



CLOCK SPRING®

Permanent Repair System

The Fast, Economical Solution for Pipeline Repair

Specifically designed for refineries, terminals and process plants Clock Spring® is an extremely cost-effective permanent repair for pipelines and pipework.

Clock Spring® is used to repair severe corrosion, scrapes, gouges and other blunt defects that penetrate up to 90% of the wall thickness.

Clock Spring® Refinery Application

A corrosion cell can find its way to a pipeline not only through the ground, but also by air. Recently, a refinery in the U.S.A found how corrosive an 'air-borne' drift from a cooling tower can be. An above ground pipeline had corrosion spots spanning over nine hundred feet running parallel to a cooling tower.



A conventional solution to this problem would have encountered serious challenges, such as additional work permits required from various divisions and companies and safety hazards due to the close proximity of process equipment and other product lines which made this project under traditional scenarios an arduous and expensive task.

The Clock Spring® composite reinforcement system was the logical alternative choice as no hot work, down time or line reductions were necessary.

903 units were installed at approximately the rate of 75 feet to 100 feet per day. As a cleaning crew prepped the pipe, three installation crews applied the Clock Spring® kits (the pipes were within three inches of other hazardous product lines).

The repairs also included 90 and 45-degree fittings.



The Clock Springs not only provided reinforcement to the damaged areas along the pipe, but also permanent protection from suspension chemicals found in the drift of vapour off the cooling towers for at least the next 50 years. The projected life of the repair exceeds the life of the plant.



- **No hot work or welding.**
- **Your own personnel can be trained to install Clock Spring®.**
- **No heavy or specialized equipment required.**
- **Installation can be as quick as 30 minutes.**
- **Complete cure can be achieved within two hours.**
- **Future corrosion growth is completely prevented.**
- **Totally environmentally friendly and benign once installed.**

**FOR FURTHER INFORMATION ON CLOCK SPRING® REPAIR SOLUTIONS
CONTACT:**

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