



Circle Systems, Inc.

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Case Study for Frontier Tubular Inspection of Oil Country Tubular Goods Using Mi-Glow® 834

Company profile

For more than 80 years, **Frontier Tubular Solutions, LLC** has provided OCTG services, storage and transportation to North America's energy sector. They primarily serve steel mills, OCTG distributors and exploration companies. Their facilities provide customers a one source solution to store, service and transport OCTG. Frontier services include inspection, threading, maintenance, reclamation, complement one another and are offered separately or on an integrated basis.

Business situation

The NDT department was searching for a new magnetic particle that helped enhance the detection of discontinuities and was a cost effective solution compared to the leading competition's product. The timing of the evaluation couldn't have been better due to the installation of new Special End Area magnetizing equipment.

Technical situation

Frontier was using a petroleum/solvent based magnetic particle solution that was expensive to dispose of, produced fumes in the inspection booth and was lacking in brightness.

Solution

Circle Systems introduced Mi-Glow® 834 as a cost effective, superior performing magnetic particle inspection solution. Frontier performed an evaluation on the proposed material in June of 2013 and the Mi-Glow® 834 has become an integral component in the inspection of surface and near surface discontinuities.

Benefits

Mi-Glow® 834 provided Frontier with a brighter more sensitive magnetic particle inspection solution. Increased productivity was experienced due to the brightness and ease of detection of discontinuities. A cost savings of up to 50% is also experienced when compared to the leading competition's equivalent product. When asked why they would recommend Mi-Glow® 834 to other companies performing magnetic particle inspection on related OCTG their response was "quality of product, customer service, pricing and availability."

Products and Specifications Used

- Mi-Glow® 834
- Special End Area Magnetizing Equipment
- LED UV-A lighting
- UV-A Radiometer
- API 5CT Specification for Casing and Tubing
- API RP 5A5 Field Inspection of New Casing, Tubing, and Plain-End Drill Pipe
- ASTM E1444M Standard Practice for Magnetic Particle Inspection
- ASTM E709 Standard Guide For Magnetic Particle Testing

