

# INSITUMAIN<sup>®</sup> SYSTEM FOR PRESSURE PIPE APPLICATIONS

*The cured-in-place pipe solution for force main and other pressure pipe rehabilitation*



**The InsituMain<sup>®</sup> system is ideal for the renewal of force mains and other pressure pipelines up to 96-inches in diameter.**

The InsituMain<sup>®</sup> system is a cured-in-place pipe (CIPP) technology specifically engineered for pressure pipelines. Building on 40 years of experience and over one million feet of trenchless pressure pipeline installations, Insituform developed the InsituMain<sup>®</sup> system, an innovative solution for pressure pipe renewal.

The InsituMain<sup>®</sup> system is engineered and manufactured to project specifications and can be designed as an interactive or independent solution to meet your precise rehabilitation needs.

All of Insituform's manufacturing and installation processes are consistent with nationally recognized ISO standards and Insituform's own quality control program. As a vertically integrated company, we take responsibility for engineering, research and development, manufacturing, installation and service of your pipeline rehabilitation needs. Our systems are designed to produce consistency and high performance.

The InsituMain<sup>®</sup> system is installed inside an existing host pipe or pressure pipeline and eliminates the risk of disrupting or damaging nearby utilities or other underground infrastructure systems. The trenchless installation method reduces the social and environmental costs of pipeline renewal projects by minimizing the carbon footprint, site noise, traffic detours and safety concerns present with traditional dig and replace methods.



# INSITUMAIN® SYSTEM FOR PRESSURE PIPE APPLICATIONS

## The InsituMain® System Structure

The InsituMain® system, for pressure pipe applications, is a composite material of polyester fiber, fiberglass and resin. A thin thermoplastic coated layer on the inside surface increases the pipe's smoothness, reduces surface friction and provides an additional corrosion barrier for the pipe.

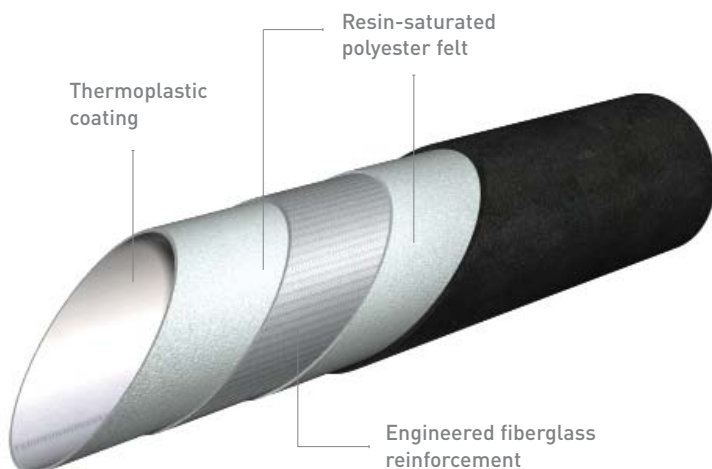
The InsituMain system is designed to meet the AWWA Class IV lining system as a fully structural liner independent of the host pipe and meet ASTM F1216 guidelines. In addition, the InsituMain® system may be used for partially deteriorated pipelines as a Class III lining system relying on the host pipe. This would be considered a semi-structural liner. The InsituMain® system possesses a long-term internal pressure rating of up to 250 psi. With these design characteristics, InsituMain® can be considered equivalent to replacing the existing infrastructure with a new pipe without the disruption and costs of traditional dig and replace methods.

The InsituMain® system can also be designed to ASTM F1216 guidelines as an interactive lining system with the ability to bridge over corrosion holes, pinholes and joint gaps in the host pipe on a long-term basis. As an interactive lining system, the InsituMain® system can be a cost-effective rehabilitation alternative when your host pipe is deemed structurally sound.

The InsituMain® system not only provides a structural renovation of the host pipe, it also offers the additional benefits of protecting the host pipe from internal corrosion, sediment build-up or further tuberculation. It often improves the hydraulic flow capacity compared with the existing host pipe.

## Design & Testing Standards

The InsituMain® system has been designed to meet the requirements of ASTM F1216. Upon installation, the InsituMain® system is pressure tested in accordance with these standards.



## The InsituMain® System Installation



### Step 1:

If required, setup bypass and excavate pits to provide access to the existing pipeline. Clean the pipeline and inspect using closed circuit TV (CCTV).



### Step 2:

Install the InsituMain® system liner into the host pipe using water pressure. After curing with hot water, the pipe is cooled and the ends are cut. Following hydrostatic pressure testing, post-installation CCTV inspections are also completed.



### Step 3:

Reconnect lined sections to the existing system using standard pipe fittings. Finally, restore excavation pits and remove temporary bypass, if applicable.