TapTone T550

T550 Sensor

Touchscreen inspection control that is cost effective and scalable. Compatible with several TapTone sensors.

Touchscreen Control / Versatile Inspection

The TapTone T550 user interface provides complete inspection control for a variety of compatible sensors including: fill level, pressure and vacuum. Utilizing a user friendly icon driven menu, the T550 offers a value-packed combination of features for fast product setup, changeovers, and reject tracking. The TapTone T550 is a cost effective and scalable solution for inspection of your plastic, metal and glass containers.

Benefits

- Rapid on-line inspection: up to 2,000 containers per minute
- Touchscreen icon driven user interface
- Combined inspections on a single controller: up to 3 primary inspections (Acoustic, Proximity, X-ray)
- Up to 4 digital inspections (missing cap, high cap, missing foil, vent tube kit, fill-level optical, missing labels)
- Floor and conveyor mount options for sensors
- Compact system for efficient production floor space utilization

Applications (Sensor Dependent)

- Vacuum inspection on metal cans with sanitary or pull tab ends
- Vacuum inspection on glass jars with lug caps or pop button ends
- Vacuum inspection on plastic containers with composite closures
- Pressure inspection on carbonated or LN2 dosed beverage cans
- Leak inspection on glass beer bottles with metal crowns
- Fill height inspection on glass, metal and plastic containers
- Flat sour detection
- Cooker protection

How It Works (compatible sensor technology)

Acoustic Technology

Acoustic technology measures pressure or vacuum in containers with metal closures that do not have a measurable lid deflection. The sensor applies a "tap" to the top of each container lid using an electromagnetic pulse, exciting the closure. The lid vibrates at a natural resonant frequency "tone" based on internal pressure or vacuum. The resultant "tone" signal is sensed by a microphone. The Digital Signal Processor (DSP) produces a real-time signal spectrum and calculates the frequency of the "tone" for that lid which is then compared to user set limits. Containers with a frequency outside these limits are rejected.

Proximity Technology

Proximity technology measures pressure or vacuum in containers with metal closures by measuring the lid deflection. The sensor produces a continuous magnetic field that monitors the distance between the sensor and the metal lid. The continuous signal is digitally sampled to produce a merit value of the lid profile. The profile value is then compared to user set limits. Containers with lid deflection outside these limits are rejected.

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.

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SYSTEM SPECIFICATIONS

General Specifications T550

Operating Speed	2,000 containers/min maximum for Proximity, X-ray and Digital Inspections 1,500 containers/min maximum for Acoustic Inspections
Analog Sensors	Acoustic, Cocked Crown, Single or Twin Proximity and X-ray
Digital Sensors	Four programmable digital reject inputs
Alarm Outputs	Two isolated relays (Ready and Fault programmable functions
Shaft Encoder	2,500 PPR, aluminum, IP65 Rated
AC Line Voltage	90-132VAC 47 - 63 Hz, single phase, 145 watts, auto select
	186-264VAC 47-63Hz, single phase, 145 watts, auto select
Reject Outputs	Three outputs: shaft encoder timing, adjustable pulse width, good signal
USB Ports	One external watertight USB socket, three internal
Operating Temperature	0º - 50º C (32º to 122º F)
Humidity	0 - 90%, non-condensing
Altitude	Sea level to 3,035 m (10,000 feet)

Material & Control Enclosure
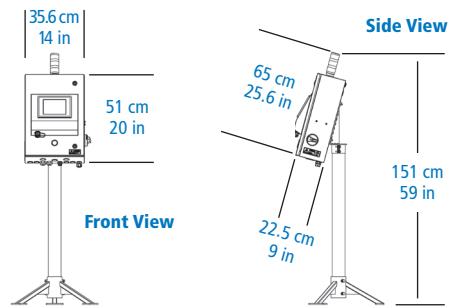
Enclosure Environmental Rating	Stainless steel, NEMA 4X, IP65 rated
Sensor Environmental Rating	Delrin® plastic and nickel plated, IP65 rated
Wash Down	Low pressure water
Human Interface	6.5" color touchscreen industrial PC, IP65 rated

Software & Networking Capabilities
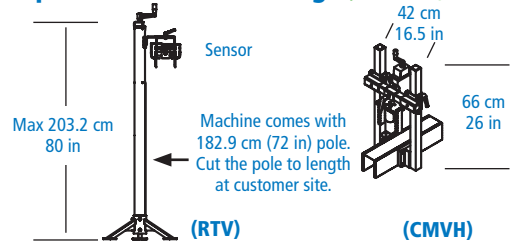
Product Types	Stores 99 product setups, supplementary storage on USB drive
Password Protection	Three password levels with 100 users
Screen Shot Pictures	Easy to store all screen shot images to USB drive
Product Backup/Restore	Saved to USB drive

T550 Control Enclosure

35.6 cm / 14 in
51 cm / 20 in
Front View
Side View
65 cm / 25.6 in
151 cm / 59 in
22.5 cm / 9 in

Optional sensor mountings (Acoustic, Proximity)

Sensor
Max 203.2 cm / 80 in
Machine comes with 182.9 cm (72 in) pole. Cut the pole to length at customer site.
(RTV)
42 cm / 16.5 in
66 cm / 26 in
(CMVH)

T550
OPTIONS

Acoustic Test Bottle
The test bottle provides a predetermined acoustic signal to benchmark the machine's performance. Designed for steel crown and ROPP closure applications.

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

Code Detection
Camera based sensor detects absence or presence of date, lot and batch codes.

Down Container Detection
The Down Bottle inspection sensor will detect a container that has fallen over on the conveyor and was not inspected.

Missing Cap
The Missing Cap sensor detects the presence of metal or plastic caps.

Proximity Test Can
The proximity test can provides a repeatable curvature for gauging the performance of the proximity sensor. Designed for beverage can applications.

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.

Vent Tube Detection
The Missing Vent Tube Kit includes tube detection sensors for the detection of metal vent tubes in plastic and glass containers.