



Drain, Waste & Vent (DWV)



ENGINEERING GUIDE

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**SPEARS® LINE OF QUALITY PVC
DRAIN, WASTE AND VENT (DWV)
FITTINGS ARE MANUFACTURED IN STRICT
COMPLIANCE TO ASTM D 2665.**

STANDARDS & SPECIFICATIONS

Standards provide greater assurance of product performance and consistency, and are available to assist design engineers in system specification. The most frequently referenced industry standards for plastic piping systems are ASTM Standard Specifications and Practices. Along with ASTM Standards, additional product specifications and certifications form the basis of product conformance to which SPEARS® products are manufactured.

ASTM D 2665	Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings.
ASTM D 3311	Drain, Waste, and Vent (DWV) Plastic Fittings Patterns.
ASTM F 1866	Poly (Vinyl Chloride) (PVC) Plastic Schedule 40 Drainage and DWV Fabricated Fittings.
ASTM D 1784	Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.



NSF International Standard 14 (NSF®-dwv) Certified

NSF International Certified to Uniform Plumbing Code (NSF®-U.P. Code)

The information contained in this publication is based on current information and Product design at the time of publication and is subject to change without notification. Our ongoing commitment to product improvement may result in some variation. No representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or results to be obtained therefrom. For verification of technical data or additional information not contained herein, please contact SPEARS® Technical Services Department [West Coast:(818) 364-1611 - East Coast: (678) 985-1263].

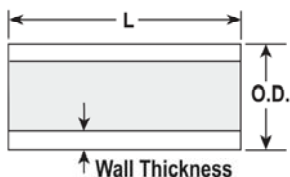




Drain, Waste & Vent (DWV) Technical DWV Pipe Dimensions & DWV Dimensions

Schedule 40 Pipe

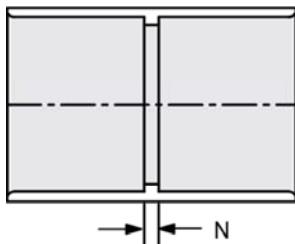
20" Lengths



Part Number	Size	L	AVG.O.D.	Minimum Wall
PD-400-012	1-1/4	20	1.660	.140
PD-400-015	1-1/2	20	1.900	.145
PD-400-020	2	20	2.375	.154
PD-400-030	3	20	3.500	.216
PD-400-040	4	20	4.500	.237
PD-400-060	6	20	6.625	.280
PD-400-080	8	20	8.625	.322
PD-400-100	10	20	10.750	.365
PD-400-120	12	20	12.750	.406
PD-400-140	14	20	14	.437
PD-400-160	16	20	16	.500

P100 Coupling

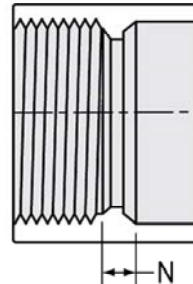
H x H



Part Number	Size	N
P100-015	1-1/2	1/8
P100-020	2	1/8
P100-030	3	1/8
P100-040	4	1/4
P100-060	6	1/4
P100-080	8	1/4
P100-100	10	3/8
P100-120	12	3/8
P100-140	14	3/8

P101 Female Adapter

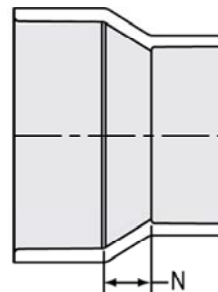
FPT x H



Part Number	Size	N
P101-015	1-1/2	1/4
P101-020	2	1/4
P101-030	3	5/16
P101-040	4	3/8
P101-060	6	3/8

P102 Pipe Increaser - Reducer

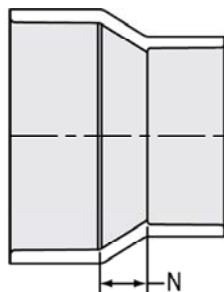
H x H



Part Number	Size	N
P102-251	2X1-1/2	11/16
P102-337	3X1-1/2	1- 3/32
P102-338	3X2	15/16
P102-420	4X2	1- 3/8
P102-422	4X3	15/16
3729-528*	6X2	4- 5/8
3729-530*	6X3	6- 7/16
P102-532	6X4	1- 7/16
P102-582	8X4	2-3/8
P102-585	8X6	1- 3/8
3729-624*	10X4	9- 3/4
P102-626	10X6	2- 1/4
3729-626*	10X6	5-3/4
P102-628	10X8	1- 5/16
3729-661*	12X2	16- 3/4
3729-663*	12X3	18- 9/16
3729-664*	12X4	15- 1/2
3729-666*	12X6	11- 3/4
P102-668	12X8	2- 5/16
3729-670*	12X10	3-13/16
3729-691*	14X2	17- 7/8

P102 Pipe Increaser - Reducer (Continued)

H x H

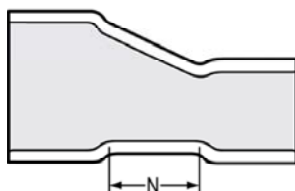


Part Number	Size	N
3729-694*	14X4	16- 5/8
3729-696*	14X6	12- 1/8
3729-698*	14X8	10- 9/16
3729-700*	14X10	4- 3/4
3729-702*	14X12	3- 1/4

* Fabricated

Pipe Increaser - Eccentric Reducer

H x H

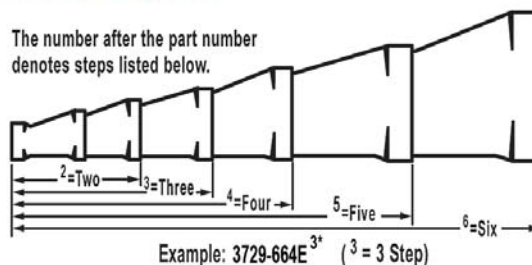


Part Number	Size	N
P102-338E	3X2	2-15/32
3729-528E ²	6X2	11- 1/4
3729-530E ²	6X3	10-13/16
3729-532E ¹	6X4	5- 5/8
3729-580E ³	8X3	18- 3/16
3729-582E ²	8X4	13- 3/8
3729-585E*	8X6	6- 7/8
3729-624E ²	10X4	15- 1/8
3729-626E*	10X6	8- 5/8
3729-628E*	10X8	7-3/16
3729-664E ³	12X4	24- 1/8
3729-666E ²	12X6	17- 5/8
3729-668E ²	12X8	16-3/16
3729-670E*	12X10	6- 7/8

* Fabricated

Eccentric Reducer Footnotes Multi-Step Configurations

The number after the part number denotes steps listed below.



*Fabricated

P103 Trap Adapter - Male

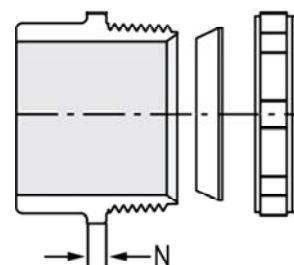
S x SLIP



Part Number	Size	N
P103-015	1-1/2	3/16
P103-020	2	3/16

P103P Trap Adapter - Male

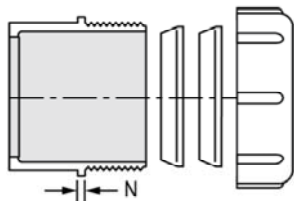
S x SLIP w/Plastic Nut - Built-in Washer



Part Number	Size	N
P103P-212	1-1/2X1-1/4	3/16
P103P-015	1-1/2	3/16
P103P-020	2	3/16

**DWV Dimensions****P103R Trap Adapter - Male
with 1-1/2 Plastic Nut &
Washer and 1-1/2 x1-1/4
Washer**

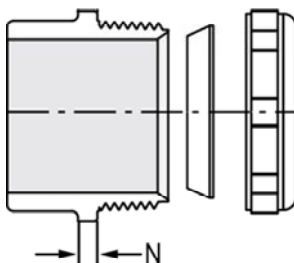
S x SLIP w/Plastic Nut



Part Number	Size	N
P103R-015	1-1/2	3/16

P103X Trap Adapter-Male

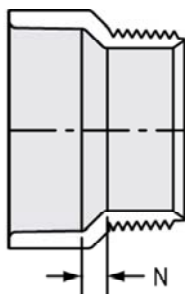
S x SLIP w/Chrome Nut & Washer



Part Number	Size	N
P103X-212	1-1/2X1-1/4	3/16
P103X-015	1-1/2	3/16
P103X-020	2	3/16

P104 Trap Adapter - Female

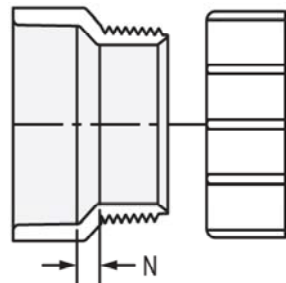
H x SLIP



Part Number	Size	N
P104-012	1-1/4	3/16
P104-015	1-1/2	3/16
P104-020	2	3/16

P104P Trap Adapter - Female

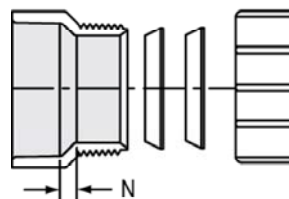
H x SLIP w/Plastic Nut



Part Number	Size	N
P104P-212	1-1/2X1-1/4	3/16
P104P-012	1-1/4	3/16
P104P-015	1-1/2	3/16

**P104R Trap Adapter - Female
w/1-1/2 Plastic Nut & Washer
and 1-1/2x1-1/4 Washer**

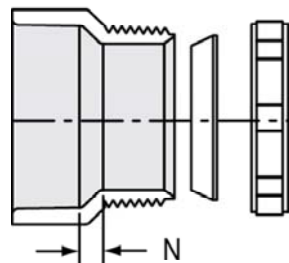
H x SLIP w/Plastic Nut



Part Number	Size	N
P104R-015	1-1/2	3/16

P104X Trap Adapter - Female

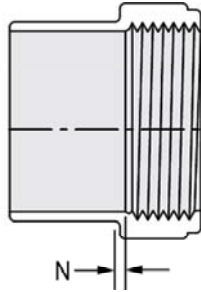
H x SLIP w/Chrome Nut & Washer



Part Number	Size	N
P104X-212	1-1/2X1-1/4	3/16
P104X-015	1-1/2	3/16
P104X-020	2	3/16

**P105 Fitting Cleanout Adapter**

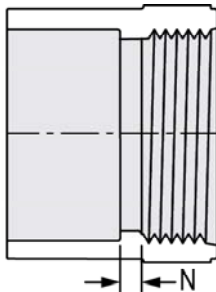
S x FPT



Part Number	Size	N
P105-015	1-1/2	5/32
P105-020	2	1/4
P105-030	3	1/4
P105-040	4	1/4
P105-060	6	3/8
P105-080	8	3/8

P105H Female Cleanout Adapter

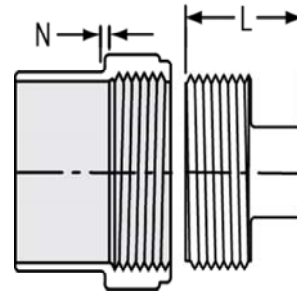
H x FPT



Part Number	Size	N
P105H-040	4	1/4
P105H-060	6	11/32
P105H-080	8	11/32

P105X Fitting Cleanout Adapter w/C.O. Plug

S x FPT

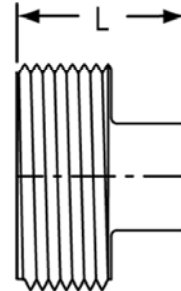


Part Number	Size	L	N
P105X-015	1-1/2	1-3/8	5/32
P105X-020	2	1-3/8	5/32
P105X-030	3	1-3/4	1/4
P105X-040	4	1-7/8	1/4
P105X-060	6	1-15/16	3/8
P105X-080	8	2- 1/16	5/16
3978-100**	10	1	0
3978-120**	12	1	0
3978-140**	14	1	0

* Fabricated

P106 Cleanout Plug

MPT



Part Number	Size	L
P106-015	1-1/2	1- 5/16
P106-020	2	1- 3/8
P106-025	2-1/2	1- 1/2
P106-030	3	1-3/4
P106-040	4	1- 7/8
P106-060	6	1-15/16
P106-080	8	2- 1/16



P107 Flush Bushing

S x H

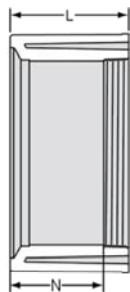


Part Number	Size	L	N
P107-251	2X1-1/2	1- 1/16	1/4
P107-337	3X1-1/2	1- 3/4	1
P107-338	3X2	1-3/4	1
P107-420	4X2	2	1- 1/8
P107-422	4X3	2	1/2
P107-532	6X4	3- 7/16	1-3/4
P107-582	8X4	4-9/16	2-13/16
P107-585	8X6	4- 9/16	1- 9/16
P107-624 ¹	10X4	6	4-1/4
P107-626	10X6	5-11/32	2-5/16
P107-628	10X8	5- 1/4	1- 5/16
P107-664 ¹	12X4	6- 15/16	5- 5/32
P107-666 ¹	12X6	6- 7/8	3- 7/8
P107-668 ¹	12X8	6-5/16	2- 5/16
P107-670	12X10	6- 5/16	1-5/16

¹ Outlet-sized with Bushing

P108 Flush Bushing (Cleanout Adapter)

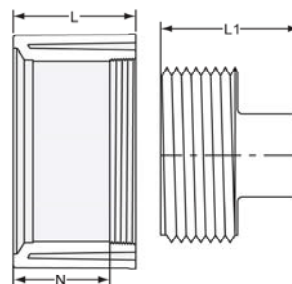
S x FPT



Part Number	Size	L	N
P108-212	1-1/2X1-1/4	7/8	3/16
P108-628	10X8	5-11/32	4- 3/16
P108-668	12X8	7- 1/2	6- 3/8

P108X Flush Bushing (Cleanout Adapter) w/Plug

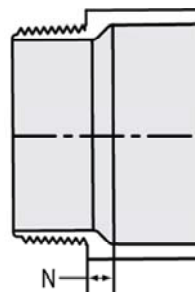
S x FPT



Part Number	Size	L	L1	N
P108X-628	10X8	5-11/32	2-1/32	4-3/16
P108X-668	12X8	7-1/2	2-1/32	6-3/8

P109 Male Adapter (Will not accept tail piece)

MPT x H



Part Number	Size	N
P109-015	1-1/2	3/16
P109-020	2	3/16
P109-030	3	3/8
P109-040	4	3/8
P109-060	6	3/8

P110 Flush C.O. Plug

MPT



Part Number	Size	L
P110-015	1-1/2	5/8
P110-020	2	5/8
P110-025	2-1/2	3/4
P110-030	3	3/4



P110 Flush C.O. Plug

(Continued)

MPT



Part Number	Size	L
P110-040	4	7/8
P110-060	6	31/32

P116 Cap

SOC

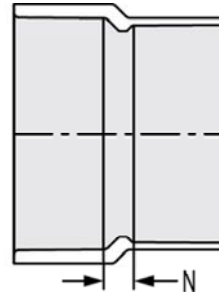


Part Number	Size	L
P116-015	1-1/2	15/16
P116-020	2	1
P116-030	3	1-3/4
P116-040	4	2
P116-060	6	3-5/16
P116-080	8	6-3/16
3747-100*	10	3-3/4
3747-120*	12	4-1/8
3747-140*	14	5-3/4

Note: 8" Cap is Domed Style
* Fabricated

P117 Adapter Coupling
(Adapts S&D Spigot to DWV Spigot)

H x H



Part Number	Size	N
P117-040	4	1/2
P117-422	4X3	3/4

P118 Adapter Bushing
(Adapts DWV Hub to S&D Spigot)

DWV SPIGOT x HUB

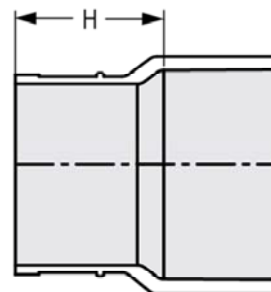


Part Number	Size	L
P118-030	3	1- 5/16
P118-040	4	2
P118-060F*	6	3-1/8

* Fabricated

P119 No-Hub Adapter

S x H

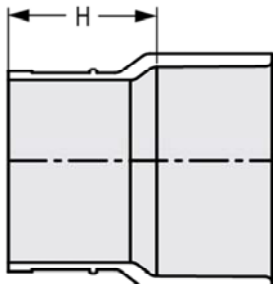


Part Number	Size	H
P119-015	1-1/2	1- 5/8
P119-020	2	1- 5/8
P119-030	3	1-3/4
P119-040	4	1- 7/8
P119-251	2X1-1/2	1- 5/8

**P119 No-Hub Adapter**

(Continued)

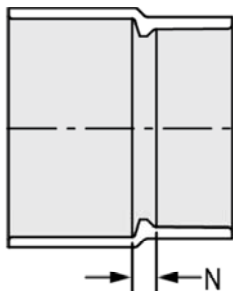
S x H



Part Number	Size	H
P119-422	4X3	2- 1/16

P122 Spigot Adapter, Cast Iron

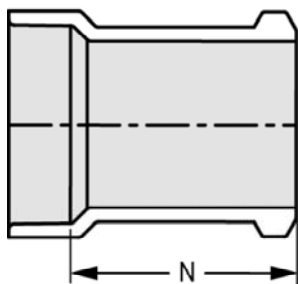
H x H



Part Number	Size	N
P122-040	4	9/16

P123 Hub Adapter, Cast Iron

H x S

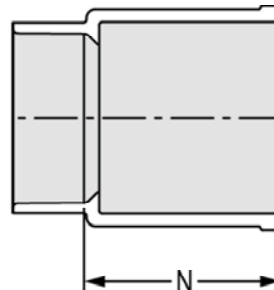


Part Number	Size	N
P123-020	2	3- 7/8
P123-030	3	4- 1/8
P123-040	4	4- 7/16

P123R Hub Adapter, Cast Iron, Increaser

H x S

Plain End: Joint can be made with compression gasket or plastic lead & seal rope - Do Not use hot lead



Part Number	Size	N
P123R-213	1-1/2X2	3- 9/16
P123R-342	3X4	4

P130 Repair Coupling

H x H

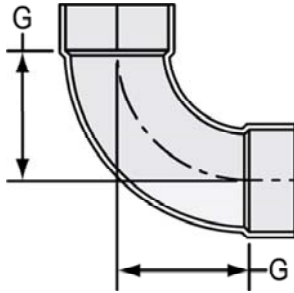


Part Number	Size	L
P130-015	1-1/2	1- 1/2
P130-020	2	1-11/16
P130-030	3	3- 3/16
P130-040	4	3- 3/4
P130-060	6	6-3/8
P130-080	8	8- 5/16
P130-100	10	10- 7/16



P300 1/4 Bend

H x H

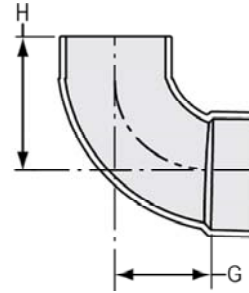


Part Number	Size	G
P300-015	1-1/2	1-3/4
P300-020	2	2- 5/16
P300-030	3	3- 1/16
P300-040	4	3-7/8
P300-060	6	5
P300-080	8	6
P300-100	10	9- 13/16
P300-120	12	10- 3/4

P302 1/4 Bend, Street

(Continued)

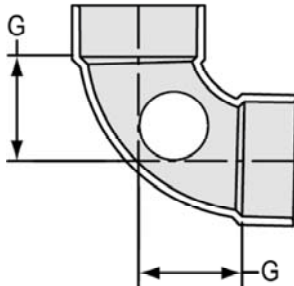
S x H



Part Number	Size	G	H
P302-040	4	3- 7/8	5- 9/16
P302-060	6	5	8-1/4
P302-080	8	6	10-3/8
P302-100	10	9-13/16	15-5/16
P302-120	12	10 13/16	17-1/4

P300S 1/4 Bend with Side Inlet

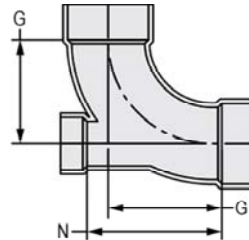
ALL HUB



Part Number	Size	G
P300S-338	3X3X2	3- 1/16

P303 1/4 Bend w/Low Heel Inlet

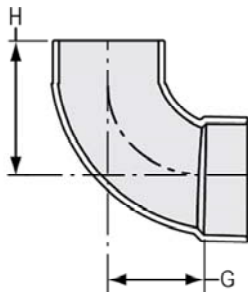
H x H x H



Part Number	Size	G	N
P303-338	3X3X2	3- 1/16	4- 7/16
P303-420	4X4X2	3-7/8	5-1/4

P302 1/4 Bend, Street

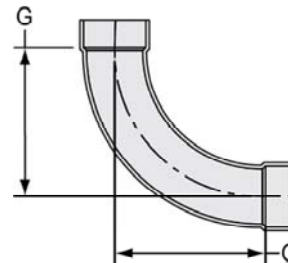
S x H



Part Number	Size	G	H
P302-015	1-1/2	1- 3/4	2- 13/32
P302-020	2	2-5/16	3-1/4
P302-030	3	3-1/16	4-9/16

P304 Long Sweep 1/4 Bend

H x H



Part Number	Size	G
P304-015	1-1/2	2-3/4
P304-020	2	3-1/4
P304-030	3	4-1/16
P304-040	4	4- 15/16
P304-060 ¹	6	9

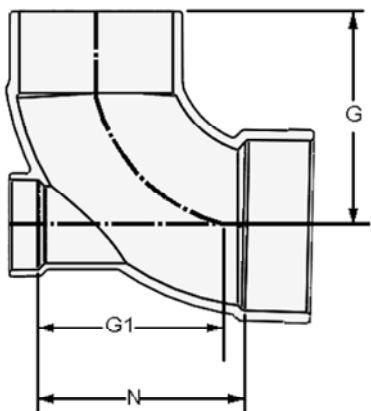
¹ 6" size assembled from 2-Molded 1/8 Bends



DWV Dimensions

P306 1/4 Bend w/Low Heel Inlet

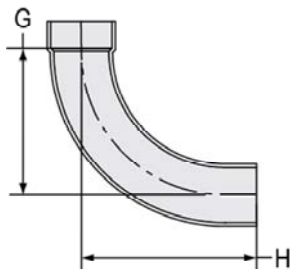
S x H x H



Part Number	Size	G	G1	N
P306-420	4X4X2	5 -5/8	3- 7/8	5- 7/16

P309 Long Sweep 1/4 Bend, Street

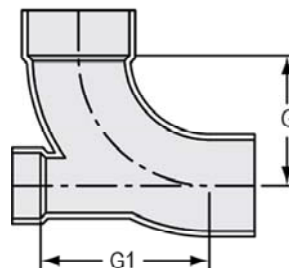
H x S



Part Number	Size	G	H
P309-015	1-1/2	2- 3/4	3-5/16
P309-020	2	3-1/4	4- 1/16
P309-030	3	4-1/16	5-11/16
P309-040	4	4-15/16	6-1/2
P309-060	6	9	11-3/4

P310 1/4 Bend, Street w/Low Heel Inlet

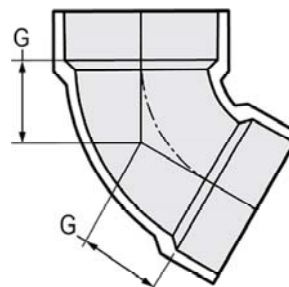
H x S x H



Part Number	Size	G	G1
P310-338	3X3X2	2-31/32	4-3/16

P319 1/6 Bend

H x H



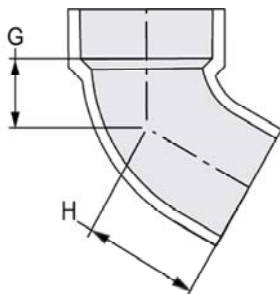
Part Number	Size	G
P319-015	1-1/2	1
P319-020	2	1- 5/16
P319-030	3	1-11/16
P319-040	4	2- 1/16
3724-060*	6	2-13/16
3724-080*	8	3-3/8
3724-100*	10	4
3724-120*	12	4-3/4
3724-140*	14	10-13/16

* Fabricated



P320 1/6 Bend, Street

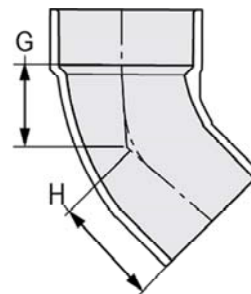
H x S



Part Number	Size	G	H
P320-015	1-1/2	1	1-3/4
P320-020	2	1- 5/16	2- 1/8
P320-030	3	1-11/16	3
P320-040	4	2-1/16	3-1/2

P323 1/8 Bend, Street

H x S

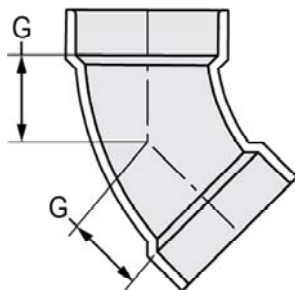


Part Number	Size	G	H
P323-015	1-1/2	1-1/8	1-3/4
P323-020	2	1-1/2	2- 3/16
P323-030	3	1- 3/4	3- 1/4
P323-040	4	2-3/16	3-15/16
P323-060	6	2	5
P323-080	8	2	6
3727-100*	10	3-1/8	8-1/2
3727-120*	12	3-1/2	10
3727-140*	14	4-7/16	11-7/16

* Fabricated

P321 1/8 Bend

H x H

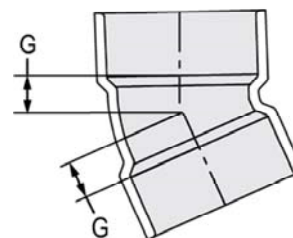


Part Number	Size	G
P321-015	1-1/2	1- 1/8
P321-020	2	1- 1/2
P321-030	3	1-3/4
P321-040	4	2- 3/16
P321-060	6	2
P321-080	8	2- 1/16
P321-100	10	2-5/8
P321-120	12	3-1/8
3717-140*	14	3-7/8

* Fabricated

P324 1/16 Bend

H x H



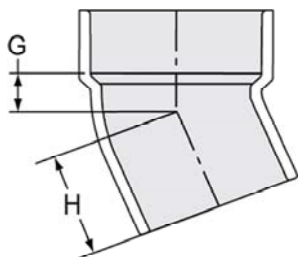
Part Number	Size	G
P324-015	1-1/2	1/2
P324-020	2	11/16
P324-030	3	13/16
P324-040	4	1
P324-060	6	1- 1/2
P324-080	8	1-1/2
3716-100*	10	2-1/16
3716-120*	12	2-1/4
3716-140*	14	2-1/2

* Fabricated



P326 1/16 Bend, Street

H x S

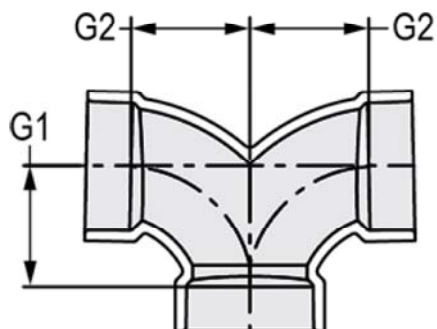


Part Number	Size	G	H
P326-015	1-1/2	1/2	1- 1/8
P326-020	2	11/16	1- 3/8
P326-030	3	13/16	2-1/4
P326-040	4	1	2- 3/4
P326-060	6	1- 1/2	4- 1/2
P326-080	8	1- 1/2	5-1/2
3742-100*	10	13/16	9-9/16
3742-120*	12	1-1/16	12-1/4
3742-140*	14	1-7/16	14-9/16

* Fabricated

P327 Double 1/4 Bend

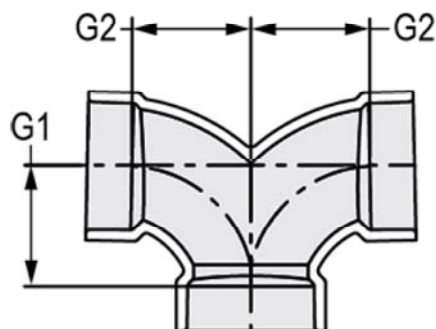
H x H x H



Part Number	Size	G1	G2
P327-015	1-1/2	1- 3/4	1- 3/4
P327-020	2	2- 5/16	2- 5/16
P327-030	3	3- 1/16	3- 1/16
P327-040	4	3-7/8	3-7/8

P327 Double 1/4 Bend, Reducing

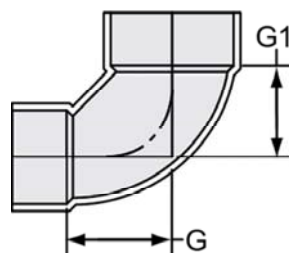
H x H x H



Part Number	Size	G1	G2
P327-241	2X1-1/2X1-1/2	1- 15/16	2-3/16

P329 Closet Bend, Reducing

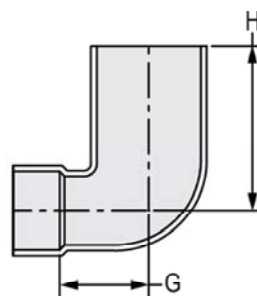
H x H



Part Number	Size	G	G1
P329-342	3X4	3- 1/16	2-21/32

P330 Closet Bend, Reducing

H x S

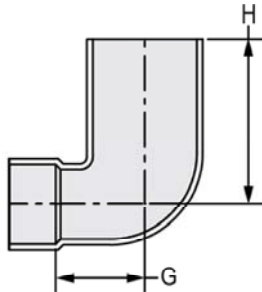


Part Number	Size	G	H
P330-342	3X4	3- 5/8	6



P330X Closet Bend, Reducing with TEST CAP

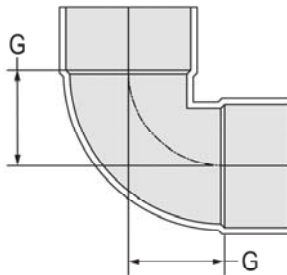
H x S



Part Number	Size	G	H
P330X-342	3X4	3-13/32	6-3/32

P331 Vent Ell

H x H

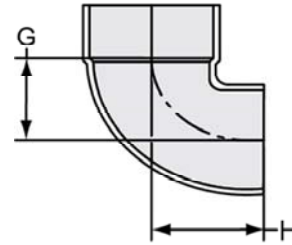


Part Number	Size	G
P331-015	1-1/2	1- 3/16
P331-020	2	1- 1/2
P331-030	3	1- 7/8
P331-040	4	2- 1/2
P331-060	6	3- 1/2
P331-080	8	4- 1/2
P331-100	10	5- 13/16
P331-120	12	6-7/8
3706-140*	14	13-3/16

* Fabricated

P333 Vent Ell, Street

H x S

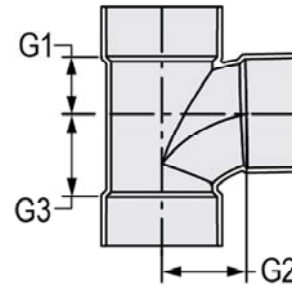


Part Number	Size	G	H
P333-015	1-1/2	1- 3/16	1-7/8
P333-020	2	1- 1/2	2- 3/16
P333-030	3	1-7/8	3- 5/8
P333-040	4	3- 3/16	4- 3/16
3709-060*	6	6-1/8	9-3/8
3709-080*	8	7-1/2	11-3/4
3709-100*	10	9-9/16	14-13/16
3709-120*	12	10-15/16	17-3/16
3709-140*	14	12-15/16	20-15/16

* Fabricated

P400 Sanitary Tee

ALL HUB

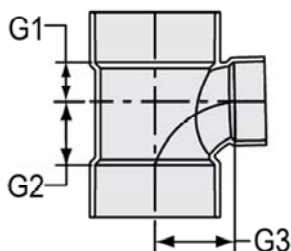


Part Number	Size	G1	G2	G3
P400-015	1-1/2	1	1-3/4	1-3/4
P400-020	2	1-3/8	2-5/16	2-5/16
P400-030	3	1-13/16	3-1/16	3-1/16
P400-040	4	2-1/4	3-7/8	3-7/8
P400-060	6	3- 1/2	5	5
P400-080	8	4- 1/2	6	6
P400-100	10	5- 1/2	10	10
P400-120	12	6-9/16	11	11
3790-140*	14	5-5/16	22-3/4	23-1/16

* Fabricated

**P401 Sanitary Tee, Reducing**

ALL HUB

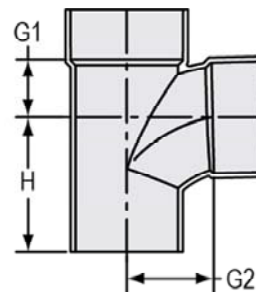


Part Number	Size	G1	G2	G3
P401-241	2X1-1/2X1-1/2	1- 3/16	1-15/16	2- 3/16
P401-251	2X2X1-1/2	1- 3/16	1-15/16	2-3/16
P401-257	2X1-1/2X2	1-3/8	2-5/16	2-5/16
P401-337	3X3X1-1/2	15/16	1-3/4	2- 9/16
P401-338	3X3X2	1-3/16	2- 1/8	2-7/8
P401-420	4X4X2	1-1/8	2-1/16	3-5/16
P401-422	4X4X3	1-3/4	3	3- 9/16
3790-528*	6X2	2-3/4	5- 3/8	7- 1/16
3790-530*	6X3	3- 1/4	7	9-11/16
P401-532	6X4	2- 3/16	3-5/8	4-11/16
3790-578*	8X2	3-1/2	6-1/4	8-7/16
3790-580*	8X3	3- 3/4	7- 1/2	10- 5/8
3790-582*	8X4	3- 7/8	8- 7/8	11- 1/8
3790-585*	8X6	3- 7/8	11- 3/4	12- 7/8
3790-621*	10X2	3-1/2	6-1/4	9-7/16
3790-623*	10X3	4- 1/16	7-11/16	11- 5/8
3790-624*	10X4	4- 5/16	9- 5/16	12- 1/8
3790-626*	10X6	4-15/16	12-13/16	13- 7/8
3790-628*	10X8	5- 1/4	15- 3/4	16- 3/16
3790-661*	12X2	3-15/16	6-9/16	10-3/8
3790-663*	12X3	4- 1/4	7- 3/4	12- 5/8
3790-664*	12X4	4- 5/16	9- 3/16	13- 1/8
3790-666*	12X6	4- 7/8	12- 5/8	14- 7/8
3790-668*	12X8	5	15- 1/2	17- 1/8
3790-670*	12X10	5- 1/16	18- 7/16	20- 1/16
3790-691*	14X2	3-11/16	6-5/16	11
3790-693*	14X3	4- 1/2	8	13- 3/16
3790-694*	14X4	4- 9/16	9- 7/16	13-11/16
3790-696*	14X6	4- 5/8	12- 3/8	15- 7/16
3790-698*	14X8	4-13/16	15- 3/16	17- 3/4
3790-700*	14X10	4- 7/8	18- 1/8	20-11/16
3790-702*	14X12	6	22	22- 3/8

* Fabricated

P403 Sanitary Tee, Street

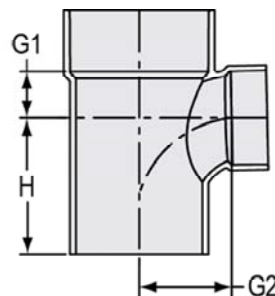
S x H x H



Part Number	Size	G1	G2	H
P403-015	1-1/2	1	1-3/4	2- 1/2
P403-020	2	1-3/8	2-5/16	3-3/16
P403-030	3	1-13/16	3-1/16	4-1/2
P403-040	4	2-1/4	3-7/8	5-5/8
P403-060	6	3- 1/2	5	7- 1/2
P403-080	8	4-1/2	6	9- 3/8
P403-100	10	5-5/8	10	14- 5/8
P403-120	12	6-1/2	11	16- 1/4

P404 Sanitary Tee, Street, Reducing

S x H x H

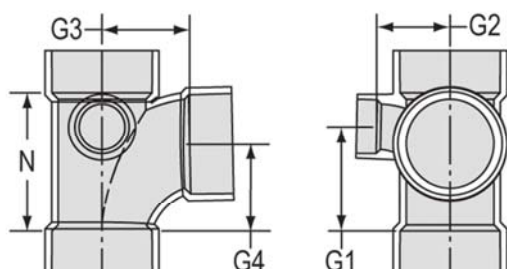


Part Number	Size	G1	G2	H
P404-241	2X1-1/2X1-1/2	1-3/16	2-3/16	2-11/16
P404-251	2X2X1-1/2	1-3/16	2-3/16	2-11/16
P404-257	2X1-1/2X2	1-3/8	2- 5/16	3-3/32
P404-337	3X3X1-1/2	15/16	2-9/16	2-15/16
P404-338	3X3X2	1- 3/16	2- 7/8	3-1/4
P404-420	4X4X2	1- 1/8	3- 5/16	3-13/16
P404-422	4X4X3	1- 3/4	3-9/16	4-3/4



P416 Sanitary Tee with Left Side Inlet

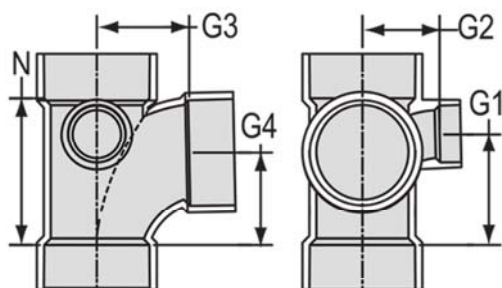
ALL HUB



Part Number	Size	G1	G2	G3	G4	N
P416-337	3X3X3X1-1/2	3- 3/4	2- 1/2	2-31/32	3- 1/16	4-13/16
P416-338	3X3X3X2	3- 3/4	2-25/32	2-31/32	3- 1/16	4-13/16
P416-420	4X4X4X2	5-1/16	3-9/32	3-13/16	3-27/32	6-1/8

P417 Sanitary Tee with Right Side Inlet

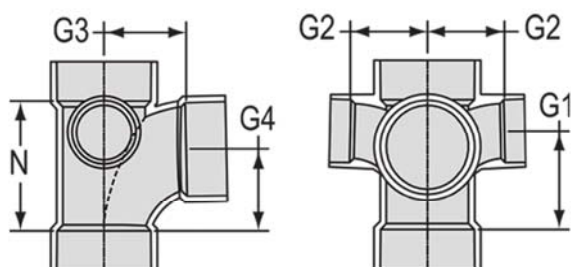
ALL HUB



Part Number	Size	G1	G2	G3	G4	N
P417-337	3X3X3X1-1/2	3-23/32	2-1/2	2-31/32	3- 1/32	4-25/32
P417-338	3X3X3X2	3-11/16	2-7/8	3-1/16	3-1/16	4-7/8
P417-420	4X4X4X2	5	3- 1/4	3- 3/4	3-29/32	6- 3/32

P418 Sanitary Tee with R&L Side Inlets

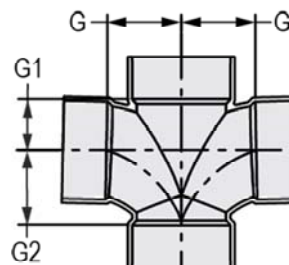
ALL HUB



Part Number	Size	G1	G2	G3	G4	N
P418-337	3X3X3X1-1/2	3-23/32	2-19/32	2-31/32	3- 1/16	4-13/16
P418-338	3X3X3X2X2	3- 3/4	2-29/32	3	3- 1/16	4-3/4
P418-420	4X4X4X2X2	5	3-11/32	3-13/16	3-29/32	6- 3/32

P428 Double Sanitary Tee

ALL HUB

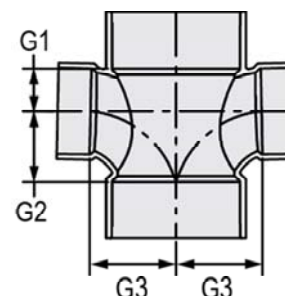


Part Number	Size	G	G1	G2
P428-015	1-1/2	1-3/4	1	1-3/4
P428-020	2	2-5/16	1-3/8	2-5/16
P428-030	3	3-1/16	1-13/16	3-1/16
P428-040	4	3-7/8	2-1/4	3-7/8
3791-060 [*]	6	11-15/16	4- 3/16	12- 3/16
3791-080 [*]	8	15- 3/16	4- 5/8	15- 5/16
3791-100 [*]	10	19- 1/8	5- 3/16	18- 5/8
3791-120 [*]	12	21-13/16	5- 5/8	21- 3/4
3791-140 [*]	14	22- 3/4	5- 5/16	23- 1/16

* Fabricated

P429 Double Sanitary Tee, Reducing

ALL HUB



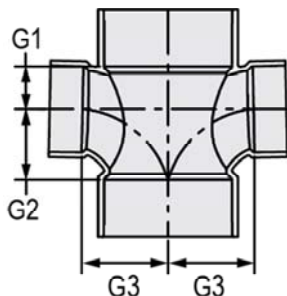
Part Number	Size	G1	G2	G3
P429-251	2X2X1-1/2X1-1/2	1- 3/16	1- 15/16	2- 3/16
P429-337	3X3X1-1/2X1-1/2	15/16	1-3/4	2-9/16
P429-338	3X3X2X2	1-3/16	2- 1/8	2- 7/8
P429-419	4X4X1-1/2X1-1/2	1- 1/16	2	3- 1/4
P429-420	4X4X2X2	1- 1/8	2- 1/16	3- 5/16
P429-422	4X4X3X3	1-3/4	3	3-9/16
3791-528 [*]	6X2	2-3/4	5-5/8	7-7/16
3791-530 [*]	6X3	3- 1/4	7	9-11/16
3791-532 [*]	6X4	3- 5/16	8- 7/16	10- 3/16
3791-578 [*]	8X2	3-1/2	6	8-7/16
3791-580 [*]	8X3	3- 3/4	7- 1/2	10- 5/8
3791-582 [*]	8X4	3- 7/8	8- 7/8	11- 1/8
3791-585 [*]	8X6	3- 7/8	11- 3/4	12- 7/8
3791-621 [*]	10X2	3-1/2	6-1/4	9-7/16
3791-623 [*]	10X3	4- 1/16	7-11/16	11- 5/8



P429 Double Sanitary Tee, Reducing

(Continued)

ALL HUB

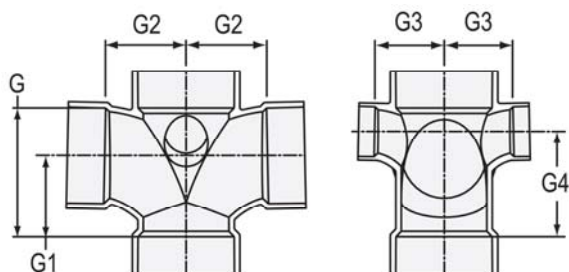


Part Number	Size	G1	G2	G3
3791-624*	10X4	4- 5/16	9- 5/16	12- 1/8
3791-626*	10X6	4-15/16	12-13/16	13- 7/8
3791-628*	10X8	5- 1/4	15- 3/4	16- 3/16
3791-661*	12X2	3-15/16	6-9/16	10-3/8
3791-663*	12X3	4- 1/4	7- 3/4	12- 5/8
3791-664*	12X4	4- 5/16	9- 3/16	13- 1/8
3791-666*	12X6	4- 7/8	12- 5/8	14- 7/8
3791-668*	12X8	5	15- 1/2	17- 1/8
3791-670*	12X10	5- 1/16	18- 7/16	20- 1/16
3791-691*	14X2	3-11/16	6-5/16	11
3791-693*	14X3	4- 1/2	8	13- 3/16
3791-694*	14X4	4- 9/16	9- 7/16	13-11/16
3791-696*	14X6	4- 5/8	12- 3/8	15- 7/16
3791-698*	14X8	4-13/16	15- 3/16	17- 3/4
3791-700*	14X10	4- 7/8	18- 1/8	20-11/16
3791-702*	14X12	6	22	22- 3/8

* Fabricated

P439 Double Sanitary Tee with R&L Side Inlets

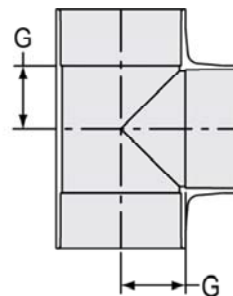
ALL HUB



Part Number	Size	G	G1	G2	G3	G4
P439-338	3X3X3X3X2X2	4-7/8	3- 1/16	3- 1/16	2-7/8	3- 11/16
P439-420	4X4X4X4X2X2	6- 1/8	3-7/8	3- 7/8	3- 5/16	4-15/16

P441 Vent Tee

ALL HUB

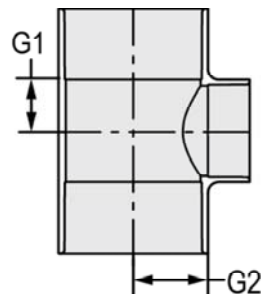


Part Number	Size	G
P441-015	1-1/2	1- 3/16
P441-020	2	1- 1/2
P441-030	3	1-15/16
P441-040	4	2-1/2
P441-060	6	3- 5/8
P441-080	8	4- 1/2
P441-100	10	5-13/16
P441-120	12	6-27/32
3701-140*	14	11

* Fabricated

P442 Vent Tee, Reducing

ALL HUB



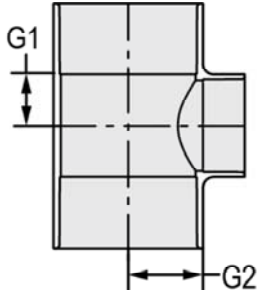
Part Number	Size	G1	G2
P442-251	2X1-1/2	1-1/8	1-15/32
3701-528*	6X2	3- 3/8	5- 5/16
3701-530*	6X3	4- 5/8	6- 1/16
P442-532	6X4	2- 9/16	3-25/32
3701-578*	8X2	4- 1/16	6- 1/4
3701-580*	8X3	4- 9/16	7
P442-582	8X4	2-17/32	5- 3/32
P442-585	8X6	3- 5/8	4-25/32
3701-621*	10X2	4- 3/8	7- 1/4
3701-623*	10X3	4- 7/8	8
P442-624	10X4	3-31/32	6
P442-626	10X6	3-25/32	6- 3/32
P442-628	10X8	5-25/32	7- 9/32
3701-661*	12X2	4- 3/4	8- 1/4
3701-663*	12X3	5- 1/4	9
P442-664	12X4	4- 7/8	10-11/32
P442-666	12X6	4- 7/8	8-31/32



P442 Vent Tee, Reducing

(Continued)

ALL HUB

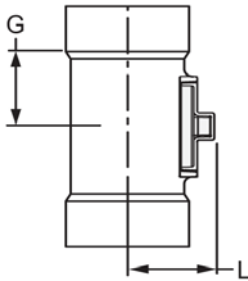


Part Number	Size	G1	G2
P442-668	12X8	4- 7/8	7-11/32
P442-670	12X10	6-13/16	7- 3/8
3701-691*	14X2	4- 3/8	8-13/16
3701-693*	14X3	4- 7/8	9- 9/16
3701-694*	14X4	5- 3/8	9- 7/8
3701-696*	14X6	6- 3/8	9-15/16
3701-698*	14X8	7- 3/8	9- 7/8
3701-700*	14X10	8- 1/2	10-15/16
3701-702*	14X12	9- 1/2	10- 3/4

* Fabricated

3701 Test Tee

SOC x FPT with Plug

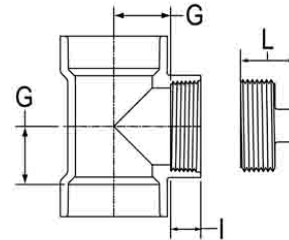


Part Number	Size	G	L
3701-060TEST*	6	5- 3/8	5- 5/16
3701-080TEST*	8	7- 3/8	6- 3/16
3701-100TEST*	10	9	6- 3/4
3701-120TEST*	12	9- 1/4	8- 9/16

* Fabricated

P444X Cleanout Tee w/C.O. Plug

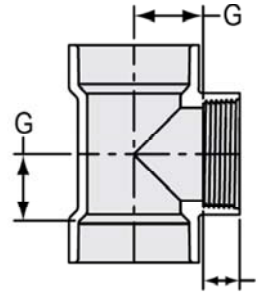
H x H



Part Number	Size	G	I	L
P444X-015	1-1/2	1-3/16	5/8	1-3/8
P444X-020	2	1- 1/2	5/8	1-3/8
P444X-030	3	1- 7/8	3/4	1-3/4
P444X-040	4	2- 1/2	7/8	1- 7/8
P444X-060	6	3- 1/2	1	2

P445 Flush C.O. Tee

H x H x FPT

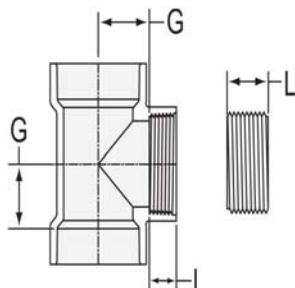


Part Number	Size	G	I
P445-015	1-1/2	1- 3/16	5/8
P445-020	2	1- 1/2	5/8
P445-030	3	1-3/4	3/4
P445-040	4	2- 1/2	7/8
P445-060	6	3- 1/2	1



P445X Flush C.O. Tee w/C.O. Plug

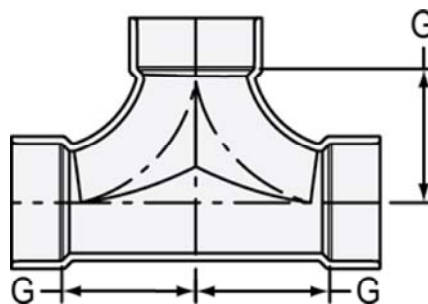
H x H



Part Number	Size	G	I	L
P445X-015	1-1/2	1-3/16	5/8	5/8
P445X-020	2	1-1/2	5/8	5/8
P445X-030	3	1- 7/8	3/4	3/4
P445X-040	4	2- 1/2	7/8	7/8
P445X-060	6	3- 1/2	1	1

P448 2-WAY Cleanout

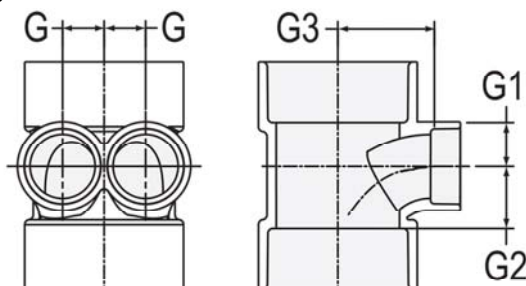
ALL HUB



Part Number	Size	G
P448-030	3	4-1/16
P448-040	4	4-15/16

P447 Horizontal Twin Tee

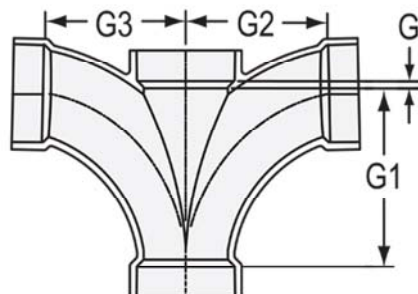
ALL HUB



Part Number	Size	G	G1	G2	G3
P447-337	3X3X1-1/2X1-1/2	1- 1/32	1- 1/16	1- 9/16	2- 9/32

P500 Double Fixture Fitting

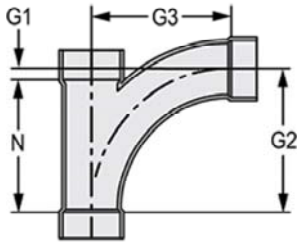
ALL HUB



Part Number	Size	G	G1	G2	G3
P500-020	2X2X2X2	3/8	4- 1/4	3- 1/2	3- 1/2
P500-030	3X3X3X3	1/2	6- 1/4	4- 15/16	4- 15/16
P500-241	2X1-1/2X1-1/2X1-1/2	3/8	3- 1/8	2- 7/8	2- 7/8
P500-251	2X2X1-1/2X1-1/2	3/8	3- 1/8	2-7/8	2-7/8
P500-338	3X2X3X3	1/2	6- 1/4	4- 15/16	4- 15/16

P501 Combination Wye and 1/8 Bend (One Piece)

ALL HUB

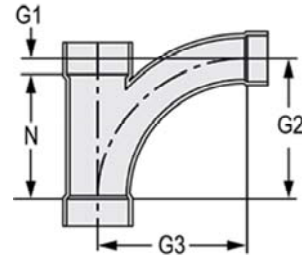


Part Number	Size	G1	G2	G3	N
P501-015	1-1/2	7/16	3-15/16	3-15/16	3-1/2
P501-020	2	11/16	5- 1/8	5-1/8	4-7/16
P501-030	3	1-1/16	7-9/16	7- 9/16	6-1/2
P501-040	4	1- 1/2	10	10	8- 1/2
3777-060*	6	15/16	12-9/16	16-3/8	16-3/8
3777-080*	8	1/8	16-1/8	19-15/16	19-15/16
3777-100*	10	5/8	19-1/4	23-13/16	23-13/16
3777-120*	12	1/4	22-15/16	27-3/8	27-3/8
3777-140*	14	1-1/4	29-5/16	28-3/8	28-3/8

* Fabricated

P502 Combination Wye and 1/8 Bend, Reducing (One Piece)

ALL HUB

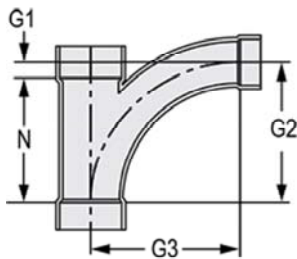


Part Number	Size	G1	G2	G3	N
3777-626*	10X6	1-11/16	16- 1/16	14- 9/16	17- 3/4
3777-628*	10X8	3/4	20- 1/4	17- 3/16	21
3777-661*	12X2	2- 1/16	8- 7/16	11	10- 1/2
3777-663*	12X3	1-13/16	10- 3/16	12- 5/16	12
3777-664*	12X4	1- 3/16	12- 5/16	14- 1/8	13- 1/2
3777-666*	12X6	1- 5/8	15- 7/8	15- 1/2	17- 1/2
3777-668*	12X8	1/2	20	18- 1/8	20- 1/2
3777-670*	12X10	9/16	22-15/16	20-3/16	23- 1/2
3777-691*	14X2	1- 7/8	8- 1/8	11- 5/8	10
3777-693*	14X3	2- 1/16	10- 7/16	12- 7/8	12- 1/2
3777-694*	14X4	1- 1/2	12- 1/2	14-11/16	14
3777-696*	14X6	1- 7/16	15- 9/16	16- 1/8	17
3777-698*	14X8	5/16	19-11/16	18-11/16	20
3777-700*	14X10	5/16	22-11/16	20-13/16	23
3777-702*	14X12	9/16	27-5/16	23-9/16	28

* Fabricated

P502 Combination Wye and 1/8 Bend, Reducing (One Piece)

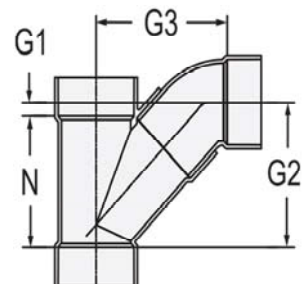
ALL HUB



Part Number	Size	G1	G2	G3	N
P502-251	2X2X1-1/2	7/16	3-15/16	4- 3/16	3- 1/2
P502-337	3X3X1-1/2	7/16	3-15/16	4-3/4	3- 1/2
P502-338	3X3X2	11/16	5-1/8	5-11/16	4-7/16
P502-420	4X4X2	5/8	5-1/8	6-1/8	4-1/2
P502-422	4X4X3	1-1/16	7-9/16	8-1/16	6-1/2
3777-528*	6X2	7/8	7- 1/2	8- 1/16	8- 3/8
3777-532*	6X4	3/16	11- 9/16	11- 3/16	11- 3/4
3777-578*	8X2	1- 5/8	8- 1/8	9- 1/16	9- 3/4
3777-580*	8X3	1- 5/16	9-15/16	10- 5/16	11- 1/4
3777-621*	10X2	1-11/16	8- 1/16	10- 1/16	9- 3/4
3777-623*	10X3	1- 5/8	10- 1/8	11- 3/8	11- 3/4
3777-624*	10X4	1- 1/4	12- 3/8	13- 1/8	13- 5/8

P503 Combination Wye and 1/8 Bend (Two Piece)

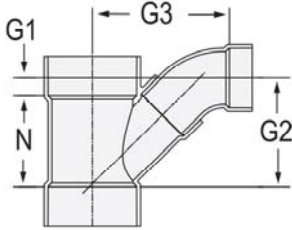
ALL HUB



Part Number	Size	G1	G2	G3	N
P503-030	3	3/4	7- 3/8	7-9/16	6-5/8
P503-040	4	7/8	9-3/16	9-1/2	8-1/4
P503-060	6	1-1/6	11-3/16	11-1/2	10-3/16
P503-080	8	13/16	18-7/8	14-5/8	14- 1/16
P503-100	10	1-13/16	18-5/16	19-1/16	16-7/16
P503-120*	12	2-1/16	21-1/16	22-1/16	19

**P504 Combination Wye and 1/8 Bend, Reducing (Two Piece)**

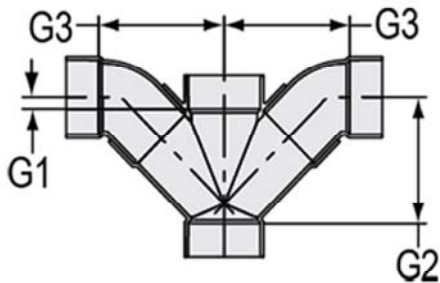
ALL HUB



Part Number	Size	G1	G2	G3	N
P504-422	4X3	1	7-5/8	8-5/16	6-5/8
P504-530	6X3	5/8	7-3/4	9- 5/16	7-1/8
P504-532	6X4	1- 3/8	8-1/4	10-1/4	6-7/8
P504-580 [*]	8X3	1- 1/8	8-13/16	10-9/16	8
P504-582	8X4	1- 1/4	9- 1/4	11- 1/8	8
P504-585	8X6	1	11-7/16	12-1/2	10-7/16
P504-623 [*]	10X3	1- 1/4	12-3/8	14-3/32	10-13/16
P504-624 [*]	10X4	1- 7/16	12-1/2	14-11/16	10-13/16
P504-626	10X6	15/16	12	14- 1/16	10-13/16
P504-628	10X8	15/16	14-15/16	15- 1/2	13-15/16
P504-666 [*]	12X6	1-9/16	17-3/4	19-3/4	19-3/8
P504-668 [*]	12X8	1- 3/16	20-9/16	19-5/16	19-3/8
P504-670 ^{**}	12X10	5/8	16-13/16	19-7/16	19-3/8

[†] Bushed^{*} Fabricated**P507 Double Combination Wye and 1/8 Bend**

ALL HUB

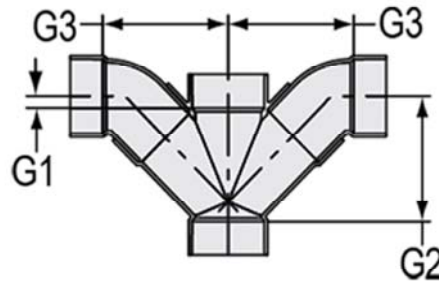


Part Number	Size	G1	G2	G3
P507-015	1-1/2	1/2	4-3/8	4-3/8
P507-020	2	9/16	5- 7/16	5-5/8
P507-030	3	7/8	7-3/8	7-9/16
P507-040	4	15/16	9-1/8	9-1/2
P507-251	2X2X1-1/2X1-1/2	3/8	4-21/32	4-23/32
P507-338	3X3X2X2	3/4	5-11/16	6-3/8
P507-420	4X4X2X2	7/8	5- 7/8	7- 1/32
P507-422	4X4X3X3	1	7-9/16	8-5/16
3792-060 [*]	6	15/16	15- 7/16	12- 9/16
3792-080 [*]	8	1/8	19-13/16	16- 1/8

P507 Double Combination Wye and 1/8 Bend

(Continued)

ALL HUB



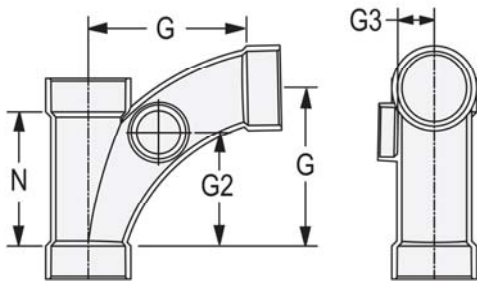
Part Number	Size	G1	G2	G3
3792-100 [*]	10	5/8	23-13/16	19-1/4
3792-120 [*]	12	1/4	27-3/8	22-15/16
3792-140 [*]	14	1- 1/4	29- 5/8	29- 5/16
3792-528 [*]	6X2	7/8	7- 1/2	8- 1/16
3792-530 [*]	6X3	13/16	9- 7/16	9- 3/8
3792-532 [*]	6X4	3/16	11- 9/16	11- 3/16
3792-578 [*]	8X2	1- 5/8	8- 1/8	9- 1/16
3792-580 [*]	8X3	1- 5/16	9-15/16	10- 5/16
3792-582 [*]	8X4	3/4	12	12- 1/8
3792-585 [*]	8X6	5/8	15	13- 9/16
3792-621 [*]	10X2	1-11/16	8- 1/16	10- 1/16
3792-623 [*]	10X3	1- 5/8	10- 1/8	11- 3/8
3792-624 [*]	10X4	1- 1/4	12- 3/8	13- 1/8
3792-626 [*]	10X6	1-11/16	16- 1/16	14- 9/16
3792-628 [*]	10X8	3/4	20- 1/4	17- 3/16
3792-661 [*]	12X2	2- 1/16	8- 7/16	11
3792-663 [*]	12X3	1-13/16	10- 3/16	12- 5/16
3792-664 [*]	12X4	1- 3/16	12- 5/16	14- 1/8
3792-666 [*]	12X6	1- 5/8	15- 7/8	15- 1/2
3792-668 [*]	12X8	1/2	20	18- 1/8
3792-670 [*]	12X10	9/16	23-1/2	20-3/16
3792-691 [*]	14X2	1- 7/8	8- 1/8	11- 5/8
3792-693 [*]	14X3	2- 1/16	10- 7/16	12- 7/8
3792-694 [*]	14X4	1- 1/2	12- 1/2	14-11/16
3792-696 [*]	14X6	1- 7/16	15- 9/16	16- 1/8
3792-698 [*]	14X8	5/16	19-11/16	18-11/16
3792-700 [*]	14X10	5/16	23	20-13/16
3792-702 [*]	14X12	9/16	28	23-9/16

^{*} Fabricated



P515 Combination Wye and 1/8 Bend with Left Side Inlet

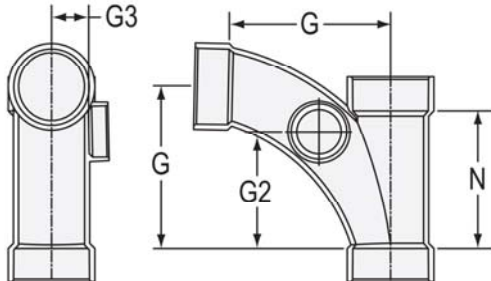
ALL HUB



Part Number	Size	G	G2	G3	N
P515-338	3X3X3X2	7- 9/16	6-5/16	1- 7/8	6-7/16

P516 Combination Wye and 1/8 Bend with Right Side Inlet

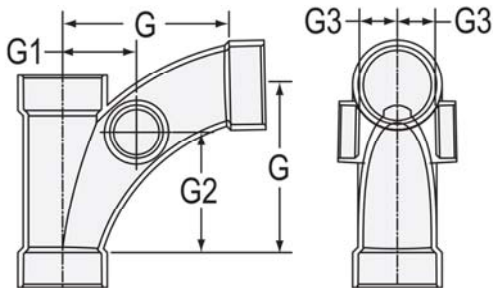
ALL HUB



Part Number	Size	G	G2	G3	N
P516-338	3X3X3X2	7- 9/16	6-5/16	1- 7/8	6-7/16

P517 Combination Wye and 1/8 Bend with R&L Side Inlets

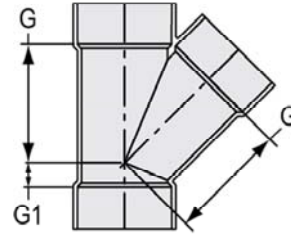
ALL HUB



Part Number	Size	G	G1	G2	G3
P517-338	3X3X3X2	7-19/32	4-19/32	6- 5/16	1-27/32

P600 Wye

ALL HUB

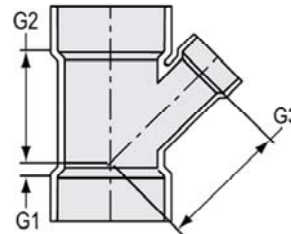


Part Number	Size	G	G1
P600-015	1-1/2	2-7/8	1-1/8
P600-020	2	3- 5/8	1- 3/8
P600-030	3	5	1-5/8
P600-040	4	6- 3/8	1- 7/8
P600-060	6	8- 7/16	1- 3/4
P600-080	8	11- 3/4	2- 3/8
P600-100	10	13-15/16	2- 1/2
P600-120	12	16- 1/4	3-3/16
3775-140*	14	7-3/16	21-3/16

* Fabricated

P601 Wye, Reducing

ALL HUB



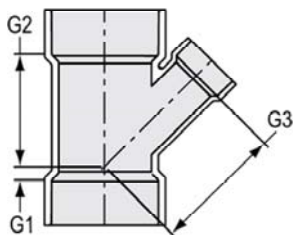
Part Number	Size	G1	G2	G3
P601-241	2X1-1/2X1-1/2	3/4	2-15/16	2-15/16
P601-251	2X2X1-1/2	1- 1/16	3- 5/16	3- 7/16
P601-257	2X1-1/2X2	1	3-1/2	3-3/8
P601-337	3X3X1-1/2	1/2	3- 3/4	4- 5/16
P601-338	3X3X2	7/8	4- 1/8	4- 5/8
P601-419	4X4X1-1/2	0	3- 3/4	4-1/2
P601-420	4X4X2	3/8	4-11/16	5- 9/16
P601-422	4X4X3	1- 1/16	5- 9/16	6
P601-528 ¹	6X6X2	3/8	6-3/4	8- 3/8
P601-530	6X6X3	1/4	6-15/16	7- 3/8
P601-532	6X6X4	1/4	6-11/16	7- 7/16
P601-578 ¹	8X8X2	3/8	7- 5/8	9-15/16
3775-580*	8X3	1- 5/16	9-15/16	10- 7/8
P601-582	8X8X4	3/8	7- 5/8	8- 5/8
P601-585	8X8X6	1	9- 1/2	9-13/16
3775-621*	10X2	1/2	10- 1/4	11- 3/16
3775-623*	10X3	1/2	11- 1/4	12- 5/16



P601 Wye, Reducing

(Continued)

ALL HUB



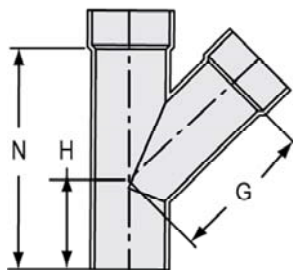
Part Number	Size	G1	G2	G3
P601-624 ¹	10X10X4	3/16	11	13-11/16
P601-626*	10X10X6	3/16	11	12
3775-626*	10X6	3-1/2	14-1/4	14-1/4
P601-628	10X10X8	1- 7/16	12- 1/2	13
P601-664 ¹	12X12X4	3-3/16	16-3/16	21-5/16
3775-661*	12X2	1- 1/8	11- 5/8	12- 9/16
3775-663*	12X3	3/8	12- 3/8	13-11/16
3775-664*	12X4	3/8	13- 1/8	14-11/16
3775-666*	12X6	2- 3/8	15- 1/8	15- 5/8
3775-668*	12X8	3- 7/8	16- 5/8	17- 1/16
P601-670 ¹	12X12X10	3-3/16	16-3/16	17-1/2
3775-691*	14X2	2	12	13- 7/16
3775-693*	14X3	3/4	13- 1/4	14- 9/16
3775-694*	14X4	0	14	15- 9/16
3775-696*	14X6	1- 1/2	15- 1/2	16- 1/2
3775-698*	14X8	3	17	17-15/16
3775-700*	14X10	4- 1/2	18- 1/2	19
3775-702*	14X12	7	21	20-15/16
3775-756*	16X6	1-7/8	17-7/8	21-1/16
3775-786*	18X6	7/8	18-7/8	22-1/4
3775-816*	20X6	-1/8	19-7/8	23-5/8
3775-906*	24X6	1-1/4	22-3/4	26-7/16

¹ Sized with Bushing

* Fabricated

P602 Wye, Street

S x H x H

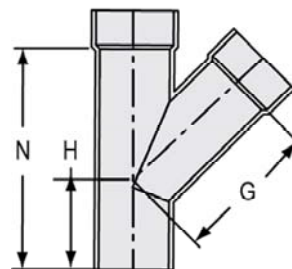


Part Number	Size	G	H	N
P602-015	1-1/2	2- 7/8	1- 7/8	4- 7/16
P602-020	2	3- 5/8	2- 5/32	5-13/16
P602-030	3	5	3	8

P602 Wye, Street

(Continued)

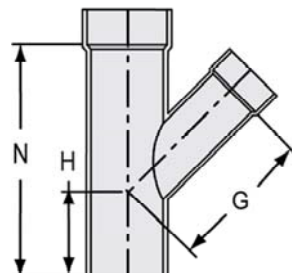
S x H x H



Part Number	Size	G	H	N
P602-040	4	6- 3/8	3-5/8	9- 15/16

P603 Wye, Street, Reducing

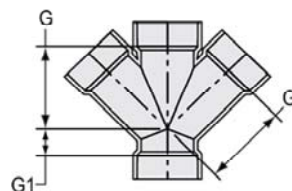
S x H x H



Part Number	Size	G	H	N
P603-251	2X2X1-1/2	3- 7/16	2	5-11/32
P603-420	4X4X2	5- 9/16	2- 7/32	6- 9/16
P603-422	4X4X3	6	2-13/16	8- 1/16

P611 Double Wye

ALL HUB

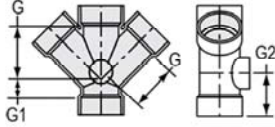


Part Number	Size	G	G1
P611-015	1-1/2	2- 7/8	1- 1/8
P611-020	2	3- 5/8	1- 3/8
P611-030	3	5	1- 5/8
P611-040	4	6-3/8	1-7/8
P611-060	6	8- 7/16	1-3/4
3776-080*	8	5-5/8	14-5/16
3776-100*	10	6-9/16	6-9/16
3776-120*	12	20-1/16	20-1/16
3776-140*	14	7-3/16	21-3/16

* Fabricated

P611S Double Wye, with 2" Side Inlet

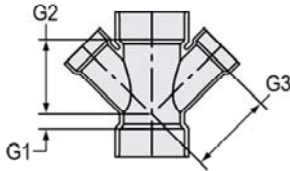
ALL HUB



Part Number	Size	G	G1	G2
P611S-030	3	4-15/16	1- 9/16	3- 3/4

P612 Double Wye, Reducing

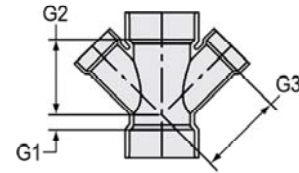
ALL HUB



Part Number	Size	G1	G2	G3
P612-251	2X2X1-1/2X1-1/2	1- 1/16	3- 5/16	3- 7/16
P612-337	3X3X1-1/2X1-1/2	1/2	3- 3/4	4- 5/16
P612-338	3X3X2X2	7/8	4- 1/16	4- 5/8
P612-420	4X4X2X2	3/8	4- 11/16	5- 9/16
P612-422	4X4X3X3	1-1/16	5-9/16	6
3776-528*	6X2	7/8	7- 1/2	8- 7/16
3776-530*	6X3	1-13/16	8- 7/16	9- 9/16
P612-532	6X6X4X4	3/16	6-11/16	7-7/16
3776-578*	8X2	9/16	9- 3/16	9- 3/4
3776-580*	8X3	1- 5/16	9-15/16	10- 7/8
3776-582*	8X4	2- 1/16	10-11/16	11- 7/8
3776-585*	8X6	3- 1/2	12- 1/8	12-13/16
3776-621*	10X2	1/2	10- 1/4	11- 3/16
3776-623*	10X3	1/2	11- 1/4	12- 5/16
3776-624*	10X4	1- 7/16	12- 3/16	13- 5/16
3776-626*	10X6	3- 1/2	14- 1/4	14- 1/4
3776-628*	10X8	5- 1/8	15- 7/8	15-11/16
3776-661*	12X2	1- 1/8	11- 5/8	12- 9/16
3776-663*	12X3	3/8	12- 3/8	13-11/16
3776-664*	12X4	3/8	13- 1/8	14-11/16
3776-666*	12X6	2- 3/8	15- 1/8	15- 5/8
3776-668*	12X8	3- 7/8	16- 5/8	17- 1/16
3776-670*	12X10	5- 3/8	18- 1/8	18- 1/8

P612 Double Wye, Reducing

ALL HUB

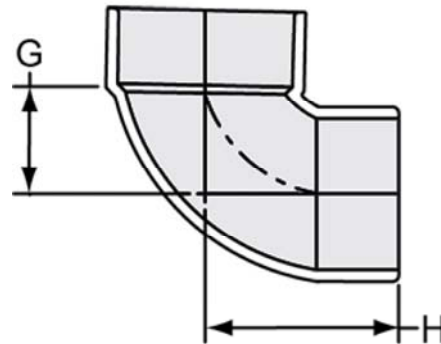


Part Number	Size	G1	G2	G3
3776-691*	14X2	2	12	13- 7/16
3776-693*	14X3	3/4	13- 1/4	14- 9/16
3776-694*	14X4	0	14	15- 9/16
3776-696*	14X6	1- 1/2	15- 1/2	16- 1/2
3776-698*	14X8	3	17	17-15/16
3776-700*	14X10	4- 1/2	18- 1/2	19
3776-702*	14X12	7	21	20-15/16
3776-756*	16X6	1-7/8	17-7/8	21-1/16
3776-786*	18X6	7/8	18-7/8	22-1/4
3776-816*	20X6	-1/8	19-7/8	23-5/8
3776-906*	24X6	1-1/4	22-3/4	26-7/16

* Fabricated

P335 Trap Elbow (for use with Traps only)

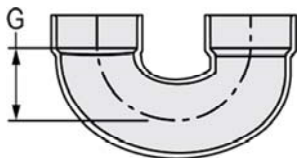
H x S



Part Number	Size	G	H
P335-030	3	2-1/4	3-7/8
P335-040	4	2-13/16	4-1/2

**P700 Return Bend**

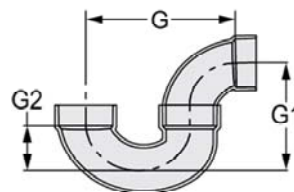
H x H



Part Number	Size	G
P700-015	1-1/2	1-7/16
P700-020	2	2- 3/8
P700-030	3	3
P700-040	4	3-3/4
P700-060	6	5
P700-080	8	6

P706X P-Trap

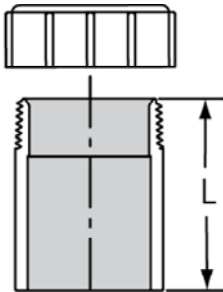
H x H



Part Number	Size	G	G1	G2
P706X-015	1-1/2	4-3/8	3-5/8	1-3/16
P706X-020	2	6- 1/2	4-5/8	2-3/8
P706X-030	3	8-7/8	6-7/8	3
P706X-040	4	11	8- 3/16	3-3/4
P706X-060	6	18-3/8	13- 1/4	5
P706X-080	8	22-9/16	16- 1/2	6
P706X-100	10	35-5/16	25- 1/4	9- 13/16
P706X-120	12	39-1/4	28- 1/8	10-3/4

P704P Tail Piece Adapter

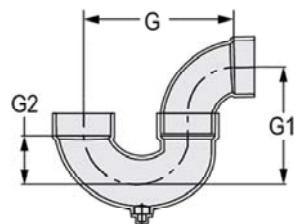
S x SLIP w/Plastic Nut - Built-in Washer



Part Number	Size	L
P704P-015	1-1/2	2- 1/2

P707X P-Trap w/Cleanout

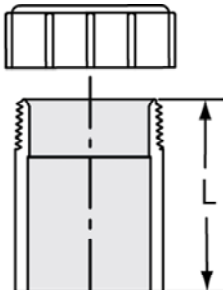
H x H



Part Number	Size	G	G1	G2
P707X-015	1-1/2	4- 3/16	3-13/16	1- 3/8

P704X Tail Piece Adapter

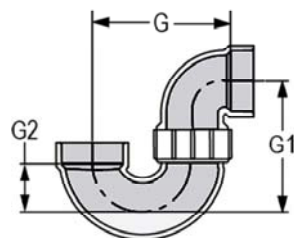
S x SLIP w/Chrome Nut & Washer



Part Number	Size	L
P704X-015	1-1/2	2- 1/2

P708P Adjustable P-Trap w/Plastic Nut

H x H

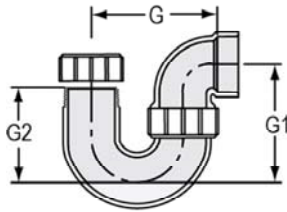


Part Number	Size	G	G1	G2
P708P-015	1-1/2	4-1/2	3- 3/4	1-7/16
P708P-020	2	6- 7/16	4- 3/8	2-5/16



**P711P L.A. Pattern P-Trap
w/Plastic Nut**

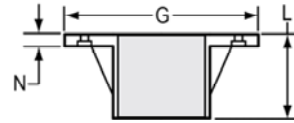
SLIP x H w/Plastic Nut & Washer



Part Number	Size	G	G1	G2
P711P-169	1-1/4X1-1/2	4-11/32	3- 3/4	3- 1/2
P711P-015	1-1/2	4-1/4	3- 7/8	3- 3/4

**P800G Closet Flange
w/Gussets**

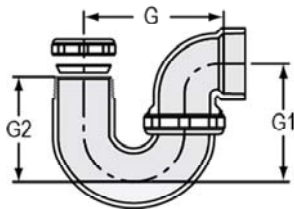
H



Part Number	Size	G	L	N
P800G-040	4	7	2	1/4

**P711X L.A. Pattern P-Trap
w/Chrome Nut**

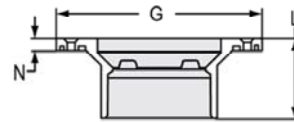
SLIP x H w/Chrome Nut & Washer



Part Number	Size	G	G1	G2
P711X-015	1-1/2	4- 1/4	3- 3/4	3- 1/2

**P800KO Closet Flange with
Knockout**

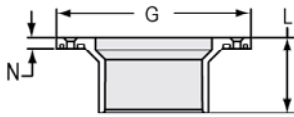
H



Part Number	Size	G	L	N
P800KO-422	4X3	7- 1/32	2-25/32	7/16

P800 Closet Flange

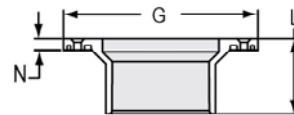
H



Part Number	Size	G	L	N
P800-422	4X3	7	2- 3/4	7/16
P800-040	4X4	7- 3/32	2	1/4

**P800S Closet Flange with
Stop**

H



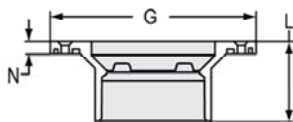
Part Number	Size	G	L	N
P800S-422	4X3	7	2- 3/4	7/16



DWV Dimensions

P801 Closet Flange, Reducing

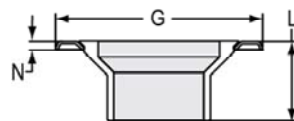
SPIGOT



Part Number	Size	G	L	N
P801-422	4X3	7	2- 3/4	1/2

P812 Closet Flange w/Adjustable Metal Ring

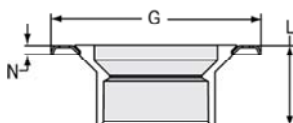
SPIGOT



Part Number	Size	G	L	N
P812-040	4	7- 1/32	2-13/32	9/32
P812-422	4X3	7	2-13/16	1- 5/16

P811 Closet Flange w/Adjustable Metal Ring

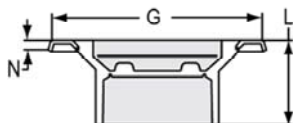
H



Part Number	Size	G	L	N
P811-040	4	7- 1/32	2- 3/32	9/32
P811-422	4X3	7- 1/32	2-23/32	9/32

P811KO Closet Flange w/Adjustable Metal Ring and Knockout

H



Part Number	Size	G	L	N
P811KO-422	4X3	7	2-23/32	9/32

P813 Flush Closet Flange w/Adjustable Metal Ring

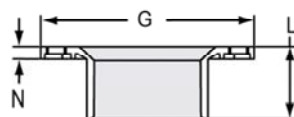
Fits Over 3" Pipe or Inside 4" Pipe



Part Number	Size	G	L	N
P813-422	4X3	7- 1/32	2- 1/4	9/32

P815 Flush Closet Flange

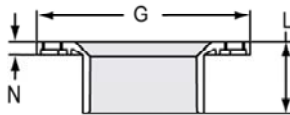
Fits Over 3" Pipe or Inside 4" Pipe



Part Number	Size	G	L	N
P815-040	4X4 / 4X3	7- 1/32	2- 3/8	15/32

P815KO Flush Closet Flange with Knockout

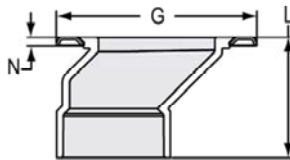
Fits Over 3" Pipe or Inside 4" Pipe



Part Number	Size	G	L	N
P815KO-040	4X4 / 4X3	7- 1/32	2- 3/8	15/32

P820 Offset Closet Flange w/Adjustable Metal Ring

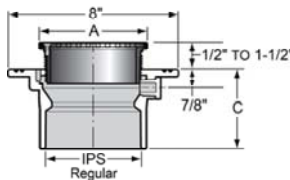
(1-1/2" Offset) H



Part Number	Size	G	L	N
P820-422	4X3	7	4- 7/32	9/32

Uniform Plumbing Code does not accept offset closet flanges

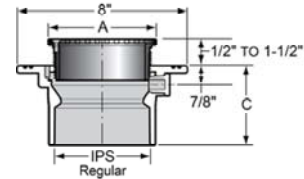
Floor Drain with Stainless Steel Adjustable Top w/Round Grate



Part Number	Size	A, Nom	C	IPS
P1500-015S	1-1/2X5	5	4- 3/16	1-1/2
P1600-015S	1-1/2X6	6	4- 3/16	1-1/2
P1700-015S	1-1/2X7	7	4- 3/16	1-1/2
P1800-015S	1-1/2X8	8	4- 3/16	1-1/2
P1500-020S	2X5	5	4	2

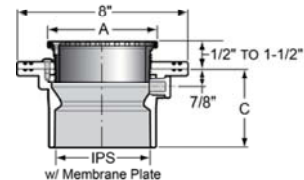
Floor Drain with Stainless Steel Adjustable Top w/Round Grate

(Continued)



Part Number	Size	A, Nom	C	IPS
P1600-020S	2X6	6	4	2
P1700-020S	2X7	7	4	2
P1800-020S	2X8	8	4	2
P1500-030S	3X5	5	4	3
P1600-030S	3X6	6	4	3
P1700-030S	3X7	7	4	3
P1800-030S	3X8	8	4	3
P1500-040S	4X5	5	3- 3/4	4
P1600-040S	4X6	6	3- 3/4	4
P1700-040S	4X7	7	3- 3/4	4
P1800-040S	4X8	8	3- 3/4	4

Floor Drain with Stainless Steel Adjustable Top w/Round Grate & Membrane Collar

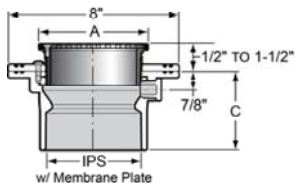


Part Number	Size	A, Nom	C	IPS
P150M-015S	1-1/2X5	5	4- 3/16	1-1/2
P160M-015S	1-1/2X6	6	4- 3/16	1-1/2
P170M-015S	1-1/2X7	7	4- 3/16	1-1/2
P180M-015S	1-1/2X8	8	4- 3/16	1-1/2
P150M-020S	2X5	5	4	2
P160M-020S	2X6	6	4	2
P170M-020S	2X7	7	4	2
P180M-020S	2X8	8	4	2
P150M-030S	3X5	5	4	3
P160M-030S	3X6	6	4	3
P170M-030S	3X7	7	4	3
P180M-030S	3X8	8	4	3
P150M-040S	4X5	5	3- 3/4	4
P160M-040S	4X6	6	3- 3/4	4
P170M-040S	4X7	7	3- 3/4	4



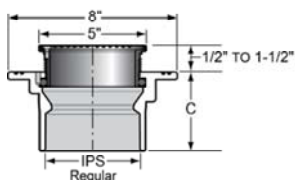
Floor Drain with Stainless Steel Adjustable Top w/Round Grate & Membrane Collar

(Continued)



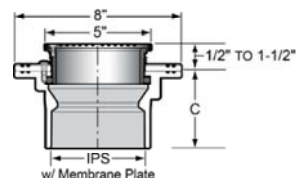
Part Number	Size	A, Nom	C	IPS
P180M-040S	4X8	8	3-3/4	4

Floor Cleanout w/Stainless Steel Adjustable Round Top & Solid Access Cover



Part Number	Size	C	IPS
P1510-015S	1-1/2X5	4- 3/16	1-1/2
P1510-020S	2X5	4	2
P1510-030S	3X5	4	3
P1510-040S	4X5	3- 3/4	4

Floor Cleanout w/Stainless Steel Adjustable Round Top, Solid Access Cover & Membrane Collar

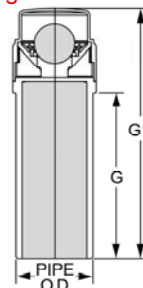


Part Number	Size	C	IPS
P151M-015S	1-1/2X5	4- 3/16	1-1/2
P151M-020S	2X5	4	2
P151M-030S	3X5	4	3
P151M-040S	4X5	3- 3/4	4

Air Admittance Valve

Spigot

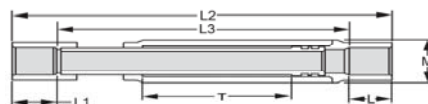
Maximum 6 DFU (Drainage Fixture Units)



Part Number	Size	G	G1
AAV-015	1-1/2	4- 1/8	6- 1/4

S119 Expansion Joint

Soc x Soc - PVC White with EPDM O-ring



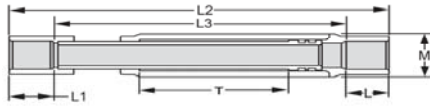
Part Number	Size	L	L1	L2	L3	M	T
S119-15	1-1/2	1-3/32	1-3/8	10-1/2	8-1/16	2-11/16	4
S119-20	2	1-3/16	1-1/2	11-1/2	8-3/4	3-3/16	4
S119-25	2-1/2	1-27/32	1-3/4	15-7/16	11-13/16	3-15/16	6
S119-30	3	1-15/16	1-7/8	15-5/8	11-13/16	4-5/8	6



S119 Expansion Joint

(Continued)

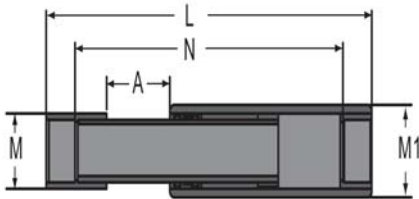
Soc x Soc - PVC White with EPDM O-ring



Part Number	Size	L	L1	L2	L3	M	T
S119-40	4	2-5/16	2-1/4	17-5/16	12-13/16	5-11/16	6
S119-60	6	3-1/16	3	20-1/2	14-7/16	8-7/16	6

826 Large Diameter Expansion Joint

Soc x Soc - PVC Gray with EPDM O-ring



Sizes 1-1/4" & Up Configuration

Part Number	Size	L-Closed	L-Open	M	M1	N-Closed	N-Open	T
826-080X6*	8	24-1/2	30-1/2	9-11/16	10- 3/4	16-9/16	22-9/16	6
826-100X6*	10	28-7/8	34-7/8	12-1/16	12- 3/4	18-7/8	24-7/8	6
826-120X6*	12	34	40	14-1/4	16	22	28	6
826-140X6*	14	40-3/4	46-3/4	15-1/2	16	26	32	6

* Fabricated



**Thermal Expansion Compensation**

The change in length of pipe with temperature variation should always be considered when installing pipe lines and provisions made to compensate for this change in length. The table below has been prepared to assist you in determining this expansion. This represents the calculated values of pipe length change (ΔL) in inches based on pipe run lengths of 10 to 100 feet and temperature changes of 30° F to 100° F.

PVC Pipe Thermal Expansion (in)

TEMP. CHANGE Δ T(°F)	LENGTH OF RUN (FT)									
	10	20	30	40	50	60	70	80	90	100
30	0.11	0.22	0.32	0.43	0.54	0.65	0.76	0.86	0.97	1.08
40	0.14	0.29	0.43	0.58	0.72	0.86	1.01	1.15	1.30	1.44
50	0.18	0.36	0.54	0.72	0.90	1.08	1.26	1.40	1.62	1.80
60	0.22	0.43	0.65	0.85	1.08	1.30	1.51	1.73	1.94	2.16
70	0.25	0.50	0.76	1.01	1.26	1.51	1.76	2.02	2.27	2.52
80	0.29	0.58	0.86	1.15	1.44	1.73	2.02	2.30	2.59	3.24
90	0.32	0.65	0.97	1.30	1.62	1.94	2.27	2.59	2.92	3.24
100	0.36	0.7	1.03	1.44	1.80	2.16	2.52	2.88	3.24	3.60

Example: Highest temperature expected: 120°F
 Lowest temperature expected: 50°F
 Total change (ΔT): 70°F
 Length of run: 40 feet
 From 70° F (ΔT) row, read 1.01 inches length change

Sewer Disconnect

Spears® Sewer Disconnect functions as both cleanout and disconnect device, plus helps prevent sewage backup during hurricanes and floods. Complete unit consists of body and plunger (sold separately - both parts are required for proper use). The plunger can be screwed into the body to block solids waste flow. The plunger should be removed from the body and stored when not in use to prevent accidental closing (i.e., from ground vibration, etc.).



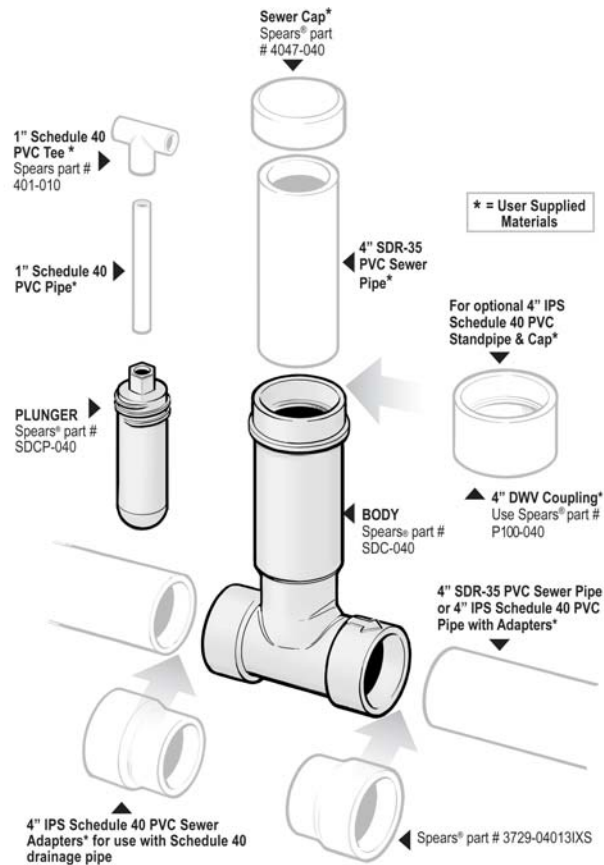
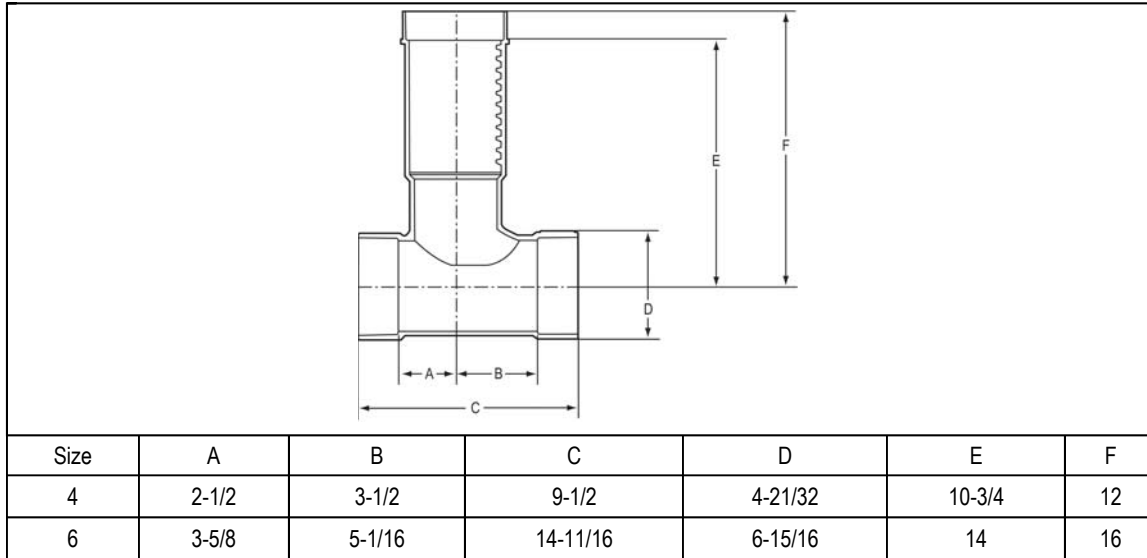
- Connects directly to 4" or 6" SDR-35 (or any ASTM D3034/D2729) PVC Sewer Pipe.
- Easily adapted to 4" or 6" Schedule 40 PVC Drainage Pipe with addition of IPS x Sewer Adapters, Socket x Spigot, Spears® part no. 3729-04013IXS for 4" or 3729-06013IXS for 6".
- User-supplied standpipe can be installed to grade using PVC Sewer Pipe connected to the body branch socket and a Sewer Cap to close off (Spears® part no. 4047-040 for 4" or 4047-060 for 6"). Optionally, user-supplied Schedule 40 Pipe can be used for standpipe with addition of a Schedule 40 DWV Socket Coupling (Spears® part no. P100-040 for 4" or P100-060 for 6") and Cap (Spears® part no. P116-040 for 4" or P116-060 for 6").
- T-handle for Plunger operation can be easily fabricated from user-supplied 1"



Note the unit restricts flow by approximately 85%. As a result, the unit must be located in the sewer line where solids are present. Full disconnect is not achieved without solids in the flow.

**Auxiliary Components
(Purchased Separately)**

Standard Valve Dimensions

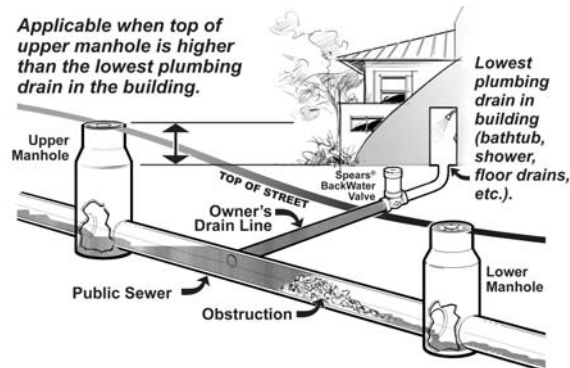




Introduction to Backwater Valves

A Backwater Valve is designed to function as a check valve in a drainage pipe to prevent flowing liquid, such as sewage, from reversing its direction. There are other applications for Backwater Valves, such as multi-level pond balancing for Aquascape applications or for storage tank balancing for industrial and agricultural applications. Backwater Valves should not be confused with Backflow Preventers which are used in potable water supply systems.

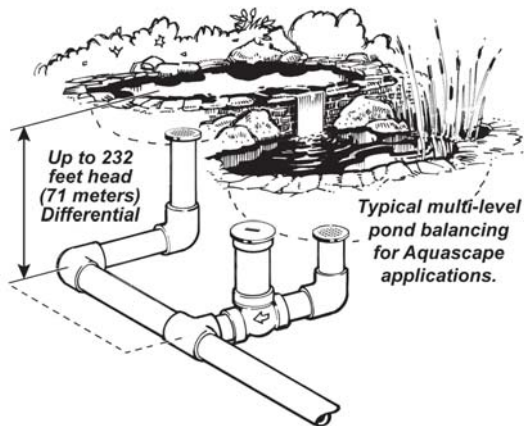
Backwater valves are most important if you are on a public sewer system, especially if you are the lowest home on the line where you could have everyone's sewage above you flow into your home if there is a stoppage in the mainline after your connection. Some jurisdictions require Backwater Valves on new construction:



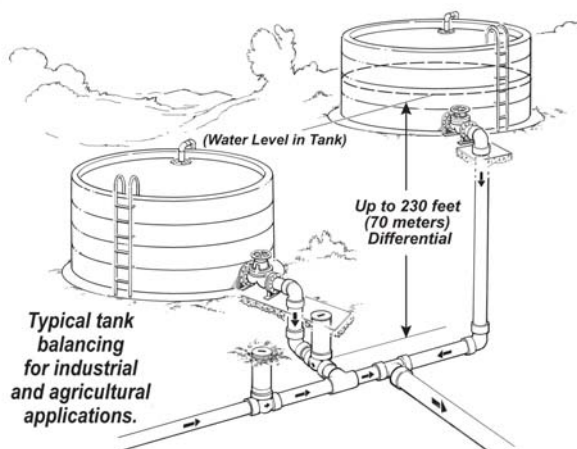
TYPICAL SITUATION WHERE A BACKWATER VALVE IS NECESSARY.

Sewage Application Diagram

Backwater Valves are excellent for maintaining equal water levels in multi-level ponds and storage tanks:



Pond Application Diagram



Storage Tank Application Diagram

Spears® Backwater Valves are offered in an economical Utility Backwater Valve or the full featured Industrial Backwater Valve designs, in a variety of sizes and pressure handling capacities.



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Backwater valves are most important if you are on a public sewer system, especially if you are the lowest home on the line where you could have everyone's sewage above you flow into your home if there is a stoppage in the mainline after your connection. Some jurisdictions require Backwater Valves on new construction.

Spears® Utility Backwater Valves feature an easily serviceable and replaceable Flapper Assembly with extendable access using standard piping components. Designed for direct solvent cement connection to ASTM D 2665 DWV drainage pipe or any other IPS size pipe. Spears® IPS x Sewer adapters easily convert valve to ASTM D 3034 SDR 35 Sewer Pipe. Backwater Valves conform to requirements of ASME/ANSI A112.14.1 Utility Backwater Valves are designed to prevent backflow in numerous applications where easy service access for maintenance and cleaning is needed.

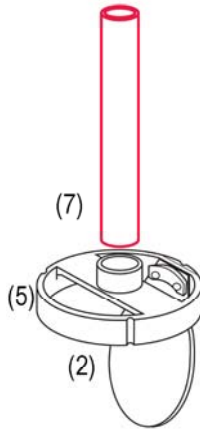
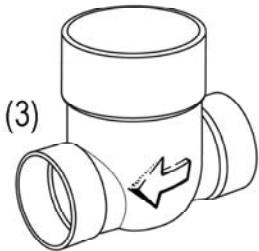
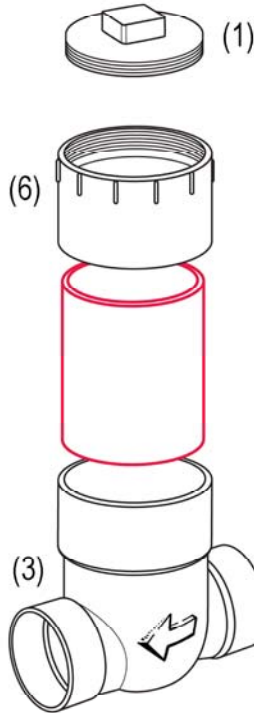
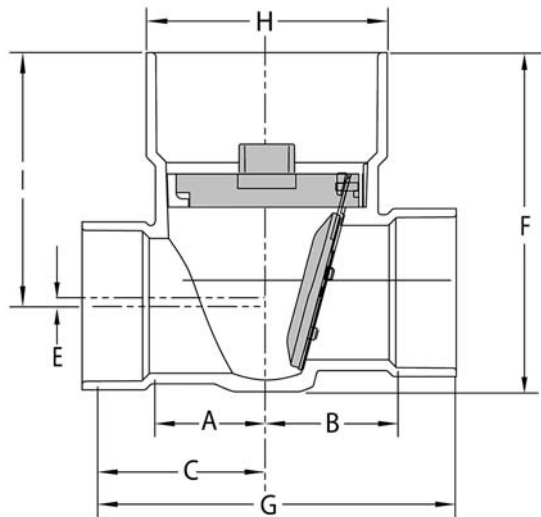
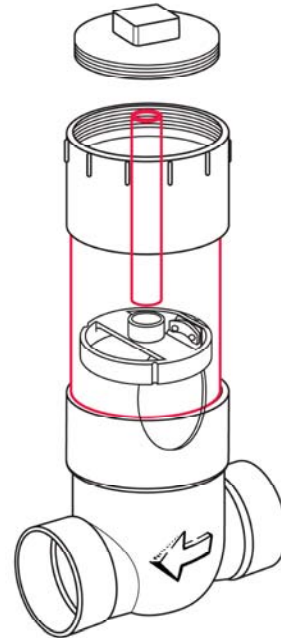
Features

- Replaceable internal flapper assembly
- Vertical 3-Way or Horizontal Design
- Extension Kit Adapter components allow easy construction of a valve extension with user supplied pipe cut to desired length
- Direct Valve Connection to ASTM D 2665 PVC DWV or other IPS size pipe. Spears® IPS DWV x Sewer & Drain Adapter Bushings are available for connection to ASTM D 3034 & ASTM D 2729 Sewer pipe
- Standard Valve Adapters Pressure Rated to 50 psi (115 feet of head) @ 73°F (23°C) - Optional 100 psi Adapter (232 feet of head) available
- Conforms to ASME/ANSI A112.14.1 for Backwater Valves

**DWV Dimensions**

Spears® Utility Backwater Valve has been engineered for easier installation with included Extension Kit Adapter components for use with User-Supplied Schedule 40 Class 125 Extension Riser pipe cut to desired length. Utility Backwater Valve package comes with 50 psi (115 feet of head) rated Extension Adapters. Optional Adapter Kits available in 100 psi (232 feet of head) rating. Can also use User-supplied equivalent adapter components..

1. Access Plug
2. Flapper
3. Valve Body
4. User Supplied 6" Riser Extension Pipe (SCH 40 or Class 125 - do not use SCH 80 pipe)
5. Collar
6. DWV Cleanout Adapter
7. User Supplied 1" or 1-1/4" Internal Extension Pipe (for lifting Flapper Assembly to service)

Valve**Extension Kit****Assembly****VALVE DIMENSIONS**

Size	A	B	C	E	F	G	H	I
3"	3-5/8	3-13/16	5-3/16	7/16	7-5/8	10-5/8	7-1/4	9-5/8
4"	3-3/4	3-3/16	5-1/2	3/8	7-9/16	11-1/4	7-1/4	10-1/8
6"	4-15/16	4-15/16	8	1/2	9-15/16	15-15/16	9-3/8	13-9/16



Basic Valve

- All PVC Construction with EPDM Flapper Seal
- Threaded Top Plug for Convenient Service
- Simple Snap-In Internal Flapper Assembly for Easy Replacement
- Optional Factory Assembled Service-Access Extension Kits - External Housing with Internal Extension for Convenient Removal, Inspection or Replacement
- Optional Extension Components Kits for Assembly with User-Supplied Pipe
- Available in Sizes 2", 3", 4" and 6" with Socket Ends
- Direct Connection to ASTM D 2665 PVC DWV or other IPS size pipe. Spears® IPS x Sewer Adapters available for Connection to ASTM 3034 Sewer
- Conforms to ASME/ANSI A112.14.1 for Backwater Valves
- Pressure Rated to 43 psi (100 feet of head) @ 73°F

Sample Engineering Specification

All thermoplastic valves shall be Backwater type constructed from PVC Type I, ASTM D 1784 Cell Classification 12454. All Valve Seats shall be EPDM. All valves shall have external Arrow Flow Indicator. All valves shall be pressure rated to 43 psi (100 feet of Head) for water @ 73°F as manufactured by Spears® Manufacturing Company.

Quick-View Backwater Valve Selection Chart, Standard Valve

Valve Size	Seat Material	PVC Material	Pressure Rating
		Socket	
2	EPDM	S275P	43 psi (100 feet of Head)
3	EPDM	S375P	
4	EPDM	S475P	
6	EPDM	S675P	

Features - PVC Gray

Backwater Valves are designed to prevent backflow in numerous applications where easy service access for maintenance and cleaning is needed. Excellent for use in sanitary or storm sewer drainage systems to prevent waste back up due to inadequate drainage, for balancing multi-level ponds, aquaculture features or storage tank systems, and many other applications. Spears® Backwater Valve has been engineered for improved function and easier service, especially in buried service with use of optional Service-Access Extension Kit.



Valve with Extension Kit

PVC Service-Access Extension Kit Options:

Available as a complete unit, with or without valve, factory assembled to internal flap assembly, extension pipe, and external extension housing with top access adapter in convenient increments of 12", 16", 20", 24", 36", and 48" (measured from top of valve to top of extension). All extension kits can be cut shorter in the field for custom fits. Also available as Extension Components Kits, with or without valve for assembly with user-supplied Class 125 or Schedule 40 pipe. Kits without valve require use of existing valve top Access Plug, all kits require solvent cement assembly to valve. Contact Spears® for MSRP on custom cut lengths.

Quick View Extension Components Kit Options

Extension Adapters and Flap Assembly with or without valve. Must be assembled with user-supplied Class 125 or Schedule 40 Pipe.

Valve Size	Socket Valve With Extension Component Kit	Extension Component Kit Only	Pressure Rating
2	S275P-AK	S275P-ECK	43 psi (100 feet of head)
3	S375P-AK	S375P-ECK	
4	S475P-AK	S475P-ECK	
6	S675P-AK	S675P-ECK	

**Quick-View Backwater Valves with Extension Kit to Premade Lengths**

Socket Valve with complete Extension Assembly in precut lengths.

Valve x Extension Size ¹	Socket Valve With Extension	Valve x Extension Size ¹	Socket Valve With Extension	Pressure Rating
2 x 12HT	S275P-120	4 x 12HT	S475P-120	43 psi (100 feet of head)
2 x 16HT	S273P-160	4 x 16HT	S473P-160	
2 x 20HT	S275P-200	4 x 20HT	S475P-200	
2 x 24HT	S275P-240	4 x 24HT	S475P-240	
2 x 36HT	S275P-360	4 x 36HT	S475P-360	
2 x 48HT	S275P-480	4 x 48HT	S475P-480	
3 x 12HT	S375P-120	6 x 12HT	S675P-120	
3 x 16HT	S373P-160	6 x 16HT	S673P-160	
3 x 20HT	S375P-200	6 x 20HT	S675P-200	
3 x 24HT	S375P-240	6 x 24HT	S675P-240	
3 x 36HT	S375P-360	6 x 36HT	S675P-360	
3 x 48HT	S375P-480	6 x 48HT	S675P-480	

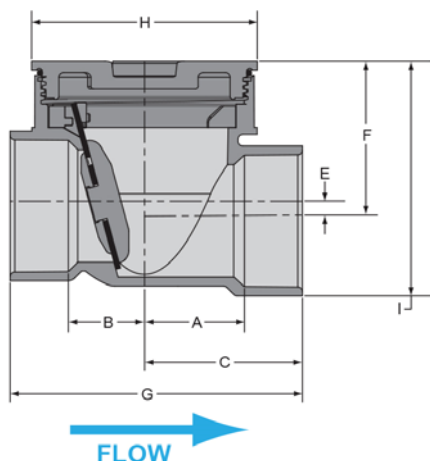
1 - Size designates nominal valve size x extension height (HT-top of valve to top of extension, inches).

Quick-View Service Access Extension Kit Only In Premade Lengths (valve not included)

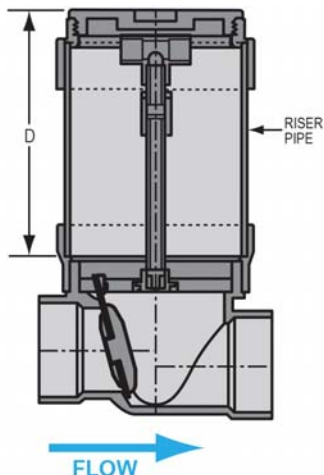
Extension Assembly in precut lengths. Use existing valve top Access Plug.

Size ¹	Premade Extension	Size ¹	Premade Extension	Pressure Rating
2 x 12HT	SAEK-020-120	4 x 12HT	SAEK-040-120	43 psi (100 feet of head)
2 x 16HT	SAEK-020-160	4 x 16HT	SAEK-040-160	
2 x 20HT	SAEK-020-200	4 x 20HT	SAEK-040-200	
2 x 24HT	SAEK-020-240	4 x 24HT	SAEK-040-240	
2 x 36HT	SAEK-020-360	4 x 36HT	SAEK-040-360	
2 x 48HT	SAEK-020-480	4 x 48HT	SAEK-040-480	
3 x 12HT	SAEK-030-120	6 x 12HT	SAEK-060-120	
3 x 16HT	SAEK-030-160	6 x 16HT	SAEK-060-160	
3 x 20HT	SAEK-030-200	6 x 20HT	SAEK-060-200	
3 x 24HT	SAEK-030-240	6 x 24HT	SAEK-060-240	
3 x 36HT	SAEK-030-360	6 x 36HT	SAEK-060-360	
3 x 48HT	SAEK-030-480	6 x 48HT	SAEK-060-480	

1 - Size designates nominal valve size x extension height (HT-top of valve to top of extension, inches). All extension kits can be cut shorter in the field for custom fits.

STANDARD VALVE**Standard Valve Dimensions**

Size	A	B	C	E	F	G	H	I
2	1-13/16	1-3/4	2-5/8	5/16	3-1/4	5-9/32	4-3/16	4-9/16
3	2-5/8	2	4-3/16	13/32	4-1/8	7-3/4	6	6-1/8
4	3-5/8	3-3/4	5-7/16	23/32	5-7/16	10-15/16	8-1/4	7-15/16
6	4-3/4	4-5/8	7-3/4	13/16	7-3/16	15-3/8	11-1/4	10-13/16

VALVE WITH EXTENSION KIT**Valve with Extension Kit Dimensions (Inches)**

HEIGHT-D
12
16
20
24
36
48
D = Top of plug Standard Valve to top of plug with Extension