



## LABEL INSPECTION - IE4000-3D VISION INSPECTION SYSTEM

### IE4000-3D Vision System for Label Inspection

The IE4000-3D Vision system will inspect labels on cylindrical and non-round plastic, glass and metal containers. Containers can be in any orientation as they pass through the system. The IE4000-3D uses four independent cameras to inspect all surfaces of the 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.

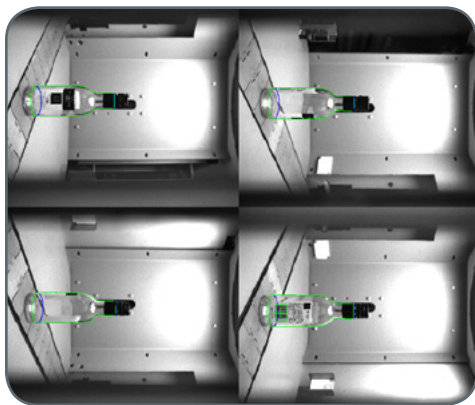
### Th3 IE4000-3D is ideal for detecting

- Confirmation of correct label
- Label absence or presence
- Label orientation and spacing
- Horizontal label placement
- Vertical label placement
- Label skew
- Label scuff or tearing



### IE4000-3D Vision Technology - Theory of Operation

The IE4000-3D Label Inspection system uses four independent cameras to acquire images of each container. The dome shaped inspection tunnel with analog light driver controls lighting



intensity. Special "dynamic position compensation" algorithm compensates for lateral movement of the container on the production conveyor. As the containers pass through the inspection tunnel the four cameras acquire an image of every surface of the container. The system uses the four images to generate a three dimensional model. The system then unwraps the model to inspect for defects. The IE4000-3D will inspect up to six

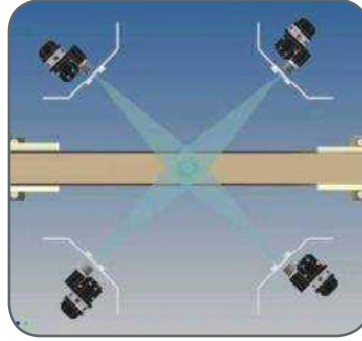


independent labels on a single container. Each feature of the label is analyzed to determine if the feature is within the user defined tolerances

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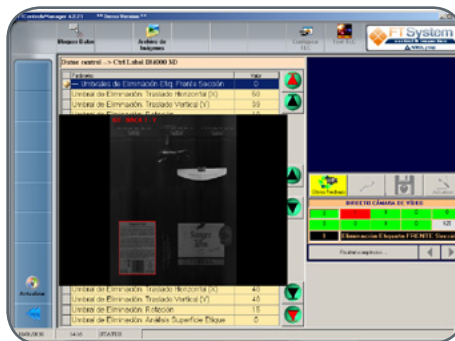
## CAMERA SYSTEM FEATURES

- Stainless steel support structure for camera and illumination source
- Four independent cameras spaced at 90 degree intervals
- 5 megapixel (high resolution) cameras
- Dome-shape illuminator designed for uniform lighting of all container surfaces
- Strobing LED light source with analog light driver - Lighting intensity can be set for each container type to optimize image quality and eliminate glare or shadows



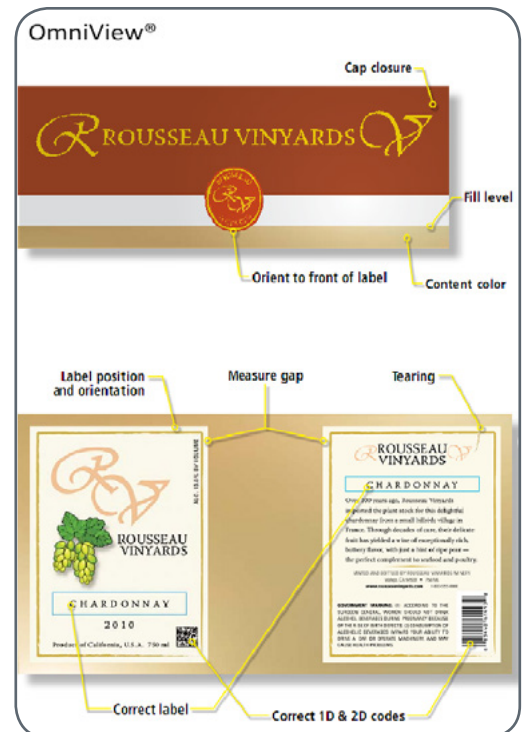
## CONTROL SYSTEM FEATURES

- Independent controller housing
- Microprocessor unit with integrated UPS (uninterrupted power supply)
- Ethernet communications port
- Industrial PC with 15" TFT touch screen monitor
- Control Manager Software
- Dynamic position compensation algorithm that compensates for containers that have moved up to one half diameter on the conveyor. Software scales the reconstructs image to improve image analysis
- Multiple level password protection
- 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

- Bar code reading
- Data matrix reading



Contact our experienced sales teams today for a comprehensive review of your application(s) and to see how the IE4000-3D Vision Inspection System can benefit your company.

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control & inspection