

INTELLECT EMPTY CAN



VISION INSPECTION SOLUTION FOR EMPTY CANS

The **Vision Inspection Solution** is an automated machine vision system for canning lines. The system inspects every can to prevent defective cans being sent to the filler. The solution incorporates comprehensive, robust empty can inspection (ECI) algorithms that detect defects and contaminants in empty cans to ensure that only flawless cans reach the filler and seamer, eliminating excessive downstream value-add losses. The dual circular LED top lighting module uniformly illuminates the empty cans and inspects the flange, inner sidewall and base. A complementary rejecter removes defective cans from the production line. The system's reliable high-resolution industrial cameras, long-life LED strobes and unique image inspection algorithms perform pinpoint can inspection for lines operating up to 2,000 cans per minute (CPM). Inspecting cans for defects reduces waste and increases efficiency of the entire downstream production process. It provides improved product quality and greater brand protection. The solution is easily set up for a variety of can types and can be configured with a wide range of INTELLECT's complementary applications and modules.

SOLUTION FEATURES

- ▶ The Vision Inspection Solution's proprietary ECI software algorithms detect:
 - Grooves, wrinkles and coating defects
 - Visible cracks and holes
 - Oil, grease and stains
 - Improper shape
 - Foreign objects
 - Bent, dented or cracked flange
 - Short or missing flange
 - Metal slivers
 - Clip-outs
- ▶ Compact machine footprint fits the line with minimum engineering and line disruption
- ▶ Straightforward integration with other FILTEC products creates a single window to the process
- ▶ Integrated alarms, counters and system diagnostics supports sequence of events analysis
- ▶ Data transfer to a host Manufacturing Execution System (MES)
- ▶ Input/output signal exchange with a PLC-based line control system

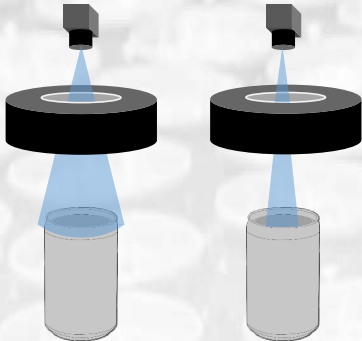
SOLUTION BENEFITS

- ▶ Less downtime due to reduced seamer jams
- ▶ Compact, versatile form factor easily installs onto existing lines, avoiding line reconfiguration and additional installation costs
- ▶ Fast inspection rate allows line speeds to be run at maximum throughput rates
- ▶ Increased line efficiency and productivity
- ▶ Protects both brand and consumer loyalty

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INTELLECT™ EMPTY CAN OPTICAL MODULE



The Vision Inspection Solution for Empty Cans uses a dual circular LED top lighting to illuminate the inspection area for empty can flanges, surfaces and bottoms.

The optical module includes two grayscale cameras with two ring LED ring strobes and one optical sensor for continuous monitoring and statistical analysis of container integrity.

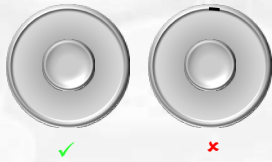
INTELLECT INSPECTION SUPPORT UNIT

High-accuracy encoders and optical sensors accurately track every container through each inspection module through to the rejecter. The Inspection Support Unit synchronizes data from the inspection modules and checks them against threshold reject limits set by the operators.

Data from all the inspection modules analyze and summarize the quality of each container. Rejected containers are tracked and directed to a specific rejecter where they are removed from the line.



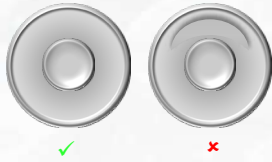
DEFECT DETECTION CAPABILITIES



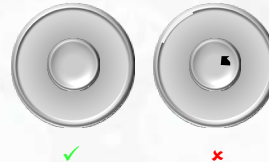
FLANGE CONTAMINATION:
Check foreign material on the flange



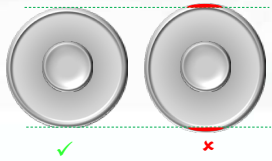
DAMAGED FLANGE:
Detect dented and clipped flanges



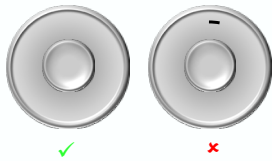
INNER SIDEWALL DAMAGE:
Detect dent on inner sidewall



CONTAMINATION ON INNER BOTTOM
Detect dented and clipped flanges

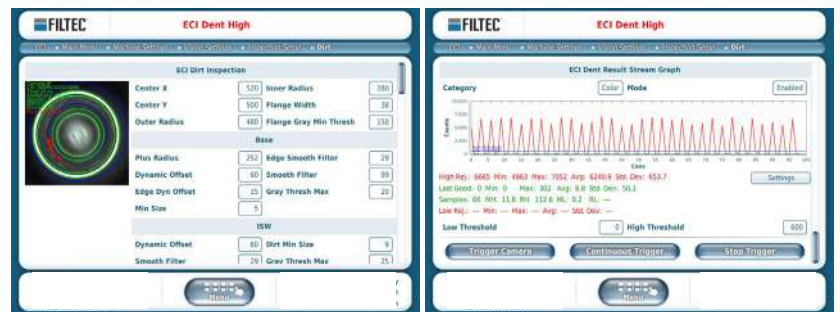


NON-ROUND FLANGE:
Detect deviation from Round



CONTAMINATION ON INNER SIDEWALL
Check for foreign material on the flange

COMPACT VISION CLOSURE SOLUTION OPERATOR DISPLAYS



Delivering superior inspection solutions for the food and beverage industry for over 60 years
Contact us to find out how this solution can meet your packaging challenges

PUT INTELLECT ON YOUR PRODUCTION LINE

In line with its policy of continuous improvement, FILTEC reserves the right to revise or replace its products or services without prior notice. The information contained in this document may not represent the latest specification and is for indicative purposes only.

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