

MASTERLINER

Structural Spot Repair

The MASTERLINER SECTIONAL PIPE LINING SYSTEMS (SPLS) is the only complete encapsulating pipeline rehabilitation process available today.



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HISTORY OF DEVELOPMENT

The materials in MASTERLINER SPLS have, in their types, have been used in pipe linings in situ for well over a decade. They are well proven in their ability to give design performance and long-life expectancy in sewer environments

The MASTERLINER process has been subjected to an extensive 24 month research and development program to create a user-friendly first-class no-dig pipe lining system.

MASTERLINER SPLS utilizes a single- layered synthetic felt coated with an impermeable high-strength geomembrane The end product is an inner-coated continuous tubular laminate which encapsulates the liquid resin prior to thermal cure.

In its evolution, the MASTERLINER system derived its materials from the in-situ linings and its installation methods worldwide.

INSTALLATION INTRODUCTION

MASTERLINER SPLS tube combines proprietary equipment and engineering technology with unique installation techniques to solve the numerous problems encountered when installing a no-dig pipeline rehabilitation process.

Utilizing state-of-the-art tools and techniques, sound engineering, and experienced installation personnel, you end with a quality-assured finished product.

First the liner is impregnated with a thermal- setting resin that completely permeates the soft, flexible, and absorbent tubing.

Curing is then accomplished by circulating air and steam to crosslink the customized resin into a hard impermeable pipe.

When cured the hardened liner will extend on either side of the damaged sections for at least two feet , and provide a continuous watertight pipe that is, chemically resistant to sewage gases and waste.



Where specified, this system can be used in sanitary sewers, storm drains, house connections manholes, and industrial pipes, and with the assistance of a low-powered, standard winch, large diameter liners can be easily be installed.

*****ONLY MANUFACTURER CERTIFIED CONTRACTORS WILL BE ALLOWED TO INSTALL MASTERLINER CURED IN PLACE LINER PIPE.*******

DESCRIPTION OF THE SYSTEM

The MASTERLINER SPLS is comprised of a coated geomembrane coated synthetic felt cut to length and impregnated on-site with a epoxy resin supplied exclusively by MASTERLINER INCORPORATED for its sectional liner.

GENERAL PARAMETERS

Diameter Range:	100mm - 3600mm (4" - 144")
Length:	Up to 10-15m (30' - 50')
	Most liners being in the range 1m - 3m long (3' - 10')
Thickness:	Minimum 3mm (1/8")
	Maximum 25mm (1")
Access required:	Through normal sewer manholes; no excavation.
Curing time:	1 to 3 hours depending on epoxy used and pipe diameter

SCOPE FOR MASTERLINER SECTIONAL PIPE

The intent of MASTERLINER SPLS is to line pipes that are defective due to partial structural deterioration, partial distortion, interior corrosion, settling, misalignment, cracking, ex-filtration and infiltration. The liner will withstand long-term external hydrostatic loading.

As previously stated, the MASTERLINER SECTIONAL PLACE LINING SYSTEM was developed as a structural repair liner, and as a means for stopping water infiltration. This last , however, must be treated with some caution: for example, if the inflow is too great, the epoxy can be washed out of the liner. This problem can be remedied by providing an outer sheath over the liner to prevent water contacting the liner.

Various types of structural failures commonly seen in sewer and drain pipes:

- * Circumferential cracks and fractures at the pipe joints as a result of joint stresses.
- * Longitudinal cracks and fractures associated with vitrified clay pipes, and often running the full length of a pipe, and sometimes extending into connecting pipe lengths. In severe cases of this type, multiple fractures may occur, typically at 3, 6, 9 and 12 o'clock, coupled with separation of the fractures and, sometimes, deformation from circular.
- * Badly broken pipes where a section of pipe may be partly or completely missing.
- * Severe corrosion of concrete pipes. Often in such cases a pipe joint or a few joints will show severe corrosion, while the rest of the pipeline has only moderate corrosion.
- * General fracturing at the junction of pipelines. This typically occurs at the entry of house service lines into a sewer main.
- * Misalignment and open joints

All of the above can result in ground water infiltration.

The MASTERLINER SECTIONAL PIPE LINING REPAIR system is designed to restore the structural integrity of the pipeline in all of these situation.

In the case where a section of pipe is missing, the liner can be made to form a free-standing reinforced pipe designed to take soil and hydrostatic loads.