

CREAFORM

PORTABLE 3D MEASUREMENT SOLUTIONS



OIL & GAS

Pipeline operators and NDT service companies must deal with increasing pressure from regulation authorities and environmentalists. They must guarantee the integrity of pipeline networks, tanks and refineries while keeping maintenance cost at their lowest. There is also constant pressure on field crews to complete inspections as fast as possible so that inspected sites can be put back into service in the shortest time. Considering these factors, the use of reliable, efficient and user-friendly surface inspection tools is paramount. Creaform has developed specific inspection applications based on 3D scanning to meet the needs of this industry.

ADVANCED CORROSION AND MECHANICAL DAMAGE ASSESSMENT ON PIPELINES AND PRESSURIZED COMPONENTS

Creaform offers its expertise in 3D scanning and the most advanced analysis software to help inspection companies and owners cope with complex analysis scenarios. Short- and long-range 3D scanners can be used to acquire any geometry for metal loss characterization, geometrical deformations, as-built, or finite element analysis. Analyzing complex shapes such as elbows, bends, spherical pressure vessels or nozzles can be challenging. Creaform can assist you to quickly generate complete inspection reports with accurate results.

- 3D data analysis and post-treatment of complex geometries such as elbows, welds, valves and pressure vessels



- Custom analysis using advanced analysis software
- On-site technical support for short- and long-range scanning, post-treatment, software analysis, additional manpower and development of inspection/analysis techniques
- Training for Pipecheck solution, short-/long-range scanners and inspection software for custom analysis



STORAGE TANK ANALYSIS

The process of inspecting storage tanks can be time-consuming and complex. Thanks to the Creaform Metrology Services help, companies can now use a 3D scanning technology to increase process accuracy and productivity. This technology can also be used for applications such as tank volumetric calibration and accurate table generation, which are required standards in this industry.

- Short- and long-range 3D scanning of storage tanks
- Complete and detailed inspection reports (tank strapping table, floor profile, edge settlement, shell settlement, out-of-roundness report, dike height survey)
- Higher data traceability
- Reduced risk of environmental impacts
- Increase in productivity, shorter data acquisition time
- Generation of larger amount of data for greater understanding
- Inspection of pressure vessels
- On-site assistance

AS-IS CONDITION ANALYSIS

Offshore oil rig equipment tends to corrode because of underwater condition which affects the integrity of components. Mechanical failures become predictable by using modern tools. By combining scanned data, real break test results and finite element analysis, Creaform allows the customer to get a comprehensive understanding of the mechanical behaviour.

- High accuracy and resolution.
- Follow up on corrosion and deterioration
- Identify and understand failure causes (e.g. manufacturing, internal stress, corrosion)
- Generation of “as-is” surfaces for FEA

