



# PVC INSERT FITTINGS FOR USE WITH POLYETHYLENE PIPE

INS-2-0123

## The PVC Barbed-Insert Fitting of Choice



Engineered to provide positive grip and ease of installation. High quality and reliability have made Spears® insert fittings the preferred choice for irrigation and O.E.M. applications. A wide variety of PVC insert configurations and adapters are available for use with polyethylene pipe sizes 1/2" through 4", plus 6" & 8" Couplings and Adapters for lay-flat type irrigation hose. Special 3/8" barbed configurations in PVC and PP allow clamp-free connection to 1/2" I.D. polyethylene irrigation hose.

### Superior Choice for Use with Polyethylene Pipe

Spears® PVC Insert Fittings are designed for use with either ASTM D 2104 Schedule 40 or D 2239 SDR pressure rated polyethylene pipe. Chemical and corrosion resistant, rigid PVC barbed inserts provide excellent grip with polyethylene materials.

### Conform to ASTM D 2609

Spears® Insert Fittings are manufactured from high quality PVC materials to meet or exceed the applicable requirements of ASTM D 2609, Standard Specification for Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe.

### Full Assortment of Configurations and Adapters

Spears® broad line of gray PVC Insert Fittings includes popular configurations of elbows, tees, couplings and crosses. Numerous male and female NPT threaded adapters, elbows and tees plus white PVC Schedule 40 solvent-cement socket and spigot adapters allow easy connection of insert fittings to supply or distribution systems.

### Clamp-Free Spiral Barb Irrigation Hose Insert Adapters

Specially designed nominal 3/8" barb configurations allow connection of pipe Insert Fittings to conventional 1/2" polyethylene irrigation hose. Special spiral barb allows "twist-on" connection of hose without need for clamping in open end irrigation applications.

### NSF Certified for Use with Potable Water

Spears® Insert Fittings are tested and Certified by the NSF International for use in potable water systems.

### Sample Engineering Specification

All thermoplastic Insert Fittings shall be produced by Spears® Manufacturing Company from PVC Type I, Cell Classification 12454 meeting ASTM Standard D 1784, and shall be manufactured according to D 2609 for use with polyethylene pipe produced to ASTM D 2104 and D 2239. All Insert Fittings shall be certified by NSF for use in potable water service.



**PROGRESSIVE PRODUCTS FROM  
SPEARS® INNOVATION & TECHNOLOGY**

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Assessed to ISO 9001: 2015  
Certificate number 293

# Spears® Broad Line of Configurations . . . Designed for a Multitude of Applications

## Standard PVC Gray Insert Fittings

Tee Insert x Insert x Insert  
Insert x Insert x Socket  
Insert x Insert x Fipt  
Insert x Insert x Mipt

Reducing Tee Insert x Insert x Insert  
Insert x Insert x Socket  
Insert x Insert x Fipt  
Insert x Insert x Mipt

90° Elbow Insert x Insert  
Insert x Fipt  
Insert x Mipt

90° Reducing Elbow Insert x Insert  
Insert x Fipt  
Insert x Mipt

Side Outlet 90° Ell Insert x Insert x Fipt  
Side Outlet Tee Insert x Insert x Insert x Fipt  
Cross Insert x Insert x Insert x Insert  
Coupling Insert x Insert  
Reducer Coupling Insert x Insert  
Female Adapter Insert x Fipt  
Insert x SR Fipt (Special Reinforced)  
Male Adapter Insert x Mipt  
Reducing Male Adapter Insert x Mipt  
Hose Adapter Male Hose Thread x Insert  
Reducing Hose Adapter Male Hose Thread x Insert  
Pool Adapter Mipt x Hose ID  
Plug Insert

## Schedule 40 PVC White Adapters

IPS Spigot Adapter Insert x IPS Spigot  
IPS Socket Adapter Insert x IPS Socket

## Pool Adapters

PVC Mipt x Hose ID  
PP Mipt x Hose ID

## Special Spiral Barb Adapters for 1/2" Irrigation Hose

### PVC Gray

Tee 3/8" Spiral Barb  
Insert x Insert x 3/8" Spiral Barb

Couplings 3/8" Spiral Barb  
Insert x 3/8" Spiral Barb

### PP

90° Ell Mipt x 3/8" Spiral Barb  
Reducing Male Adapter Mipt x 3/8" Spiral Barb

## CPVC Insert Fittings

Male Adapter Insert x Mipt

## Dimensions of Polyethylene Pipe per ASTM D 2104 and D 2239

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

**NOTE:** 1/2" Irrigation Hose has an average I.D. of .490 inch.



## SPEARS® MANUFACTURING COMPANY • OPERATIONS

15853 Olden St., Sylmar, CA 91342 • PO Box 9203, Sylmar, CA 91392  
(818) 364-1611 • www.spearsmfg.com



### SPEARS® DISTRIBUTION CENTERS

#### ARIZONA

790 South 75th Avenue  
Tolleson (Phoenix), AZ 85353  
(818) 364-1611 • (800) 862-1499  
quotes@spearsmfg.net  
CAorder@spearsmfg.net

#### CALIFORNIA\*

15860 Olden St.  
Sylmar (Los Angeles), CA 91342  
(818) 364-1611 • (800) 862-1499  
Fax (818) 367-3014 (Order Dept.)  
818-362-1596 (Accounting Dept.)  
quotes@spearsmfg.net  
CAorder@spearsmfg.net

#### Spears®

555 Zephyr St.  
Stockton, CA 95206  
(818) 364-1611 • (800) 862-1499  
Fax (818) 367-3014  
quotes@spearsmfg.net  
CAorder@spearsmfg.net

#### COLORADO

4880 Florence St.  
Denver, CO 80238  
(818) 364-1611 • (800) 862-1499  
Fax (818) 367-3014  
quotes@spearsmfg.net  
CAorder@spearsmfg.net

#### FLORIDA\*

9563 Parksouth Ct.  
Orlando, FL 32837  
(407) 843-1960 • (800) 327-6390  
Fax (407) 425-3563  
FLquotes@spearsmfg.net  
FLorder@spearsmfg.net

#### GEORGIA

4205 Newpoint Pl., Suite 100  
Lawrenceville (Atlanta), GA 30043  
(407) 843-1960 • (800) 327-6390  
Fax (407) 425-3563  
FLquotes@spearsmfg.net  
FLorder@spearsmfg.net

#### ILLINOIS\*

1 Gateway Ct., Suite A  
Bolingbrook (Chicago), IL 60440  
(630) 759-7529 • (800) 662-6330  
Fax (630) 759-7515  
ILquotes@spearsmfg.net  
ILorder@spearsmfg.net

#### KENTUCKY

7001 Southside Dr  
Louisville, KY 40214  
(630) 759-7529 • (800) 662-6330  
Fax (630) 759-7515  
ILquotes@spearsmfg.net  
ILorder@spearsmfg.net

#### MASSACHUSETTS

240 South Washington St.  
Norton (Boston), MA 02766  
(717) 938-8844 • (800) 233-0275  
Fax (717) 938-6547  
PAquotes@spearsmfg.net  
PAorder@spearsmfg.net

#### MINNESOTA

12700 West French Lake Rd.  
Dayton (Minneapolis), MN 55327  
(630) 759-7529 • (800) 662-6330  
Fax (630) 759-7515  
ILquotes@spearsmfg.net  
ILorder@spearsmfg.net

#### NORTH CAROLINA

3818 Shutterfly Rd.  
Charlotte, NC 28217  
(717) 938-8844 • (800) 233-0275  
Fax (717) 938-6547  
PAquotes@spearsmfg.net  
PAorder@spearsmfg.net

#### PENNSYLVANIA\*

590 Industrial Dr., Suite 100  
Lewisberry (Harrisburg), PA 17339  
(717) 938-8844 • (800) 233-0275  
Fax (717) 938-6547  
PAquotes@spearsmfg.net  
PAorder@spearsmfg.net

#### Spears® Associated Marketing\*

11500 Roosevelt Blvd.  
Building G, Unit 1  
Philadelphia, PA 19116  
(717) 938-8844 • (800) 233-0275  
Fax (717) 938-6547  
PAquotes@spearsmfg.net  
PAorder@spearsmfg.net

#### TEXAS\*

1000 Lakeside Parkway  
Flower Mound (Dallas), TX 75028  
(469) 528-3000 • (800) 441-1437  
Fax (469) 528-3001  
TXquotes@spearsmfg.net  
TXorder@spearsmfg.net

#### Spears®

303 Gillespie Rd.  
Houston, TX 77038  
(469) 528-3000 • (800) 441-1437  
Fax (469) 528-3001  
TXquotes@spearsmfg.net  
TXorder@spearsmfg.net

#### UTAH

5395 West 1520 South  
Salt Lake City, UT 84104  
(818) 364-1611 • (800) 862-1499  
Fax (818) 367-3014  
quotes@spearsmfg.net  
CAorder@spearsmfg.net

#### WASHINGTON

4103 \*C\* St. NE Suite 200  
Auburn (Seattle), WA 98002  
(818) 364-1611 • (800) 862-1499  
Fax (818) 367-3014  
quotes@spearsmfg.net  
CAorder@spearsmfg.net

#### INTERNATIONAL SALES

15853 Olden St  
Sylmar (Los Angeles), CA 91342  
(818) 364-1611 • (800) 862-1499  
Fax (818) 898-3774



\* Customer Service Center