

# CAPS INSPECTION

## IT700

### Vision Inspection System

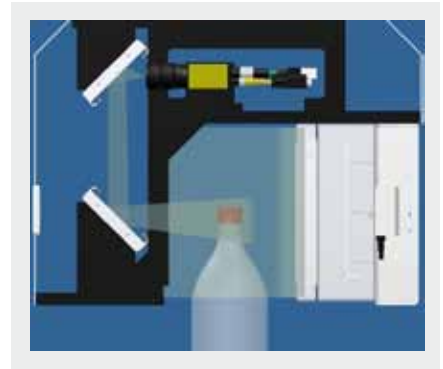
## IT700 Vision System for Cap Inspection

The FT System IT700 Vision system will detect cap defects on glass, plastic and metal containers. The system uses single or dual independent cameras to inspect each container at full production speeds. The ergonomic design provides easy access to the control panel and supports fast tool-less change overs. The system can be used for food, beverage, household chemical and personal care applications.

### IT700 VISION - TECHNOLOGY

#### Theory of Operation

The FT System IT700 Cap Inspection system uses an inspection unit to capture the image of each container. The unit includes the mirrors and a camera with microprocessor for image acquisition and processing and industrial optics. The enclosed inspection tunnel utilizes an analog light driver to control lighting intensity. As the container passes through the system the camera captures the image of the cap. If a container has moved laterally on the production conveyor, FT System special "dynamic position compensation" algorithm compensates for the movement of the container and adjusts the image. Each feature of the cap is then analyzed to determine if the feature is within the user defined tolerances. The systems advanced gauging tools can utilize the bottle neck ring or shoulder contour depending on the container design. This allows the IT700 to use a consistent reference point regardless of variations in cap height. The system will analyse the cap height in relation to the reference point at multiple locations across each axis. The system will also analyse the tamper band to determine if the band is damaged or missing.



The IT700 is ideal for detecting

- Misaligned caps
- Cocked caps
- Missing caps
- Missing tamper bands
- Damaged tamper bands
- Upper surface deformation
- Sports cap inspection

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#### CAMERA SYSTEM FEATURES

Stainless steel independent support structure for camera and illumination source.

Enclosed illuminator designed for uniform lighting of all closure surfaces

Strobing LED light source with analog light driver. Lighting intensity can be set for each container type to optimize image quality

Special optical group to compensate image deformations

Standard 1600x1200 (high resolution) cameras

#### CONTROL SYSTEM FEATURES

- Independent controller housing
- Microprocessor unit with integrated UPS (uninterrupted power supply)
- Ethernet communications port
- Industrial PC with 15" TFT touch screen monitor
- FT System Control Manager Software
- Simple user interface designed for easy set up and change-over
- Dynamic position compensation algorithm that compensates for containers that have moved laterally on the production conveyor. Software scales the image to improve image analysis
- Segregated data base for storage of historical production data for up to 18 months including storage of past failure alarms with date and time stamp.

#### ADDITIONAL INSPECTIONS INCLUDE

- Brand / Logo inspection
- Fill level inspection
- Lot code reading
- Bar code reading

