# CYCLE TOUGH® IPS PRESSURE FITTINGS





# SIZES

Injection Molded 1/2" - 8"

Fabricated Molded 10" – 24"

CycleTough<sup>®</sup> IPS pressure fittings are used in irrigation systems and are designed to serve the demanding, recurring pressure surges associated with these applications. These fittings are designed for IPS pipe and are engineered to meet long-term pressures of 200 psi. Incredible reserves of strength have been built into critical intersecting locations to easily accommodate combined hoop-stresses.

CycleTough IPS fittings can be used for irrigation, potable water supply lines, industrial process lines, stormwater disposal, water transmission, sewage force mains and golf course applications.

CycleTough IPS fittings are molded from 1 1/2" to 8" and fabricated from 10" to 24".

Multi Fittings fabricated pressure fittings are designed and engineered to meet demanding forcemain requirements. They are constructed from welded pipe segments and fiberglass overwrap. Custom configurations or standard designs such as tees and elbows are manufactured by these techniques.

# **FEATURES & BENEFITS**

#### **Bottle-Tight Joints**

CycleTough IPS fittings exceed the requirements of CSA B137.3 and ASTM D2241 where the pipe system shall be designed to withstand the pressure of 640 psi, applied for 60 to 70 seconds.

# High Tolerance to Water Hammer

PVC is a relatively flexible material, capable of absorbing much of the shock associated with water hammer and surges due to sudden valve closure in a piping system. Resulting pressures are thus markedly lower than those developed in more rigid systems.

# Joint Tests

Joints must maintain a vacuum of 22" of mercury, a hydrostatic pressure equal to 2 1/2 times the nominal pressure of the pipe for 60 minutes and a pressure level equal to the minimal burst pressure. These conditions are set by ASTM D3139.

#### **Corrosion Proof**

PVC compound used in CycleTough IPS fittings will neither rust nor corrode in aggressive soils. They will not deteriorate when in contact with commonly found chemicals present in the effluent or in the ground. This eliminates the need for costly sacrificial anodes and expensive protective coatings commonly used with metal fittings. For more information, please refer to our chemical resistance guide.

# PIMNBRML060421

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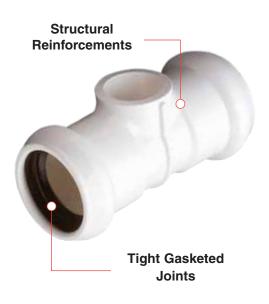
**MULTI FITTINGS** 

# Using the Right Resin/ High Impact Strength

CycleTough IPS fittings use a PVC resin with a minimum HDB of 4,000 psi. This resin resists cracking due to environmental factors, long-term stress and cyclic stress.

### **Service Connections**

CycleTough IPS tapped tees are available in various configurations from 2" to 6" in diameter. Threads are available in NPT from 1/2" to 2", and in AWWA from 3/4" to 1".



# SAMPLE SPECIFICATIONS

Molded CycleTough IPS fittings shall be made from a PVC compound with a cell classification of 12454 per ASTM D1784 and have a minimum Hydrostatic Design Basis of 4,000 psi. The joints must conform to ASTM D3139. The pressure rating of the fitting must be a minimum of 200 psi. The compound shall be listed with the National Sanitation Foundation for Potable water and approved to NSF Standard 14, CSA B137.0 and CSA B137.3.

Fabricated CycleTough IPS fittings shall be made from segments of pipe certified to CSA B137.3, bonded together and overwrapped with fiberglass-reinforced mesh. The pressure rating of the fitting shall match that of the piping system.



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