Ultrasonic Test Systems



Ensuring the structural integrity of critical components is fundamental in industries where precision and reliability define operational success. Developed within **ARANCO's** engineering framework, the **UTE Series** Ultrasonic None-Destructive Test systems provide a high-fidelity;
- Immersion testing
-Contact testing
-Air-coupled testing
capability designed for applications that demand uncompromising accuracy and clean, interference-free signal performance.

Industrial

By bringing together advanced ultrasonic analysis, precision-focused movement control, and a user-friendly operating philosophy, the **UTE Series** reflects **ARANCO's** commitment to delivering reliable, consistent, and traceable inspection performance for high-value industrial applications.

Repeatable

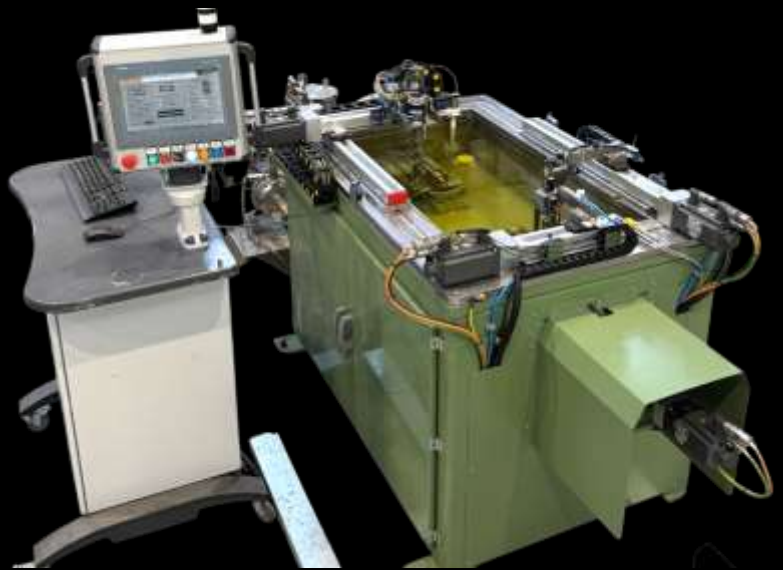
A key characteristic of the system is its emphasis on signal purity and data repeatability. The system minimizes noise sources and Maintains waveform stability, ensuring that operators receive reliable, traceable, and decision-ready data—an essential requirement for sectors such as defense, aerospace, and advanced manufacturing.

Traceable

The operator interface combines real-time ultrasonic visualization with configurable acquisition parameters and guided calibration steps. Through an intuitive touch panel, users can perform calibration routines, adjust inspection settings, and monitor scan progress in a structured workflow that reduces dependency on individual operator skill.

What We Offer

Immersion testing;
Inspection is carried out by immersing the workpiece in a conditioned water tank and transmitting ultrasonic waves through the material. This method enables early detection of cracks, fractures, internal discontinuities, and micro-level anomalies that are often invisible in traditional visual or dimensional checks. A multi-axis servo-driven motion structure ensures precise positioning throughout the scan, supporting consistent and repeatable inspection results across a wide range of geometries.



- Mechanically, the system is built upon a rigid chassis, a stable immersion platform, and a vibration-free motion architecture.
- This ensures smooth scanning and preserves measurement integrity even under continuous industrial operation.
- Integrated safety mechanisms—including emergency stop circuits, controlled power distribution and protective enclosures—support secure and stable usage in demanding production environments.
- The machine consists of a trigger belt-driven rotary group, a workpiece turning group, a conditioned water pool, sensor adjustment devices that can be precisely adjusted along the X and Z axes, a sensor group that can be adjusted along the ogive axis, housings and a main frame that carries all the equipment.
- The servo motor-driven axis systems are integrated along the X, Y and Z axes. The simultaneous movement of the rotary group is achieved by a trigger belt and pulley mechanism driven by a servo motor and gearbox.