

**PW Pipe**<sup>®</sup>

## IPS Water Pipe

### Pressurized Piping for Potable Water Systems

PW Pipe's IPS water pipe provides many advantages over other piping materials for potable water systems.

**Corrosion Resistance:** PVC pipe is immune to nearly all types of internal and external corrosion. Since PVC is a non-conductor, it is not affected by electrolysis. Nor is it susceptible to attack from alkaline or acidic soil. Because it never corrodes, there is no need for cathodic protection.

**Strength:** A 2-to-1 safety factor is applied to the long-term pressure capacity of the IPS water pipe. Assuming proper design, our pipe will provide trouble-free service for decades.

**Flexibility:** Strong and flexible, our pipe bends without breaking often reducing the need for costly fittings or thrust blocking (see Table 1).

**Economical Installation and Operation:** Its light weight usually eliminates the need for expensive installation equipment. Since it cuts easily, appurtenance installation or field repair can be performed quickly, reducing water-service interruptions.

**Hydraulics:** With a Hazen-Williams coefficient of  $C=150$ , PVC pipe puts less burden on pumps because there is less friction between moving water and pipe walls.

We offer a variety of PVC pipe with Iron Pipe Size (IPS) outside diameters suitable for waterworks applications.

**Product Types:** SDR 26 pipe with a pressure rating of 160 psi and SDR 21 pipe with a pressure rating of 200 psi conform to ASTM D 2241 and come in 1½ inch through 12 inch diameters. Schedule 40 IPS meets ASTM D 1785 and is provided in ½ inch through 12 inch.

**Joints:** We offer two types of joining systems: Integral-bell gasketed joints (See Figure 1) and solvent-weld joints.

#### Standard Specifications:

PVC Material – ASTM D 1784 Cell Class 12454.  
Elastometric Seal (gasket) – ASTM F 477  
Pipe: ASTM D 2241 (SDR 26 and SDR 21)  
ASTM D 1785 (Schedule 40)

**Certification:** Underwriter's Laboratories, Inc. certifies to ANSI/NSF Standard 61 for potability and also tests applicable products to the requirements of the Uniform Plumbing Code.

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**Table 1. Minimum Bending Radii (feet)**

Diameter	¾"	1"	1¼"	1½"	2"	2½"	3"	4"	5"	6"	8"	10"	12"
	18	22	28	32	40	48	59	75	93	110	144	179	213

**Note:** PWPipe gasketed joints should not be axially deflected more than one degree. For further information, contact PWPipe and ask for the Longitudinal Bending Technical Bulletin.

## Installation

**Embedment:** Install pipe with proper bedding for uniform longitudinal support. Provide bell holes at each joint to permit proper assembly. Make sure the bedding and initial backfill are free of particles larger than 1½ inches (¾ inches for pipes 5 inches and smaller in diameter). Allow at least a 4-inch soil cushion around the pipe and accessories.

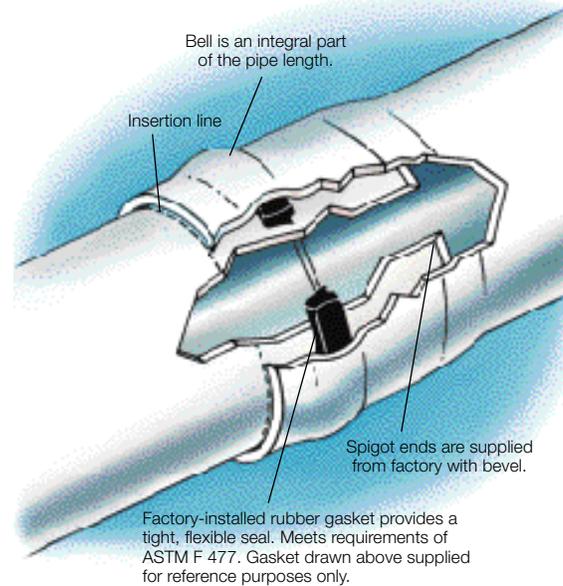
**Pipe Assembly:** Refer to detailed assembly instructions in PWPipe's Installation Guide. You'll also find assembly instructions printed on pipe labels. For gasketed pipe, use only the lubricant supplied with the pipe. Other lubricants may affect the pipe or gasket material.

## Testing

Leakage testing establishes that a particular section of line (joints, fittings, etc.) will not leak, or that leakage is within allowable limits. A test pressure of 50 psi above normal operating pressure is sufficient to locate defects in the system. Higher pressures may cause damage or move thrust blocks. Maintain pressure at constant level during the test. Measuring the additional water pumped in during the test will indicate the amount of leakage.

**Caution:** Air entrapped in the line during testing will affect results. To prevent false readings, bleed air from the system prior to testing. A properly installed line will show little or no leakage.

**Figure 1. PWPipe Gasketed Joint**



**WARNING:** Do not use PVC pipe for pressurized air systems. Injury or death may result due to the catastrophic nature of pipe failure should failure occur. Rapid expansion of compressed air could propel shards of plastic throughout the area.

PWPipe is the largest producer of PVC pipe in western North America and our products are available from distributors throughout this geographic area. PWPipe products include PVC and polyethylene pipe and tubing for a variety of applications servicing the potable water, well casing, sewer, turf, agriculture, plumbing, communications, and electrical markets. Our ten manufacturing facilities in Oregon, Washington, California, Utah, Arizona and Nebraska assure on-time delivery.



**PWPipe**

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