

MEDICAL DEVICE APPLICATION



Medical Connector Assembly System

A custom assembly system that assembles a family of connectors and batches for pack-out

In order to meet production demand for a high-mix medical device connector, a customized assembly solution was developed. The system was required to process approximately two dozen different styles within the product family.

Implementation Strategy

In order to process the variations, the system was designed to transfer parts using common features, thus eliminating the concern for the many fitting variations, which is one of the products main features.

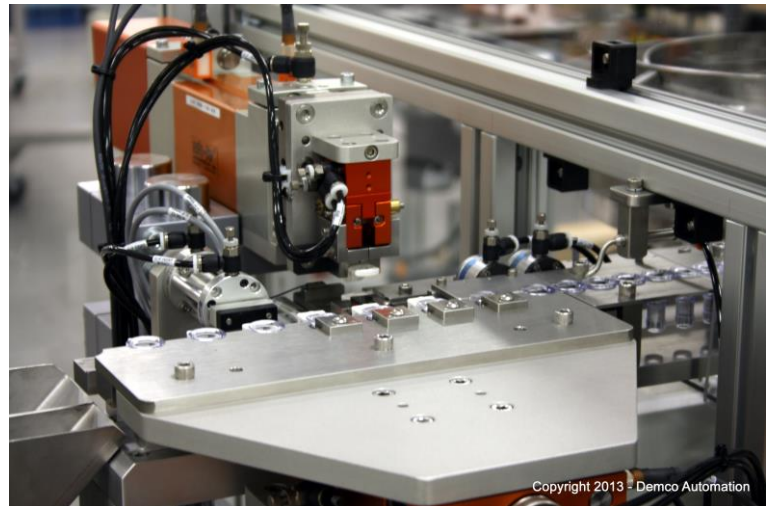
Demco Automation and the customer worked together to analyze the product offering to determine the maximum number of variations that could be processed in a reliable and cost-effective way. This approach eliminated low volume variants with features that increased cost and complexity of the equipment with the added benefit of no tooling changeover.

By working together with our customer, the following benefits were realized:

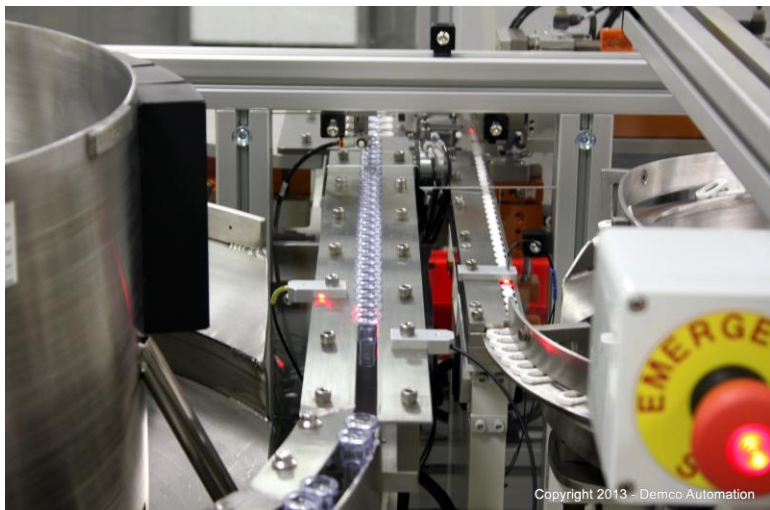
- Minimize project risk
- Increase system uptime
- Eliminate tooling changeover
- Meet project cost objectives
- Pre-count batches for shipment

Automatic Batch Counting

The system includes a programmable batch size feature to prepare work orders for downstream packing and shipping. Parts are queued in a containment area and dropped into production totes when ready for removal by the Operator.



A compact cell with integrated walking beam transfer, feeders, insertion station, and batch counting



Dual bowl feeders tooled to process approximately two-dozen product variations

System Details

Base Machine: • Custom Walking Beam

Processes:

- Vibratory Bowl Feeders (2)
- Part Insert Station (1)
- Good Part Offload (1)
- Reject Offload (1)
- Programmable Batch Counting (1)

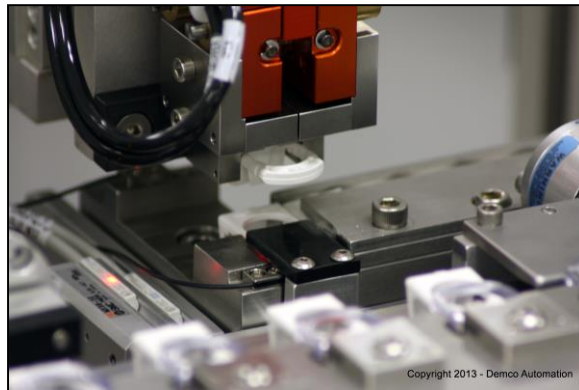
Cycle Time: 1.7 seconds

Location: USA

Simple and reliable pneumatically-actuated mechanisms for easy maintenance that is ready for domestic or off-shore manufacturing



Automated batch counting



Part insertion mechanism