

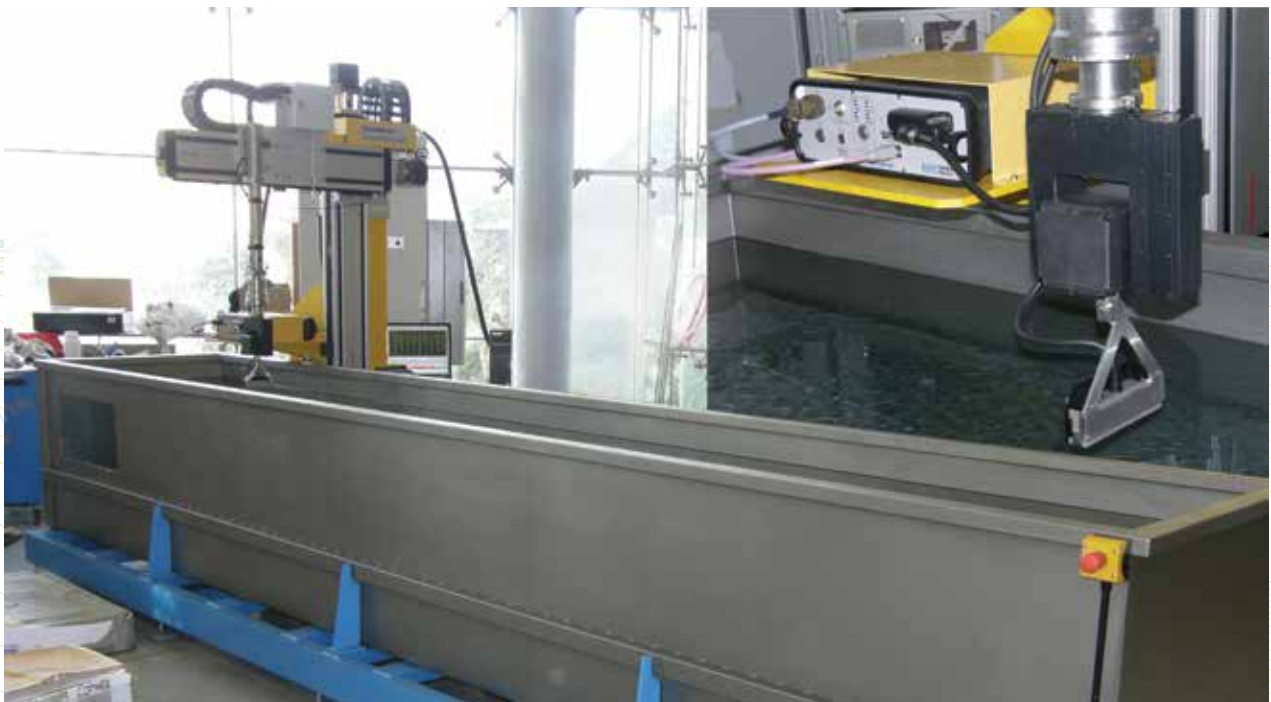
LS-200-COPA – Phased Array Immersion Scanner for Automatic Inspection of Composite Panels, Skins and Stringer Components

The extensive use of glass and carbon fiber composites in manufacturing of modern aerospace components is raising the need for reliable, cost-effective NDT systems for the inspection of such components in the manufacturing stage.

The complexity of the new multilayered parts of complicated geometry with high curvatures and varying thicknesses and the requirement to inspect the parts on a 100% rate are posing serious challenges to such systems.

For example, stringer webs, flanges, edges, radii and chamfers as well as untrimmed part and parts drilled with holes must be completely inspected.

ScanMaster LS-200-COPA immersion scanners provide an efficient, automated solution for the ultrasonic inspection of Carbon and Glass-Fiber-Reinforced Polymer parts, such as skins, stringers, and spars. The inspection is making use of multi-channel ultrasonic phased array (PA) technology, which is well proven for such applications.



ScanMaster

Ultrasonic Inspection Solutions

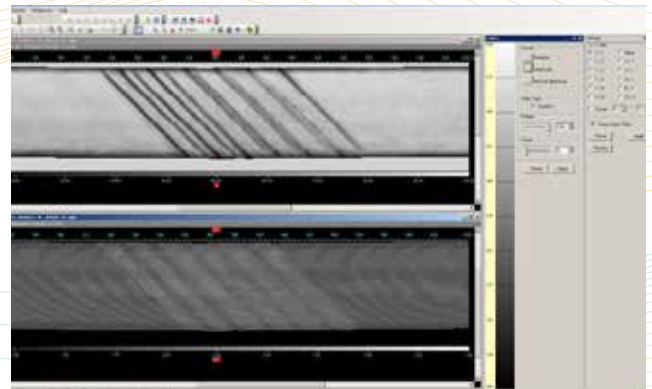
The LS-200-COPA is equipped with a complete set of tools and accessories, including multi-axes gimbal-gimbal/swivel manipulator, and sophisticated tactile probe wedges specifically designed for inspection of CFRP flat and curved parts, which together with 3D surface following software and multi-axes encoding capabilities enable the inspection of parts of complex geometry.

These tools and accessories, together with flat and curved linear phased arrays transducers, allow scanning and C-scan imaging (of amplitude and depth) of parts of complex areas, with detection of delaminations and porosity. Such areas can be inspected with or without mechanical surface tracking. The radii inspection can be performed either from the inside or from outside, depending on the accessibility, shape and size.



Features and Benefits

- High flexibility, accommodating automated scanning of diverse parts such as skin, edge, radius and stringer in one system
- Easy part programming, including 3D contour following through intuitive Teach In tools, including import of CAD files
- High productivity
- Full A- Scan and C-scan imaging (2D and 3D)
- Defect representation and sizing in 3D presentation
- Compliance with Airbus and Boeing requirements



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