

ThermoWrap™ MT Restores Corroded Hydrogen Sulfide Lines

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SOUTH KOREA

Pipe Details

- Two 165-mm (6-inch) diameter bends experienced external corrosion
- Line Content: Hydrogen Sulfide
- Operating Temperature: 90°C (194°F)
- Operating Pressure: 166.7 bar (2417.77 psi)

Summary

An inspection in a South Korea refinery uncovered corrosion on bends in two 165-mm (6-inch) diameter lines carrying hydrogen sulfide. The lines were operating at 90°C (194°F) under 166.7 bar (2417.77 psi) pressure, and the owner wanted a repair that could be carried out without interrupting operations. A team of 4 technicians repaired the corroded bends in only 2 days using ThermoWrap® MT, a custom engineered repair system that uses a fiberglass, composite-reinforced coating to repair high-pressure, high-temperature lines.

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The refinery owner requested ThermoWrap® MT because of previous successes using the system for high-temperature, high-pressure (HPHT) repairs. ThermoWrap® MT is a custom engineered system that uses a fiberglass, composite-reinforced coating to restore corroded and damaged piping in HPHT conditions. Because it is a wrap, it can be applied easily to complex geometries like the corroded bends.



Corroded bends on two high-pressure, high-temperature hydrogen sulfide lines required immediate repair.



ThermoWrap® MT restored bends in corroded hydrogen sulfide lines, restoring the refinery to safety without interrupting operations

A team of 4 technicians mobilized to the site and prepared the surface of the corroded lines for the installation. When the lines were ready, they wrapped the 2 damaged sections – one 1.05 m (3.5 ft) long and one 0.75 m (2.5 ft) long – with ThermoWrap® MT, completing the entire installation in only 2 days.

By relying on its relationship with CSNRI, the refinery owner was able to rapidly address an unsafe situation, repairing bends in the corroded hydrogen sulfide lines and restoring the plant to safety without any disruption to ongoing operations.