Laser Profilometry

Surface profilometry provides the user with rapid collection and detailed assessments of external part geometries and presents corrosion through 3D point cloud capture. Post-analysis offers clients information related to external corrosion, ovality and mechanical damage of difficult-to-inspect assets. Information garnered may be used in RSTRENG and 31G determinations for pipeline operability, as well as its many other applications.

THE Applus+ SOLUTION

Applus+ has invested heavily in profilometry technology and in the training of its employees who use profilometry systems to ensure that its clients receive the full benefits in terms of accuracy and time savings as compared to historic methods. Data captured using profilometry scanners may be imported for use in critical assessments as well as in re-engineering or finite modelling.

Target customers

Pipeline operators needing to assess highly corroded lake-type defects will benefit from this Applus+ solution 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 this technology 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 end-user assessment.

Key customer benefits

Benefits of laser profilometry 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