

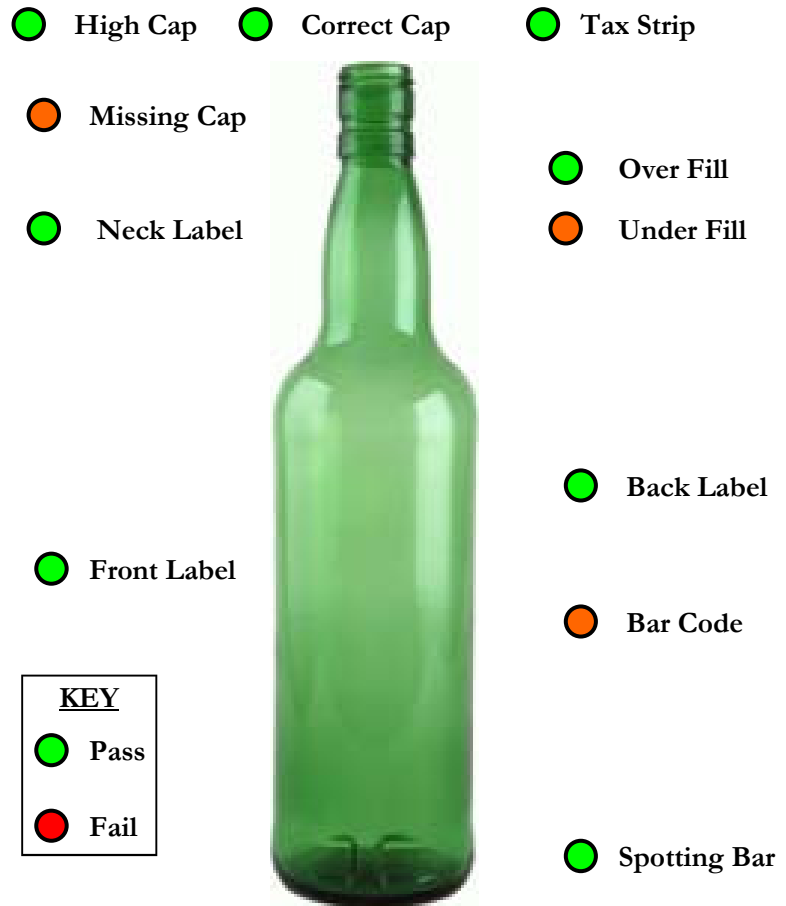


Label Inspection Systems


V3.2007

Benefits of Mapex

-  Advanced Vision Technology
-  Custom Solutions
-  Daisy Chain
-  Extensive References
-  Flexibility
-  Laser Fill Level
-  Low Cost of Ownership
-  Interpersonal Relationships
-  Modularity
-  Operational Reliability
-  Project Specific
-  Proven Technology
-  Redeploy able Technology
-  Reject Handling
-  Robust Construction
-  Safety
-  Simple
-  Sorting
-  Standard Packages
-  State of the Art
-  System Approach
-  Tailored Engineered
-  Technology Integrator
-  Training
-  User Friendly



KEY

-  Pass
-  Fail

Mapex Inspection provides a range of technologies for *Inspection, Sorting & Handling* on packaging lines.

The current label inspection range includes a variety of techniques, both camera and sensor based, that can be applied to on-conveyor or within labelling system image capture; these devices can either be stand-alone or can be fully integrated into other inspection equipment on the production line.



Standard Features

- Ⓜ PLC control
- Ⓜ Stainless steel construction
- Ⓜ 12 inch Touch screen display
- Ⓜ Management information
- Ⓜ Self diagnostics
- Ⓜ Help pages
- Ⓜ IP65 enclosure
- Ⓜ In labeller mounting
- Ⓜ Floor standing console
- Ⓜ Reject ram (pneumatic)

Optional Features

- ✓ On conveyor mounting
- ✓ Label monitoring
- ✓ Mapex "Vault" Reporting
- ✓ Variable speed operation
- ✓ Mapex rejecter range

Optional Functionality

- ✓ Under / over fill detection
- ✓ Closure controls
- ✓ Label presence
- ✓ Label placement
- ✓ Label verification
- ✓ Tax strip
- ✓ EAS / TE detection
- ✓ Bar code validation
- ✓ Batch counting
- ✓ Pack spec. monitoring

In real terms these basic methods are available:

Label Presence inspection confirms the application of a label.

Label Placement inspection confirms the presence of a label and that it is in the correct place. Certain security tags, tamperproof seals and tax strips can be considered simply as labels. Our advanced label placement inspection using multiple cameras can be used to determine the XY and skew of a label relative to a fixed datum. In the real world we can inspect to better than +/- 2mm which is typical new labeller specification.

Label Verification can use any one of several inspection algorithms to match label artwork with a known template

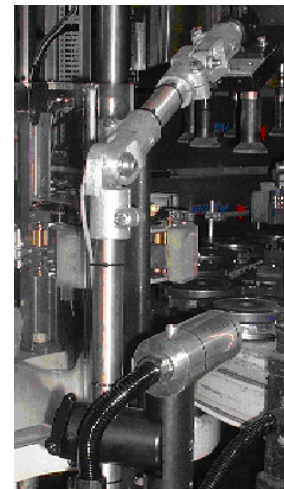
Label inspection has two practical elements:

- **Macro** inspection can confirm that an entire label is present.
- **Micro** inspection can confirm that a feature is present (a differentiating detail on a particular label).

There are possibilities to combine these functions into a single function module whether in a controlled or random image capture situation.

The operating platform employs a 12" colour TFT HMI touch screen doubles as a VDU for programming, display and also acts as a an information display for all installed inspection modules.

The HMI offers many features that includes a user selection of product from a menu structure (IE: job change.)



In-Labeller Mounting

The **Mapex Inspection** equipment range is designed for **maximum flexibility**. All equipment combines the principles of user friendliness, simplicity and robust build. Furthermore our extensive range of equipment, is **modular**, it can be configured to suit specific user needs now or in the future !

Please note that the **Mapex Vision Technology** which is applied to label inspection can be similarly applied to all manner of other critical vision inspection functions on any packaging line; please also see our **VIS** data sheet.