

Section 10

Fuseal Squared™ Double Containment Corrosive Waste Piping System



Fuseal® Squared Double Containment Corrosive Waste Piping System

Glossary

S	=	Fuseal Electrofusion Socket
SPG	=	Spigot End (same dimension as pipe outside diameter)
FT	=	Female Thread (straight)
MT	=	Male Thread (straight)
MPT	=	Male Pipe Thread
FPT	=	Female Pipe Thread
PPFR	=	Polypropylene Flame Retardant
PPNFR	=	Polypropylene Non-Flame Retardant
*	=	Non-returnable/Non-cancellable
^	=	40% Restocking Fee




Product Line	Description	Discount
07	Fusion Accessories	_____
52	Fuseal PPFR Fusion Fittings-molded	_____
55	Fuseal Squared® PPNFR Sch. 40 Fittings	_____
56	Fuseal Squared® PPNFR Sch. 40 Pipe	_____
60	Fuseal Squared® PPFR Sch. 40 Fittings	_____
61	Fuseal Squared® PPFR Sch. 40 Pipe	_____

The technical information given in this publication implies no warranty of any kind and is subject to change without notice. Please consult our Terms and Conditions of Sale.

Not for Use with Compressed Air or Gases

DO NOT TEST with Air or Air over Water

GF Piping Systems DOES NOT RECOMMEND the use of thermoplastic piping products for systems to transport or store compressed air or gases, or the testing of thermoplastic piping systems with compressed air or gases in above or below ground locations. The use of GF Piping products in compressed air or gas systems automatically voids the warranty for such products, and their use against our recommendation is entirely the responsibility and liability of the installer. GF will not accept responsibility for damage or impairment from its products, or other consequential or incidental damages caused by misapplication, incorrect assembly, and/or exposure to harmful substances or conditions. The only exception to this recommendation is when testing the Contain-It™ Secondary Containment System or the Fuseal Squared® Double Containment Piping System's Containment joints.

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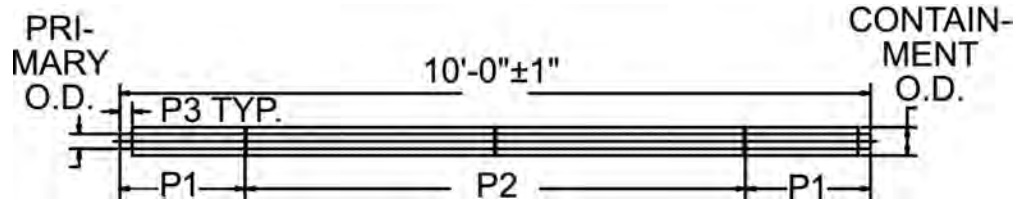
Fuseal Squared Pipe

A

10 ft. lengths

Size (inch)	NFR Part No.	USD	FR Part No.	USD
1 1/2 - 4	* 37G013015	47.15	* 37F013015	58.86
2 - 4	* 37G013020	50.05	* 37F013020	63.32
3 - 6	* 37G013030	75.03	* 37F013030	95.65
4 - 8	* 37G013040	83.83		Call
6 - 10	* 37G013060	121.24		Call
8 - 12	* 37G013080	163.73		Call

Size (inch)	Minimum Footage (ft)	Primary O.D. (inch)	Containment O.D. (inch)	P1 (inch)	P2	P3 (inch)
1 1/2 - 4	10	1.900	4.500	20	2 sps @ 40" = 6'-8"	1.50
2 - 4	10	2.375	4.500	20	2 sps @ 40" = 6'-8"	2.00
3 - 6	10	3.500	6.625	20	2 sps @ 40" = 6'-8"	2.00
4 - 8	10	4.500	8.625	20	2 sps @ 40" = 6'-8"	2.00
6 - 10	10	6.625	10.750	20	2 sps @ 40" = 6'-8"	2.00
8 - 12	10	8.625	12.750	20	2 sps @ 40" = 6'-8"	3.00

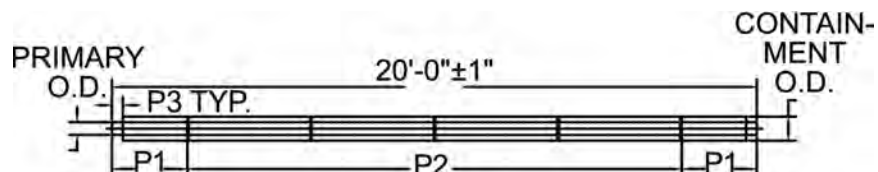


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20 ft. lengths

Size (inch)	NFR Part No.	USD	FR Part No.	USD
1 1/2 - 4	* 37G023015	47.15	* 37F023015	58.86
2 - 4	* 37G023020	50.05	* 37F023020	63.32
3 - 6	* 37G023030	75.03	* 37F023030	95.65
4 - 8	* 37G023040	83.83	* 37F023040	111.92
6 - 10	* 37G023060	121.24	* 37F023060	156.48
8 - 12	* 37G023080	163.73	* 37F023080	213.47

Size (inch)	Minimum Footage (ft)	Primary O.D. (inch)	Containment O.D. (inch)	P1 (inch)	P2	P3 (inch)
1 1/2 - 4	20	1.90	4.50	24.00	4 sps @ 48" = 16'-0"	1.50
2 - 4	20	2.38	4.50	24.00	4 sps @ 48" = 16'-0"	2.00
3 - 6	20	3.50	6.63	30.00	3 sps @ 60" = 15'-0"	2.00
4 - 8	20	4.50	8.63	30.00	3 sps @ 60" = 15'-0"	2.00
6 - 10	20	6.63	10.75	30.00	3 sps @ 60" = 15'-0"	2.00
8 - 12	20	8.63	12.75	30.00	3 sps @ 60" = 15'-0"	3.00



Fuseal Squared Fittings

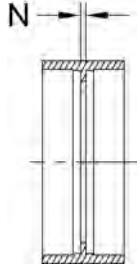
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Primary Coupling (S x S)

Each DC fitting supplied with primary coupling(s) installed on upstream primary leg(s)
 Downstream primary leg may require primary coupling
 Each DC pipe length may require a primary coupling

Size (inch)	FR Part No.	USD	N (inch)
1 1/2	527001	21.66	0.06
2	527002	27.36	0.06
3	527003	34.61	0.13
4	527004	48.91	0.13
6	527006	77.72	0.19
8	* 527008	346.11	0.25



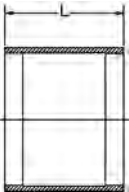
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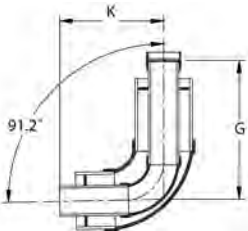
Closure Coupling (S x S)

One required per joint

Size (inch)	FR Part No.	USD	Pack Qty	L (inch)
4	607004	128.50	2	6.00
6	607006	156.48	2	8.00
8	607008	331.61	2	8.00
10	* 607010	654.92	2	8.00
12	* 607012	794.82	2	8.00



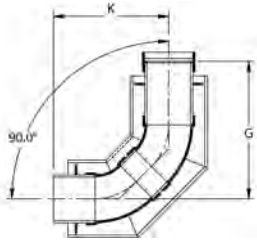
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1/4 Bend (molded x molded) (Spg x S)

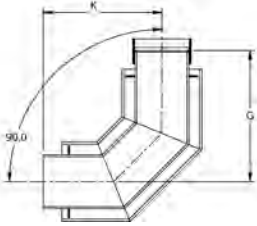
Size (inch)	NFR Part No.	USD	FR Part No.	USD	G (inch)	K (inch)
1 1/2 x 4	556251	360.62	606251	455.96	11.00	9.00
2 x 4	556252	360.62	606252	455.96	11.00	9.00
3 x 6	556253	455.96	606253	574.09	16.00	12.00

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1/4 Bend (molded x fabricated) (Spg x S)

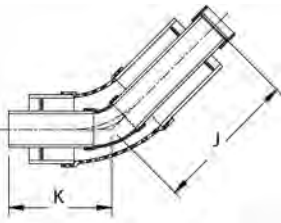
Size (inch)	NFR Part No.	USD	FR Part No.	USD	G (inch)	K (inch)
4 x 8	556254	780.31	^ 606254	963.73	17.00	13.00
6 x 10	556256	985.49	^ 606256	1,227.98	19.00	16.00

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1/4 Bend (fabricated x fabricated) (Spg x S)

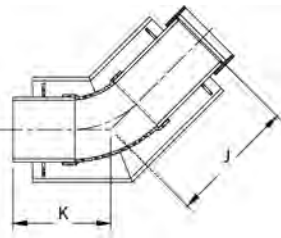
Size (inch)	NFR Part No.	USD	FR Part No.	USD	G (inch)	K (inch)
8 x 12	556258	1,324.35	* 606258	1,654.92	21.00	19.00

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1/8 Bend (molded x molded) (Spg x S)

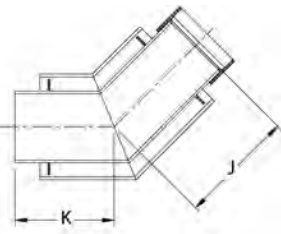
Size (inch)	NFR Part No.	USD	FR Part No.	USD	J (inch)	K (inch)
1 1/2 x 4	556501	294.30	606501	367.88	11.00	8.00
2 x 4	556502	294.30	606502	367.88	11.00	8.00
3 x 6	556503	353.37	606503	455.96	14.00	10.00

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1/8 Bend (molded x fabricated) (Spg x S)

Size (inch)	NFR Part No.	USD	FR Part No.	USD	J (inch)	K (inch)
4 x 8	^ 556504	581.35	^ 606504	728.50	12.00	9.00
6 x 10	^ 556506	772.02	^ 606506	956.48	13.00	10.00

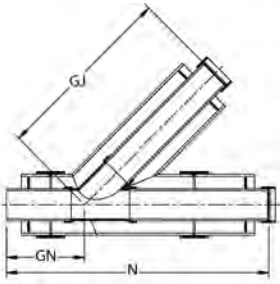
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1/8 Bend (fabricated x fabricated) (Spg x S)

Size (inch)	NFR Part No.	USD	FR Part No.	USD	J (inch)	K (inch)
8 x 12	* 556508	1,008.29	* 606508	1,250.78	14.00	12.00

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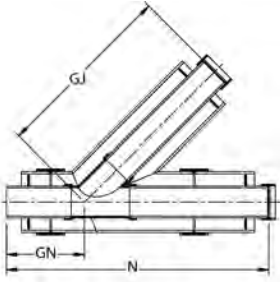
45° Wye (molded x molded) (Spg x S x S)



Size (inch)	NFR Part No.	USD	FR Part No.	USD	GJ (inch)	GN (inch)	N (inch)
1 ½ x 4	556301	911.92	606301	1,132.64	15.00	7.00	22.00
2 x 4	556302	911.92	606302	1,132.64	15.00	7.00	22.00
3 x 6	556303	970.98	606303	1,353.37	20.00	8.00	28.00

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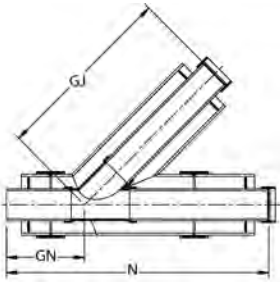
45° Wye (molded x fabricated) (Spg x S x S)



Size (inch)	NFR Part No.	USD	FR Part No.	USD	GJ (inch)	GN (inch)	N (inch)
4 x 8	^ 556304	1,184.46	^ 606304	1,486.01	20.00	11.31	31.31
6 x 10	^ 556306	1,412.44	^ 606306	1,757.51	26.00	12.25	38.25

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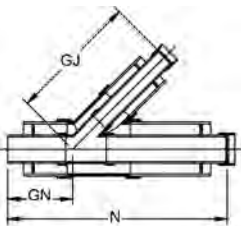
45° Wye (fabricated x fabricated) (Spg x S x S)



Size (inch)	NFR Part No.	USD	FR Part No.	USD	GJ (inch)	GN (inch)	N (inch)
8 x 12	* 556308	1,994.82	* 606308	2,512.95	31.00	15.00	46.00

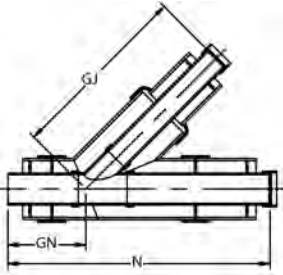
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45° Wye - Reducing (molded x molded) (Spg x S x S)



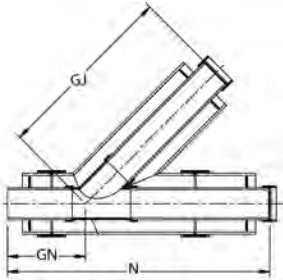
Main (inch)	Reduced (inch)	NFR Part No.	USD	FR Part No.	USD	GJ (inch)	GN (inch)	N (inch)
2 x 4	1 ½ x 4	556322	1,147.15	606322	1,434.20	15.00	7.00	22.00
3 x 6	1 ½ x 4	556323	1,272.54	606323	1,588.60	18.00	7.00	25.00
3 x 6	2 x 4	556324	1,272.54	606324	1,588.60	18.00	7.00	25.00

A **45° Wye - Reducing (molded x fabricated) (Spg x S x S)**



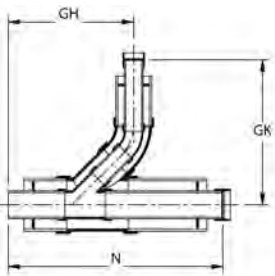
Main (inch)	Reduced (inch)	NFR Part No.	USD	FR Part No.	USD	GJ (inch)	GN (inch)	N (inch)
4 x 8	2 x 4	^ 556325	1,507.77	^ 606325	1,890.16	15.75	11.31	31.31
4 x 8	3 x 6	^ 556326	1,507.77	^ 606326	1,890.16	18.50	11.31	31.31
6 x 10	3 x 6	^ 556327	2,110.88	^ 606327	2,647.67	22.00	12.25	38.25
6 x 10	4 x 8	^ 556328	2,110.88	^ 606328	2,647.67	25.00	12.25	38.25

A **45° Wye-Reducing (fabricated x fabricated) (Spg x S x S)**



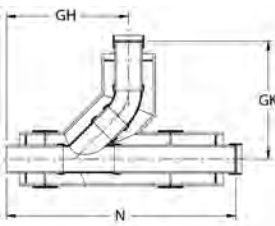
Main (inch)	Reduced (inch)	NFR Part No.	USD	FR Part No.	USD	GJ (inch)	GN (inch)	N (inch)
8 x 12	4 x 8	* 556329	3,088.08	* 606329	3,860.10	24.00	15.00	46.00
8 x 12	6 x 10	* 556330	3,088.08	* 606330	3,860.10	26.00	15.00	46.00

A **Combo Wye & 1/8 Bend (molded x molded) (Spg x S x S)**



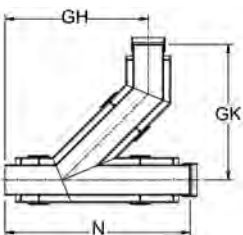
Size (inch)	NFR Part No.	USD	FR Part No.	USD	GH (inch)	GK (inch)	N (inch)
1 1/2 x 4	557301	1,125.39	607301	1,412.44	15.25	18.00	23.50
2 x 4	557302	1,125.39	607302	1,412.44	15.25	18.00	23.50
3 x 6	557303	1,272.54	607303	1,588.60	18.00	24.00	28.00

A **Combo Wye & 1/8 Bend (molded x fabricated) (Spg x S x S)**

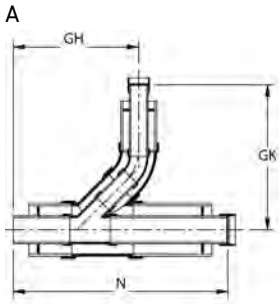


Size (inch)	NFR Part No.	USD	FR Part No.	USD	GH (inch)	GK (inch)	N (inch)
4 x 8	^ 557304	1,455.96	^ 607304	1,816.58	20.00	20.00	31.31
6 x 10	^ 557306	1,911.92	^ 607306	2,389.64	25.25	25.25	38.25

A **Combo Wye & 1/8 Bend (fabricated x fabricated) (Spg x S x S)**

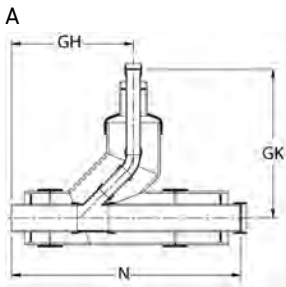


Size (inch)	NFR Part No.	USD	FR Part No.	USD	GH (inch)	GK (inch)	N (inch)
8 x 12	* 557308	2,455.96	* 607308	3,066.32	30.00	30.00	46.00



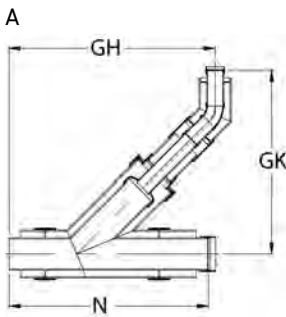
**Combo Wye & 1/8 Bend - Reducing
(molded x molded) (Spg x S x S)**

Main (inch)	Reduced (inch)	NFR Part No.	USD	FR Part No.	USD	GH (inch)	GK (inch)	N (inch)
2 x 4	1 1/2 x 4	557322	1,147.15	607322	1,434.20	15.25	18.00	23.50
3 x 6	1 1/2 x 4	557323	1,419.69	607323	1,779.27	16.00	20.50	26.00
3 x 6	2 x 4	557324	1,419.69	607324	1,779.27	16.00	20.50	26.00



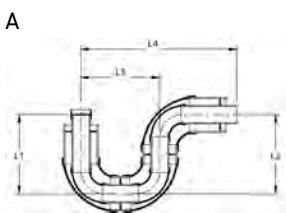
**Combo Wye & 1/8 Bend - Reducing
(molded x fabricated) (Spg x S x S)**

Main (inch)	Reduced (inch)	NFR Part No.	USD	FR Part No.	USD	GH (inch)	GK (inch)	N (inch)
4 x 8	2 x 4	^ 557325	1,764.77	^ 607325	2,206.22	20.00	17.00	31.31
4 x 8	3 x 6	^ 557326	1,764.77	^ 607326	2,206.22	20.00	19.00	31.31
6 x 10	3 x 6	^ 557327	2,647.67	^ 607327	3,294.30	25.25	24.25	38.25
6 x 10	4 x 8	^ 557328	2,647.67	^ 607328	3,294.30	25.25	26.25	38.25



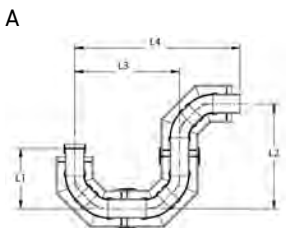
**Combo Wye & 1/8 Bend - Reducing
(fabricated x fabricated) (Spg x S x S)**

Main (inch)	Reduced (inch)	NFR Part No.	USD	FR Part No.	USD	GH (inch)	GK (inch)	N (inch)
8 x 12	4 x 8	* 557329	3,676.68	* 607329	4,632.12	26.00	24.00	46.00
8 x 12	6 x 10	* 557330	3,676.68	* 607330	4,632.12	28.00	26.00	46.00



P-Trap (molded x molded) (Spg x S)

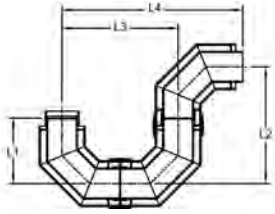
Size (inch)	NFR Part No.	USD	FR Part No.	USD	L1 (inch)	L2 (inch)	L3 (inch)	L4 (inch)
1 1/2 x 4	557201	1,235.23	607201	1,544.04	7.25	9.13	9.44	19.00
2 x 4	557202	1,235.23	607202	1,544.04	7.25	9.13	9.44	19.00
3 x 6	557203	1,581.35	607203	2,000.00	12.00	15.00	15.00	27.00



P-Trap (molded x fabricated) (Spg x S)

Size (inch)	NFR Part No.	USD	FR Part No.	USD	L1 (inch)	L2 (inch)	L3 (inch)	L4 (inch)
4 x 8	^ 557204	2,294.30	^ 607204	2,868.39	14.00	24.25	24.25	38.25
6 x 10	^ 557206	3,176.17	^ 607206	4,007.25	16.25	28.25	28.25	44.25

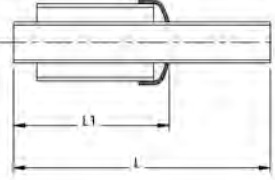
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P-Trap (fabricated x fabricated) (Spg x S)

Size (inch)	NFR Part No.	USD	FR Part No.	USD	L1 (inch)	L2 (inch)	L3 (inch)	L4 (inch)
8 x 12	* 557208	4,213.47	* 607208	5,256.99	18.25	32.31	32.31	50.31

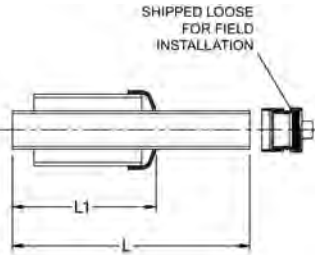
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Termination Fitting (Spg x Spg)

Size (inch)	NFR Part No.	USD	FR Part No.	USD	L (inch)	L1 (inch)
1 1/2 x 4	558001	352.33	608001	463.21	18.00	10.75
2 x 4	558002	352.33	608002	463.21	18.00	11.25
3 x 6	558003	403.11	608003	500.52	22.00	13.25
4 x 8	^ 558004	455.96	^ 608004	574.09	22.00	13.50
6 x 10	^ 558006	580.31	^ 608006	728.50	22.00	8.00
8 x 12	* 558008	713.99	* 608008	911.92	22.00	8.00

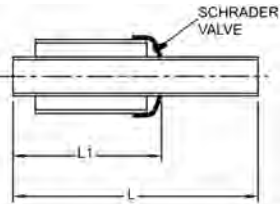
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Fitting Cleanout Adapter with Plug Assembly (Loose) (Spg x Spg)

Size (inch)	NFR Part No.	USD	FR Part No.	USD	L (inch)	L1 (inch)
1 1/2 x 4	557701A	377.20	607701A	487.05	18.00	10.75
2 x 4	557702A	381.35	607702A	491.19	18.00	11.25
3 x 6	557703A	455.96	607703A	552.33	22.00	13.25
4 x 8	^ 557704A	556.48	^ 607704A	673.58	22.00	13.50
6 x 10	^ 557706A	781.35	^ 607706A	928.50	22.00	8.00
8 x 12	* 557708A	2,073.58	* 607708A	2,272.54	22.00	8.00

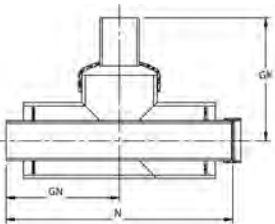
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Test Fitting (Spg x Spg)

Size (inch)	NFR Part No.	USD	FR Part No.	USD	L (inch)	L1 (inch)
1 1/2 x 4	558501	360.62	608501	471.50	18.00	10.75
2 x 4	558502	360.62	608502	471.50	18.00	11.25
3 x 6	558503	412.44	608503	507.77	22.00	13.25
4 x 8	^ 558504	463.21	^ 608504	581.35	22.00	13.50
6 x 10	^ 558506	588.60	^ 608506	735.75	22.00	8.00
8 x 12	* 558508	721.24	* 608508	919.17	22.00	8.00

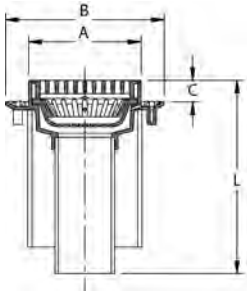
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Access Tee (4" Access) (Spg x Spg x S)

Size (inch)	NFR Part No.	USD	FR Part No.	USD	GK (inch)	GN (inch)	N (inch)
1 1/2 x 4	557901	536.79	607901	662.18	11.00	11.00	22.00
2 x 4	557902	536.79	607902	662.18	11.00	11.00	22.00
3 x 6	557903	625.91	607903	772.02	13.00	13.00	26.00
4 x 8	^ 557904	713.99	^ 607904	890.16	8.00	13.00	26.00
6 x 10	^ 557906	970.98	^ 607906	1,206.22	12.00	17.00	34.00
8 x 12	* 557908	1,066.32	* 607908	1,324.35	18.00	18.00	36.00

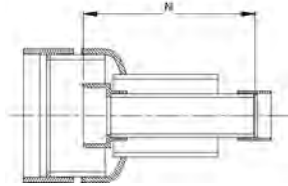
A



Floor Drain (Spg)

Size (inch)	NFR Part No.	USD	FR Part No.	USD	A (inch)	B (inch)	C (inch)	L (inch)
2 x 4	557752	809.33	607752	1,000.00	8.50	12.00	1.63	13.63
3 x 6	557753	897.41	607753	1,125.39	8.50	12.00	1.63	13.63
4 x 8	^ 557754	1,147.15	^ 607754	1,434.20	8.50	12.00	1.63	14.63
6 x 10	^ 557756	1,544.04	^ 607756	1,956.48	8.50	12.00	1.63	22.63

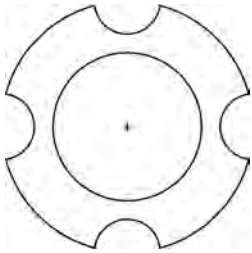
A



Pipe Increaser (Spg x S)

Main (inch)	Reduced (inch)	NFR Part No.	USD	FR Part No.	USD	N (inch)
2 x 4	1 ½ x 4	557022	135.75	607022	163.73	1.61
3 x 6	1 ½ x 4	557023	802.07	607023	1,000.00	9.38
3 x 6	2 x 4	557024	802.07	607024	1,000.00	9.38
4 x 8	2 x 4	^ 557025	1,059.07	^ 607025	1,316.06	10.50
4 x 8	3 x 6	^ 557026	1,059.07	^ 607026	1,316.06	9.00
6 x 10	3 x 6	^ 557027	1,418.65	^ 607027	1,772.02	14.00
6 x 10	4 x 8	^ 557028	1,418.65	^ 607028	1,772.02	12.00
8 x 12	4 x 8	* 557029	1,581.35	* 607029	1,992.75	18.00
8 x 12	6 x 10	* 557030	1,581.35	* 607030	1,992.75	15.00

A



Centralizer

Size (inch)	PP Part No.	USD	Pack Qty
1 ½ x 4	* 557801	63.32	10
2 x 4	* 557802	73.58	10
3 x 6	* 557803	83.83	10
4 x 8	* 557804	92.64	10
6 x 10	* 557806	100.00	10
8 x 12	* 557808	111.92	10

Fuseal Squared Fusion Accessories

B



Fusion Locking Collar with Plastic Clamp

6" Fusion Locking Collars without plastic clamp

Size (inch)	Part No.	USD	Pack Qty
1 ½	* 526042	10.16	10
2	* 526043	11.61	10
3	* 526044	12.95	10
4	* 526045	16.58	10
6	* 526047	18.03	10

B



Loose Coil

4" & 6" Loose Coils are for Closure Couplings only

Size (inch)	Part No.	USD	Pack Qty
4	* 37F160804	8.50	10
6	* 37F160806	11.81	10
8	* 37B160808	33.89	10
10	* 37B160810	35.34	10
12	* 37B160812	39.79	10

B



Metal Clamp

Size (inch)	Part No.	USD	weight (lb)	Pack Qty
4	* 37Z000400	61.76	0.399	1
6	* 37Z000600	80.93	0.399	1
8	* 37Z000800	91.19	0.500	1
10	* 37Z001000	115.03	0.600	1
12	* 37Z001200	124.35	0.600	1

Leak Detection

A



Low Point Leak Detection Alarm Box

- Visual alarm indicators
- Powered on lithium batteries
- Alarm box does not include sensors
- No output option

	Part No.	USD	Description
*	* 150 240 001	1,691.19	4 Sensor Signal Leak Detection Alarm Box

A



Low Point Leak Detection System

- 12 point leak detection system
- 14" x 12" NEMA 4 Enclosure with locking latches.
- Internal fusible breaker for power protection.
- (12) Red LED indicators for leak detection at a specific points.
- RS485 Communications for building automation.
- Alarm output terminals for remote alarm indication.
- Optional audible alarm available.
- Other options available upon request.

	Part No.	USD	Description
*	* 150 000 060	Call	12 Point Leak Detection System

A



Continuous Cable Leak Detection System

- Dimensions: 13.75" x 11.81" x 4.00" (350mm x 300mm x 102mm) Type 12 (IP52)
- Power: 110-240VAC, 50/60 Hz, 0.3 A/50 VA 24 VDC, 1 A/24 VA
- Accepts probe and cable sensors in one sensor string

	Maximum Cable Range (ft)	Cable Capacity	Part No.	USD
*	3000	1	* 150 000 061	Call
*	7500	1	* 150 000 064	Call
*	7500	4	* 150 000 065	Call

GF Piping Systems

Double Containment Corrosive Waste Piping System
Specification Submittal Data Sheet
Fuseal Squared® Polypropylene Pipe and Fittings

Pipe

Pipe will be manufactured to the dimensions and tolerances of ASTM F1412. The polypropylene material will be either flame retardant (FR) or non flame retardant (NFR) and will conform to ASTM D4101. The pipe will conform to NSF-cw, CSA, UPC®, The City of Los Angeles and the Commonwealth of Massachusetts standards. The pipe shall also meet IGC 164-2001 "Standard Specification for Dual Containment Piping Systems Intended to Convey Acid Wastes or Other Special Wastes"

- PPFR Sch.40 Group I Pipe - 10 ft. Lengths
- PPFR Sch.40 Group I Pipe - 20 ft. Lengths
- PPNFR Sch.40 Group I Pipe - 20 ft. Lengths
- PPNFR Sch.40 Group I Pipe - 20 ft. Lengths

Fittings

Molded & fabricated fittings will be manufactured to the dimensions and tolerances of ASTM F1412. Molded fitting patterns will conform to ASTM D3311. The polypropylene material will conform to ASTM D4101. The fittings will conform to NSF-cw, CSA, UPC®, The City of Los Angeles and the Commonwealth of Massachusetts standards. The fittings shall also meet IGC 164-2001 "Standard Specification for Dual Containment Piping Systems Intended to Convey Acid Wastes or Other Special Wastes"

- PPFR Sch.40 Fabricated
- PPNFR Sch.40 Fabricated

Joining

Pipe and fittings are joined by electrofusion. Electrofusion joints will conform to ASTM F1290 and consist of a polypropylene jacked wire.

- Electrofusion

Job Name: _____

Job Location: _____

Engineer: _____

Contractor: _____

Representative: _____