

## Link-Pipe<sup>®</sup> Pressure Seal<sup>™</sup> (Jacketed Reinforced) Installation Tips

### Pressure Seal<sup>™</sup> (Jacketed Reinforced)



Product Series "PSJR"

### Pressure Pipes

#### Pipe Materials:

- Concrete
- Reinforced Concrete
- Steel
- Cast Iron
- PVC
- HDPE

**Pipe Diameter:**  
Ø4 Inch to 36 Inch

**Link-Pipe Pressure Seal<sup>™</sup> Jacketed Reinforced Sleeve has two stainless steel cores.**

The inner perforated core is mechanically locked in place and does not depend on internal or external pressure changes.

The outer core's diameter varies with the plastic host pipe or CIPP liner diameter which depends on operating pressure and temperature.

A resilient jacket is applied between two SST cores.

The sealing efficiency of the Sleeve increases with higher operation (internal) pressure.

### Recommended Sealant:

Link-Pipe Inc. recommends the use of the **Link-Pipe Pressure Seal<sup>™</sup> jacketed reinforced sleeve** with **Sikaflex-221 Adhesive Sealant** for the repair of high pressure leaking joints and holes. The **Sikaflex-221** together with the **Hydro-Seal<sup>™</sup> jacket** forms a rubber-like structure, with excellent sealing capability.

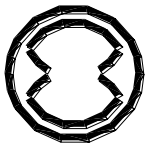
### Warnings:

1. The **Sikaflex-221** cures by reaction with atmospheric moisture. If water is sprayed on the applied **Sikaflex-221**, or otherwise the adhesive gets wet, the sleeve should be installed within 1 hour after which, if the adhesive begins to thicken, the sealing quality may be lost. Although the adhesive is slow acting, no time should be wasted after the **Sikaflex-221** comes into contact with moisture.
2. The installed Sleeve transfers pressure to the host pipe. For this reason, the host pipe should not be made from materials that can easily be damaged. Sleeves should be used for **sealing joints, holes and circumferential cracks only**.
3. Once open, the cartridge should be used up without delay. To extend the open cartridge life up to few days we recommend sealing the open cartridge with moisture-proof adhesive tape. A more detailed description is available in the **Sikaflex-221** Product Data Sheet.

### Preparation for the Sleeve Installation:

**Warning:** Host pipe should be **clean, dry, and free from all traces of grease, oil and dust**. Pipe should be cleaned to the **primary surface**. All protrusions inside the Host Pipe should be removed.

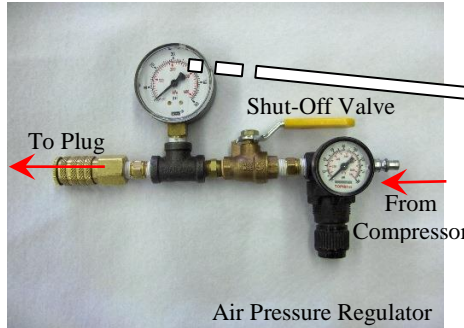
In preparation for the sleeve installation, the installation plug must be calibrated. "**Calibration Pressure**" is the pressure required to inflate the plug only to the diameter of the inside wall of the host pipe (See Pic.1). To inflate the Plug attach Air Hose to the Plug, and Air Pressure Regulator (Pic.2) to second end of the Air Hose. Connect Regulator with Air Compressor by another Air Hose. In the photos below, an example is provided. Here the Calibration Pressure equals 30psi (Pic.2, a).



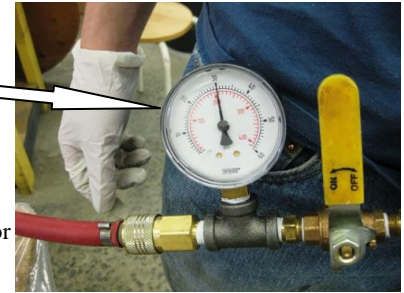
- NOTES: 1. Carefully read the Safety Instructions before using the plug.**  
**2. Remove pulling cables attached to the front of the plug by supplier (You don't need them).**



Pic.1



Pic.2



Pic.2, a

### Installation:

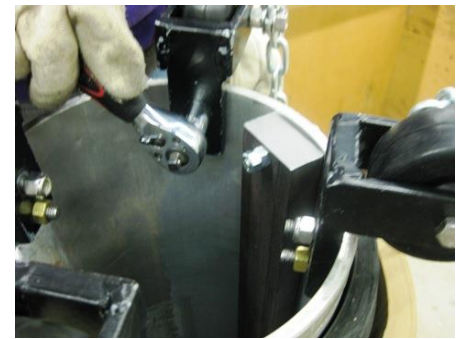
1. Remove the sleeve from the package (Pic.3) and remove the protection wood from inside the sleeve. For this purpose installer should unscrew the wooden parts one by one (Pic.4).



Pic.3

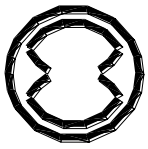


Pic.4



Pic.5

2. Insert the plug into the sleeve and center the sleeve on the plug. For the plug/sleeve assembly traveling, carefully inflate the plug a little bit just to snug the sleeve in place. If too much pressure is applied, the sleeve may prematurely open and then control may be lost when the assembly is being transported in the pipe. If needed remove and reattach wheels to the plug (Pic.5).
3. Apply **Sikaflex-221** evenly to cover the Rubber Jacket in the area of the protruding O-Rings (Pic.6). The thickness of the applied adhesive bands is approximately 1 to 3mm. No gaps in the applied grout are allowed. To distribute adhesive evenly a paint roller is recommended. The Sikaflex-221 could be applied on the sleeve in vertical or horizontal position.
4. To shorten the curing time a slight water spray can be applied (Pic.7).
5. For the purpose of keeping good control over the installation process, the installer must monitor the accuracy of positioning the plug /sleeve assembly over the intended repair site. For this purpose lower a CCTV camera into the abandoned lateral pipe (diameter 20").



Manufacturer of No-Dig Pipe Repair Products

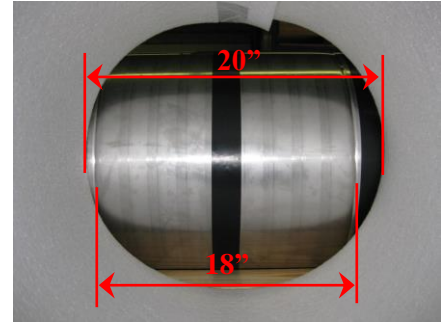
6. Push the plug/sleeve assembly to the repair site using some pushing stick (for example 2x4 piece of wood). Use pulling cables (attached to the rear of the plug) to pull plug / sleeve assembly back if needed. The sleeve will be in the right position when CCTV camera depicts view shown in Pic.8. Installer should see both central grooves at the same time, because the distance between grooves equal 18 inches and lateral pipe diameter 20 inches (Pic.8).



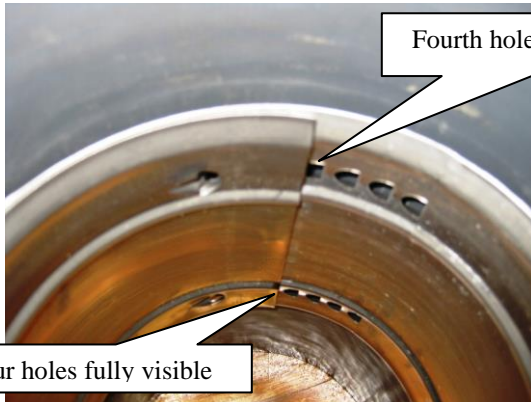
Pic.6



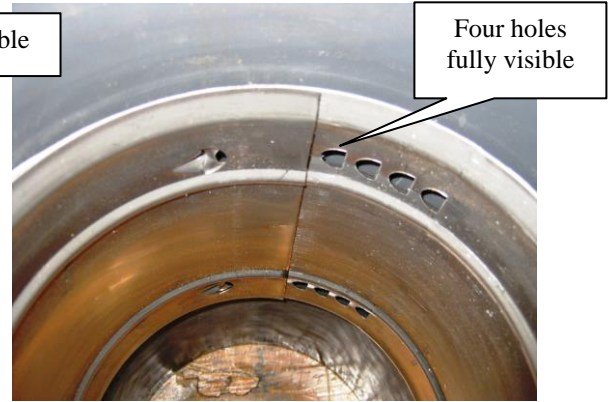
Pic.7



Pic.8



Pic.9 (Holes quantity shown just for reference)



Pic.10 (Holes quantity shown just for reference)

7. To install the sleeve, bring the air pressure slowly to 30 to 35 psi above the calibration pressure. Check the air pressure in the hose. When it is as high as planned, release it slowly.
8. When air pressure is released, check with the camera that all locks are engaged along a single row; if locks are not engaged along a single row (Pic.9), insert the plug again, move the plug to the sleeve end with smaller diameter and apply 5psi more pressure. Check again (Pic.10).
9. Wait for 24 hours before filling the abandoned pipe with cementitious grout.
10. Before putting the host pipe into service wait while the cementitious grout become fully hardened.

For more information, please call Lembit (Lem) Maimets or Danny Gan at 1-800-265-5696.