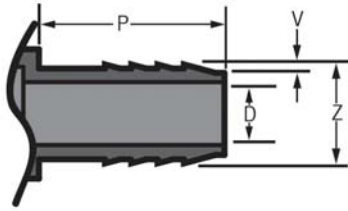




Barbed Insert Fittings Weights & Dimensions



**Dimensions of Insert Ends
ASTM D 2609**

Nominal Size in.	Insert Length "P" min.	Barb O.D. "Z" max. min.		Barb Depth "V" min.	Inside Diameter "D" min.
1/2	1-1/4	.665	.635	.015	.406
3/4	1-1/4	.865	.835	.015	.562
1	1-1/4	1.095	1.065	.020	.750
1-1/4	1-1/4	1.425	1.395	.025	.995
1-1/2	1-1/2	1.665	1.630	.030	1.125
2	1-1/2	2.125	2.085	.030	1.656
2-1/2	2	2.520	2.487	.030	2.062
3	2-1/8	3.125	3.086	.030	2.600
4	3	4.090	4.044	.030	3.525

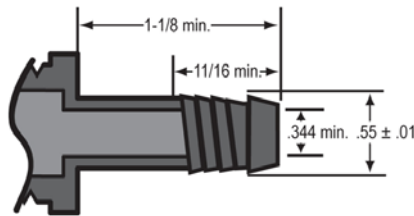
**Dimensions of Polyethylene Pipe
ASTM D 2104 and D 2239**

Nominal Size in.	Average I.D. in.	Tolerance in.
1/2	.622	+.010 - .010
3/4	.824	+.010 - .015
1	1.049	+.010 - .020
1-1/4	1.380	+.010 - .020
1-1/2	1.610	+.015 - .020
2	2.067	+.015 - .020
2-1/2	2.469	+.015 - .025
3	3.068	+.015 - .030
4	4.026	+.015 - .035

Insert Fittings Dimensions

- G** = (LAYING LENGTH) Intersection of center lines to insert bottom or thread bottom; 90° elbows, tees & crosses; ± 1/32 inch.
- H** = Intersection of center lines to end of insert or face of fitting; 90° elbows, tees & crosses; ± 1/32 inch.
- L** = Overall length of fittings; ± 1/16 inch.
- N** = (LAYING LENGTH) Insert bottom to insert bottom or thread bottom; couplings & straight adapters; ± 1/16 inch.

Dimensions of Spiral Barb Ends



STANDARDS & SPECIFICATIONS

• **ASTM D 2609**

Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe.



National Sanitation Foundation (NSF®)

Standard 14 Plastic Fittings for Potable Water.

• **Material**

Spears® Insert Fittings are produced from PVC Type 1, Minimum Cell Classification 12454. CPVC Minimum Cell Classification 23447.

It is the users responsibility to determine the suitability for the intended service application.

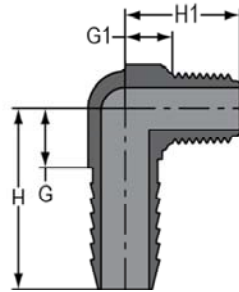


Insert Fittings Technical
Barbed Insert Fittings Weights & Dimensions

90° EII - PVC

Insert x Mipt

Dimensions Also Applicable to
 1413-XXXC CPVC Inserts

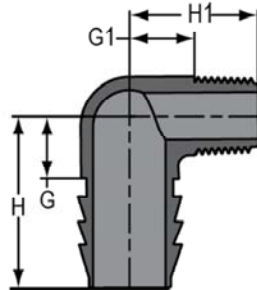


(Continued)

Part Number	Size	G	G1	H	H1	Approx. Wt. (Lbs.)
1413-010	1	11/16	23/32	2- 3/16	1-19/32	.07
1413-012	1-1/4	27/32	31/32	2-11/32	1-27/32	.11
1413-015	1-1/2	15/16	1- 3/32	2-23/32	2- 1/8	.17
1413-020	2	1- 1/4	1- 3/8	3	2- 7/16	.24

90° EII Reducing - PVC

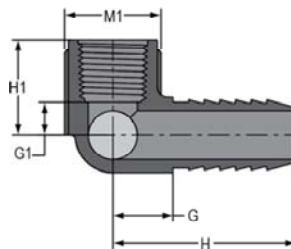
Insert x Mipt



Part Number	Size	G	G1	H	H1	Approx. Wt. (Lbs.)
1413-055	3/8X3/4	7/16	3/4	1- 1/4	1- 1/2	.02
1413-101	3/4X1/2	1/2	1/2	2- 1/16	1- 7/32	.03
1413-130	1X1/2	23/32	3/4	2- 3/16	1-11/32	.05
1413-131	1X3/4	11/16	23/32	2- 5/32	1-13/32	.06

90° Side Outlet EII - PVC

Insert x Insert x Fipt



Part Number	Size	G	G1	H	H1	M1	Approx. Wt. (Lbs.)
1414-101	3/4X3/4X1/2	5/8	13/32	2- 1/8	1- 1/8	1- 3/32	.06
1414-130	1X1X1/2	11/16	9/16	2- 3/16	1- 1/4	1- 5/16	.09
1414-131	1X3/4	15/16	15/32	2- 9/32	1- 3/16	1- 5/16	.10