

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
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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.

Assembly & Test – North America
A Division of DT Industries
www.dtindustries.com

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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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