

# TRENCH TOUGH PLUS™

MOLDED SDR35 GASKETED SEWER FITTINGS

MOLDED SDR26 HEAVY WALL GASKETED SEWER FITTINGS



**MULTI FITTINGS**  
HIGHER STANDARDS™

# TRENCH TOUGH PLUS™



## North America's Leader of PVC Fittings

Since 1954, Multi Fittings has been in the business of designing and manufacturing PVC fittings for the municipal water and sewer market. Today, we are able to provide the widest range of injection-molded fittings in the market and with millions of fittings sold, we meet the needs of more contractors, engineers, and distributors than any other manufacturer.



**MULTI FITTINGS**



## Performance

With state-of-the-art engineering and manufacturing, Multi Fittings is continually developing and marketing products that exceed the industry's highest quality and performance standards. Every fitting is painstakingly researched, engineered, manufactured and certified to deliver longer life, easier installation, and greater value for our customers.

Our philosophy extends into every step of our manufacturing process. All of our fittings are made of noncorroding PVC, a material virtually immune to attack from aggressive soils and chemicals. Our R&D teams create fittings tough enough to endure higher impact forces, heavier loads and more punishment on the jobsite than any other fittings in the market.

## Service

Multi Fittings maintains the industry's most comprehensive and experienced sales and support network, backed by distribution centers strategically located across North America. It's no wonder Multi Fittings is the brand contractors have been turning to for over 50 years.





# TRENCH TOUGH PLUS™



## **ADVANTAGES** of Molded PVC Fittings from Multi Fittings

### **ENGINEERED FOR STRENGTH**

Multi Fittings products withstand higher impact forces, higher loads and more jobsite abuse than any other fittings on the market. For example, the impact strength of Trench Tough Plus fittings exceeds ASTM requirements by over 25%.

**50%**  
**LIGHTER**

### **LIGHT-WEIGHT / COMPACT DESIGN**

Typically 50% of the weight of fabricated fittings and metal alternatives, molded PVC fittings from Multi Fittings take less energy to transport and provide more convenience on the jobsite.



### **MANUFACTURING CONSISTENCY**

With ISO 9000 best-in-class manufacturing and quality control processes Multi Fittings provides the most consistent supply of molded fittings in the market today.

## CORROSION RESISTANT

Metal fittings are the “Achilles Heel” of PVC piping systems. Now you can go 100% PVC and eliminate the threat of corrosion that is so common with cast iron fittings. Multi Fittings products are all made with a special PVC compound which is immune to attack from the most aggressive effluents and soils.



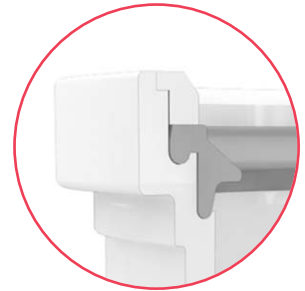
## IMPROVES SYSTEM EFFICIENCY AND MAINTAINS THE ENVIRONMENT

The precise tolerances of Trench Tough Plus fittings ensure bottle-tight joints that keeps sewage where it should be – in the system. And the smooth interior surface virtually eliminates encrustants from adhering to its surface providing optimal system efficiency.



## LOCKED-IN GASKET DESIGN

Makes assembling the joints easy, requiring less effort in the trench, while ensuring leak-proof reliability in the ground.



## ADVANCED MATERIAL FORMULATIONS AND STRUCTURAL REINFORCEMENTS

We understand that sewer fittings are not installed in a lab and must be designed to withstand the harsh ‘real world’ punishment of job sites. Our fittings are reinforced at key intersecting locations for added strength without losing flexibility. Our high strength yet flexible fittings will accommodate the extreme loads that cause more rigid PVC fittings to fail.



## PRISTINE FITTINGS FROM PLANT TO JOBSITE

All SDR35 15", 18" and larger fittings are individually bagged and factory sealed, arriving on the jobsite looking the same as the day they were produced.



# TRENCH TOUGH PLUS™

## Multi Fittings **Quality Assurance**

At Multi Fittings we leave nothing to chance, ensuring quality is built-in, instead of simply being inspected in. During daily production, samples are randomly collected and tested to meet or exceed the toughest industry standards. In addition, our quality systems and manufacturing plants are ISO registered.



### **DIMENSIONAL TESTS**

By utilizing a portable Coordinate Measuring Machine (CMM), all fittings are measured to ensure that they are made to the correct sizes to meet the requirements of both the standard, and our internal specifications.



### **MATERIAL TESTS**

Rigid PVC (Poly Vinyl Chloride) used in the manufacturing of Trench Tough Plus SDR35 and SDR26 Gasketed Sewer Fittings complies with ASTM D 1784, Standard Specification for Rigid Poly Vinyl Chloride (PVC) Compounds and Chlorinated Poly Vinyl Chloride (CPVC) Compounds, having a cell classification 12454 or 13343.



### **JOINT TIGHTNESS**

Joints are tested according to the requirements of the standard by deflecting to 5% of the diameter of the fitting to 15 psi. This test verifies the integrity of the joint during installation.



## FUSION TESTS

Randomly selected fittings must pass the heat reversion test ensuring optimum homogeneity.



## WELDED RING PULL TEST

Gaskets on all Trench Touch Plus fittings are installed using ultrasonic welding technology. The ring pull test verifies that the weld is secure and the gasket locked in place.



## CRUSH TEST

The fitting must meet stiffness requirements determined using the crush test methods as outlined in ASTM D2412, to be certified to CSA B182.2 and B182.7 standards. The minimum ring stiffness shall be 320kPa (46 psi) for SDR35 pipe and 625kPa (90psi) for SDR26 pipe without splitting, cracking or breaking.

## MULTI FITTINGS Trench Tough Fittings Meet These Standards



CSA B182.2: PSM type polyvinylchloride (PVC) sewer pipe and fittings



ASTM F1336: Standard Specification for Poly(Vinyl Chloride) (PVC) Gasketed Sewer Fittings  
ASTM D3034: Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings



ISO 3624-135: Unplasticized Poly(Vinyl Chloride) [PVC-U] Pipe and Fittings  
– Pipes of 200 mm to 600 mm in Diameter for Underground Sewage and Soil Drainage



# TRENCH TOUGH PLUS™

## MOLDED PVC FITTINGS

### TRENCH TOUGH PLUS™

#### SDR35 GASKETED SEWER FITTINGS

- Ideal for use in wastewater, stormwater and industrial waste applications.
- Reinforced to SDR26 thickness at key locations such as the branches of tees and wyes for optimal long-term performance.
- Joint withstands 15 psi hydrostatic pressure and a -10.8 psi vacuum pressure.
- Leak-proof at 5° joint deflection and 5% ring deflection.

Injection  
Molded  
4" – 18"

Fabricated  
18" – 42"



#### NEW MOLDED GASKETED SDR35 SEWER FITTINGS

Product	Size (inches)	Size (mm)	Old Part #	NEW Part #
45° WYE (GxGxG)	15 x 10	375 x 250	043317	143317
	15 x 12	375 x 300	043318	143318
	15	375	043310	143310
	18 x 4	450 x 100	043904	143904
	18 x 6	450 x 150	043903	143903
45° ELBOW (GxG)	15	375	043515	143515
45° ELBOW (SxG)	15	375	043951	143951
REPAIR COUPLING WITHOUT PIPE STOP (GxG)	12	300	043631	143631
EXTENDED BUSHING (SxG) - Concentric	12 x 4	300 x 100	043697	143697
	12 x 6	300 x 150	043617	143617
	12 x 8	300 x 200	043616	143616
	12 x 10	300 x 250	043623	143623
INCREASER COUPLING (GxG)	12 x 4	300 x 100	043798	143798
	12 x 6	300 x 150	043530	143530
	12 x 8	300 x 200	043532	143532
	12 x 10	300 x 250	043520	143520



# TRENCH TOUGH PLUS™

## SDR26 HEAVY WALL GASKETED SEWER FITTINGS

- Compatible with SDR26 and SDR35 sewer pipe and are used in areas where the installation conditions are more challenging, such as deep burial applications or projects in poor soils.
- Service fittings are manufactured with an "extra heavy wall" SDR24 thickness.
- Easily identifiable with its gray gaskets.

Injection  
Molded  
4" – 12"

Fabricated  
12" – 24"



### NEW MOLDED GASKETED SDR26 HEAVY WALL SEWER FITTINGS

Product	Size (inches)	Size (mm)	Old Part #	NEW Part #
T-Y (GXGXG)	10 x 4	250 x 100	067130	167130
	10 x 6	250 x 150	067150	167150
	12 x 4	300 x 100	067153	167153
	12 x 6	300 x 150	067152	167152

## Short Form Specification

All sewer fittings shall comply with the ASTM D3034 and ASTM F1336 standards. Fittings marked with IAPMO are approved to the requirements of D3034 and are third party certified to CSA, B182.1 and marked with the CSA logo.

Fitting joints must withstand a minimum 15 psi hydrostatic pressure and a -10.8 psi vacuum pressure for at least 10 minutes with no leakage while joint is deflected 5° and ring deflection is 5%.

Impact testing is carried out at 73°F with no cracking or splitting allowed.

## SPECIFICATION CHART

SEWER FITTINGS	Options	Size Range	REFERENCED Standards
 <b>Trench Tough Plus Gasketed Fittings</b>	SDR35	INJECTION MOLDED: up to 18" FABRICATED: up to 42"	ASTM D3034, F679, F170 CSA B182.2 CSA B181.2 IAPMO File 2431
 <b>Trench Tough Plus Gasketed Heavy Wall</b>	SDR26	INJECTION MOLDED: up to 12" FABRICATED: up to 24"	ASTM D3034, F679, F170
 <b>CIOD Sewer Fittings</b>	DR51    DR25 DR41    DR18 DR32.5   DR14	INJECTION MOLDED: 4" – 8" (DR18) FABRICATED: 10" – 48"	AWWA C900 AWWA C907 AWWA C905
 <b>Solvent Weld</b>	SDR35	INJECTION MOLDED: 3" - 8" FABRICATED: 8" – 15"	ASTM D2665 (6" & 8") NSF 14 (6" & 8") CSA B181.2 (6" & 8")
 <b>Ultra-Rib</b>	Open Profile	8" – 24"	ASTM F794 AASHTO M304 CSA B182.4 ASTM D3034
 <b>DWV Schedule 40 PVC</b>	PVC	INJECTION MOLDED: 6" – 12" FABRICATED: 10" – 24"	CSA, IAPMO, NSF
 <b>Backwater Valves</b>	ABS PVC	3" – 6"	CSA, IAPMO, NSF, SBC

CORROSION  
RESISTANT

MANUFACTURING  
CONSISTENCY

ENVIRONMENTALLY  
FRIENDLY

LIGHT-WEIGHT/  
COMPACT DESIGN

ENGINEERED  
FOR STRENGTH

BETTER  
PACKAGING

QUALITY  
ASSURANCE



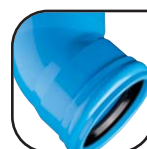
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**WARRANTY:** All of the company's Products are guaranteed against defects resulting from faulty workmanship or materials. The Company will replace, free of charge, including shipping charges for the replacement Products, any Products which are found to be defective in workmanship or material, provided that the following conditions are met:

- a) the Company is promptly notified in writing of such defect immediately upon discovery of same, and the defective Product is promptly returned to the Company;
- b) the defect is not due, without limitation, to faulty installation, misalignment of Products, vibration, ordinary wear and tear, corrosion, erosion, U.V. degradation, incompatible lubricants, pastes and thread sealants, unusual pressure surges or pulsation, water hammer, temperature shocking, or fouling; and
- c) the Products have not been altered or modified after leaving the Company's premises.

The warranty period can be specifically limited for certain Products as stated in writing in the Company's literature. The Company will not allow claims for labor, materials and/or other expenses required to replace the defective Product, or to repair any damage resulting from the use thereof. The Company disclaims any responsibility for the Purchaser's calculations, product drawings or engineering design specifications. The Company's liability is limited to the purchase price applicable to the product.

It is agreed and understood that the Company's liability in respect to the sale is strictly limited to the replacement of Products as hereinbefore specified and that the Company shall not, in any event, be liable for any damages whether for the loss of use or business interruption or any other claim for incidental, consequential, special or punitive damages. There is no warranty, condition or representation of any nature whatsoever, expressed or implied, by statute or otherwise, except as herein contained, and the Company disclaims any implied warranties of merchantability and/or fitness of its Products for a special purpose.

This literature is published in good faith and is believed to be reliable. However Multi Fittings 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 maintains a policy of ongoing product improvement. This may result in modifications of features and/or specifications without notice.



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