Contour Strengthens Welded Joints for HDD

PIPE DETAIL

Welding joints on a 1,000-mm (39.3-inch) carbon steel natural gas line needed reinforcement

8° C (46° F) Ambient Temperature

SUMMARY

- Contour provided reinforcement on a 1,000-mm (39.3-inch) carbon steel natural gas line
- 3 technicians completed the installation in 4 hours followed by 12 hours curing time
- Despite the low-temperature conditions, the composite cured in 12 hours
- No disruption to operations

A gas company in Poland that was beginning a construction project had heard about Clock Spring Contour technology and wanted to use it as an abrasion-resistant overlay for additional protection over a welded joint on a 1,000-mm (39.3-inch) carbon steel natural gas line. The plan was to apply a two-layer Contour system along a 700 mm (27.6 inch) section of the pipe to serve as protection during horizontal directional drilling (HDD).

Clock Spring trained and certified installers assess the 1,000-mm (39.3-inch) carbon steel natural gas line.

On previous projects, the owner had employed a commonly used 7-mm (0.27-inch) glass fiber, but was dissatisfied with the amount of curing time required and the number of people needed to install it. Because the owner had not used Contour before, the biggest concerns were whether there would be issues with adhesion to the Fusion Bonded Epoxy (FBE) and the shrink sleeve.

The Contour engineered wet-lay repair solution for this project used bi-axial stitched fiberglass cloth

The two-layer Contour system, installed along a 700 mm (27.6 inch) section of pipeline, acts as mechanical protection over welded joints.

applied with two-part epoxy and a filler material. Contour is ideal for repairs that involve complicated geometry such as tees, flanges, welds, and varying diameter pipe and is used regularly in plants, refineries, tank farms, terminals, and on offshore assets. On this project, Contour was applied successfully as additional pipe protection for HDD.

Following standard installation procedures, 3 Clock Spring trained and certified technicians employed by AGCOT, a local distributor, applied Contour to a 1,000-mm (39.3-inch) carbon steel natural gas line. The repair was executed without incident in low-temperature site conditions. Despite the cold, the Contour repair cured in 4 hours, yielding excellent protection for the welded joint and without interrupting operations.

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.