

TELECOMMUNICATIONS APPLICATION



Transformer Assembly System

A scalable, modular, and flexible series of assembly systems with a phased in approach to automation

An emerging Telecom firm had secured a significant long-term contract and was challenged with meeting production demand. Each system was required to process 5 different products from the product family. Additionally, since the customer had little exposure to automation equipment, Demco Automation partnered with them to develop a low risk scalable automation strategy. All processes were currently being done with manual labor.

Implementation Strategy

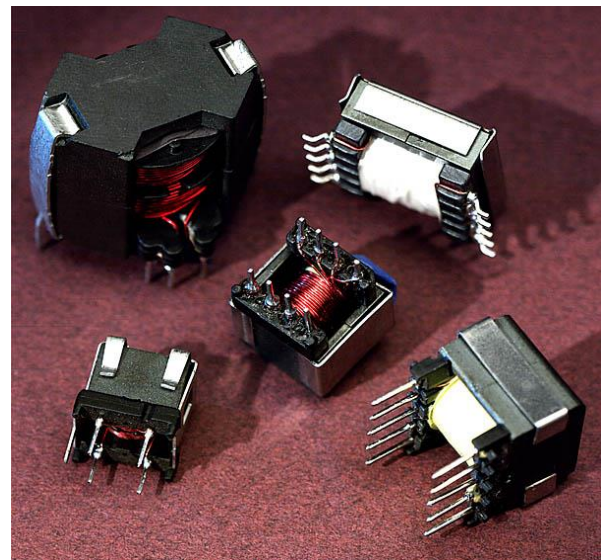
In order to understand the current assembly process and assembly nuances the operators were experiencing, Demco Automation and the customer identified several key steps in the process that were causing particular pain in the operation. Wedge Station Bench Top Units were developed for these operations first, while concurrently manufacturing 16 base chassis back in our production facility. By implementing the Wedge Stations with Operator interaction first, improvements to the process were realized in a very short time period. Additionally, part conformance issues were evaluated before a fully automated process was introduced. In parallel, the customer worked diligently with their suppliers to bring the components within specification.

From manual to full automation

In the final phase, 16 Base Machines were delivered to the customer with the balance of Wedge Stations required to complete the assembly process. During the installation of the systems, the existing bench top units were reused by plugging them into the Base Machine. This approach minimized project risk, provided immediate benefits to production by the implementation of bench top stations first, and realized a shorter ROI by reusing stations in the fully automated process.



SD-10 Base Chassis with integrated SCARA robot, feeders, and Wedge Stations



5 product styles processed on (16) tooled SD-10 Base Machine Chassis

System Details

Base Machines:

- SD-10 10-Station Dial System (16 duplicate systems)

Wedge Stations:

- Clip Insert (1)
- Light Duty Press (1)
- UV Adhesive Dispense (1)
- UV Cure (1)
- Lift & Rotate (1)
- Electrical Test (1)
- Label Apply (2)
- Offload (1)

Cycle Time:

6 seconds

Location:

USA

Scalable and modular automation reused in each phase for maximum ROI

