

Brake Caliper Assembly System

Assembly and Test Worldwide has installed multiple Brake Caliper Assembly Systems in a major supplier's facility in the Southern United States. These systems have been producing the highest quality brake components since 1996. The systems utilize a synchronous dial index machine with flexible tooling for various models and with left/right-hand capability. The systems run with a unique combination of manually loaded bulk parts with the remaining processes including assembly and qualification being fully automated. The efficiency of these systems has allowed this supplier to both maintain and add programs from major OEM's.



System Overview

- Dial Index Assembly Machine with up to 10 stations.
- Welded Steel Base Frame providing an exceptional stable machine in both alignment and rigidity.
- Aluminum Extrusion Guards that meets all OSHA standards.
- Allen Bradley Controls provide machine sequencing, comprehensive operator interface and interlocked machine monitoring.
- Seal Pressing with complete monitoring and optimized tooling positions for minimized defects.
- Bleed Screw & Bolt driving with torque and angle monitoring.
- In Process Verification (IPV) starts with validation of loaded components and continues throughout the assembly process to prevent scrapping value added parts.

System Values & Benefits

- Produces Quality Brake Calipers
- 98% Uptime
- Low Maintenance System
- Reliable Equipment Concept

System Highlights

- Automatic Barcode Labeling
- Bolt Torque Monitoring
- Press Force Monitoring
- Press Distance Monitoring
- Vision Inspection
- High Pressure Leak Test
- Bar Code Scanning
- Left/Right Hand Caliper Flexibility
- Multiple Model Assembly
- Functional Drag Test of Caliper
- Heavy-Duty Auto Unload
- 15 Second Cycle Time