

Dependability Quality



TECHINCO

CORROSION & NDT MANAGEMENT

Technical Inspection &
Corrosion Control Company
Since 1994

ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, IMS

Other Asset Integrity Management Tools

- Risk-Based Inspection (RBI)
- Reliability Centered Maintenance (RCM)
- Hazard and Operability Study (HAZOP Study) and Safety Integrity Level (SIL Study)
- Fitness For Service (FFS)
- Failure Mode, Effect and Criticality Analysis (FMECA)
- Fault Tree Analysis (FTA)
- Material and Coating Selection
- Corrosion Monitoring and Controlling System
- Cathodic Protection

Certified By:



Membership of:



ThetaScan



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TECHINCO

Technical Inspection & Corrosion Control Company

Tel:+98-21-88529728-36

Fax:+98-21-88741040

www.techinco.net

info@techinco.net

WHEN YOU NEED

ULTRASONIC C-SCAN IMAGING

Address: No. 18, Kooh-e-Noor St., Motahari Ave., Tehran, Iran

ThetaScan

The **ThetaScan** is a portable ultrasonic C-scan imaging system which is designed to carry out C-scan corrosion mapping on ferrous plate and pipe.



The **Thetascan** can be operated both on flat plates and curved surfaces with a diameter of 300mm or more. Inspection results can be viewed in real time in the field or recalled for post inspection analysis at a later date.

The **Thetascan** system continuously records thickness measurements as the scanning head is moved over the inspection surface. During a scan, thickness information is presented as an A-scan trace, a digital thickness measurement and a C-Scan image.

ThetaScan

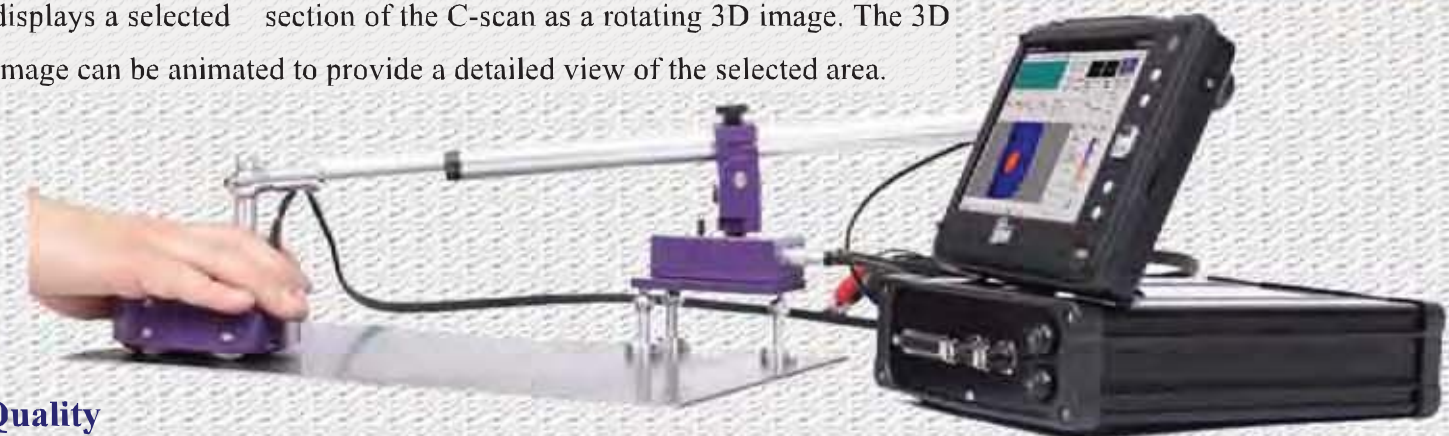
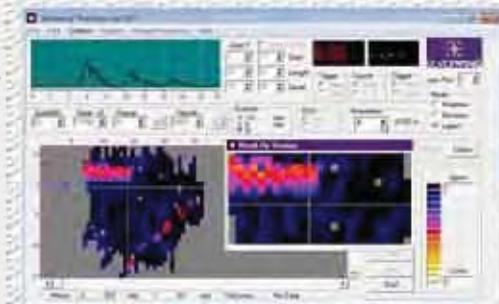
The dry-coupled wheel probe of **ThetaScan** scanning head is constructed from a twin element 5Mhz transducer, mounted inside solid tyres. The wheel probe tyres are able to transmit the Ultrasonic sound wave from the transducer into the material under test in the same way as a liquid or gel couplant. This completely eliminates the need for a water supply when using the **Thetascan** and allows the system to be used in even the most remote locations. Magnetic wheels and magnetic feet hold the **ThetaScan** scanner to the inspection surface. The **ThetaScan** scanner incorporates a dual axis encoder to provide positional information to the dedicated software.



The **ThetaScan** scanning head is attached to an extending arm. The arm is attached to a rotating base unit fitted with rare earth magnetic feet to attach the system to the part being inspected. The extending arm and rotating base unit are fully encoded allowing the **Thetascan** software to continuously combine arm extension and arm rotation measurements to accurately plot the probe position; this eliminates problems associated with encoder wheel slippage.

ThetaScan Software

Generally, the ultrasonic C-scan image shows a plan view of the scanned area, with differing thicknesses represented as changes in color. The zoomed view shows the minimum, maximum and average thickness of the selected area. The zoom view also shows a two axis B-Scan thickness profile which is also updated from the cursor position. The 3D View option displays a selected section of the C-scan as a rotating 3D image. The 3D image can be animated to provide a detailed view of the selected area.



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