



# PVC INSERT FITTINGS FOR USE WITH POLYETHYLENE PIPE

INS-2-0406

## 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 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 SIDR 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**



Quality Systems Certificate No. 293  
Corporate Facilities, Sylmar, CA  
Assessed to ISO 9001: 2000

Visit our web site: [www.spearsmfg.com](http://www.spearsmfg.com)

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

## 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.

### NOT FOR USE WITH COMPRESSED AIR OR GASES

Spears® Manufacturing Company 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 and below ground locations. The use of our product in compressed air or gas systems automatically voids any warranty for such products, and its use against our recommendation is entirely the responsibility and liability of the installer.

**WARNING:** DO NOT USE COMPRESSED AIR OR GAS TO TEST ANY PVC OR CPVC THERMOPLASTIC PIPING PRODUCT OR SYSTEM, AND DO NOT USE DEVICES PROPELLED BY COMPRESSED AIR OR GAS TO CLEAR SYSTEMS. THESE PRACTICES MAY RESULT IN EXPLOSIVE FRAGMENTATION OF SYSTEM PIPING COMPONENTS CAUSING SERIOUS OR FATAL BODILY INJURY.



## SPEARS® MANUFACTURING COMPANY • CORPORATE OFFICE

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



### PACIFIC SOUTHWEST

15860 Olden St.  
Sylmar (Los Angeles), CA 91342  
(818) 364-1611 • (800) 862-1499  
Fax (818) 367-3014

### ROCKY MOUNTAIN

4880 Florence St.  
Denver, CO 80238  
(303) 371-9430 • (800) 777-4154  
Fax (303) 375-9546

### UTAH

5395 West 1520 South  
Salt Lake City, UT 84104  
(303) 371-9430 • (800) 777-4154  
Fax (303) 375-9546

### SOUTHEAST

4205 Newpoint Pl., Suite 100  
Lawrenceville (Atlanta), GA 30043  
(678) 985-1263 • (800) 662-6326  
Fax (678) 985-5642

### MIDWEST

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

### NORTHWEST

4103 C St., NE Suite 200  
Auburn (Seattle), WA 98002  
(253) 939-4433 • (800) 347-7327  
Fax (253) 939-7557

### SOUTH CENTRAL

4250 Patriot Dr., Suite 300  
Grapevine (Dallas), TX 76051-2317  
(972) 691-4003 • (800) 441-1437  
Fax (972) 691-4404

### NORTHEAST

590 Industrial Dr., Suite 100  
Lewisberry (Harrisburg), PA 17339-9532  
(717) 938-8844 • (800) 233-0275  
Fax (717) 938-6547

### FLORIDA

9563 Parksouth Court  
Orlando, FL 32837  
(407) 843-1960 • (800) 327-6390  
Fax (407) 425-3563

### INTERNATIONAL SALES

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