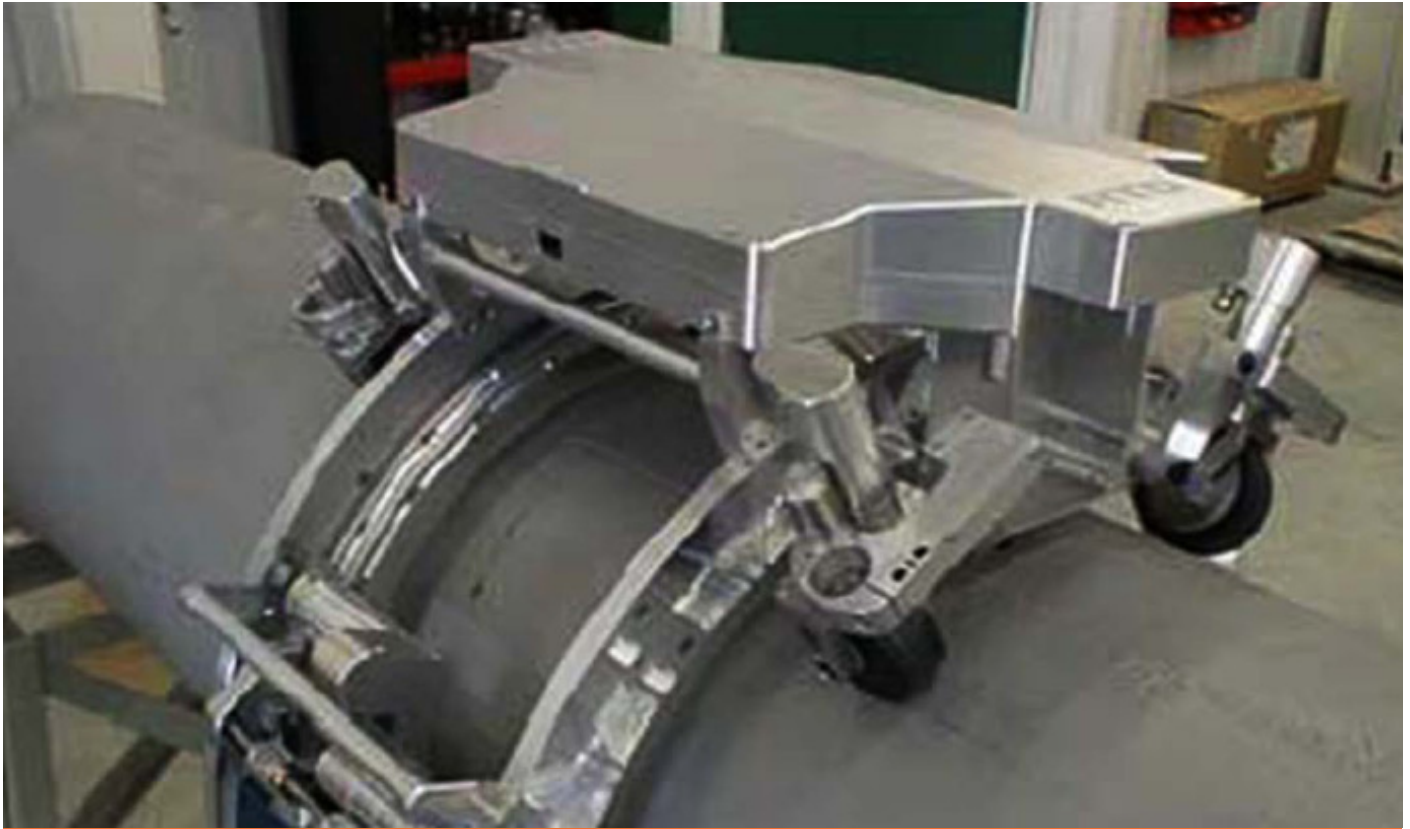


Laserscan



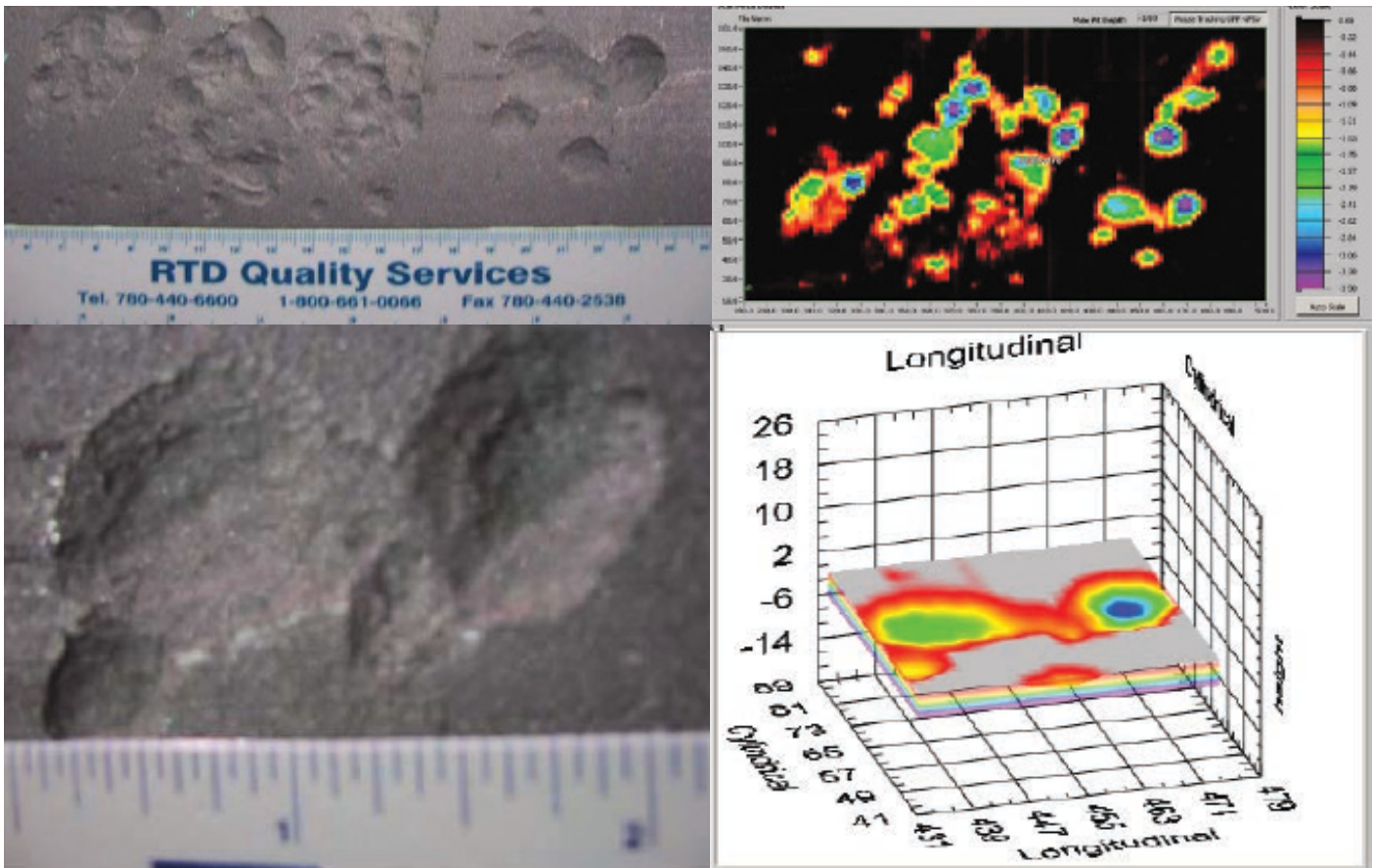
Laser Pipeline Inspection Tool

Pipeline External Corrosion Mapping & Assessment System

- Minimum of 10x faster than manual grid, measurement, and assessment
- Reduced repairs & cut-puts
- Reduced integrity rehab & pressure reduction schedules
- ILI verification, correlation & permanent reference pieces for subsequent ILI runs

Laserscan Operating Capabilities

- Laserscan has 180° circumferential coverage per scan
- Unlimited axial scan lengths
- Capable of inspecting piping from 10" to 48" diameters
- Scanning speeds up to 1ft per 1min in axial direction
- Measurement resolution up to 625 readings per square inch
- Depth measurement variance of +/- 1.5% of the wall thickness
- Working environment of -20°C to +50°C



Top Left: Photograph of external corrosion ; Top Right: Laserscan image of corrosion ; Bottom: Isolated corrosion pits and corresponding 3-dimensional laser scan.

Laserscan Software Capabilities

- Built in RSTRENG, B31G, and modified B31G modules for quick data assessment in the field
- Real time burst pressure, safety factor, and rupture ratio calculations
- Interactive 3D digital representation of corrosion
- Data images stored on CD or floppy disk in text format & digital archiving of corrosion features
- Capable of producing data set for FEA

Laserscan Operating Requirements

- The inspection area must be cleaned to NACE 2 finish for 360 degrees
- The blasted inspection area must extend at least 18" axially before and after the corrosion feature
- Inspections to be performed require a minimum of 10" of pipe clearance around the circumference
- Dry or elevated ditch bottom to keep sand, mud, and moisture from contacting the arc slide
- Available hoarding in case of extreme weather conditions (i.e. rain, snow, sleet)