

MAJ Enterprises Presents from Cognex

Automated 360° Inspection for Bottling Lines



FT Systems specializes in the design and production of high technology inspection and control devices for use within bottling or packaging lines (water, beverages, wines, liquors, beer, milk, fruit juices, etc.). The secret of their success lies in their research and development of innovative and technologically advanced solutions to meet customer requirements.

OmniView from Cognex—created to meet customer needs

As an existing Cognex customer, FT Systems found it easy to choose OmniView®, an inspection solution system unique to machine vision. OmniView is a 360° bottle inspection system capable of constructing an accurate final image from four cameras placed on the line. The OmniView system has been integrated into the IE4000 label inspection machine from FT Systems. OmniView has eliminated the principal weak point of 360° inspection systems, which was the dependence on the quality of the final images resulting from the varying position of the bottles on the line. Using three-dimensional reconstruction, it is possible to generate one-dimensional images of the bottles, enabling label checks to be made as if the product was flat.

OmniView lowers the cost of the production line

The system adopted by FT Systems includes four cameras that can see the entire surface of cylindrical bottles in whatever position they may be. The OmniView software processes the four images and displays them in a single image compensating for any variation in position during movement along the line. OmniView eliminates the costly requirements associated with mechanical rotation of the parts, previously needed to inspect such containers. In this manner, it is possible to reduce the complexity of the production line, lowering the costs and increasing the production rate.

Advantages of OmniView:

- No need to rotate the parts to inspect them
- Entire surface of bottles can be inspected at the same time
- Full inspection can be completed without contact, at a speed of up to 1,000 ppm
- Solution relies upon Cognex advanced vision algorithms
- A more rapid and convenient alternative than linear cameras

A product dedicated to the bottling industry

By including the new system within an existing framework, it was possible to benefit from FT System's proven experience in label inspection in order to rapidly provide customers with a versatile machine. The applications range from identifying scratches or tears to inspecting printing to reading codes and inspecting optical character verification/recognition (OCV/OCR). The VisionPro® tool libraries built into OmniView combined with the experience of FT Systems have made it possible to create a product dedicated to the bottling industry.

Thanks to the IE4000-3D machines, FT Systems customers can guarantee perfect bottles reach the market with no labelling defects. The machine also meets the requirements of those customers who demand stringent precision in the labelling process, particularly when exporting to markets that are particularly quality-sensitive. Today, the FT Systems IE4000-3D machine with Cognex OmniView has produced optimum results satisfying the requirements of companies bottling wine, liquors, juices, and drinks, with production ranging from 10,000 to 50,000 bottles per hour.

Call MAJ Enterprises at (516) 625-0110 or visit our website at www.MAJEnterprises.com