

# Snap Wrap Repair Halts Refinery Line Leak

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United States

### Pipe Details

- 8-inch (200-mm) diameter stainless steel line
- 50 psi (3.4 bar)
- 100° F (38° C) operating temperature

### Summary

- Perforations in a 35-foot (11-m) pipeline transporting corrosive material required repair
- The line was under 50 psi (3.4 bar) pressure in a 100° F (38° C) operating environment
- A single technician carried out the repair in less than 2 days with the line under pressure
- The repair restored the pipeline to safe service without interrupting operation

Extensive steps are taken every day to manage risks and keep refinery operations safe. Routine inspections and maintenance are critical. Often, irregularities surface during the frequent inspections carried out in refining facilities.

When inspections at a US refinery identified a line leak in an 8-inch (200-mm) diameter stainless steel line, the company immediately moved to correct the problem. Multiple pinhole leaks had formed over a 35-foot (1-m) section of a pipe that was being used to transport a corrosive product (82% nitrogen, 6.5% acetic acid, 1.9% water, 8.3% oxygen, 1% hydrogen bromide, 0.2% methyl acetate, 0.1% methanol). The line was under 50 psi (3.4 bar) pressure in a 100° F (38° C) operating environment.



*The leaking and failed pipeline*



*Application of the nylon plugs into the drilled holes*

It was not possible to cut off the flow of the product through the line, which meant that for safety purposes, the Clock Spring trained repair technician was suited in site-appropriate personal protective equipment to carry out the repair.

The first step was to drill each pinhole leak to the appropriate diameter to accommodate a nylon plug, which was manually inserted in each hole to stop the leaks. Once the line was plugged, the external surface of the pipe was cleaned by hand, and a leak stop was applied. Then, the technician installed Clock Spring Snap Wraps over the complete 35-foot (11-m) section of pipe.

A single technician completed the installation in less than 2 days, creating little disruption to the day-to-day activities in the refinery and allowing the company to continue working while the critical repair was taking place.

There are nearly 3,000 trained Clock Spring installers around the world who are qualified to provide repairs with Clock Spring products. Clock Spring regularly offers [training classes](#) for installers and can custom design training for individual company needs.



*Completed Snap Wrap installation*