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Laser Profilometry NDT

Laser testing NDT utilizes surface profilometry to provide the user with rapid collection and detailed assessment on pipeline inspections, mapping external part geometries and presenting corrosion through 3D point cloud capture. Post-analysis offers clients information related to External Corrosion, Ovality and Mechanical damage such as Dents /Wrinkles. Information garnered from the pipeline inspection may be used in RSTRENG and B31G determinations for pipeline operability, as well as its many other applications.

THE Applus+ SOLUTION

Applus+ has invested heavily in profilometry technology for services in laser profilometry NDT and in the training of its laser testing NDT technicians, whose training in profilometry systems ensures that clients receive the full benefits in terms of accuracy and time savings as compared to historic methods. The data captured using laser profilometry NDT can be imported for use in critical asset integrity assessments, as well as in re-engineering or finite modelling.

Target customers

Pipeline inspections for assessing highly corroded defects will benefit from the Applus+ laser profilometer solution compared to conventional data capture. Using surface profilometry tools and assessment software, critical information regarding repair and operability may be assessed quickly and efficiently with accuracies of up to 0.03mm (0.0012”) with a resolution of 0.05mm (0.002”). While laser profilometer has found a firm place within the world of cylindrical products, it can be used to scan a wide variety of items and/or assets, providing added value to the overall asset integrity assessment.

Key customer benefits

Benefits of laser profilometry NDT for pipeline inspections include:

- Accuracy of results to 0.03mm (0.0012”) / Resolution of 0.05mm (0.0002”)
- Portable system aiding in on-site accessibility
- Development of current state finite capable models
- Data extraction to traditional CAD and 3D development software
- Onsite analysis of data collected, ILI correlations and river-bottom defect types