



SOLUTIONS FOR STRUCTURAL REHABILITATION OF WATER MAINS

RS BLUELINE® LINING SYSTEMS



WITH THE RS BLUELINE LINING SYSTEM, THE RESULTS ARE ALWAYS CLEAR.

RS BlueLine is a cured-in-place pipe (CIPP) system for the trenchless renovation of potable water mains and other water pressure systems. A flexible liner impregnated with a thermosetting epoxy resin is installed into the defective pipe producing a new pipe once the resin cures.

The RS BlueLine liner is a specially designed multi-layered fiberglass reinforced polyester felt liner. The impregnated liner is inverted into the pipe with either hydrostatic water column or compressed air and the installed liner is subsequently cured with hot water or steam. The resin RS BlueLine impregnation and installation is done on-site, though a patent-pending mobile wet-out system from HammerHead® Trenchless that offers unprecedented quality controls including computer controlled resin mixing and liner wet-out, data logging and other quality assurance measures exceeding requirements of ASTM F2994 for reliable installations RS BlueLine renewal technology can be designed to offer Class III and IV linings according to AWWA M28. The properly designed and installed product is an independent system capable of maintaining long-term internal pressure and all external loads without support of the existing pipe replacing the host pipe as a fully structural Class IV solution. Alternatively, it can be designed as a Class III semi-structural system to rehabilitate pipes suffering from internal corrosion, leaking joints, and/or localized external corrosion.

APPLICATION RANGE

- RS BlueLine® liners can be installed in all host pipe materials from 6 to 48-inches
- Sealing of leaking joints and hole corrosion
- Prevention of further internal corrosion and encrustation
- The RS BlueLine internal burst strength is greater than or equal to the host pipe
- Ability to survive sudden failure of host pipe
- Replacement of host pipe
- Average installation length of 300-500 feet
- Bends up to 45°
- Joint deflections up to 10% can be lined without difficulty

TECHNICAL DATA

- RS BlueLine lining system is highly flexible prior to curing and allows for variations in diameter of the host pipe up to 5%
- Wall thickness 5 to 15 mm depends on static calculation
- Maximum operating pressure: Up to 200 psi
- Temperature range: Standard resin and coating is suitable for long term operating temperature up to 100°F. Higher temperature applications are evaluated according to project specifics.

INSTALLATION

The host pipe is cleaned to remove loose obstacles and provide a sufficient internal pipe surface to allow for optimum hydraulic performance of the lined pipe. Water jetting and mechanical cleaning devices are used for cleaning depending on the host pipe condition.

Utilizing HammerHead® mobile wet out technology and installation processes exceeding the requirements of industry standard ASTM F2994, the liner is fully saturated with the approved epoxy resin

while under vacuum. The wet-out liner then passes through computer controlled calibration rollers and prepared for installation into the host pipe. Installation is performed by an inversion method compliant with ASTM F1216. Curing is performed using either controlled steam, normally after installation with a pressure drum; or, hot water, normally after installation with a hydrostatic water column.

CONNECTIONS

Connections and joining techniques can be modified to suit the water systems maintenance requirements with industry standard fittings. Service connections are made via open-cut excavation or robotic means.

FEATURES

- Liner fits tightly to host pipe
- Fully structural Class IV renewal (AWWA M28)
- NSF/ANSI Standard 61 Certified by NSF International, visit HammerHead/RS Technik listing at www.nsf.org for more information.
- Unprecedented quality controls with wet-out table computer controlled resin mixing and liner impregnation, data logging and other quality assurance measures exceeding requirements of ASTM F2994 for reliable installations
- ASTM F1216 and F2994 compliant

MATERIALS

- RS BlueLine liner: multilayered glass fibre reinforced polyester needed felt liner for installation with inversion, corrosion resistant polyolefin coating.
- MaxPox® 8D epoxy resin
- MaxPox 480D hardener

PRODUCT SPECIFICATIONS

| | |
|---------------------|--|
| Medium | Potable water |
| Dimension – in (mm) | 6 – 48 (150 – 1,200) pipe diameter |
| Resin | Epoxy, 100% solids, solvent-free, HAP-free, VOC-free, styrene-free |
| Liner | Fiberglass reinforced needed felt hose, polyolefin coated |
| Wet-out system | ASTM F2994 compliant, vacuum saturation with mobile wet-out technology |
| Curing procedure | Hot water or steam |

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