



STUART LEAK REPAIR (SLR)

Stuart Leak Repair (SLR) is designed to seal low pressure leaks (up to 5 lbs.) and prevent corrosion on steel gas distribution lines.

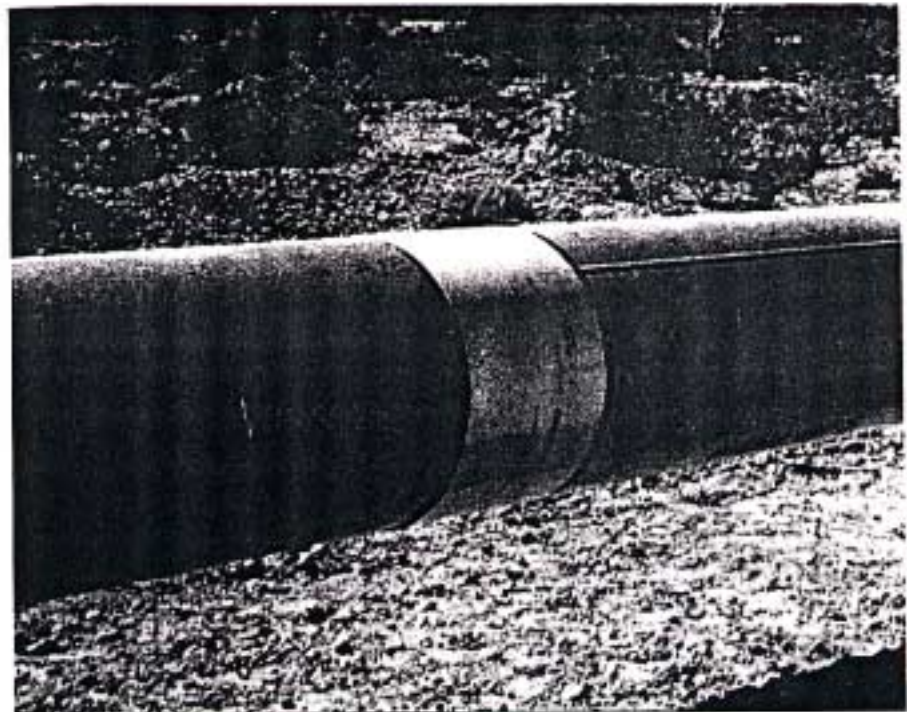
SLR contains a Canusa high expansion crosslinked polyolefin shrink sleeve (WLOX), a closure seal, a wax mastic and duct tape.

THE PRODUCT FEATURES:

Strength to resist impact and abrasion caused by soil stress.

Simplicity to make it easy to install requiring no special tools other than a propane torch.

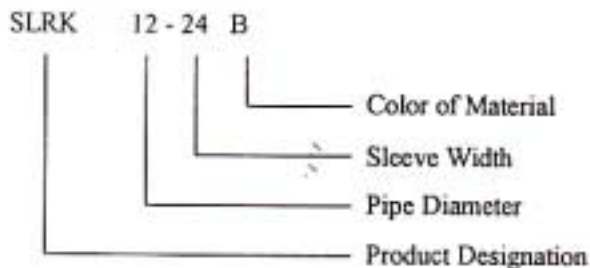
Low cost bulk rolls of high expansion material eliminating the need to inventory a variety of sizes and/or types for specific applications.



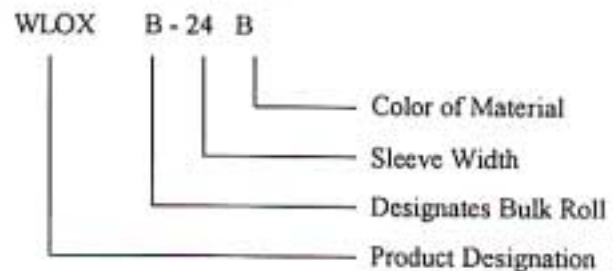
Product Properties	Test	Unit	Typical
WLOX Backing			
Tensile Strength	ASTM D638	psi (MPa)	>2900 (>20)
Tensile Elongation	ASTM D638	%	>550
Hardness	ASTM D2240	Shore D	46
Abrasion Resistance	ASTM D1044	mg	31
Water Absorption	ASTM D570	%	0.05
Dielectric Strength	ASTM D149	kV	30
Thickness Recovered	Micrometer	inch (mm)	0.060 (1.5)
WLOX Adhesive			
Softening Point	ASTM E28	F° C°	220 (105)
Peel Strength	ASTM D1000	pli (N/cm)	45 (180)
Lap Shear Strength	ASTM D1002	psi (N/cm ²)	4 (13)
Thickness-as supplied	Micrometer	inch (mm)	0.045 (1.1)
Finish System Properties			
Impact Strength	ASTM G14	in-lb (N-m)	135 (15)
Low Temperature Flexibility	ASTM D2671	F° C°	5 (-15)
Cathodic Disbondment	ASTM G8	mm rad.	6
Thickness Recovered	Micrometer	inch (mm)	0.105 (2.5)
Design Pressure		psi (Kg/cm ²)	5 (0.35)

Stuart Leak Repair can be ordered as an individual kit (SLRK) which will include a sleeve, closure seal, mastic and duct tape cut and sized for a specific pipe diameter. Or it can be ordered as separate "bulk" units for field personnel to cut on the jobsite. The sleeve material is available in 12", 18" & 24" widths- 100' long or 36" width- 50' long. Sleeve material is available in black only. When ordering individual kits, please specify the width of sleeve desired and the pipe diameter. The 1st letters designate the product, the 1st number designates the sleeve width, the 2nd number designates the pipe diameter, the last letter designates the color. See ordering code example below.

Kit Ordering Code

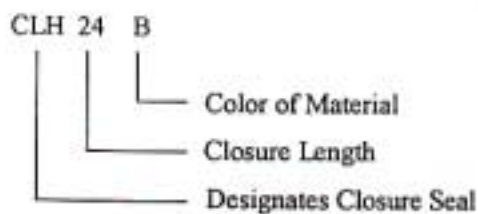


Sleeve Bulk Ordering Code



The Closure Seals (CLH) are manufactured in a 4" width- 12", 18", 24" & 36" lengths. The color and length ordered should be the same as the color and width of sleeve material ordered.

Closure Seal Ordering Code



The Densyl Mastic comes in 100' rolls. Order the quantity of mastic rolls desired

The Duct Tape(DT 1000) comes in 1000' rolls. Order the quantity of rolls required.

Sleeve Layflat Chart

Pipe Size OD (inches)	Minimum Sleeve Cut Length	Pipe Size OD (inches)	Minimum Sleeve Cut Length
2.375	11.0	10.75	41.0
3.5	14.5	12.75	48.2
4	16.1	14.00	52.2
4.5	18.1	16.00	59.0
5.563	22.0	20.00	65.0
6.625	27.5	22.00	78.0
8.625	33.5	24.00	84.6

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STUART LEAK REPAIR (SLR) APPLICATION INSTRUCTIONS

Stuart Leak Repair is designed to seal low pressure leaks (up to 5 psi) and prevent corrosion on steel gas distribution lines. Read these instructions thoroughly before applying product to insure proper application.

You will need the following parts:

- Densyl Mastic
- Duct Tape
- WLOX Shrink Sleeve
- Closure Seal (CLH)
- Finger Skirting*- if applying sleeve over coupling
- Wide Mouth Propane Torch
- Propane Bottle with proper Regulator & Fittings

Step 1: Thoroughly clean section of pipe to be coated removing all dirt, mill scale, oils, grease, rust, water, dust and foreign matter



Step 2: Plug hole with Densyl Mastic and overlap hole area by 1/2".



Step 3: Tightly wrap duct tape several times around pipe to insure mastic stops the leak and check for leaks with soap



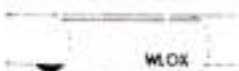
Step 4: Apply heat to entire area which will be covered by sleeve. Avoid burning duct tape and pipe coating. Use only enough heat to dry the pipe and insure it is heated to 140° F. **NOTE-** Move torch quickly and constantly.



Step 5: Check to be sure sleeve is at least 4" longer than the circumference of pipe OD. **See note on second page if applying sleeve over coupling.** Remove separator sheet from WLOX sleeve.



Step 6: Wrap sleeve around pipe



Step 7: Secure sleeve temporarily by lightly heating mastic and sleeve backing at overlap area.



Step 8: Overlap sleeve and press down.



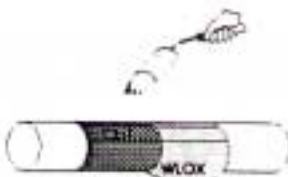
Step 9: Remove separator from Closure Seal (CLH) and lightly heat CLH adhesive. Center CLH over the overlap area. Heat back of CLH and press down onto sleeve. Note- Be sure the length of Closure Seal is the same as sleeve width.



Step 10: Apply heat to center part of sleeve moving torch swiftly and circumferentially around the pipe. You will see the sleeve start to shrink.



Step 11: When center of sleeve has conformed to pipe, move torch circumferentially around pipe toward one end.



DIRECTIONS CONTINUED ON BACK

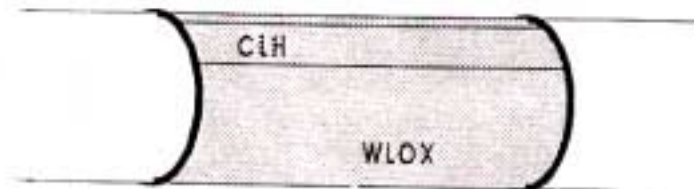
Step 12: When center and one end of sleeve has conformed to pipe, move torch circumferentially around pipe toward other end.



Step 13: Flash entire area of sleeve surface one last time to ensure sleeve thoroughly conforms to pipe irregularities and has full recovery potential. When done, you should see at least 1/8" of black mastic "oozing" out around edges of sleeve eliminating potential of "water channel". See finished illustration below.

Application Tips: To avoid burning sleeve, move torch quickly and constantly. The area of sleeve will continue shrinking even after the flame has been redirected. Keep torch head at least 6" from sleeve surface. Sleeve material is almost molten when hot and will puncture easily. Do not touch the sleeve when hot! It could damage material and/or burn operator. Sleeve will cure in 10-15 minutes depending on ambient temperature. However, it may be quenched with water to accelerate process. Sleeve (or any part of the sleeve) can also be reheated at any time if necessary.

Finished SLR



IMPORTANT:

Check for leaks and allow sleeve to cool down and cure prior to backfilling!!

Note: If applying the sleeve over a coupling, a finger skirting material must be wrapped around pipe and taped BEFORE installing shrink sleeve. The skirting material is required to prevent puncture of the sleeve at the coupling transition area which could occur while the sleeve is hot during shrink process. See illustration below.



Sleeve Layflat Chart*

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* The cut lengths listed on this chart are approximate and to be used for estimating purposes only. It is strongly recommended to measure exact pipe circumference at the location where sleeve is to be applied and add 4" for overlap prior to cutting sleeve material.

Should you have any problems or questions regarding the application of this material please contact Stuart Steel Protection Corporation at 908 469-5544