


Installation Tips for SST Repair Sleeve

<p style="text-align: center;">Sewer Sealer™</p>  <p style="text-align: center;">Product Series "SS"</p>	<p style="text-align: center;"><u>Sewer</u></p> <p>Pipe Materials:</p> <ul style="list-style-type: none"> ➤ Concrete ➤ Reinforced Concrete ➤ Clay ➤ Cast Iron ➤ PVC ➤ HDPE <p>Pipe Diameter: Ø4 Inch to 48 Inch</p>	<p>Link-Pipe Sewer Sealer™ is a stainless steel expandable sleeve used for trenchless infiltration short repair of underground pipes.</p> <p>The standard Sewer Sealer™ has a SST-316 structural core and the core is covered by absorbent Polyurethane (PU) foam gasket. Before inserting the sleeve into the sewer, the gasket is filled with PU grout.</p> <p>The Sewer Sealer™ can be customized to resist extraordinary chemical environment and extra heavy load. For longer repair, the sleeves can be installed in a telescopic manner or alternatively overlapped.</p>
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Recommended Grout:

Link-Pipe Inc. recommends that G-108 Grout is used with Link-Pipe Sewer Sealer™ for infiltration repair. The G-108 is a two-component hydrophobic grout which expands slowly and forms a rubber-like structure, which has excellent sealing capability with the Sewer Sealer™.

Grout Mixing Procedure:

The G-108 grout is supplied in two components (Components A and B). Pour Component B into the container of Component A. Mix thoroughly, shake the container for 30 seconds until adequately mixed.

Grout Reaction		
<i>Grout</i>	<i>Initial Reaction</i>	<i>Gel (Cure) Time</i>
G-108	5 minutes	45 minutes

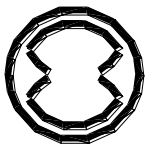
*Grout reaction starts after coming in contact with water

The sleeve must be installed before the grout is cured, Link-Pipe Inc. recommends installing the sleeve before 18 minutes after coming into contact with water for easier installation and better sealing.

***Warning: The grouting mixture provided must be applied to the gasket of its specified sleeve diameter.**

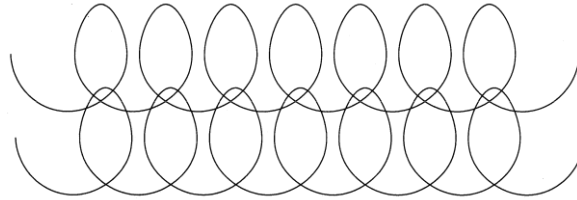
Grout Application:

All Grout supplied with the sleeve must be used. Grout should be stored in a dry and cool place at all times. Pour the Grout slowly onto the gasket. Use a paint roller (provided in the package) to work the



Grout into the gasket. The area of the gasket under the “flap” (The so-called “flap” is the top loose foam sheet not glued to the sleeve) must be filled first, after which the rubber bands are applied to keep the flap in place. The rest of the gasket is then filled with the remaining Grout.

Grout must be applied evenly (Use the diagram below for technique in creating an even application). The Grout is easily absorbed and could leave some part of the gasket empty if it is not carefully and evenly spread. This may cause a failure in sealing.



Warning:

If there is no infiltration, water must be poured onto the grout before the sleeve is inserted into the pipe. The Grout starts reacting after coming into contact with water. If the sleeve is not installed within 18 to 20 minutes after the reaction with water, it may affect the sealing capabilities of the grout. Therefore, no time should be wasted after the Grout is put into contact with water. **The sooner the sleeve is installed, the thinner the grout mixture is, the easier the installation will be and better sealing.**

Preparation for the Sleeve Installation:

Host pipe should be cleaned and all obstructions must be removed so the repair sleeves can be passed to the installation site in the pipe. Solid materials must be removed from the location where the sleeves are installed.

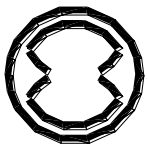
In preparation for the sleeve installation, the installation plug must be calibrated. “Calibration Pressure” is the pressure required to inflate the plug only to the diameter of the inside wall of the host pipe (See Pic.1). In the photos below, an example is provided. Here the Calibration Pressure equals 30psi (see Pic.2)



Pic.1



Pic.2



Installation:

1. Carefully remove sleeve from the package. **Don't use sharp knife in order not to damage the rubber parts in the box!**



Pic.3

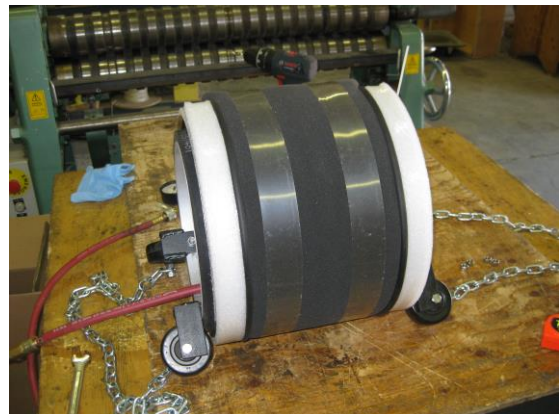


Pic.4

2. Apply the Grout onto the sleeve gasket (see **Grout Application**). To distribute evenly, a paint roller is advised. As a recommendation, insert the plug into the sleeve prior applying the grout (see Pic 3).
3. Remove the front wheels (Pic.4) and insert the plug into the sleeve. **The sleeve must be placed exactly on the center of the plug.** Wheels may prevent the sleeve to expand at the time of installation if the sleeve is not carefully placed. Reattach the front wheels (Pic.5) and orient the sleeve so that the inside sleeve label is up (at 12 o'clock of the crown of the plug) (Pic.6).

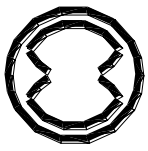


Pic.5



Pic.6

4. Use Cable Tie (Pic.5 and Pic.6) to locate the sleeve accurately. Measure the **DISTANCE** from the center of the Sleeve on the Plug to the Cable Tie and write down the **DISTANCE**.



- Carefully inflate the plug a little bit just to keep the sleeve from moving on the plug while travelling in the pipe. If too much pressure is applied, the sleeve may prematurely open and control may be lost when the assembly is being transported in the host pipe.
- Before inserting the plug/sleeve assembly into the sewer, the sleeve should be flushed over with cool water, so that the entire surface of the Grout-filled gasket is wet.

NOTE: For narrow (24") access, the plug/sleeve assembly has to be lowered in horizontal position by a rope that should be removed after lowering (Pic.7).

- Pull the plug/sleeve assembly to the repair site so the Cable Tie touches the target location (Pic.8). For example, center of a hole, edge of a joint or end point of cracked area of the pipe. Then pull the measured **DISTANCE** on the transport cable so the Sleeve will cover the target.



Pic.7



Pic.8

- To lock the sleeve, bring the air pressure to about 30-psi above the "Calibration pressure". Check the air pressure in the hose. When it is as high as planned, hold the pressure for 1 min and afterwards release it slowly.
- When air pressure is released, move the plug and check with the camera that all locks are engaged. If some locks are not engaged, insert the plug again, move the plug to the unlocked end of the sleeve and apply 5 psi more pressure and repeat the installation.

If you feel not comfortable with this instruction, CONTACT LINK-PIPE BEFORE INSTALLATION.
For more information, please call Lembit (Lem) Maimets or Danny Gan at 1-800-265-5696.