*INSPECTION TECHNOLOGY*

# TapTone® 550

TELEDYNE TAPTONE
Everywhereyoulook™


## T550

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)
- 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.

# SYSTEM SPECIFICATIONS

## General Specifications

| | TapTone 550 |
|---|---|
| Operating Speed | 2,000 containers/min maximum for Proximity, X-ray and Digital Inspections<br>1,500 containers/min maximum for Acoustic Inspections |
| Analog Sensors | Acoustic, Cocked Crown, Single or Dual Proximity and X-ray |
| Digital Sensors | Two 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<br>186-264VAC 47-63Hz, single phase, 145 watts, auto select |
| Reject Outputs | One output, shaft encoder timing, adjustable pulse width |
| USB Ports | One external watertight USB socket, three internal |
| Operating Temperature | 0° - 50° C (32° to 122° 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 PC, IP65 rated |

## Software & Networking Capabilities

| | |
|---|---|
| Product Types | Stores 99 product setups |
| Password Protection | Six password levels with 100 users |
| Screen Shot Pictures | Easy to store all screen shot images to USB |
| Product Backup/Restore | Saved to USB thumb drive |

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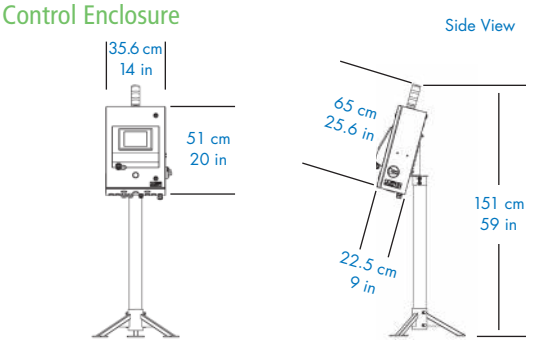
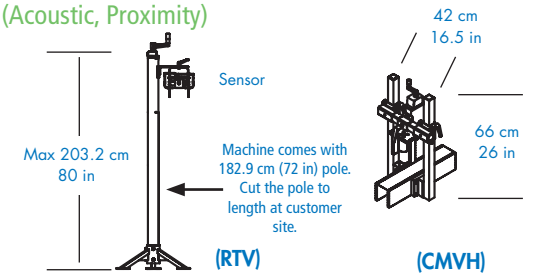
### T550
Control Enclosure




### Optional sensor mountings
(Acoustic, Proximity)




## T550 | System 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

www.TapTone.com