



## Automated Robotic Work Cell NDT Inspection Systems

Our Work Cell Systems are custom-designed for higher volume, repetitive Nondestructive Testing (NDT) applications. They combine high-speed, programmable automation for material handling, and use several NDT technologies, such as Eddy Current (ET), Ultrasound (UT) or Acoustic Emission (AE) as the inspection technique. Typical applications include:

### *Automotive Parts • Defense Industry • Quality Assurance Applications*

Real-time, high volume NDT inspection requires a combination of the required inspection technology and automated product handling. In the system shown in Figure 1, high-speed robotics (pick and place) moves product from an input conveyor (which the operator loads) to a multichannel ultrasonic inspection station. Eleven ultrasonic transducers (as shown in Figure 2) inspect the part under program control. An automated accept/reject decision is made, based on stored acceptance criteria. The robot then moves the part to an accept conveyor or a reject chute. The entire process is fully automated and takes approximately 1 minute per part to complete.



Figure 2.: UT inspection station.

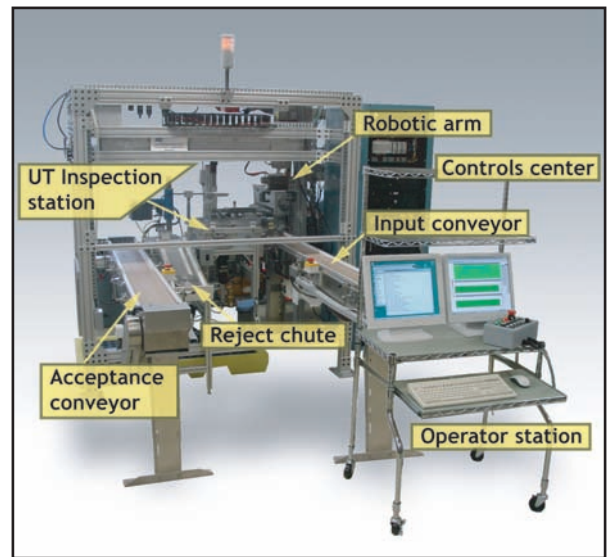


Figure 1.: Robotic Work Cell.

### *System Features:*

- Custom designed automated work cell with hierarchal cell control interfaced with automated NDT inspection systems
- High-speed, fully automated operation, part transfer and disposition
- Suitable for real-time, on-line part inspection and integration with new or existing production facilities
- Available with UT, ET or AE NDT Inspection methods as a function of inspection requirements
- Rugged industrial design and construction requirements



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