E2M COUTH®
VISION SYSTEMS

POWERED BY AI + DEEP LEARNING



Technical specifications

EMPTY CAN INSPECTOR

Inspection system with **Deep Learning** of the top tab, walls, and bottom of empty cans.

- **Up to 140,000 cans per hour**
- **Equipped with VisioInspect 2.0**
- **Non-contact inspection**
- **Inspection of empty cans**

EMPTY CAN INSPECTOR

Empty Can Inspector is an inspection device focused on **ensuring** the **quality** of **empty cans** by performing three types of checks:

- Verification of the top tab of the can and its integrity.
- Verification of the structure of the can, checking its ovality.
- Inspection of the inside of the can to ensure the absence of defects and external contaminants.

Anomalies in the manufacturing process are detected using a top view of the can and **Deep Learning** (DL) algorithms.

This system allows the parameters and characteristics that define the containers correctly to be set **quickly and easily**, and through simple training, to classify between correct and incorrect cans.

This solution is equipped with VisioInspect 2.0 vision software, developed by E2M COUTH®, capable of checking for any defects, regardless of the speed of the production line. The inspection platform offers the user the ability to configure formats efficiently and easily.

Advantages

- High-performance production, up to 140,000 UPH.
- Exclusive tools to control the top flange.
- Exclusive tools to control the integrity of the can (ovality).
- Proprietary AI tools.
- Easy installation on existing conveyor.
- Quick and easy format change.
- Robust, compact, and durable design.
- Minimal maintenance.
- Scalable configuration.
- High precision (low false rejection).
- Connectivity to MES or ERP.
- Real-time inspection performance data and graphs.
- Software configuration by user levels.

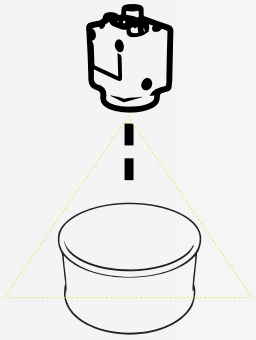


Supported containers

The system is capable of inspecting any type of 2- or 3-piece can with the following dimensions:

- Height: 30 mm – 120 mm (optionally up to 190 mm with special optics).
  Diameter: 60 mm – 100 mm.

Camera layout



Typical inspections

Top tab:
- Ovality
- Deformation
- Dirt, scratches

Side walls:
- Dirt
- Dents or deformations
- Lack of varnish

Bottom:
- Foreign objects
- Dirt
- Lack of varnish

Features

- Stainless steel enclosure.
- Container position control via sensor and encoder.
- Intuitive user interface.
- Remote control via the internet and remote diagnostics.
- Parameters and tolerances accepted for each format.
- Use of artificial intelligence tools.
- Model retraining options available.
- Real-time production statistics.
- Automatic height adjustment.
- Software capable of managing rejection and external inspection signals.

Industries

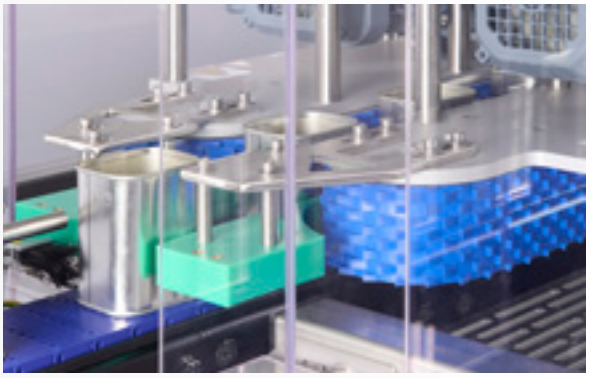
- Metallographic
- Beverages

Additional options

Additional cameras

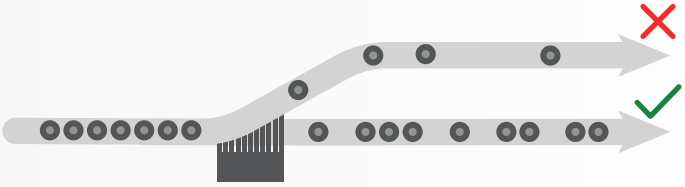
ECI HC option: Increase in container height up to 190 mm.

Side band separator

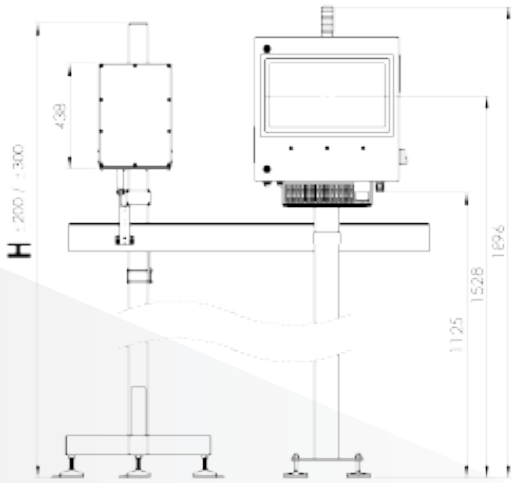


Rejection systems

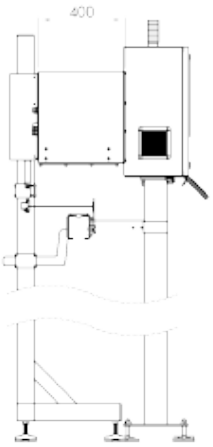
- Blow-out or push rejection equipment.
- 3m conveyor finished in AISI 304 and controlled by a variable speed drive integrated into the control cabinet.



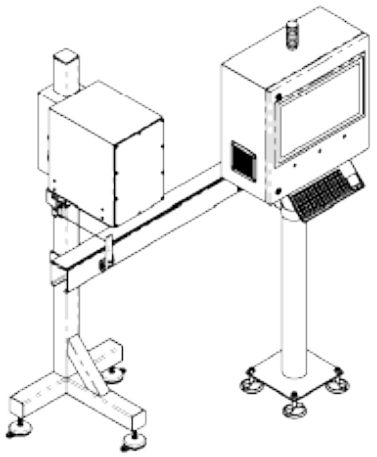




Front view



Side view



Top view

EMPTY CAN INSPECTOR

Description	ECI DL	Option ECI HC
Part number	A301400100	A301400200
Camera	High resolution color	
Software	VisioInspect 2.0 with DL	
Lighting	Adjustable diffused LED lighting	
Computer system	Intel processor Windows IoT interface	
Monitor	21" touchscreen monitor	
Communications	USB/Ethernet TCP/Digital 4i/4o	
Maximum production	140,000	
Standard protection	IP65	
Power supply	230VAC or 110 VAC/1KVA	
Construction material	AISI 304 and laminated glass	
Encoder	HTL 2048 pulsos por revolución	
Power supply	230VAC or 110 VAC 1 KVA	
Mechanical restrictions	+-3mm descentrado producto	
Vertical height adjustment available	200mm	
Equipment dimensions	L530 X W660 X H1830	
Container dimensions (Field of view mm)	Inspection of cans between 35mm and 120mm in height. Inspection of cans between 60mm and 100mm in diameter.	Height increase up to 190mm

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