

This automated assembly and test system earned a prestigious "Customer-Driven Quality Award" in 1996. It was recognized as the highest rated manufacturing or assembly system for the entire Powertrain Operations of the awarding company. System characteristics important to the evaluation included improvements in product quality and warranty/repair results, achieving a higher level of customer satisfaction. This system is a prime example of practical and reliable technologies yielding consistent product quality and uptime in the continuous production environment.



System Values & Benefits

- **Automatic part insertion reduces product damage**
- **Automated assembly and poke-a-yoke process ensures quality assembly**
- **Updated technology of leak testers provides process improvements**
- **Improved ergonomics by automatic placement of components**
- **Payback benefits and justification included reduced maintenance and labor**

System Highlights

Applied technologies and system features include:

- **LVDTs (Linear Variable Differential Transducers) to measure dimensions used to verify part placements**
- **Torque and angle monitoring of fastening integrity**
- **Pressure decay leak test to verify integrity of O-rings placement**
- **Data logic controller to monitor quality and route parts to repair spur station for evaluation**
- **RF tag communication for process data tracking**
- **Automatic component feed systems**
- **Modicon PLC control system for all operations**

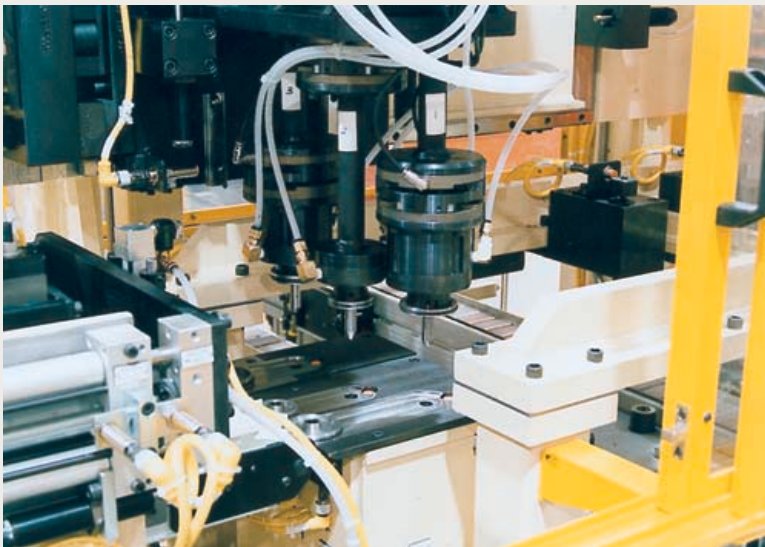
Chain Cover Assembly System

DT ASSEMBLY
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▲ This station assembles the piston to the housing and performs a pressure-decay leak test to verify proper placement of the piston and integrity of the O-ring



◀ Special compliant tooling centers the piston for exact location prior to insertion

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System Overview

- Non-synchronous, palletized assembly and test system
- 37' long; 10' wide
- 94' of conveyor; 23 pallets
- 13 main stations: 5 automatic, 1 manual load, 4 manual back-up, 1 off-line manual press station, 1 repair spur station, 1 final assembly station
- Automatic transfer of finished product to final assembly line
- Verification-In-Process (V.I.P.) assembly operations

Take the Next Step.

Please contact us today to discuss your application and explore profitable possibilities.

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