



T4000-C

Single Sensor Compression
Inspection for leak detection
in plastic containers

Leak Detection for Flexible Containers

The TapTone 4000 Compression system inspects 100% of your containers at production line speeds. The TapTone 4000 Compression system will detect pin-hole leaks in plastic containers and tubes. When combined with optional sensors, this system will also perform fill level inspection, cap inspection and label detection.

Benefits

- Rapid on-line inspection: up to 1.52 m/sec (300 ft/min) maximum
- Accurate leak detection as small as 0.508 mm (0.020 in). Application and container dependent
- Easy operation & product set-up using a large color touch screen and icon driven menus
- Controlled access to system features with multi-level passwords
- Combined inspections on a single controller: Up to 4 primary inspections (Compression, X-ray, Proximity)
- Reject and sort with 2 independently operated reject outputs
- Meets CE requirements
- UL and CUL approved

Applications

- Leak detection in plastic containers
- Leak detection in tubes
- Leak detection in food/dairy cups

How It Works

Compression Technology

Detects leaks in plastic containers. As a container passes through the system, dual parallel belts apply force to the sidewalls of the container. This action compresses the head space of the container, which allows a sensor to take a force measurement at the discharge of the system. Utilizing DSP technology, the controller analyzes the measurement and assigns a merit value to each container. If the merit value is outside of the acceptable range, a reject signal activates a remote reject system.

Fill Level Technology

Optical Technology: The Optical sensor is used to measure fill level of water based products in glass and plastic containers. The sensor utilizes a special emitter/receiver infrared wavelength tuned to the absorption band of water. The beam is powerful enough to pass through most types of plastic and glass containers but will not pass through water based liquids.

X-ray Technology: The X-ray sensor is used to measure the fill level in steel, aluminum, glass, plastic and paper containers. An x-ray beam is focused in the expected fill level region of the container. As the x-ray beam penetrates the container, it is attenuated by the amount of product blocking the beam. The attenuation is proportionate to the fill level of the container.

SYSTEM SPECIFICATIONS

General Specifications

	TapTone 4000-C
Operating Speed (max)	1.52 m/sec (300 ft/min)
Standard Conveyor Height Range	60.9 cm-111.7 cm (24 in - 44 in)
Optional Conveyor Height (leg extensions)	111.7 cm-157.4 cm (44 in - 62 in)
Belt Opening (maximum)	177.8 mm (7 in)
Digital Outputs	8
Digital Inputs	4
Shaft Encoder	Aluminum or Stainless Steel
AC Line Voltage (standard)	230 VAC, 1-phase
AC Line Voltage (option)	460 VAC, 3-phase
Alarm Outputs	2 (multi-function configurable)
Reject Outputs	2

Material & Control Enclosure

Enclosure Environmental Rating	Stainless steel, NEMA-4X, IP65 rated
Transport Deck Materials	Aluminum hard coat
Frame Material Finish	Stainless steel
Touch Screen Display	25.4 cm (10 inch) color HMI

Software & Networking Capabilities

- Remote Diagnostics
- Supports Multiple Languages
- Stores Multiple Product Set-Ups
- Supports Industrial Ethernet Protocols (EtherNet/IP and Modbus TCP)
- Multi-Level Password Protection



TELEDYNE TAPTONE
Package Inspection Systems
A Teledyne Technologies Company

49 Edgerton Drive • North Falmouth, MA 02556 USA

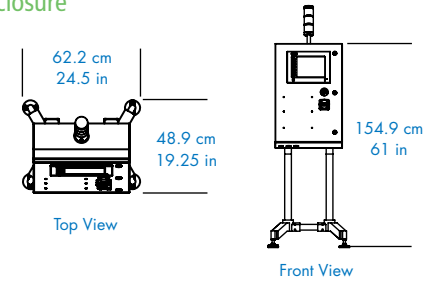
P: +1 508.563.1000

F: +1 508.564.9945

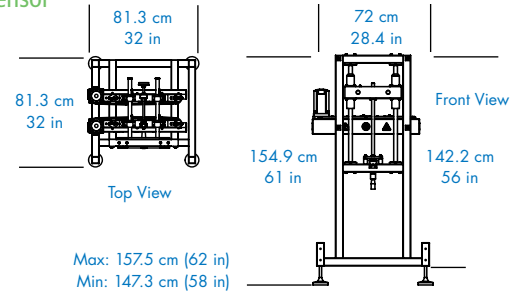
E-Mail: taptone@teledyne.com

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T4000-C Control Enclosure



T4000-C Sensor



T4000 C | System Options

Air Pressure Monitoring: Monitors and displays the air pressure at the rejector. Alarm signal will activate if the air pressure drops below user pre-set limits.

Cap Inspection: Inspection sensors for missing, high, or cocked cap detection can be added as an option. Both optical and camera systems are available.

Down Bottle Inspection: The Down Bottle Inspection sensors detect bottles that have fallen over on the conveyor and were not inspected.

Rejectors: TapTone offers a line of pneumatic ram and standing rejection systems.

Reject Verification: Detects a container that has failed the inspection but has not been rejected from the production conveyor.

www.TapTone.com