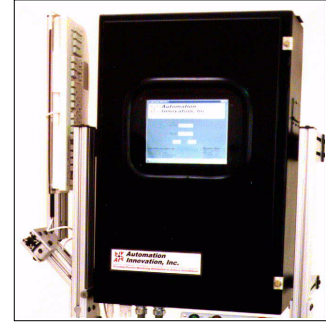


Assembly and Inspection



App Note 1014

Reduction of PPMs

Verification of QC during assembly

Additional Applications Notes Available

Situation

A leading manufacturer of industrial table saws needed an automated system that would ensure that an aluminum cast table saw top was formed and machined to specified tolerances before other components were assembled to it.

Solution

Automation Innovation created an automated machine to measure and dimensionally gauge machined surfaces of the table as well as gauge the final assembly.

An operator manually loads into the machine a table saw top. The machine automatically clamps the table into a fixture while LVTD's measure machined areas of the cast table. If these areas fall into the specified tolerances, the operator loads into the machine the motor mount bracket and motor. The machine automatically gauges and aligns the placement of the motor and mount to be assembled to the table top through the use of additional LVTD's. Once the components to be attached are perfectly aligned, the operator attaches these components to the table top using a nut runner.

The assembly is measured and gauged a final time after components are assembled and

torqued down before the table top is removed from the machine.

A key factor in assembling the table saw is that the flatness of the table remain constant as additional components are attached to the table saw top. The machine assures that the flatness specification remains within tolerances during final assembly.

Other Products

- Process Monitoring
- Press Monitoring
- Gauging Systems
- OEM Heat Treat Monitors
- Robotic Assembly/Verification Systems
- Packaging Systems
- Engineering Services

Providing Process Monitoring Automation to Achieve Zero-Defects

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