

ATSC-100D

BOTTLE ALUMINUM FOIL SEAL THERMAL INSPECTION SYSTEM

“เครื่องตรวจสอบความสมบูรณ์ของซีลฟอยล์อลูมิเนียมบนขวด”



HIGH-ACCURACY
DETECTION
> 99.5%



HIGH-SPEED
INSPECTION
120 bottles/min



THERMAL IMAGING
TECHNOLOGY
120,000-Pixel
Thermal Camera



AI-POWERED
VISION INSPECTION
Self-Learning Algorithm



WIDE RANGE OF
APPLICATIONS
Suitable for bottles, caps,
seals, liquids, powders,
and more.

Alliance Technology Co., Ltd.

ATSC-100D

BOTTLE ALUMINUM FOIL SEAL THERMAL INSPECTION SYSTEM

The Aluminum Foil Seal Quality Inspection System is designed and provided by **Alliance Technology Co., Ltd.** This inspection system integrates various advanced technologies and functions, including **Linear Motion Control, Thermal Seal Foil Inspection, PLC Communication, and Database Management.** It is specifically developed for the quality inspection of products utilizing **induction aluminum foil sealing technology** and is capable of performing comprehensive inspections on products with a wide range of bottle cap sizes and aluminum foil specifications.

The system is capable of inspecting products with various fill types, including tablets, soft and hard capsules, liquids, and powders. It supports the inspection of multiple aluminum foil configurations, ranging from single-layer aluminum foil seals to composite liners consisting of paper backing laminated with aluminum foil. The system also supports various bottle sizes with circular cap designs.

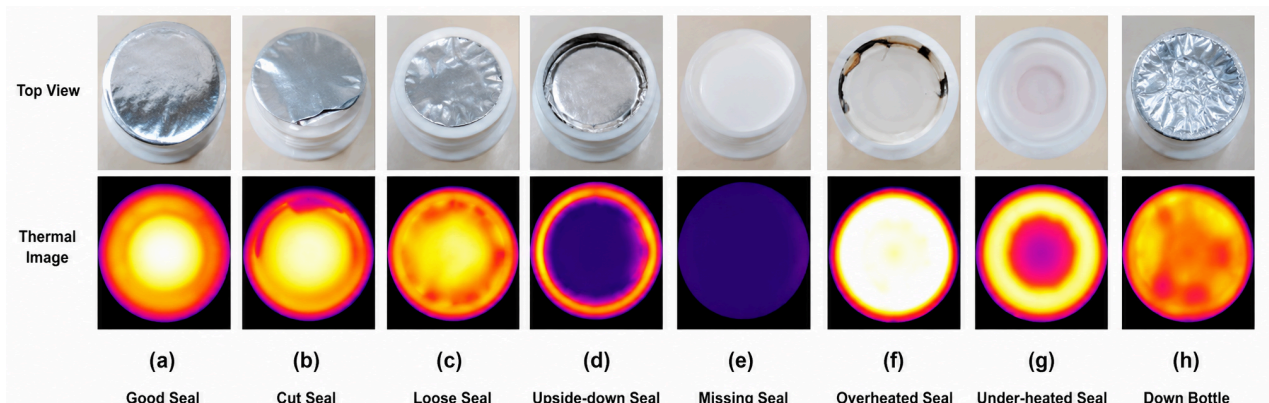
This system is dedicated to the quality inspection of aluminum foil seals. Immediately after passing through the induction sealing stage, bottles enter the visual inspection zone. Upon receiving signals from sensors, the system triggers industrial cameras to capture images and utilizes proprietary AI-powered visual inspection algorithms to analyze seal conditions. This process enables the system to automatically identify and reject products with defective aluminum foil seals, achieving efficient automated production quality control.

The thermal foil seal inspection system is capable of inspecting seals with varying diameters and heights while detecting a wide range of failure modes, including cut seals, loose caps, upside-down seals, overheated seals, under-heated seals, missing seals, and tipped bottles. Once a defect is detected, the defective bottle is automatically rejected from the production line.

In addition to defect detection and rejection, the system allows customers to utilize inspection image databases and production data for process analysis and continuous quality improvement. This helps manufacturers reduce production failures, minimize product loss, and improve overall production yield.

FEATURES :

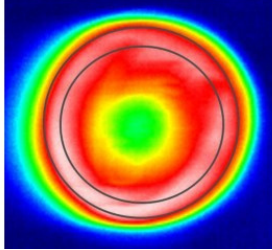
- Safe Design & User-Friendly Operation
- Competitive Pricing & Ready Stock
- The system utilizes a high-resolution thermal imaging camera to inspect foil seals immediately after sealing by an inline induction sealer.
- The system features an automatic pneumatic rejection mechanism and tracks products throughout the inspection process.
- The system is capable of inspecting up to 120 bottles per minute at a typical conveyor speed of 20 m/min.
- Integrated with AI technology and advanced computer vision algorithms for accurate defect detection.
- The software includes a self-learning function that supports various bottle sizes and shapes.
- The system demonstrates a detection accuracy of greater than 99.5% in production environments.



APPLICATIONS

Thermal Seal Foil Inspection :

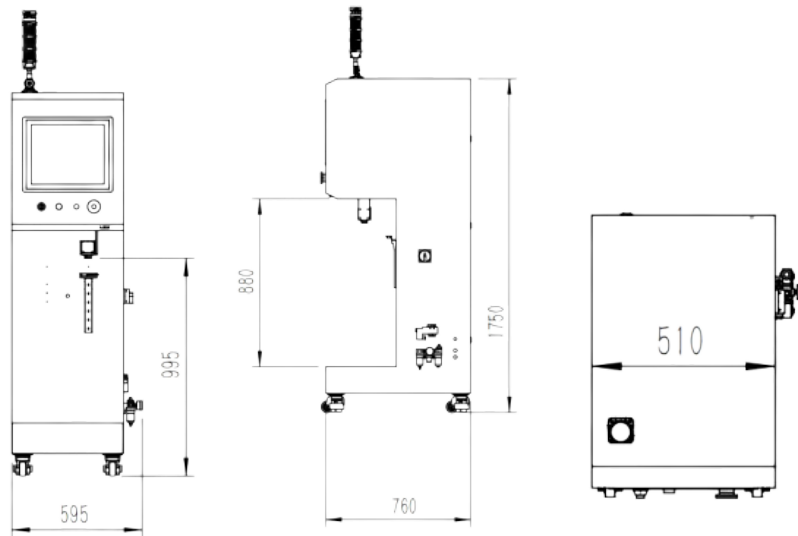
Designed for aluminum foil seal inspection applications, including the detection of cut seals, loose caps, upside-down seals, overheated seals, under-heated seals, missing seals, and tipped bottles.



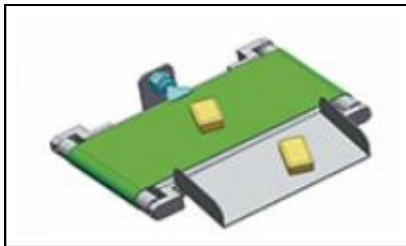
AUTO REJECTION SYSTEMS

Model# :	ATSC-100D
Applicable Cap Diameter :	Round Caps: Ø20-Ø100 mm
Applicable Bottle Size :	Height ≤ 500 mm; Diameter ≤ 300 mm
Maximum Inspection Capacity :	≥ 120 bottles/min (Actual speed may vary depending on product shape and size.)
Detection Accuracy :	> 99.5%
False Rejection Rate :	≤ 0.5%
Thermal Imaging Camera :	120,000-Pixel Thermal Camera
Servo Motor :	Panasonic
PLC :	Siemens
Screen :	17" Full-Color Touchscreen
O/S :	Windows 10
Self-learning function :	Supported
Operation Languages :	Chinese and English
Multi-levels management :	Supports three-level user access management for Operators, Engineers, and Administrators.
Automatic Rejection System :	Air Jet or Pusher Reject System
Material of construction :	SUS304 Stainless Steel
Surface Treatments :	Brushed
Working Environment :	Temperature: -5°C to 40°C; Humidity: 30-90% RH (Non-Condensing)
Power Supply :	AC220V ±10%, 50/60 Hz

OUTLINE DIMENSION FOR STANDARD MODEL FOR REFERENCE

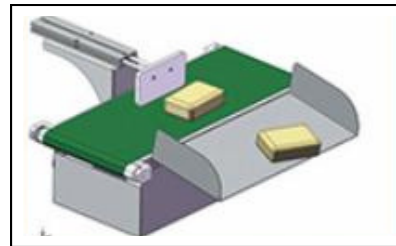


AUTO REJECTION SYSTEMS



AIR JET

Suitable for small, thin products with light weight, or high-speed line.



PUSHER

Suitable for small or large or thick packed products,

WATER COOLING ALUMINUM FOIL INDUCTION SEALING MACHINE + THERMAL INSPECTION SYSTEM

