

BAG MACHINE INSPECTION RELIABLE AT 100 FPM

Inspection of foreign particles and inspection of seal location to assure the knife cuts the appropriate place with 100% accuracy



SOLUTION

- Line Scan Cameras inspect for foreign particles.
- Area Scan Cameras inspect for seal position/location
- PLC programming for vision rejecting and data collection
- Operator interface enclosure with flat screen monitor, camera/light mounting hardware and field termination panel
- Industrial VPN router included to provide remote support

RESULTS

- The new system eliminated quality issues
- Customer realized payback in less than 6 months

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 designed a system to perform two types of inspection on poly bag machines. The web width maximum is up to 1000mm and the line speed of the bag machine is up to 60 fpm with surges of up to 100 fpm. The number of bags inspected is 100/minute. The required accuracy for defect detection is 0.2mm².

The first inspection uses Line Scan Cameras for foreign particles. Cameras are located over the process after the seal inspection. Foreign material (dark defects) 0.2mm² and larger are identified. The cameras and lights are stationary and are continuously triggered looking for defects but no inspection is done in and around artwork/printing. When a defect has been identified, the vision system sends a signal to the machine controls and the product is tracked until culled.

The second inspection uses Area Scan Cameras and determines the location of the seal area to assure the knife cuts at the appropriate location. This inspection occurs on the cycle before the bag indexes to the knife.

The system boasts a PLC for data collection and reject system operation, operator interface enclosure with flat screen monitor, camera & light mounting hardware and field termination panel. Also an Industrial VPN Router is included for Pieper Automation to provide remote support.

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



WE ALWAYS FIND A WAY

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