

INSITUFORM® CIPP

Affordable, reliable and non-disruptive solutions for sewer pipe reconstruction



Our Trenchless Solution

The Insituform® cured-in-place pipe (CIPP) is a jointless, seamless, pipe-within-a-pipe used to rehabilitate sanitary sewers, storm sewers and force mains.

Insituform® CIPP addresses your top concerns:

Infiltration reduction. Water entering your sewer system through cracks, holes and joint failures can overload your treatment facilities, especially during wet weather. Insituform® CIPP significantly reduces this infiltration. In dry climates, roots find the sewer system an attractive source of water and nutrients and create blockages and overflows. Insituform® CIPP contains your flow within the pipe while keeping external water and roots out.

Structural integrity. Insituform® CIPP restores structural integrity to your damaged sewer pipes. The design models used, independent test results and over 40 years of service all confirm that Insituform® CIPP is a structural product with a 100-year design life.

Increased flow capacity. Insituform® CIPP provides the least cross-sectional reduction of all methods used to rehabilitate pipes. There are no joints or seams that can separate over time and the smooth, jointless interior provides excellent abrasion resistance and typically improves flow capacity.

Affordability. The Insituform® CIPP process is usually less expensive than conventional dig and replace methods of sewer repair. When the lost business revenues, traffic congestion and social costs associated with other methods are considered, your savings are immeasurable.

Installation flexibility. Insituform® CIPP can be installed using either air or water inversion, or by pulling into place. The cure can be done with steam or hot water. All processes are consistent with nationally recognized standards and Insituform's own ISO-certified quality control program. Since each job is unique, we apply the most cost-effective, technically optimal solution to meet your pipeline rehabilitation needs.



Insituform®
an AEGION company

Insituform® CIPP is the best choice for trenchless rehabilitation.

Insituform superior processes

Since inventing CIPP over 40 years ago, Insituform has developed the highest quality manufacturing and installation systems in the trenchless industry.

As a vertically integrated company, we take responsibility for research and development, manufacturing, installation and service. Our systems are designed to produce consistency and high performance in our products and services.

Manufacturing

Insituform's patented manufacturing capabilities are certified to the ISO 9001:2008 standard, ensuring that our tubes are constructed for optimal long-term performance. During the manufacturing process, each tube goes through 25 separate quality checks.

Wet out

Insituform's resin impregnation process ensures that Insituform® CIPP achieves the required strength and enables wet out of many lengths, diameters and thicknesses.

Insituform's wet out facilities utilize environmentally friendly methods and equipment. In fact, Insituform has been recognized by the United States' Environmental Protection Agency for efforts to protect the environment at its various wet out facilities.

Installation

Every Insituform installation is completed using our own safety-certified crews who follow strict safety procedures and documented work practices. Each crew is equipped with highly specialized equipment, backup resources and engineering support.

Insituform's advanced installation methods include air invert steam cure, which reduces water usage on a job site by approximately 95% and energy usage by 75%.

Transportation Solutions

Insituform offers affordable, trenchless solutions to renew and extend the life of underground stormwater control and drainage structures. A large number of culverts running under the nation's roadways are approaching or have exceeded their expected design life. A culvert or storm sewer pipe collapse can have catastrophic effects on the traveling public, your budget and your credibility. Insituform can help you avoid the direct costs and the social costs of a failure by proactively renewing your underground assets.

For transportation projects, particularly culverts, Insituform uses installation methods that minimize the use of water and maximize resin containment, thus protecting downstream waters from contamination.

The Insituform® CIPP Installation Process



Step 1:

A resin-saturated, coated felt tube is inverted (shown) or pulled into a damaged pipe.



Step 2:

Hot water or steam is used to cure the resin and form a tight-fitting, jointless and corrosion-resistant replacement pipe.



Step 3:

Service laterals are restored internally with robotically controlled cutting devices and the rehabilitated pipe is inspected by closed-circuit TV.

The Insituform® CIPP Technical Envelope

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|---|-----------------------------|
| Diameter range | 4 in. – 124 in.* |
| pH range | 0.5 – 10.5 |
| Effluent temperature | up to 140° F |
| Pipe condition — fully deteriorated | Yes |
| Pipe condition — partially deteriorated | Yes |
| Bends | Yes |
| Offset joints | Yes |
| Diameter changes | Yes, without manhole access |
| Thickness changes | Yes, without manhole access |
| Typical shot length | 200 ft.– 1000 ft. |
| Host pipe shape | All shapes |
| Host pipe material | All materials |

* Thickness and length limitations in larger diameters

This table refers to general purpose municipal sewer CIPP projects. Insituform can provide products that extend beyond these parameters through our engineering group. Please contact your local representative at 800.234.2992 for assistance with applications extending beyond this technical envelope.



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