Laser Pipe Inspection Services
The new frontier in tubular data acquisition and analysis

At Stress Engineering Services, our Laser Pipe Inspection service delivers a revolutionary level of oilfield inspection, designed to benefit those with a stake in identifying and managing risks and the deterioration of their tubular assets. The service combines non-destructive testing, asset condition-based maintenance and monitoring, predictive data analytics and IoT ecosystem to manage and assess baseline and degradation in tubulars.

Utilizing the high-performance Bore Erosion Measurement and Inspection System (BEMIS™) tool, developed by Laser Techniques Company LLC, we are capable of rapidly, accurately, and quantitatively mapping the internal surface of 2" - 22" diameter pipes. The BEMIS™ laser sensor is the only system on the market that accurately measures and maps the ID of pipe/tubing, rotating at high speed through the length of a tubular, typically generating upwards of 5000+ data points per revolution. These high-resolution data points are harnessed and analyzed using LaserViewer™ software to:

- Determine material loss due to pitting and/or mechanical wear.
- Characterize features to deduce if they were caused by wireline, drill pipe, corrosion, or a manufacturing flaw.
- Perform a detailed analysis of the entire tube, including the pin end and ID weld dimensions, and locations where UT cannot provide adequate inspection.
The result is a high-resolution 3D map of the component inner surface and a rapidly delivered report summarizing the anomalies and their location on the tube, providing a digital record of the asset.

Applications include:

- Highly accurate pipe and Drill Pipe ID and volume measurements
- Inspection of drilling and production risers for return to service
- Frac High Pressure Hose “CoFlex” and iron inspection for erosion
- Investigative “CSI” work for a failed work string or tubing
- Degradation determination of tubular assets, i.e. corrosion, erosion and pitting, etc.
- Production tubing inspection including coupling

The Laser Pipe Inspection Service is part of a wider suite of our services, engineered to deliver the most reliable and complete information necessary for making critical decisions.