Ultrasonic corrosion mapping is a key method in most non-invasive inspection strategies. Oceaneering utilizes a number of systems to provide maximum flexibility for a range of applications.

**Features**
- 100% Coverage of Inspection Area
- Digital Storage of inspection Data
- Fully Auditable Inspections
- Vertical or Inverted Use
In ultrasonic wall thickness mapping systems, a transducer is linked to a computer to record thickness data for predetermined measurement positions. The transducer is scanned, either by a semi or fully automated means, over the surface and thickness readings and exact positions electronically stored. Each thickness level can be color coded and wall thinning by corrosion or erosion is more readily recognized than by manual inspection. High reproducibility (typically with 0.3 mm wall loss) enables accurate monitoring and calculation of corrosion rates.

Wall thickness mapping can be applied in-service at temperatures up to circa 250°C using special high temperature probes and couplant. Wall thinning, pitting, corrosion, flow acceleration corrosion, hydrogen induced corrosion and hot hydrogen attack are detected and imaged.

- Digital Storage of Measurement, Location & System Settings
- Guaranteed 100% Coverage of the Inspection Area
- Visualization of Wall Thickness Patterns Using B, C & D Scan Presentations
- Greatly Increased the Scan Speeds
- Surface Temperatures up to 250°C
- Vertical or Inverted Use
- Rope Access Deployable

Applications
Pressure vessels and pressure systems are required to undergo periodic statutory inspection to ensure continued safe and reliable operation. Traditionally this has been achieved by means of an Internal Visual Inspection (IVI), however there can be a very high cost associated with shutting down a vessel (loss of production), isolating it and preparing it for entry. Corrosion Mapping offers a reliable alternative:

- Pressure Vessels & Systems
- Pipework
- Reactors
- Storage Tanks
- Ship Hulls

Limitations
- 110V - 240V Power Required
- Material to be Inspected must be Penetrable by Ultrasonic Sound Waves
- Surface must be Clean & Free from Loose Material, Rust etc.

Latest Technology
The latest technology available for corrosion mapping is the axial bridge used with the LSI automated scanner. The scanner moves in a forward direction along the length of the pipe, held in place by strong magnetic wheels, with the transducer assembly sweeping the underside of the pipe in a circumferential motion. In suitable conditions, circa 50 meters of large diameter pipe (48 inch) can be inspected in a single shift.