

MartinCSI Case Study

Sensors Help Provide a Higher Quality Product

An Ohio-based animal feed company adds sensors to their production line to help keep quality product moving



The Challenge

An Ohio-based animal feed company noticed some of their feed bags were not completely filled to capacity before being put on a pallet for the delivery trucks. After careful examination of their production line, they noticed some feed would spill out of the bag when it was laid down horizontally after the sewing portion of the production process. At times, the sewing machine wasn't completely sealing the bag shut, and there was no way of determining this had happened, until it was too late. The feed company wanted to ensure their customers were getting the full amount of quality feed in each bag.

The Solution

Initially, the feed company wanted to put in a laser profile sensor that would detect the thread of the bags to make sure they were being sewn accurately. Their current line equipment made it difficult for a system like this to

be installed within their budget and timelines. MartinCSI recommended Omron E32 and beam fiber optic sensors be installed at the transition point where the bags were laid down horizontally on a conveyor after being sewn. The sensors would detect if any feed had fallen from the bag in between the transition point, if it had, the line would stop so production workers were able to remove the bag.

The Result

- Sensors were able to be applied to the existing equipment infrastructure.
- There was no downtime to the line because the installation of the sensors were done during production time.
- Now, operators don't have to emergency stop the line if they notice the spill. The sensors easily detect a spill and will stop the line automatically.
- Decreased amount of open bags placed on pallets.

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The Technology

OMRON

For over 30 years OMRON has been a supplier of fiber optic solutions to leading manufacturers, especially in the semiconductor, the consumer electronics and the car electronics industry, as well as for food packaging and small plastic parts production.

Area monitoring fibers allow the detection of objects passing anywhere through the detection range and can be used for height comparisons of various objects.

The Smart Power Control function detects the decrease in light intensity due to LED aged deterioration and the decrease in incident level due to dirt, then automatically compensates the optimum detection condition. You get maintenance-free operation that withstands the ambient environments.

Smart Power Control



Area Sensing
Fiber Head

Source:
Omron and
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