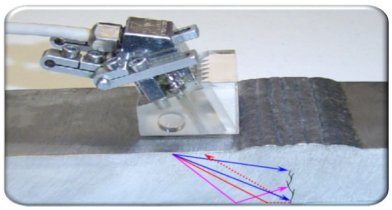
SHAW PIPELINE SERVICES

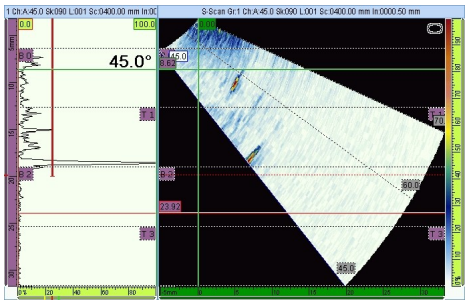
PHASED ARRAY ULTRASONICS

Phased Array Ultrasonics (PAUT) is an advanced method of ultrasonic testing. The beams generated can be steered, swept, and focused electronically. The PA UT technology uses an array of ultrasonic elements and fire off electronically with time delays.



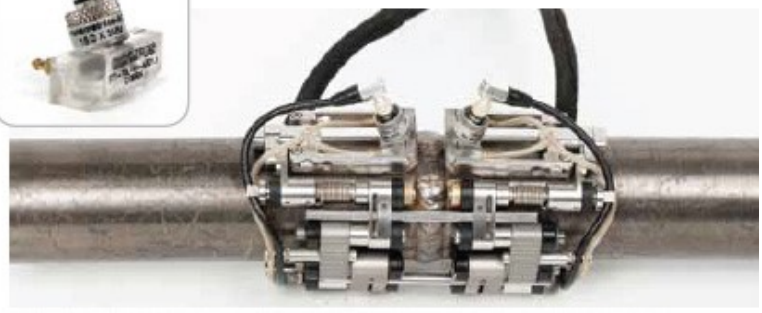
The scanning technology enables rapid coverage of components… typically, as an order of magnitude that is faster than single probe mechanical systems. Beam forming permits selected beam angles to be optimized ultrasonically by orienting them perpendicular to the predicted defects. This is a valuable advantage in inspecting for Lack of Fusion in welds.

The beam scanning facility means components can be mapped at appropriate angles to optimize Probability of Detection. It is also useful for inspections where only a small footprint is possible. Phased Array – technical information The use of multiple electronic elements delivers significant advantages over single-probe concepts:

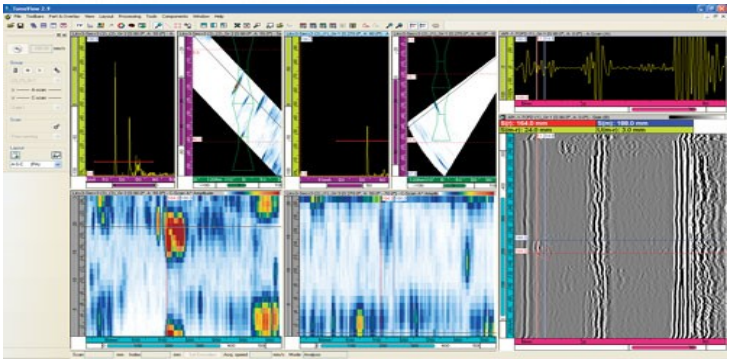


- No safety hazards.
- Electronic focusing to optimize beam shape and size at defect location.
- Improved defect detection and sizing.
- A wide range of inspection parameters.
- Compliance with all known codes.
- Rapid component coverage.

Beam forming and beam steering capabilities.



A complete inspection of pressure vessel welds can be performed manually, or in a single scan using an Omni Scan and a scanner for a turnkey solution. Inspection results are available immediately, enabling you to detect problems with welding equipment and fix them right away.



When coupled with the COBRA manual scanner, the Omni Scan flaw detector is capable of inspecting pipes ranging from 0.84 inch OD to 4.5 inch OD. With its very slim design, this manual scanner is able to inspect pipes in areas with limited access.

Additional information please contact 918-893-7800. Ask for Operations Department or visit our website @ www.shawNDT.com