

Echomac® PA TW System

For Detecting Weld Zone Defects in Tube & Pipe



Echomac® UT Phased Array System

The new robotic Echomac® PA TW is an operator friendly test system for detecting weld zone defects in tube and pipe caused by scarfing or welding processes.

PA TW Features Ensure Minimal Operator Adjustments

- Use one array to sequentially monitor scarf, evaluate laminar defects, or detect longitudinal OD/ID defects, typical of the welding process.
- B-scan and C-scan views result in real time image of the weld profile and defects.
- Weld profile quickly alerts operator to any issues with the scarfing process.
- ☐ Install on-line in the hot zone immediately after the welder, or in a lower temperature area after forming and shaping.
- ☐ Intuitive push button HMI control of the Robot which controls and manipulates the test head.
- □ No manual changes are needed after initial setups are stored.

- □ Electronic transducer scanning ensures the entire weld zone is covered without the need for mechanical movement or operator adjustment.
- □ Can detect N10 and N5, ID and OD longitudinal notches, 3.2mm drilled holes, and half wall drilled holes, among others.
- □ Profile resolution is as low as 0.004" (0.1016mm).
- ☐ Test shoes, correctly sized for the customer's needs, are supplied with the system.
- ☐ System uses integrated signals from the mill PLC to quickly retract the test head, preventing damage when a cut-out or open seam is detected.



Spring loaded transducer module and test shoe inspecting tube weld

QUICK CHANGE TEST SHOE FOR DIFFERENT SIZED TUBE.

- □ Change diameters quickly by releasing the test shoe from the transducer module in the test head, and replacing the shoe with one for the new size.
- □ Robot's concentric position remains constant with respect to the tube and requires no adjustment when changing test shoes.



Environmental Cabinet for Echomac® PA TW electronics.

www.mac-ndt.com

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