## framatome

# **Linear Gantry NDT Systems**

for Ultrasonic Inspection of Monolithic and Honeycomb Structures

The Linear Gantry NDT Systems are our solution for your challenges.

### Challenge

Today, aircrafts are made of more than 50 percent of composite materials (CFRP). The increasing size and complexity of the components calls for fast and flexible non-destructive testing (NDT) systems. A fully automated inspection and comprehensive documentation are necessary. The necessity for high productivity has to be combined with an outstanding detection quality.

#### **Solution**

The Linear Gantry NDT Systems are flexible, high-efficiency machines for ultrasonic testing (UT) of monolithic and honeycomb structures. The multi-axis NDT systems are based on a rugged, motorized steel gantry with dedicated manipulators. They are designed to our customers' needs. Due to the combination of multiple ultrasonic probes and active component support systems, an important improvement in productivity has been made.

The generic ISQUS software for control, acquisition and evaluation is an easy configurable package included in the supply. It supports PE, TT and immersion technique.

These tailor-made NDT machines insure complete inspection of the components.

#### **Customer benefits**

- Outstanding productivity for large composite panels
- Fully program controlled inspection systems for automated scanning
- · Straight forward programming
- Proven mechanical concept for best availability
- Multiple evaluation desks
- Excellent performances and outstanding inspection quality



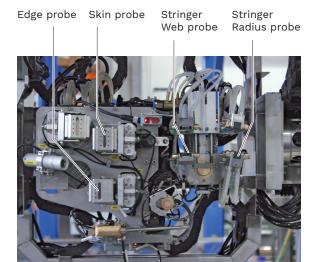
Linear Gantry System for contact technique with multiple phased array probes and automated component support

Your performance is our everyday commitment

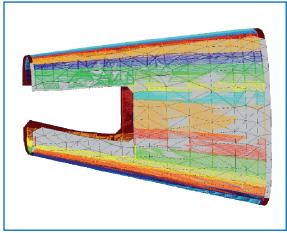
#### **Technical information**

- · Through transmission and pulse echo mode
- High performance mechanical system with Siemens 840D controller
- · High-quality mechanics for long-term stability
- · All probes are program activated
- Up to 1000 mm/sec effective scanning speed with squirter technique
- Flexible scan volume configuration
- Fully automated scanning sequences (ghost shifts)
- High-power pulser and high-power probes for highly attenuative components
- Specially designed probes for best UT quality and optimum coupling
- Advanced programming and teaching functions for maximized surface coverage
- Advanced ISQUS software with A-, B-, D- and C-scans (2D and 3D) and all state-of-the-art evaluation functions
- · Defect representation in 3D mode
- · Return to defect and marking functionality
- Compatible with Airbus software NDT Kit (ULTIS®)
- The latest ultrasonic SAPHIR<sup>quantum</sup> system with up to 256 channels stands for excellent performances and outstanding inspection quality

The Linear Gantry Systems are compatible with Airbus, Boeing, FACC, Premium Aerotech, Embraer, Bombardier, Saab requirements.



Multiple phased array probes for skins and stringers



Example for component representation

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