Innerspec

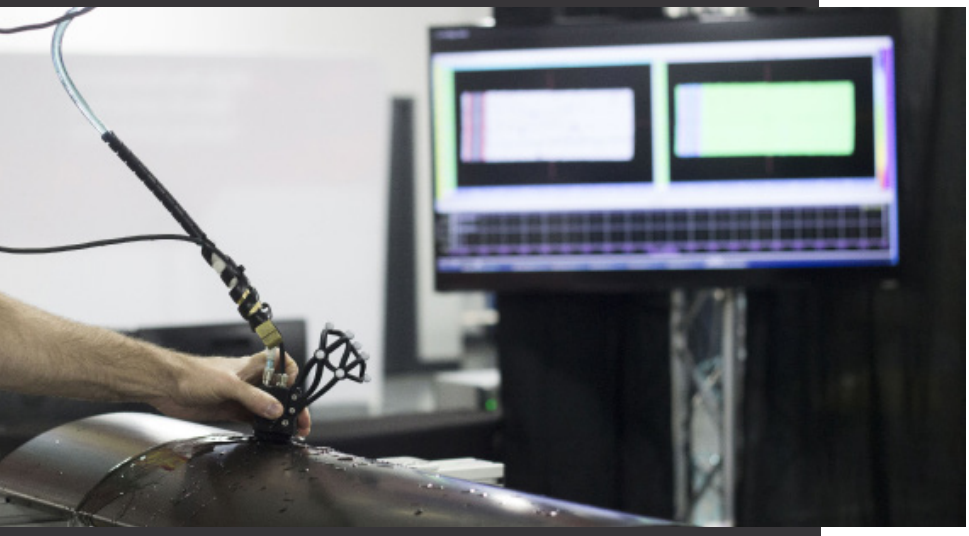
HIGH-PERFORMANCE NDT SOLUTIONS

Camera Aided Ultrasonic System

CAMUS 3D

Equipment Highlights

- 3D cameras eliminate wired encoders and position errors.
- Phased Array sensor provides wide coverage per pass and high productivity.
- Real-time C-Scan and thickness map deliver immediate feedback of coverage and quality of inspection.
- Permits full traceability of inspection results.
- Detects defects as small as 1/8" (3 mm) diameter, and scattered porosity through back-wall attenuation.
- Upgradeable to fully-automated robotic inspection.
- Qualified by major aerospace manufacturers.



CAMUS 3D is an innovative solution that provides a cost-effective alternative to multi-axis inspection robots and gantries. The system integrates an array of 3D cameras that track the position of the probe with a high-performance PAUT instrument to provide accurate, high-resolution, C-scans on parts with complex shapes.

CAMUS 3D is a flexible, accurate, and affordable solution that can be used for composites and metallic components with extraordinary position accuracy. 3D cameras eliminate encoders, wiring, and electrical noise, and permit semi-automated inspections (hand scanning - wireless encoding) with full traceability of inspection results. Camera encoding also simplifies upgrades from conventional UT to advanced PAUT on existing inspection lines by eliminating integration between the ultrasonic instrumentation and the line robot or gantry.

32 to 128 channel Phased Array UT (PAUT) sensors provide high-productivity with a wide inspection path, and can be fitted with custom shoes to adapt to any geometry. The system can detect defects as small as 1/8” in diameter (3 mm) in laminated composites, and scattered porosity through back-wall attenuation, meeting the most stringent requirements from leading aerospace manufacturers.

The flexible inspection cells can cover up to 1000 sq./ft. (100 m^2) of coverage to scan one or multiple parts simultaneously. Larger cells with more cameras are available upon request.

The results are presented in easy-to-understand C-scans and thickness maps providing immediate feedback of coverage and quality of the inspection on manual or automated cells.

sales@innerspec.com
www.innerspec.com

CAMUS 3D - Specifications	
Inspection Technique	• 32 to 128 channels phased array UT. Other techniques available upon request. • Inspection speed up to 1 m/s
Materials Inspected	• Metallic and non-metallic materials including most plastics and composites. • Surface temperatures < 80°C (176°F)
Detection and Measurement Capabilities	• 1/8" (3 mm) diameter defects. • Scattered porosity through back-wall attenuation. • Thickness measurement accuracy +/- 0.001" (25 µm).
Integration and Encoder Capabilities	• 3D Camera positioning accuracy <0.5 mm. • Designed for manual or robotic scanning.
Instrumentation and Software	• SONIA® instrumentation for ultrasonic NDT applications. • INSPECTVIEW® software. • NDT inspection process including definition and planning, • Focal law calculation, calibration, acquisition, evaluation, and report generation.
Power & Environment Range	• Power input 110/220 VAC. • Temperature 0-50°C.

Innerspec

Innerspec Technologies, Inc.
+1 434-948-1301
Forest, VA, USA

Innerspec Technologies Europe, S.L.
+34 911-337-024
Madrid, SPAIN

Innerspec Technologies China, LLC.
+86-(0)21-58358103
Shanghai, CHINA

Innerspec Technologies Latam S.A. de C.V.
+52 442-962-5502
Queretaro, MEXICO