

# A FITTING ENVIRONMENT



**MULTI FITTINGS**  
Engineered Tough



# MULTI FITTINGS

## Engineered Tough

Our well-being is dependent on the health of our municipal infrastructure. The public relies on pristine sources of potable water and the effective removal of sewage. Leaks that waste precious water or contaminate ground water must be avoided.

At Multi Fittings Corporation, we produce the broadest range of water and sewer fittings available in North America today. For over 50 years, Multi Fittings Corp. has led the field in injection molding and the production of fittings that are engineered tough, eliminating infiltration and exfiltration commonly associated with other pipe systems.

All fittings are made of noncorroding PVC, a material virtually immune to attack from aggressive soils. Our environmentally tight gasketed joints, developed by Multi's engineering group, keep potable water clean and sewage where it belongs – in the pipe system.

### DESCRIPTION, APPLICATIONS, ADVANTAGES

# MULTI PRESSURE FITTINGS

## The Right Fitting for PVC Pressure Systems

Whether using cast-iron (CIOD) or iron-pipe-sized (IPS OD) pressure pipe, Multi Fittings Corp. has the appropriate fitting for your pressure application.

Blue Brute™ fittings conforming to AWWA C907 are available in 4" to 8" diameters and fabricated fittings from 10" to 48" diameters, for use with AWWA C900/C905 pipe. Available in all standard configurations, Blue Brute fittings are designed to match the pressure rating of the pipe and are third-party certified to CSA B137.2 and CSA B137.3.

Cycle Tough 4000™ IPS fittings are available from 1½" to 24" in diameter. Cycle Tough 4000 IPS gasketed joints conform to ASTM D3139 and carry a minimum pressure rating of 200 psi. All CycleTough 4000 fittings are third-party certified to CSA B137.3.

## APPLICATIONS

Blue Brute fittings are engineered for the distribution of potable water in municipal systems, fire lines, sewer forcemains, industrial process lines and irrigation piping.

Cycle Tough 4000 IPS fittings are designed for the conveyance of potable water in rural water supply lines, transmission mains, sewage forcemains, industrial process piping, golf courses and other irrigation systems.

## ADVANTAGES

### Engineered for Strength

Multi Corp.'s pressure fittings are produced using a resin compound meeting the 12454 or 12364 cell classification. This compound, with its hydrostatic design base (HDB) of 4,000 psi, allows the fitting to withstand significantly higher pressure surges and offers the same long-term hydrostatic strength as PVC pressure pipe. This makes the Multi fitting ideal for municipal water service, golf course irrigation and sewage forcemains where several pump startups and shutdowns are encountered.

### Legendary Corrosion Resistance

Noncorroding PVC used in Multi's pressure fittings will neither rust nor corrode in aggressive soils. This eliminates the need for costly sacrificial anodes and expensive protective coatings commonly used with metal fittings.

### Improved Water Quality

The smooth interior surfaces of Multi's pressure fittings prevent deposits such as calcium from adhering to its surface. Also, because of its unsurpassed Hazen Williams coefficient of C=150, Multi pressure fittings provide substantial savings through reduced pumping costs.

## Saving Time And Money

The Multi Fittings Corp. gasketed joint provides long-term performance. It is easy to install, cost effective and corrosion proof versus mechanical joint alternatives. Joint restraint with Multi's pressure fittings is accomplished with concrete thrust blocks or readily available joint restraint devices.

## Gasket Options

All Blue Brute fittings are shipped with standard gaskets that accept CIOD PVC pipe. All Cycle Tough 4000 IPS fittings are shipped with standard gaskets that accept IPS PVC pipe. If a more chemically resistant gasket is needed due to ground contaminants, chemically resistant Nitrile gaskets are also available.



## Blue Brute™ Pressure Fittings

Injection-molded Blue Brute pressure fittings shall conform to AWWA C907 "Polyvinyl Chloride (PVC) Pressure Fittings for Water (4" through 8")" and be certified to CSA B137.2. Blue Brute fittings shall be made from a PVC compound with a cell classification of 12454-B per ASTM D1784 and have a minimum Hydrostatic Design Basis of 4,000 psi. The compound shall be listed with the National Sanitation Foundation for potable water. The fitting shall also be UL Listed and FM approved.

Fabricated Blue Brute pressure fittings shall be made from segments of AWWA C900 or C905 pipe bonded together and over-wrapped with fiberglass-reinforced polyester. The pressure class must match the pipe and the fittings must be third-party certified to CSA B137.3, and conform to AWWA C900/C905.



### Multi Blue Brute Pressure Fittings meet these standards:



AWWA C900  
AWWA C905  
AWWA C907



Factory Mutual  
approved  
4" to 12"

NSF-61

Compound listed by  
National Sanitation  
Foundation for potable  
water service



UL  
4" to 12"



CSA B137.2  
CSA B137.3

## Cycle Tough 4000™ IPS Fittings

Molded Cycle Tough 4000 IPS fittings shall be made from a PVC compound with a cell classification of 12454-B per ASTM D1784 and have a minimum Hydrostatic Design Basis of 4,000 psi. The Cycle Tough 4000 joint 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. Fabricated Cycle Tough 4000 IPS fittings shall be made from segments of CSA B137.3 certified pipe bonded together and overwrapped with fiberglass-reinforced polyester. The pressure rating of the fitting shall match that of the piping system. All Cycle Tough 4000 fittings must be third-party certified to CSA B137.3.



### Multi Cycle Tough 4000 IPS Pressure Fittings meet these standards:



ASTM D3139

NSF-61

National Sanitation  
Foundation



CSA B137.3

## Trench Tough™ Gravity Sewer Fittings

The growing demand for an effective, all-out attack on water pollution, as well as the cost of treating ground water infiltration, highlight the need for improved sanitary sewage collection systems. Multi Fittings Corp. offers the most comprehensive range of Trench Tough injection-molded solid wall and profile gravity sewer fittings in North America. Multi Fittings Corp. completes the Trench Tough package with an extensive line of fabricated gravity sewer fittings. These fittings are an essential part of any environmentally sound wastewater collection system.

### APPLICATIONS

Multi's Trench Tough sewer fittings provide a watertight assembly that protects underground water systems against contamination. They help prevent deterioration of surface structures and reduce the costs involved in sewage treatment. Whether they are used for domestic or storm water sewage, for roof drains or ventilation systems, Multi's Trench Tough sewer fittings are your best solution. Multi can provide you with a complete family of Trench Tough Fittings including SDR35 Gasketed, SDR26 Heavy Wall and CIOD Sewer Fittings for C900 pipe. As well, Multi produces a complete line of Ultra-Rib™ Sewer Fittings, SDR35 Solvent Weld and PVC DWV fittings.

### ADVANTAGES

#### Environmentally Tight Joints

A properly installed system, using Trench Tough sewer fittings, reduces underground water infiltration and exfiltration to an absolute minimum. This feature results in substantial savings in sewage treatment costs for municipalities.

#### High Flow Capacity

The smooth inner walls of properly installed Trench Tough sewer fittings, used in conjunction with quality PVC pipe, eliminate turbulence. This provides system designers with a Manning coefficient of 0.009. This results in easier-to-achieve self-cleaning velocities – a feature that engineers and maintenance personnel will appreciate.

#### Superior Chemical Resistance

The chemical resistance of Trench Tough PVC sewer fittings is exceptional. Acids, alkalis and normally diluted hydrocarbons have no effect on Trench Tough sewer fittings and their gaskets. Aggressive soil conditions due to sulfates, carbonates or sea water are easily tolerated by Trench Tough gravity sewer fittings, as are industrial effluents and acid rain.

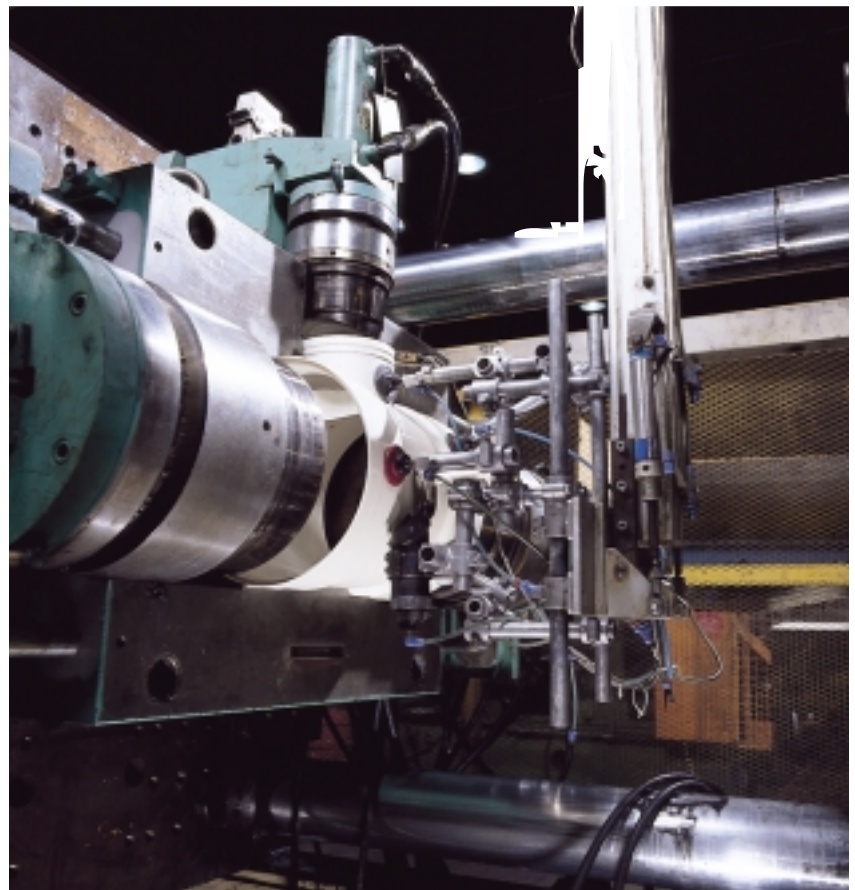
For further information on the remarkable chemical resistance of the Trench Tough PVC compound, contact your local Multi Fittings Corp. sales office.

#### Superb Abrasion Resistance

Trench Tough PVC gasketed sewer fittings are highly resistant to abrasion, making them ideal for transporting abrasive effluent, even in high velocity storm sewer systems.

#### Designed With the Environment in Mind

Trench Tough gasketed PVC sewer fittings are designed to meet the demands of the next century. Our Trench Tough fittings installed in a PVC sewage system restrict daily infiltration and exfiltration to a stringent 50 U.S. gal./in.dia./mile/day.



## Trench Tough™ SDR35 Gasketed Sewer Fittings

All gasketed sewer fittings 4" through 15" shall be molded and comply with ASTM D3034 and F1336 standards. All fittings shall be manufactured from a high molecular weight compound having a minimum cell classification of 12454 or 13343 per ASTM D1784. All molded Wyes, T-Wyes and Tees must be a minimum of a SDR26 thickness where the branch connects to the body of the fitting. In addition, all outlets 4" through 6" service branches and bells must have a minimum of a SDR26 thickness. Materials used for gaskets shall conform to the requirements of ASTM F477 or F913. All fittings shall be manufactured with a locked-in gasket. These fittings shall be third-party certified to CSA B182.1 and/or CSA B182.2.



## Trench Tough™ SDR35 Fabricated Gasketed Sewer Fittings

All fabricated gasketed sewer fittings 18" through 42" shall be made from segments of third-party certified SDR35 pipe that exceeds the requirements of ASTM F679. The fittings shall consist of butt fused or welded pipe and solvent cemented service branches. All 4" through 6" service branches must be a minimum of SDR26 wall thickness. The fittings must conform to ASTM F1336 and F679 standards. All fittings shall be third-party certified to CSA B182.1 and/or CSA B182.2.



### Multi Trench Tough Gasketed SDR35 Sewer Fittings meet these standards:



ASTM D3034,  
F679 & F1336



IAPMO



CSA B182.1  
CSA B182.2

## Trench Tough™ SDR26 Heavy Wall Sewer Fittings

All heavy wall SDR26 gasketed sewer fittings shall conform to ASTM D3034 and shall be made of PVC resin having a minimum cell classification of 12454 or 13343 as prescribed in ASTM D1784. Materials used for gaskets must conform to the requirements of ASTM F913 or ASTM F477. All fittings must have a locked-in gasket.



### Multi Trench Tough SDR26 Heavy Wall Sewer Fittings meet these standards:



ASTM D3034  
ASTM F1336

## Trench Tough™ CIOD Sewer Fittings for C900 Pipe

4" to 8" CIOD gasketed sewer tees, couplings, elbows, plugs and reducers shall conform to AWWA C907 and be certified to CSA B137.2. They shall be UL listed and FM approved. All other configurations must have a minimum DR18 wall thickness. DR18 fittings shall be made from a compound with a minimum cell classification of 12454 per ASTM D1784. The compound must have a minimum Hydrostatic Design Basis of 4,000 psi and must be listed with the National Sanitation Foundation.

Fabricated CIOD fittings shall be made from segments of DR18 AWWA C900 or C905 pipe bonded together and over-wrapped with fiberglass-reinforced polyester. The pipe stock used to manufacture the fittings must be third-party certified to CSA B137.3 and conform to AWWA C900/C905.



### \*Multi Trench Tough CIOD Sewer Fittings meet these standards:



AWWA C907  
4" to 8"

NSF-61

Compound listed by  
National Sanitation Foundation  
for potable water service



CSA B137.2  
4" to 8"

\*This does not apply for all configurations. See above paragraph.

**Ultra-Rib™ Sewer Fittings**

PVC Ultra-Rib fittings shall conform to ASTM F794. Injection-molded fittings must be used in available configurations. They shall be third-party certified to CSA B182.4. Gaskets designed for Ultra-Rib fittings must only be used with Ultra-Rib pipe.

**Multi Ultra-Rib Sewer Fittings meet these standards:**



ASTM F794



CSA B182.4



**PVC DWV Fittings**

PVC DWV fittings shall conform to ASTM D2665 and be listed by NSF to Standard 14. They shall conform to the requirements of CSA B181.2.

**Multi PVC DWV Fittings meet these standards:**



ASTM D2665

NSF-14

6" & 8" only

CSA B181.2

Conforms to CSA B181.2



**SDR35 Solvent Weld Sewer Fittings**

All SDR35 solvent weld sewer fittings shall comply with ASTM D3034. These fittings shall be third-party certified to CSA B182.1 and CSA B182.2.

**Multi SDR35 Solvent Weld Sewer Fittings meet these standards:**



ASTM D3034



IAPMO



CSA B182.1  
CSA B182.2





We are committed to the following environmental code of conduct which highlights our acceptance of, and dedication to, product stewardship.

Multi Fittings Corp. is committed to:

- the production of plastic products beneficial to our customers and not harmful to the environment
- the production of plastic products which are recyclable, reusable, energy recoverable, or nonpolluting when retained in a landfill
- the elimination or minimization of all potentially harmful air or water-pollution emissions from our manufacturing processes
- the conservation of energy
- the reduction of in-house waste
- a safe and healthy workplace for our employees.

Thomas E. Torokvei  
Chief Executive Officer  
Multi Fittings Corp.





**ABOUT THE CANADIAN STANDARDS ASSOCIATION**



The Canadian Standards Association (CSA) is an independent third-party testing laboratory with a standards writing section. When CSA certifies a product, the product becomes part of an ongoing testing and

policing program. To ensure compliance to the standards, CSA arrives unannounced at manufacturing plants and conducts appropriate tests on all newly manufactured products. The result of this third-party

certification is that you, the engineer, contractor, distributor or municipal decision maker, can be sure that the product you purchase strictly adheres to the rigid standards of CSA.

Pressure Fittings	Trench Tough Sewer Fittings		
<p><b>Blue Brute™ Pressure Fittings</b></p>  <p><b>Injection Molded</b> <b>4" – 12"</b></p> <p><b>Fabricated</b> <b>10" – 48"</b></p>	<p><b>Trench Tough™ SDR35 Gasketed Sewer Fittings</b></p>  <p><b>Injection Molded</b> <b>4" – 15"</b></p> <p><b>Fabricated</b> <b>18" – 42"</b></p>	<p><b>Trench Tough™ SDR26 Heavy Wall Sewer Fittings</b></p>  <p><b>Injection Molded</b> <b>4" – 8"</b></p> <p><b>Fabricated</b> <b>8" – 18"</b></p>	<p><b>Trench Tough™ CIOD Sewer Fittings for C900 Pipe</b></p>  <p><b>Injection Molded</b> <b>4" – 12"</b></p> <p><b>Fabricated</b> <b>4" – 24"</b></p>
<p><b>Cycle Tough 4000™ IPS Pressure Fittings</b></p>  <p><b>Injection Molded</b> <b>1 1/2" – 8"</b></p> <p><b>Fabricated</b> <b>10" – 24"</b></p>	<p><b>Ultra-Rib™ Sewer Fittings</b></p>  <p><b>Injection Molded</b> <b>8" – 12"</b></p> <p><b>Fabricated</b> <b>12" – 24"</b></p>	<p><b>SDR35 Solvent Weld Sewer Fittings</b></p>  <p><b>Injection Molded</b> <b>3" – 8"</b></p> <p><b>Fabricated</b> <b>8" – 15"</b></p>	<p><b>SCH 40 PVC DWV Fittings</b></p>  <p><b>Injection Molded</b> <b>6" – 8"</b></p> <p><b>Fabricated</b> <b>8" – 24"</b></p>

**WARRANTY:** All Multi Fittings Corp. products are guaranteed against defects resulting from faulty workmanship or materials. If any such product is found to be defective by reason of faulty workmanship or materials, upon written notice and return of the product, the defective product will be replaced by Multi Fittings Corp. free of charge, including shipping charges for the replacement product. Claims for labour costs and other expenses required to replace such defective product or to repair any damage resulting from the use thereof will not be allowed by Multi Fittings Corp. Our liability is limited to the price paid for the defective product. Multi Fittings Corp. will not be bound by any warranty, other than above set forth, unless such warranty is in writing. This literature is published in good faith and is believed to be reliable. However, Multi Fittings Corp. does not represent and/or warrant in any manner the information and suggestions contained in this brochure. Data presented is the result of laboratory tests and field experience.

Multi Fittings Corp. maintains a policy of ongoing product improvement. This may result in modification of features or specifications without notice.



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