

Pipe
A-33

Restrained Joint PVC Pressure Pipe

Certa-Lok™ VIP Restrained Joint PVC Municipal Water Pipe



Certa-Lok VIP Restrained Joint PVC Pipe is the first non-metallic restrained joint system designed for use in municipal water and fire protection systems.

The Certa-Lok VIP Restrained Joint PVC Municipal Pipe and Couplings provide a restrained joint by utilizing precision machined grooves on the pipe and in the coupling which, when aligned, allow a spline to be inserted, resulting in a fully circumferential restrained joint that locks the pipe and coupling together. A flexible elastomeric seal (“O”-Ring) in the coupling provides a hydraulic pressure seal.

When installed in accordance with CertainTeed’s Vinyl-iron pipe* installation guide procedures and used with an FM (Factory Mutual) approved restrained mechanical joint fitting system, it is designed to eliminate costly concrete thrust blocks in a properly engineered water system.

| PIPE SIZE | O.D. | DR RATING | PSI | PRODUCT NUMBER |
|-----------|-------|-----------|-----|----------------|
| 4" | 4.80 | 18 | 150 | 22081 |
| 6" | 6.90 | 18 | 150 | 22116 |
| 8" | 9.05 | 18 | 150 | 22159 1 |
| 10" | 11.10 | 18 | 150 | 22184 |
| 12" | 13.20 | 18 | 150 | 22198 |

*Vinyl-iron pipe is CertainTeed’s brand of solid wall PVC municipal water pipe.

Features:

- Available in sizes 4" — 12"
- 150 PSI working pressure
- Manufactured from ductile-iron outside diameter DR 18 (Class 150) PVC pipe and coupling material
- Meets or exceeds performance requirements of AWWA C-900 Standards
- FM (Factory Mutual) approved
- Complies with NSF (National Sanitation Foundation) Standard No. 61 for potable water service
- Non-metallic, corrosion free restrained joint
- Field fabrication is made possible by utilizing a power grooving and beveling tool supplied by CertainTeed

Specifications:

CONFORMANCE:

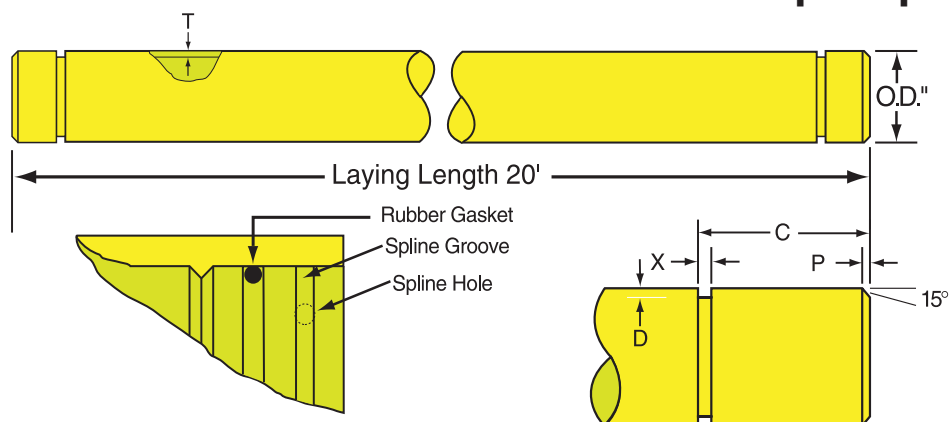
- PVC Pipe shall meet the performance requirements of AWWA C-900, “Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4" through 12" for Water Distribution” and shall be furnished in ductile-iron pipe equivalent outside diameters with Certa-Lok restrained rubber gasketed joints.

GENERAL REQUIREMENTS:

- Nominal pipe sizes of 4", 6", 8", 10", and 12" shall be furnished.
- Pressure classes of 150 psi shall be furnished.
- Pipe shall be furnished in 20' laying lengths.
- Each length of PVC pipe shall pass a hydrostatic integrity test at the factory at 4 times the pressure class of the pipe, 600 psi for 5 seconds.
- Separate couplings shall pass a hydrostatic integrity test at the factory at 4 times the pressure class of the coupling, 600 psi for 5 seconds.
- Pipe and couplings shall not fail when subjected to the following tests which are outlined in AWWA C-900: sustained pressure, burst pressure, flattening and extrusion quality.

Restrained Joint PVC Pressure Pipe

Certa-Lok™ VIP Restrained Joint PVC Municipal Pipe



| PIPE SIZE | DR | PRESSURE RATING (psi) | O.D | T" MIN. | P" | | C" | X" | D" | |
|-----------|----|-----------------------|-------|---------|-------|-------|-------|------|------|------|
| | | | | | MIN | MAX | | | MIN. | MAX. |
| 4" | 18 | 150 | 4.80 | .267 | .1250 | .1875 | 3.000 | .375 | .125 | .130 |
| 6" | 18 | 150 | 6.90 | .383 | .1875 | .2500 | 3.000 | .375 | .125 | .130 |
| 8" | 18 | 150 | 9.05 | .503 | .1875 | .2500 | 3.100 | .375 | .130 | .135 |
| 10" | 18 | 150 | 11.10 | .617 | .6250 | .6250 | 3.500 | .500 | .200 | .210 |
| 12" | 18 | 150 | 13.20 | .733 | .6250 | .6250 | 3.500 | .500 | .200 | .210 |

Joint Assembly:

- **Clean**—Clean interior of coupling and pipe spigot. Use a clean rag to remove all foreign material. Make sure gaskets are clean and evenly seated in the gasket groove.
- **Apply Lubricant**—Apply lubricant to the exposed gasket surface and to the pipe spigot to within 1" of the groove on the pipe (spigot) end, making sure to cover the rounded edge and taper. Sufficient lubricant is supplied with Certa-Lok VIP Restrained Joint PVC Municipal Pipe. Use only approved lubricant supplied by CertainTeed. **Warning:** substances not specifically formulated for this purpose may deteriorate the pipe and/or gasket.
- **Assembly**—After applying lubricant, align the pipe and coupling and push the spigot end into the coupling. When pipe end seats against the stop in the coupling, spline grooves are automatically aligned for spline insertion. Use a bar and block if needed; a "Comealong" or puller may also be used, provided sufficient care is taken to protect the pipe from the chains. The spline is then inserted through the insertion hole in the coupling and into the aligned grooves until it is fully seated around the full circumference of the pipe.*
- **Field Cutting**—Square cuts are essential. When making field cuts, it is best to use a PVC pipe cutter to ensure a square end.** A conventional saw or a power saw may be used if pipe cutter is not available. CertainTeed offers a power routing tool required for field fabrication of pipe groove and bevel required on Certa-Lok VIP Restrained Joint PVC Municipal Pipe.

The Certa-Lok system complies with (National Sanitation Foundation) NSF-61.

*CertainTeed offers a spline insertion tool to help speed installation, especially in the larger pipe sizes.

**Square cuts are essential to ensure proper alignment in coupling.