



Industry:

Food and Beverage



Applications:

Carton fill accuracy and carton seal integrity for case packers and cartoners



Problem:

Failure to properly fill cartons with the required amount of product results in costly product returns and loss of retailer and customer confidence in the brand. Ensuring proper product placement and quantity in cartons is important to maximize profits and customer satisfaction. 100% inspection is required to ensure proper fill and seal.



Omron "FACTS" Advantage

F160-2 Vision Sensor F210 Vision Sensor

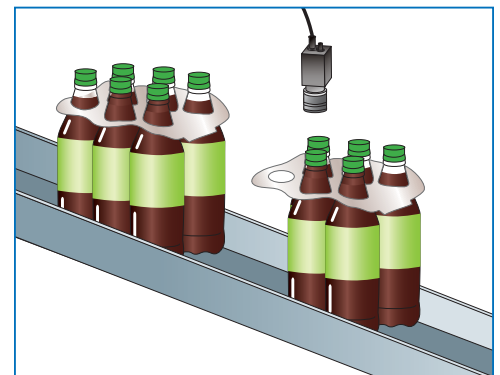
Omron's powerful, versatile and easy-to-use vision sensors feature simple setup and configuration with step-by-step, menu-driven procedures that walk you through the setup process to ensure the best possible inspection results. Both vision sensors feature accurate edge detection and measurement functions that deliver reliable, accurate results in cartoning inspection applications to verify:

- Product fill count
- Package positioning
- Seal integrity

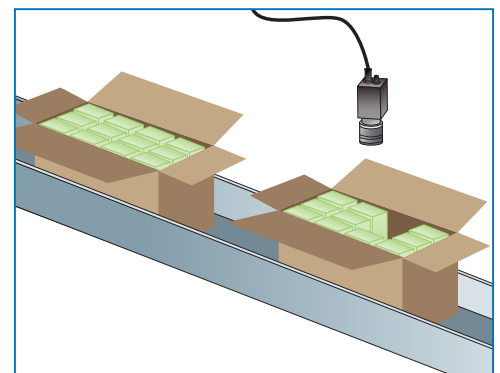
Inspections are automatic and 100% reliable. Highly accurate profiling tools built into the vision sensor detect complex carton sealing defects and log the results for real-time data trending and SPC data collection.



Application Diagrams



Detecting case packing of bottles.



Detecting carton packing of boxed product.

Carton Fill/Seal Inspection Application Details

Issue

Despite their capabilities, automated or manual case packers or cartoners can sometimes fail to insert the proper number of packages in a carton. Under-filled or improperly sealed product cartons leave customers feeling cheated or uncertain about the quality of the goods inside and can even cause product recalls. That's why it is critical that each single or multi-pack carton gets fully inspected. Fortunately, this type of packaging inspection can be reliably implemented using simple vision sensors with built-in measurement and edge inspection functions.

Cause

The most common causes of under-filled cartons or boxes are jammed feeder lanes, misaligned products that cause grippers to miss, empty queues or fatigued workers. Damaged packaging or cartons may also cause incomplete filling.

Omron's Unique Solution

Omron's highly reliable vision sensors provide 100% verifiable inspection to ensure that each carton is properly filled, eliminating the need for unreliable manual quality inspections.

Both the F210 and F160-2 vision sensors feature powerful profiling tools that help detect defective cartons. Both sensors accept images from two cameras simultaneously, allowing the user to perform inspections on two sides (i.e. the top and side of the carton) at the same time.

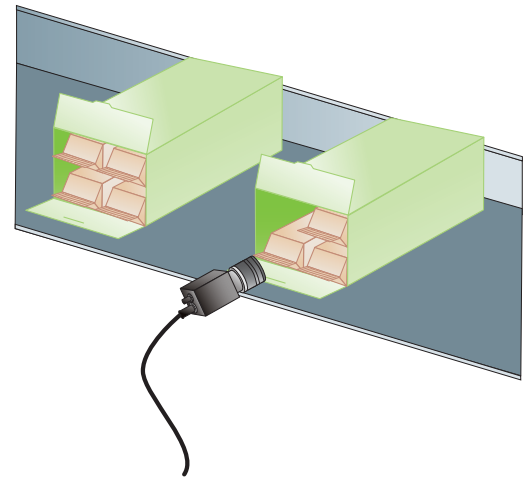
For multi-position cartons, multiple inspection regions can be assigned to allow better tracking of which individual zones are failing.

Real-time data monitoring and live video from the sensors makes it easy to see and understand quality trends on an external monitor and act on them immediately.

Omron's unique ability to offer a total automation solution, not just a vision product solution, is backed by our expertise integrating inspection with control systems. We offer local, national and international support to develop solutions and support our customers.

Results

100% verifiable inspection prevents under-filled defective cartons from reaching customers. Eliminate costly manual inspection and automatically log data for use in SPC analysis and trending. The F160-2 and F210 both provide easy-to-use, step-by-step menu driven setup software that walks experienced and inexperienced users through the entire setup process. No PC or software is required. All setup and configuration is accomplished using a small hand-held keypad.



Carton size detection



Missing foil pouch



Missing pack



Missing bottle

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