

HDD PIPELINE PROJECT









The Denso Bore-Wrap is fully intact on the left after the pull.



The perforations allowing excess gas, resin, and water to escape during the curing process.



The Denso Bore-Wrap at the leading edge is still in place 360° around the pipe.

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Project Data

Location	Lansing, Michigan
Completion	July 2024
Project Type	Horizontal Directional Drill (HDD)
Products Used	Denso Bore-Wrap®

Project Details

Pipelines today are often installed via Horizontal Directional Drill (HDD) which can put the anti-corrosion coating at serious risk of being damaged during installation. In July 2024, Denso was invited to participate in a trial to evaluate the performance of multiple abrasion resistant outerwraps. The trial was set up to take place on a new pipeline near Lansing, Michigan. There were two separate sites where the outerwraps would be applied on the leading edge of a section of pipe that would be installed via HDD in a very aggressive environment. For the application, the existing coating was quickly roughened using coarse sandpaper. The surface was then sprayed down with water, and the Denso Bore-Wrap was spirally wrapped using a 50% overlap and sprayed with water. Immediately upon completion of the Bore-Wrap application, the Denso Poly-Wrap is spirally wrapped with sufficient tension to temporarily compress the Bore-Wrap while it cures. The Poly-wrap is then perforated using the Denso Perforating tool, which allows excess gases, resin, and water to escape ensuring the layers of the Bore-Wrap do not separate while curing. The Bore-Wrap was completely cured in approximately 30 minutes. The Denso Poly-Wrap was left in place as a temporary UV barrier until the pipe was ready to be pulled, and then it was removed.

On the first section, the Denso Bore-Wrap was installed at the lead end of the pipe followed by an outerwrap from a different manufacturer. On the second section the Denso Bore-Wrap was applied as the second wrap on the pipe. Upon completion of the pull both outerwraps were inspected. The Denso Bore-Wrap proved to be the superior product in both locations. When placed first at the leading edge, the Bore-Wrap held up 360 degrees around the pipe after an initial gouge that did not make it past the very first circumferential double layer whereas the alternative product was gouged completely through at various areas throughout the full 360 degrees. This proves how the Bore-Wrap fabric sets itself apart from other types of abrasion resistant outerwraps. The multidirectional weave provides exceptional resistance in all directions preventing rocks from finding a seam and tearing completely through the path of leas resistance. When placed second, the Bore-Wrap was still completely intact 360 degrees around the pipe. In both locations the Bore-Wrap completely protected the underlying anti-corrosion coating. Because of results like this, the application of Denso Bore-Wrap has become standard practice for many pipeline operators around the world in HDD installations. They know their anti-corrosion coating will be completely protected from any mechanical damage, therefore preventing corrosion for years to come.

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