HI-SCAN

Fully automated scanning system for UT inspection of internal bore welding (IBW) and tube-tube sheet weld in heat exchangers

Electronic Unit

- Single ruggerized transport case containing all the electronic parts, with sturdy fixing of the laptop
- Single channel ultra-fast UT board, specifically designed for high performance UT scanning. Ask for detailed specifications.
- Electronic board for total control of the scanning electric motor (real-time accurate positioning, rotating speed, torque control...)
- Electronic control of water injection pump
Mechanical scanners

- Two scanners configurations: Internal Bore Welds, Tube-Tube Sheet Welds
- High speed and high resolution helical scans
- Maximum longitudinal scanning length: 30mm
- Fixed scanning pitch: 0.5mm
- Angular resolution: 1deg. (all data are collected every angular degree of probe rotation mapping)
- Variable scanning speed: up to 7 turns/sec with Tube-Tube Sheet scanner
- Automatic water injection by external pump for constant and reliable UT coupling
- Complete control of all the scanning operations (Start/Stop scan, save scan and rewind, repeat scan) by means of only two mechanical push-buttons easily accessible on the scanner itself. This allows completely handle the full inspection flow.
Software

Graphs displayed:
- Top View
- A-Cscan (Amplitude Cscan)
- T-Cscan (Time Cscan)
- Side View
- End View
- A scan

3D visualization of the signals relating to the portion of the scan

Database Management:
In order to facilitate the names of the control files and automatically store them in an orderly, there is a procedure organized according to a logical scheme precise.

The identification of the control is done by filling in the fields:

- JOB: identification code of the job order
- FACTORY: identification code on which to perform the checks
- ROW: row number of the tubes
- TUBE: tube number in the row
- LATO: lato della piastra tubiera da controllare
- SIDE: the side of the tube plate to control
Product and Software designed and manufactured entirely in Italy
by IMG ultrasound Ltd. and the ALTEK

Maintenance and service with possibility of customized hardware and software to meet the diverse operational needs