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Dual Robot NDT Systems

for Ultrasonic Inspection of Honeycomb Structures

The Dual Robot NDT Systems are our solution for quality and speed.

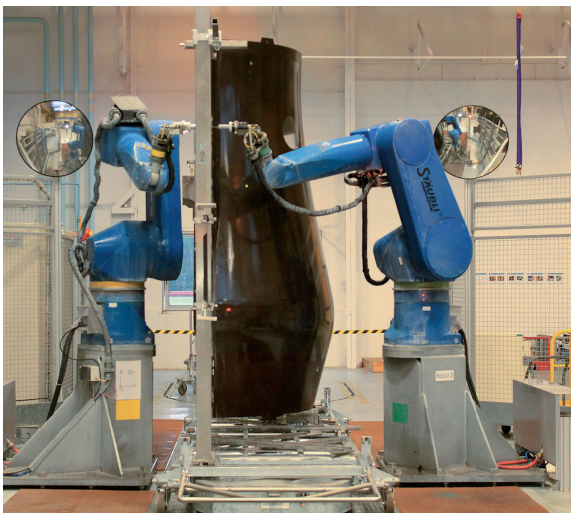
Challenge

Today, aircrafts are made of more than 50 percent of composite materials (CFRP). Many components are curved and often made of honeycomb structures. Therefore, the testing systems have to provide high flexibility to accommodate many different shapes in fully automated inspections. The necessity for high production rates has to be combined with an outstanding, reliable detection quality.

Solution

The Dual Robot NDT Systems are flexible, high-efficiency machines for ultrasonic non-destructive testing (NDT). Two synchronized precision 6 axis robots are working on 3D components for faster squirter inspection (proprietary technology). Due to integrated linear drives, for either a gantry or a component support, a further increase in productivity has been achieved.

The high performance robots are combined with the latest ultrasonic system SAPHIR^{quantum} and tailor-made ultrasonic probes. The generic ISQUS software for control, acquisition and evaluation is an easy configurable tool included in the supply. The integration of these outstanding components ensures complete inspection of your components.



Dual Robot System with motorized component support

Dual Robot System with gantry

Customer benefits

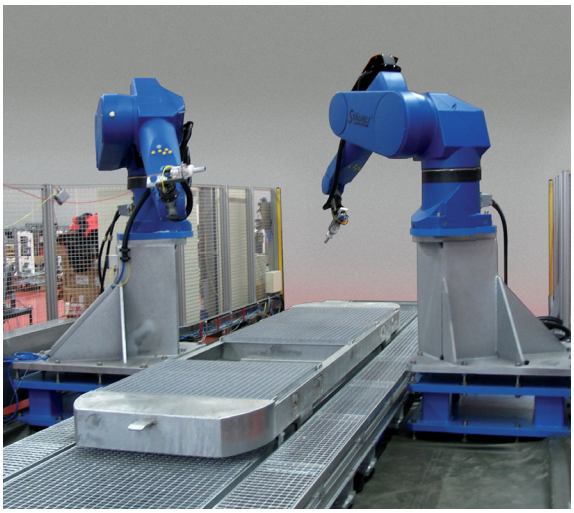
- Outstanding productivity
- Advanced 3D software including scan simulation
- Excellent stability and reliability for maximized up-time
- Future proof with high flexibility for all part shapes
- Excellent performances and outstanding inspection quality

Your performance
is **our** everyday **commitment**

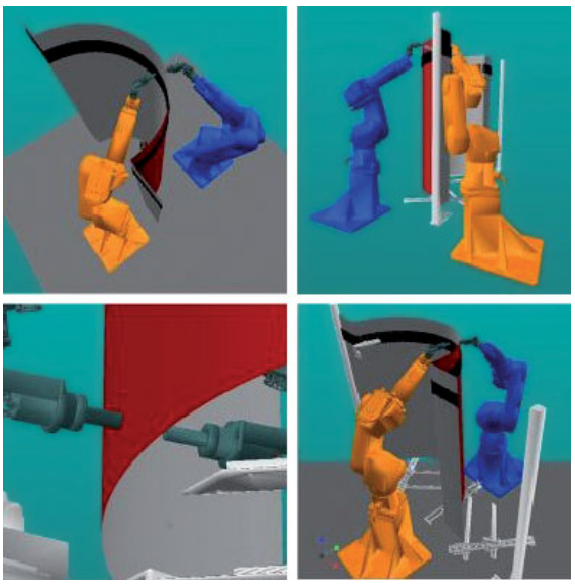
Technical information

- Through transmission and pulse echo mode
- Tool changer with different probes: single or multi-element, flat or curved
- High-quality mechanics for long-term stability
- Fully synchronized high-accuracy robots (2 x 6 axis)
- Linear drive (13th axis) for synchronized gantry or component move
- Up to 1000 mm/sec effective scanning speed with squirter technique
- Flexible configuration with different robots and modular rail or turntable
- Fully automated scanning sequences (ghost shifts)
- High-power pulser and high-power probes for highly attenuative components
- Integrated offline programming (OLP) for optimum coverage and anti-collision check
- 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*quantum* system stands for excellent performances and outstanding inspection quality

The Dual Robot NDT Systems are compatible with Airbus, Boeing, Bombardier, Embraer, Premium Aerotech, Saab requirements.



Dual Robot System with component move



Dedicated simulation software for OLP

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