Empties' Crate Inspection System – IMAGE LG

The IMAGE LG offers **robust and efficient automation** for inspecting returnable crates, significantly enhancing workflow and reducing errors, ultimately leading to substantial cost savings.

It ensures only intact and unpackable crates reach your unpacking unit, **improving workflow** and efficiency.

The system's **user-friendly** interface and **easy Teach-In** process make it a breeze for operators to adopt, creating a smooth, enjoyable work environment that your employees will appreciate.

Benefits

Improved quality control

The system accurately detects and identifies any issues with the empties' crate, ensuring that only unpackable and intact crates reach the unpacking unit.

Increased efficiency

By automating the inspection process a constant stream of unpackable empties' crates is provided to the unpacking system. Reducing downtimes and damage.

Cost savings

By automating the inspection process labour costs are significantly reduced. Assuring unpackability of every crate reaching the unpacking machine.

Benefits

Improved customer satisfaction

By detecting damaged or foreign crates early the system guarantees only high quality crates enter the packing process.

Competitive advantage

Implementing an advanced inspection system gives the customer a competitive advantage over others who are still relying on manual inspection methods, helping them to stay ahead.

Data collection and analysis

The system collects and stores data on the inspection process, providing analysis and data on the inflow of empties into the process. Enabling the our customers to stay ahead of the competition and make informed decisions.

Application

For all common returnable crates independent of

- Compartment type

- Colours

- With or without logo

Detection

Unpackability check
- Interspace control (foreign object detection)
- Foreign objects above the bottles
- Lying bottles
- Flipped bottles
- Broken bottles

Bottle sorting based on
- Bottle material (glass/PET)
- Bottle diameter/height
- Bottle contour/colour
- Neck labels
- Closure type (swing stopper, neck ring)
- Closure material (glass / PET)
- One-way / reusable PET

Crate sorting
- Format (L x W)
- Compartment type (modular / honeycomb)
- Conveyor flow direction
- Colour
- Logo
- Damages
- Deformations

Bottle counting (detection of missing bottles)

Detection of residual caps on the bottles

Process

High-resolution cameras and specialized optics, supported by dedicated illumination modules, guarantee perfect detection of all crate content and potential damage, ensuring a seamless and efficient unpacking process.

LK bottom side

Camera

Telecentric Module

LED illumination
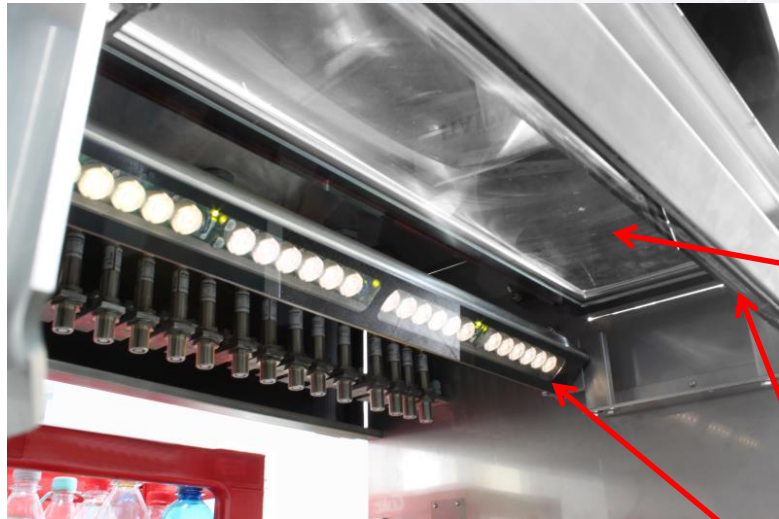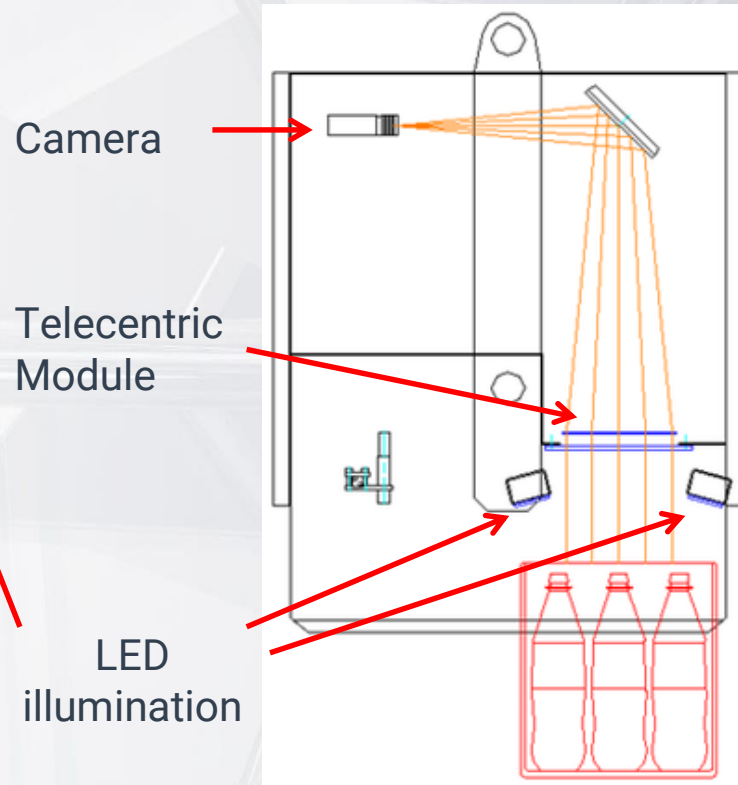
LK side view

Expandable with Deep Learning

Only with the THETA Line control unit

During a learning phase, several hundred images are recorded and made available to the algorithm.
The algorithm remembers recurring characteristics on the crates content and assigns them to a bottle type.
This type can then be named and handled accordingly.

Resulting in significant higher accuracy and an easier teach-in process.
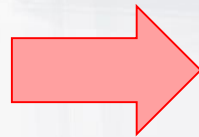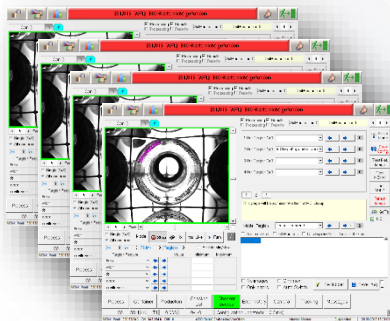
Features

Up to **7,500** crates per hour
Integrated tracking
Deep Learning capability
Operation & visualisation via
- 21" display

Easy teach-in
Advanced statistics
Connectivity with other BBULL systems
Multi-line concept
Cascadable- & expandable
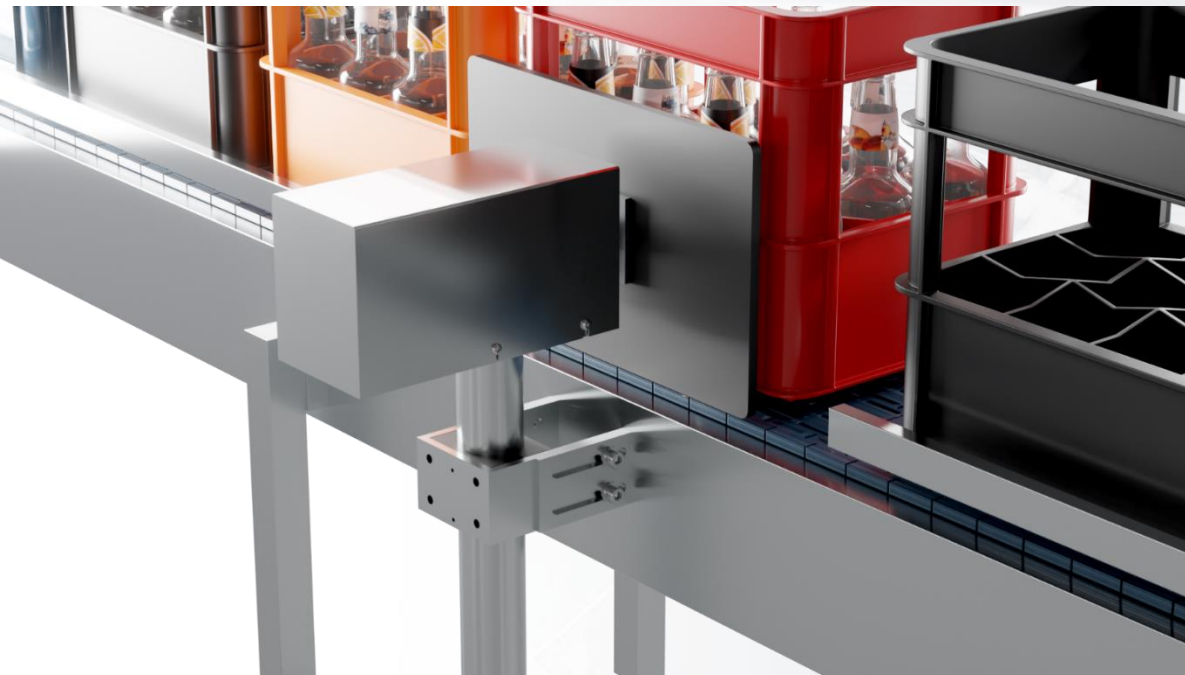Remote maintenance
Compact design

Expansions

Empty Crate Inspection
* **IMAGE LK**

Recommended Rejection System
* **CRATE PUSHER** – Pneumatic/Servo rejection system
* **FLEX SORTER** – Pneumatic rejection system

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Take the Next Step!
Request Further Information Today

Contact us to learn more about our system and how it can help your business succeed. Our team of experts is ready to answer any questions and provide you with a personalized solution.

Don't wait, make a call or send an email today and learn about the difference our system can make!