Robotic Non-Destructive Inspection

Genesis Systems Group, with 30 years of robotic automation experience, is recognized as one of North America’s leading robotics systems integrators with over 4,500 systems installed worldwide.

Genesis has developed a line of Robotic Non-Destructive Inspection Systems. Our innovative approach to automated UT inspection addresses the increasing demands for 100% inspection of critical aero-structure carbon-fiber composite components. Combining world-class UT Equipment and KUKA High-Accuracy robots, Genesis offers a reliable, highly productive inspection cell.

Productivity
- Safely load/unload during inspection cycle. No special certification required to operate the machine.
- ASNT certified inspectors can review results remotely and print out inspection reports with no loss of inspection time.
- Demonstrated five-fold reduction in actual inspection time.

Flexibility
- Complex contour or flat scan
- Configurable station layouts
- Multiple processes integrated into the same system (immersion, squirter and/or bubbler ultrasonic and eddy current capabilities)
- Minimal tooling required

Quality
- Highly accurate robotic platform
- Detect, locate and annotate multiple types of defects
- Full traceability utilizing bar code reader
- Auto-populated report generation
- Automated reference standard scan

NSpect 110

The NSpect 110 is a single-station, single robot inspection system designed for the non-destructive inspection industry.
Standard System Components

- KUKA KR60HA 6-axis robot with absolute accuracy calibration
- High speed ultrasonic array imaging system
- Two-drawer load station
- InspectionWare acquisition and analysis software
- 64-Element array (PE) and single pixel in TTU
- Automated reference standard schedule
- AMP 1 controls package with PC and 22” HMI
- Remote connectivity and configurable part database
- Full wave form capture and remote evaluation
- 48” x 36” x 36” S.S. water tank with filtration system
- RIA-compliant safety system with interlocked enclosure