

SYLSHIELD Case Study

Gas Line Protection Before Trenchless Installation

A 150mm diameter steel natural gas pipeline being rerouted to improve energy security in Czechia required protection before trenchless installation



Sections of pipe were welded together (black area) to fabricate the line above ground prior to HDD



SylShield was activated with water and then wrapped over heat shrink sleeves covering the welded joints



After being smoothed, SylShield cured to form an ultra hard shell protecting the steel pipe



Once the line had been protected, it was ready to be pulled through the ground and installed via HDD

Defect

The pipeline was being rerouted under a river and road, meaning horizontal directional digging (HDD) was the least disruptive installation method.

Separate sections of pipe were welded together above ground. The completed line was to be pulled through a borehole beneath the road and river, installing it without the need to dig trenches.

The line had to be suitably protected before HDD as such an intense process damages the pipe especially the welds - as it is dragged underground.

Solution

SylShield Pipe Weld & Protection Wrap is three times thicker than a standard SylWrap Bandage, having been specifically designed for pipe weld protection during trenchless installation such as HDD.

A heat shrink sleeve covered each weld, followed by wrapping SylShield over the pipe. A shrink wrap secured SylShield and improved lamination.

Within 30 minutes, SylShield cured to form an ultra robust outer shell encompassing the pipe.

Result

Sylmasta manufactured SylShield for the repair at their UK production facility on Thursday.

By Monday morning, the products were in Czechia. By the evening, the pipe had been protected with SylShield and pulled through the borehole to complete the installation.

The project manager said afterwards: "Big thanks to Sylmasta for meeting the tight deadline, which even we thought would be unrealistic."