
12	NR	6 - 8	7
14	NR	7 - 8	7
16	NR	8+	8

A = Acceptable

NR = Not Recommended

6. Coat Surfaces with Primer and Cement

- Apply primer to PVC pipe and fitting surfaces. Do not allow primer to puddle inside system. Primer should conform to ASTM F 656. The use of primer for ABS is not recommended.
- Apply cement to pipe and fitting surfaces while still wet with primer. Do not allow cement to puddle inside system. Solvent cement should conform to ASTM D 2564 for PVC systems, ASTM D 2235 for ABS systems.



7. Join Pipe and Fittings

- Assemble pipe and fittings quickly while cement is fluid.
- Insert pipe into fitting hub until it contacts socket bottom. Give pipe a quarter turn. Hold pipe and fitting together until the pipe does not back out.
- See table for recommended cure times.
- Remove excessive cement from the exterior. A properly made joint will show a continuous bead of cement around the perimeter.



Threaded Joint

When combining plastic and metal threaded systems, it is recommended that plastic male threads be screwed into metal female threads rather than metal male threads into plastic female threads.

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 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 local plumbing, fire and building code requirements.
- 3) The Products fail due to defects or deficiencies in design, engineering, or installation of the piping system of which they are a part.
- 4) 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.
- 5) The Products fail due to the freezing of water in the Products.
- 6) 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.

Any product proved to be defective in manufacture will be replaced F.O.B. point of original delivery, or credit issued, at the discretion of Charlotte Pipe. **Purchaser must obtain written permission and/or a return goods authorization** and instructions for return shipment to Charlotte Pipe of any product claimed defective, shipped in error or excess of inventory needs.

Warning: Charlotte Pipe products are **not** to be used with compressed air or gases. Charlotte Pipe **does not recommend** that piping systems that include its products be tested with compressed air or gases.

03/16/00

CHARLOTTE
PIPE AND FOUNDRY COMPANY

PO BOX 35430

CHARLOTTE

NORTH CAROLINA 28235

PHONE (704) 348-6450

(800) 572-4199

FAX (800) 553-1605

LITERATURE BY FAX (800) 745-9382

WWW.CHARLOTTEPIPE.COM

