

CertainTeed

Fluid-Tite™ PVC Stop & Repair Couplings

For Cast Iron O.D. & IPS O.D. Pipe



PVC Stop Couplings and Repair Couplings

from CertainTeed offer a quick, simple solution to unwanted but necessary repairs or changes to existing municipal water piping systems, and easy connection of short or cut lengths required in most piping installations.

PVC Stop Couplings and Repair Couplings enable the installation or repair crew to remedy virtually all problems encountered in making tie-in connections. These two types of couplings allow the job to be completed quickly, so the piping system can be restored with minimal service disruption.

PVC Stop Couplings and Repair Couplings supplied by CertainTeed are manufactured from extruded PVC coupling stock and are precision-machined to exacting standards. Each Stop and Repair coupling is supplied complete with gaskets.

For Cast Iron O.D. pipe:

Available in 4", 6" 8", 10" and 12" sizes in 200 psi working-pressure rating. Couplings meet the requirements of AWWA Standard C900 for Municipal Water pipe, and are listed by NSF for use with potable water. Each coupling is hydrostatically tested to 800 psi, 4 times its rated working pressure of 200 psi. All sizes and classes are listed by Underwriters Laboratories Inc. (U/L).

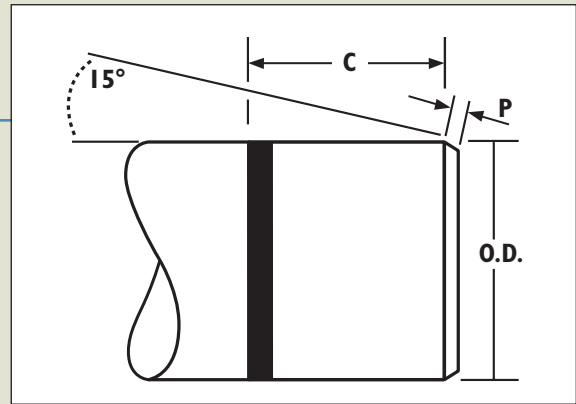
For IPS O.D. pipe: Couplings are available in 1½" through 12", are manufactured to meet ASTM 3139, and are listed by NSF for use with potable water.

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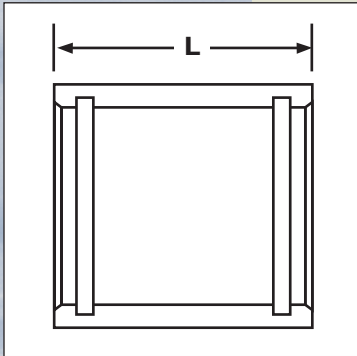
Quality made certain. Satisfaction guaranteed.

Dimensions

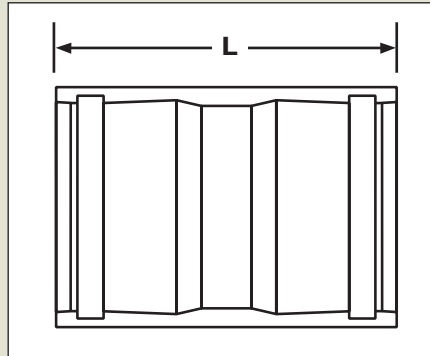
PVC Pipe



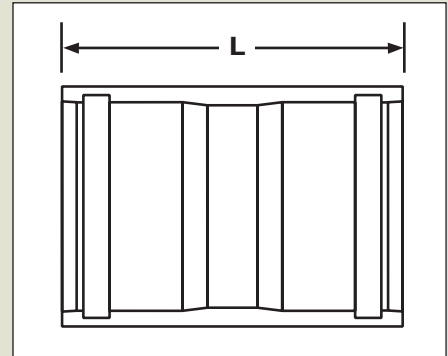
Repair Coupling*



Stop Coupling* – High Deflection Profile



Stop Coupling* – Standard Profile



*Included gaskets are not shown in these diagrams.

Table 1 - Cast Iron O.D.

Size	C900 PVC Pipe O.D.	Pressure Class(psi)	L Length	P	C Insertion Depth	Cplg. O.D.	High Deflection (HD) Stop Coupling		Repair Coupling	
							Part #	Weight Lbs.	Part #	Weight Lbs.
4"	4.80	200	7.250	7/16"	3.000	5.964	740718	4.00	742811	3.50
6"	6.90	200	8.250	5/8"	3.625	8.366	740725	8.24	742828	7.20
8"	9.05	200	9.250	13/16"	4.125	10.947	740732	15.62	742835	13.70
10"	11.10	200	11.125	15/16"	5.000	13.361	740749	27.45	742842	22.30
12"	13.20	200	12.000	15/16"	5.375	15.836	740756	40.96	742859	36.10

Table 2 - Iron Pipe Size O.D.

Size	Pipe O.D.	Pressure Class(psi)	Cplg. O.D.	P	C Insertion Depth	Stop Coupling			Repair Coupling			18"-Long Coupling Repair		
						Part #	Weight Lbs.	L	Part #	Weight Lbs.	L	Part #	Weight Lbs.	L
1 1/2"	1.900	250	2.680	5/32"	3.375	740206	0.90	7.063	742019	1.17	9.00	741012	2.95	18.0
2"	2.375	250	3.200	3/16"	3.375	740213	1.20	7.188	742026	1.52	9.00	741029	3.81	18.0
2 1/2"	2.875	250	3.690	7/32"	3.438	740220	1.50	7.188	742033	1.86	9.00	741036	4.44	18.0
3"	3.500	250	4.380	9/32"	3.500	740237	1.90	7.313	742040	2.32	9.00	741043	5.76	18.0
4"	4.500	250	5.470	11/32"	3.500	740244	3.04	7.500	742064	3.38	9.00	741067	7.91	18.0
6"	6.625	250	7.840	17/32"	3.750	740251	6.46	7.875	742088	6.50	9.00	741081	14.13	18.0
8"	8.625	250	10.190	19/32"	4.000	740282	9.60	8.250	742095	10.17	10.00	741098	24.38	18.0
10"	10.750	200	12.438	5/8"	4.000	740381	11.31	8.750	742101	14.25	12.00	741104	34.46	18.0
12"	12.750	200	14.648	23/32"	4.250	740398	17.07	9.125	742118	21.50	12.00	741111	45.78	18.0

Note: 1) Bevel dimensions and insertion depths shown are for pipe cut and beveled in the field.

As-manufactured pipe bevels are generally longer, and the associated insertion depths are slightly greater.

2) All dimensions are in inches and are subject to normal manufacturing tolerances.

3) All weights are approximate.

Assembly of PVC Stop Couplings & Repair Couplings

Average field conditions are assumed, and therefore the Engineer is the sole authority regarding actual installation specifications and procedures.

A. Verify O.D.

Verify O.D. (Outside Diameter) of pipe being jointed to be compatible (see Table 1 [CI O.D.] and Table 2 [IPS O.D.]).

B. Cutting

When cutting pipe to be used with couplings, square cuts are essential. When making field cuts, it is best to use a PVC pipe cutter to ensure square ends. A hand or power saw may be used if a pipe cutter is not available.

C. Field Beveling

A bevel is required on the spigot end of the pipe being installed in the coupling. The preferred method of beveling is to use a beveling tool that is especially made for PVC Municipal Water pipe. Hand tools like a coarse file or rasp can also be used to create bevel; refer to Table 1 (CI O.D.) and Table 2 (IPS O.D.) for bevel dimensions.

D. Clean Gasket and Spigot

Gaskets are shipped pre-assembled in the couplings. Using a rag, wipe interior of coupling and spigot end of pipe free of all foreign materials. Note: If interior of coupling gasket groove is dirty or contains debris, carefully remove gasket and thoroughly clean gasket groove in coupling and reinstall the gasket. Make sure the flat side of the gasket faces inside the coupling and the rounded edge faces the coupling entrance. Make sure the gasket is evenly sealed in the groove by running your finger all the way around the inner face of the gasket.

E. Full Insertion Mark

Spigot end of pipe to be installed must have a full insertion mark (refer to Table 1 [CI O.D.] and Table 2 [IPS O.D.]) put on the pipe. This mark indicates when the pipe is fully inserted into the coupling.

F. Apply Lubricant

Apply lubricant to the gasket surface that is exposed (never to the gasket groove) and to the pipe spigot from the end of the pipe to the full insertion mark, especially to the rounded edge of the gasket and the taper on the spigot. In the case of repair coupling use, lubricate pipe entire distance coupling will have to travel on pipe. Only use lubricants supplied or approved by CertainTeed.

Warning: *Substances not specifically formulated for this purpose may deteriorate pipe and/or gaskets.*

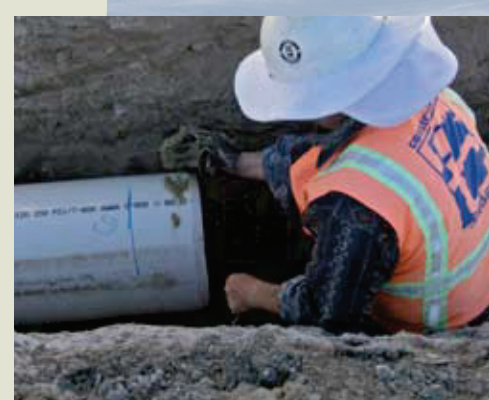
G-1. Assembly of Stop Coupling

Push the spigot end into the coupling until it hits the stop in the coupling. The full insertion mark on the pipe should be about flush with end of the coupling. Use a bar and block if needed. A “come-along” or puller may also be used, but be sure that the pipe and coupling are protected from the chains typically used with these types of devices. Stop couplings are used in areas that require pipe shorter than standard length, or when connecting to fittings or hydrants, or especially when a small bend is needed to change line or grade. Each HD stop coupling is capable of deflecting 5 degrees and can be used in place of small bends, or where it is not desirable or possible to bend the barrel of the pipe.

G-2. Damaged Pipe Repair

G-2A. Assembly of Repair Coupling

Push the spigot end into the coupling until the spigot is up against the back side of the far gasket. Align the other length of pipe, and slide the coupling back until the full insertion mark on the pipe is flush with the end of the coupling or not exposed. Use a bar and block if needed. A “come-along” or puller may also be used, but be sure that the pipe and coupling are protected from the chains typically used with these types of devices.



G-2B. Assembly Where Two Repair Couplings Required

Simply cut out and remove damaged area. Make sure pipe ends are cut square and are tapered. Clean pipe ends and lubricate well for a distance equal to one half the length of the repair coupling being used. Make a mark on pipe ends equal to one half the length of the repair coupling.

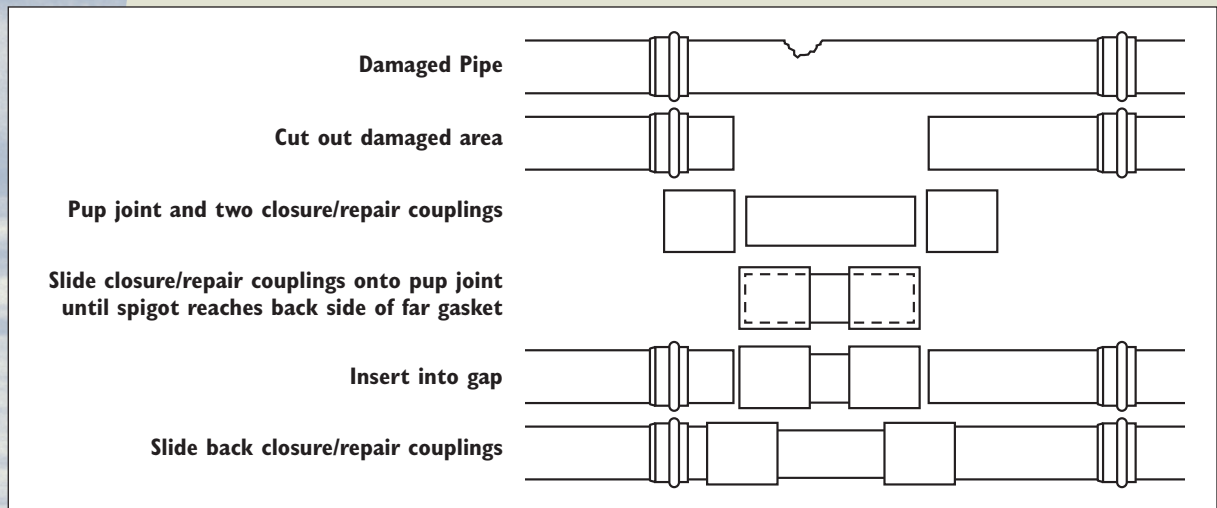
Measure and cut a "Pup" joint approximately 2 1/2 to 3 1/2 inches shorter than the distance between the two pipe ends being repaired. Both ends of the pipe must be

square cut and tapered, cleaned and well lubricated at least a distance equal to the length of the repair coupling being used.

Make sure the repair coupling is clean, and lubricate the coupling's exposed ring surfaces. Install both repair couplings on the pipe by pushing each one onto the pipe until the spigot reaches the back of the far gasket.

Position the pipe with the repair couplings installed and push the couplings back over the existing pipe until the coupling edge is about 3/4" short of the mark on the pipe; this will center the coupling over the gap.

Example of Tie-in to Repair Existing System



High Deflection Coupling

Each coupling is capable of deflecting 5 degrees and can be used in place of small bends, or where it is not desirable or possible to bend the barrel of the pipe.

Bend Radius Chart (4" - 12")

Pipe Length	Min. Radius with 5° per Coupling Deflection (no pipe bending)	Offset per 20' Length
20'	229'	21.00"
10'	115'	10.50"
7.5'	86'	8.00"
5'	57'	5.25"

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CertainTeed Corporation
Pipe & Plastics Group
P.O. Box 860
Valley Forge, PA 19482

Phone: 866-CT4-PIPE
Fax: 610-254-5428
www.certainteed.com

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