

Save time and money on sewer and water pipe renovation



FenLine™ Silicone Calibration Hose for “No-Dig” Pipe Rehabilitation and Repair

How the Non-Invasive Cured-In-Place Pipe Renovation Process Works

The CIPP process begins with the resin-impregnated liner (typically with an open end eg. for the renewal of sewer laterals) and silicone calibration hose (sometimes called inflation bladder / tube) being inverted or pulled into the damaged pipe. The curing agent, often hot water or steam, is then circulated through the hose, causing it to expand and hold the liner up against the inside of the host pipe while the resin is cured. Once the cure process is complete, and the liner has set to form a tight fitting pipe within a pipe, the silicone calibration hose is deflated and withdrawn from the renovated pipe ready to be used again.

Fenner Precision’s FenLine™ Silicone Calibration Hose offers a variety of advantages over current materials on the market;

- **Expansion**
 - Products stretch and are manufactured with a slightly smaller O/D than the pipe being renewed so they have room to expand, providing pressure against the liner during curing and therefore increasing wrinkle expulsion for optimum flow within the new pipe.
- **Robustness**
 - Robust enough to reduce the risk of potential tearing issues and expel wrinkles, while remaining flexible enough for effective navigation of bends and inversion.
- **High Temperature Resistance**
 - Ideal for use with steam curing processes for quicker, and therefore more economical, curing
- **Non - Stick Construction**
 - For easy release, removal or reuse
- **Reusability**
 - Product is reusable many times for cost saving and environmental benefits

Additional benefits include: Excellent UV and ozone resistance ; good chemical resistance ; and wall thickness of only 1mm / 2mm for flexibility on inversion and to facilitate good heat transfer / reduced cure times.

Although these materials were initially developed for use in “no-dig” CIPP sewer relining applications for both main line and lateral feed sewer pipes, FenLine™ Silicone Calibration Hose is also ideal for renovating and repairing worn or damaged pipe such as:

- **Internal Pipes (i.e. Apartments)**
- **Potable Water Pipes**
- **Chimney Flues**
- **Oil and Gas Pipes**
- **And more.....**



Typical FenLine™ Material and Physical Properties:

- FenLine™ Silicone Calibration Hoses are a combination of specially selected knitted polyester fabrics and silicone rubber.
- Standard curing methods include hot water and steam.
- Hoses are typically sized 10% below the inside diameter of the damaged pipe
- Standard length range of 30m to 200m (100 ft to 650 ft)
- Diameter range of 60mm to 915mm (2.4 inch to 36 inch)
- Two-ply reinforced standard thickness of 2mm (.08 inch)
- Single-ply reinforced also available for applications where a higher level of flexibility is required. Standard thickness of 1mm (.04 inch)

FenLine™ UV Curing Silicone Calibration Hose

- Suitable for use with UV curing resins
- Thin (1 mm / .04 inch) translucent silicone material allows light waves to easily pass through for the curing process

FenLine™ Increased Strength & Flex Hose

- Increased burst strength for higher pressures
- Reduced inversion pressure requirement
- Uniquely developed to expand in the radial direction but to remain stiff in the lateral direction
- High tear silicone
- Extra release properties



FenLine™ Lateral Renovation Top Hat

- Tailored to suit main/lateral connection size
- Lateral lengths available up to 100m (325 ft.)
- Flat main section which customer can cut to size for use

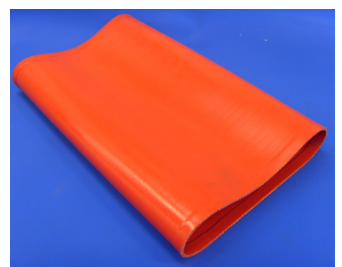
FenLine™ T and Y Bladders

- 45° or 90° connection angles available
- Lateral lengths available up to 100m (325 ft.)

FenLine™ Liner Gun Bladder

- Section of silicone hose, one end internal cuff, opposite end external cuff for attaching jubilee clips

Contact Fenner Precision today to learn more about our “no-dig” pipe rehabilitation solutions designed to fit your needs – exactly.



For more information visit www.fennerprecision.com