

*This non-synchronous assembly and test system was conceived, designed, built, and integrated by Assembly & Test – N. America (AT-NA), a division of DT Industries. The strategy of multi-division partnership is clearly evident in this DT Industries customer solution.*

*AT-NA drew upon the capabilities of Detroit Tool & Engineering, another DT Industries Division, to produce and integrate the intricate staking stations. The customer benefited with a complete system solution from a single manufacturing source instead of trying to integrate elements from a variety of suppliers. The benefits also include streamlined discussions, correspondence, project reviews, logistics, scheduling, and start-up coordination.*



### **System Values & Benefits**

- **Precision process capabilities reduced scrap**
- **Conveyor system provided for entire process of wash, assemble, and test**
- **Franchised design allowed reduced cost and risk on multiple systems**
- **Turn-Key responsibility included full installation and start-up**
- **Part handling equipment greatly improved ergonomic conditions with heavy parts**

### **System Highlights**

- This heavy-duty assembly and test system uses 100 lb. stainless steel pallets to accommodate parts weighing up to 80 lbs. System technologies and features include:*
- **Precision pressing of various components with exceptional repeatability**
  - **Handling of large components with integral contact to datum surfaces to ensure process capability**
  - **Adaptation of pallet and conveyor system to allow part washing after loading**
  - **High pressure burst and pressure decay leak testing of the assembled compressor**
  - **LVDT (Linear Variable Differential Transducer) to verify exact position of components**
  - **Load cell to monitor press forces**
  - **Torque and bolt angle verification**
  - **Test stations to ensure function and proper flow of each compressor**

# Residential Compressor Assembly System

**DT** ASSEMBLY  
& TEST N. AMERICA  
INDUSTRIES

Talented People ➔ Right Solutions



Heavy-duty, non-synchronous ▲ conveyor system uses Allen-Bradley PLC5 control system. Each part and pallet, totalling nearly 200 lbs., is transferred through various assembly and test operations.

◀ This sophisticated leak test station verifies product conformity to the quality requirements of the process.

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A Division of DT Industries  
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## System Overview

- Non-synchronous, palletized assembly and test system
- 200' long; 90' wide
- 1400' of conveyor; 200 pallets
- 25 automatic or semi-automatic stations
- 25 manual stations
- 28 operators

## Take the Next Step.

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

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