

Label inspection **miho EC-Cam**



Camera inspection overview

- Presence, position and slanted position
- Logical correctness
- EAN barcode and expiry date imprint
- Depending on the task, single- or multi-camera setup
- Integrated in the labelling machine or in free flow (with aligned container)

Inspecting a square bottle in free flow

Function

Camera lighting unit for integration into a labelling machine or in free flow after the labelling machine, for inspecting the labels.

A prerequisite for use in free flow is that the labels are aligned with the camera module or that they are wrap-around labels.

Labels can be inspected for the following criteria:

- Presence
- Logical correctness
- Integrity (after prior verification by miho)
- Including reject monitoring in the inspection machine
- Position and slanted position
- EAN barcode and expiry date imprint

Technology

- Structure made of stainless steel
- Easy access, maintenance-friendly construction
- Closed electronics housing in IP 67 design
- State-of-the-art, digital and flexible colour camera mirror system
- Low power dissipation, variable and maintenance-free, high-performance LED lighting with polarization filters using the reflected light process



Round bottles and containers with individual labels in free flow

- Presence
- Position (horizontal/vertical offset, angle of rotation)
- Logical correctness
- Integrity (after prior verification by miho)
- EAN barcode and expiry date imprint

A prerequisite for use in free flow is the exact alignment of the labels to the camera.



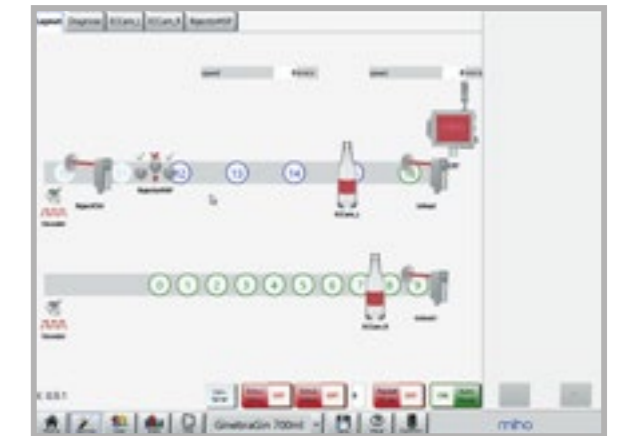
We recommend integration into the labelling machine, in order to ensure that all inspection features can be guaranteed.



Round bottles and containers with wrap-around labels in free flow

- Presence
- Position (horizontal/vertical offset, angle of rotation)

Alignment of the label to the camera is not necessary here



Flow diagram to show the current system status and fault visualization with intuitive operation and Help suggestions



Square bottles and containers with individual labels in free flow

- Presence
- Position (horizontal/vertical offset, angle of rotation)
- Logical correctness
- Integrity (after prior verification by miho)
- EAN barcode and expiry date imprint

A prerequisite is the exact alignment of the labels to the camera.



Evaluation unit of the Multi-PC product family

- For control, evaluation and visualization of various inspection units and inspection heads of the miho product family.
- PC technology with touch controls based on the Microsoft Windows 10 operating system and image processing miho VIDIOS_SC®. Intuitive visualization and parameterization of the entire machine package with inspection units and reject systems.
- Compact electronics housing made of stainless steel with 15-inch multi-zone colour touch display, IP 55 version.
- Control of one or more miho camera lighting units or other inspection heads from the miho product range.
- Evaluation of the camera images by several individually parameterizable evaluation zones.
- Remote maintenance functionality with all the necessary software licenses (Open VPN).
- Separate miho AWeS production data acquisition, interface according to Weihenstephan standard.



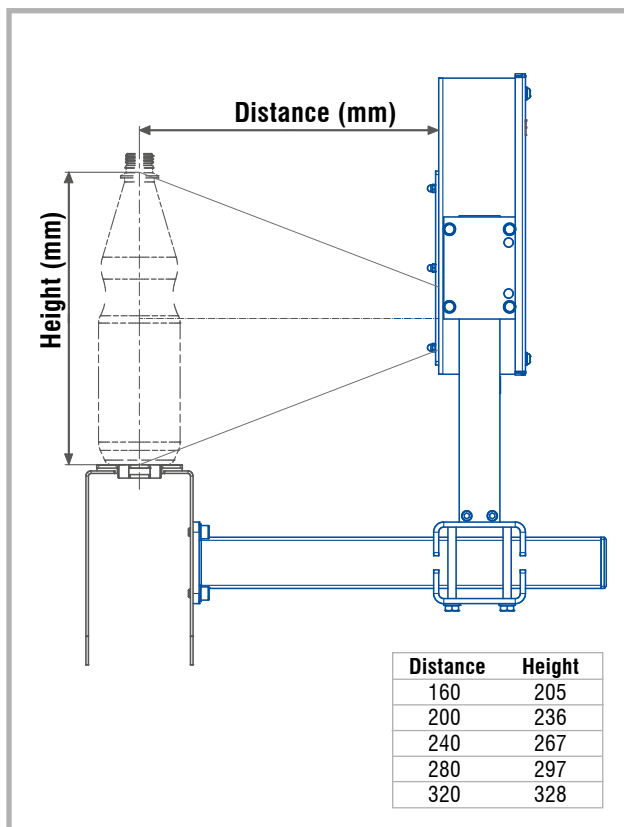
Overview of the Multi-PC Family

Depending on the requirement profile, several camera lighting units can be connected to the multi-PC evaluation unit.

Up to 4 digital miho camera lighting units can be processed simultaneously by the real-time image processing miho VIDIOS_SC®

Inspection machines of the multi-PC family:

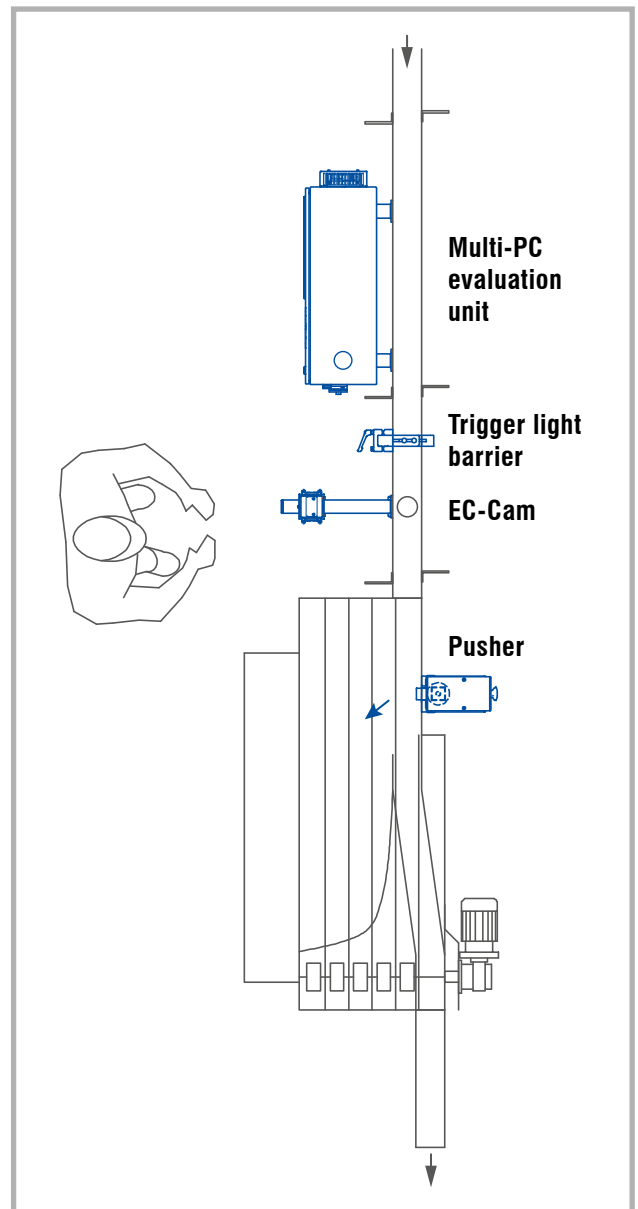
- Fill level inspection miho Newton HF, miho Newton X2P, miho Newton X2Z or miho Newton IR2
- Vacuum detection miho VacU
- Sealing inspection for PET bottles miho Feeler 2



Examples of bottle sizes and distance to the conveyor in mm

Reject systems

- High speed pusher for bottles miho HSP
- Multi-reject system for bottles miho HSPM
- Linear reject system for bottles miho Leonardo M



Example of the EC-Cam in free flow