

# ASSEMBLY LINE TEST MODULE REDUCES TEST TIME

All in-one moving test module uses collapsing panel style guarding for easier handling and provide safety.



## SOLUTION

- One simple electrical hookup provides up to four voltages
- Collapsing guarding covers the machine
- One master control panel
- Wireless barcode scanners
- PLC decodes the model scanned and determines which test parameters to use

## RESULTS

- The new system eliminated quality issues
- Greatly improved safety
- Competitive advantage in marketplace

## PROJECT SUMMARY

At Pieper Automation, we pride ourselves in our unique ability to provide complete industrial automation/controls solutions & services for our customers, including on-site support, integration of machines/systems, new equipment design and machine upgrades. Along with our custom assembly machine manufacturing and panel building, we deliver you a seamless solution – from one supplier.

Pieper Automation's customer was looking for a solution to consolidate testing and improve cycle time of a high volume product used in commercial and residential applications.

Pieper Automation's design team met with the customer's team to learn and understand the challenges they face during the final stage of their key product. The customer found our solution would work best to meet all their needs and Pieper Automation designed and built multiple Assembly Line Test Modules to test laundry equipment.

The team designed in one simple electrical hookup to provide up to four different voltages depending upon the washer model number. After specific manual electrical and water connections are made, the test module runs the washer units through a series of wash, rinse and spin cycles.

The test module consists of a frame weldment, which supports the electrical enclosures – power switching and remote I/O enclosures, an operator touchscreen mounted on a swing arm, electrical hookup for required voltages suspended overhead, waterline hookups for 5 lines to simulate soap, hot and cold water supply suspended overhead with individual valving and meter sensing. Guarding covers both sides and the back of the wash machine.

The entire test cell area has one master control panel, utilizing a Rockwell Automation ControlLogix safety PLC. The Remote I/O panel has PLC input and output hardware for monitoring guard status, water flow and power, as well as control of valves. Flow sensors on each test cell detect flow in each water line of the test cell. The Operator Interface panels have the base of the wireless barcode scanners mounted to it. The PLC decodes the model scanned and determines which test parameters to use.

Pieper Automation provided all engineering, design, installation and startup.



**WE ALWAYS FIND A WAY**

[www.pieperautomation.com](http://www.pieperautomation.com) | (262) 879-8400 | [sales@pieperautomation.com](mailto:sales@pieperautomation.com)