

Sorting system **miho Multicon 4**



Advantages

- **Sorting of containers by**
 - Shape and size
 - Color
 - Embossing
 - ACL
 - Scuffing
- **Sorting in up to 8 channels**
- **At a glance: calculation of bottle deposit value via product data acquisition miho AWeS**
- **Sorting in the dirty area, as well as after the bottle washer**
- **Less disturbance at the bottle washer through recognition of damaged or wrong containers**

Function

- Camera based system for the detection and sorting of glass or PET bottles or other containers according to shape, color and size differences.
- In addition, lying bottles or bottle breakages can be detected and rejected. The detection and evaluation of bottles may also be carried out via secondary features such as embossing, ACL or also via the degree of scuffing of the bottle. Sample bottles must be tested here.
- The construction is made of stainless steel, is easily accessible and easy to maintain. A closed optical system and protective covers that can be opened without the use of tools, make it easy to clean the protective glass plates.

Compact electronics housing made out of stainless steel with 15" multizone-touch color display and image processing miho VIDIOS®



Sorting by shape and size

0.7 l bottles of a fruit juice filler

returnable

non-returnable



Sorting by color



Technology

- State of the art, digitized and flexible colour camera mirror system
- Low-power dissipation, variable and maintenance-free, high-performance LED lighting with telecentric illumination
- Evaluation of the camera images by multiple, individually configurable evaluation zones
- Automatic centering of the container contour
- Compact electronics housing made out of stainless steel with 15" multizone-touch color display and image processing miho VIDIOS®
- The VIDIOS-License is valid independently of the number of container and product variants, also when adding further bottle types later.
- User administration with login via transponder or password input
- Permanent self-monitoring of all systems such as, for example, image processing, cameras, sensors, reject systems etc.
- Freely selectable multilingual user interface
- Floating output contact for controlling the reject system (multiple channels possible)
- Type-specific parameter sets, visual presentation and description of types freely selectable

Optional accessory: Material detection miho Multicon 4 PET – Glass differentiation

Module to differentiate between Glass and PET bottles to assign them to the defined reject channels.

Technology:

Special polarisation for the recognition of optical active materials, such as PET bottles



Left: Glass bottle—the polar filter in the center of the picture is shadowed
Right: Because of the optical active refPET bottle, the shadowing of the polar filter is being reversed

Sorting by scuffing



Sorting by secondary characteristics



Reject systems

- High Speed Pusher miho HSP
- Multi Ausleitsystem miho HSPM
- Lineares Segment-Ausleitsystem miho Leonardo M

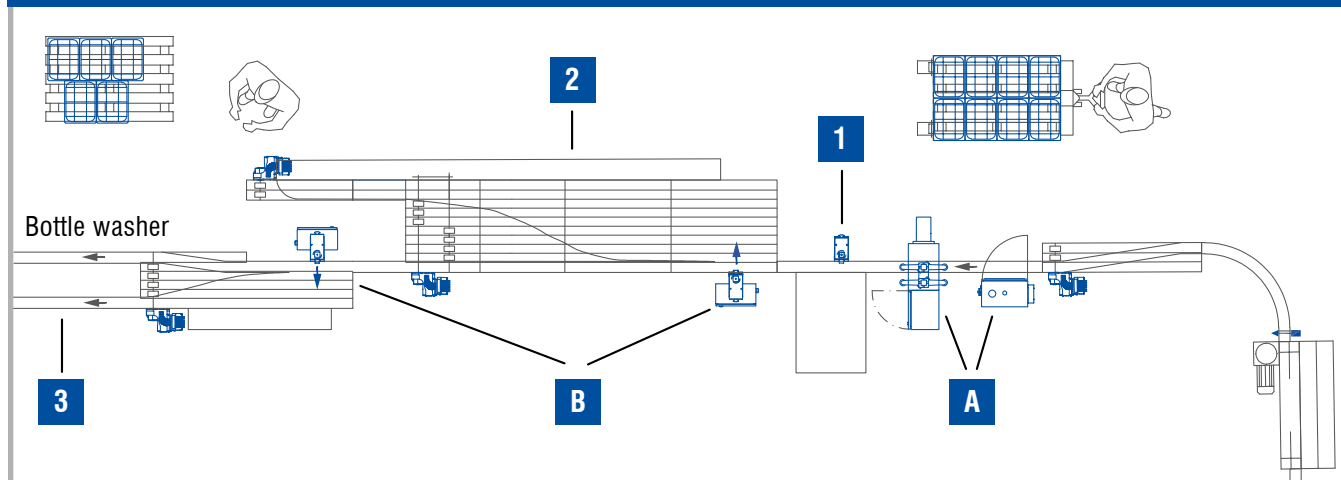
Calculation value of bottle deposit

Possibility of calculating the net worth of deposit bottles via data base (not part of the scope)

Network integration

- Diagnosis and online help through separate remote maintenance module
- Production data acquisition miho AWeS via Weihenstephaner Standard
- Intermediate storing of the operating data in case of failure of the existing network connection up to 7 days. Only in combination with the production data acquisition software miho AWeS.

Optimization of the bottle sorting at a plant for CSD in returnable glass bottles



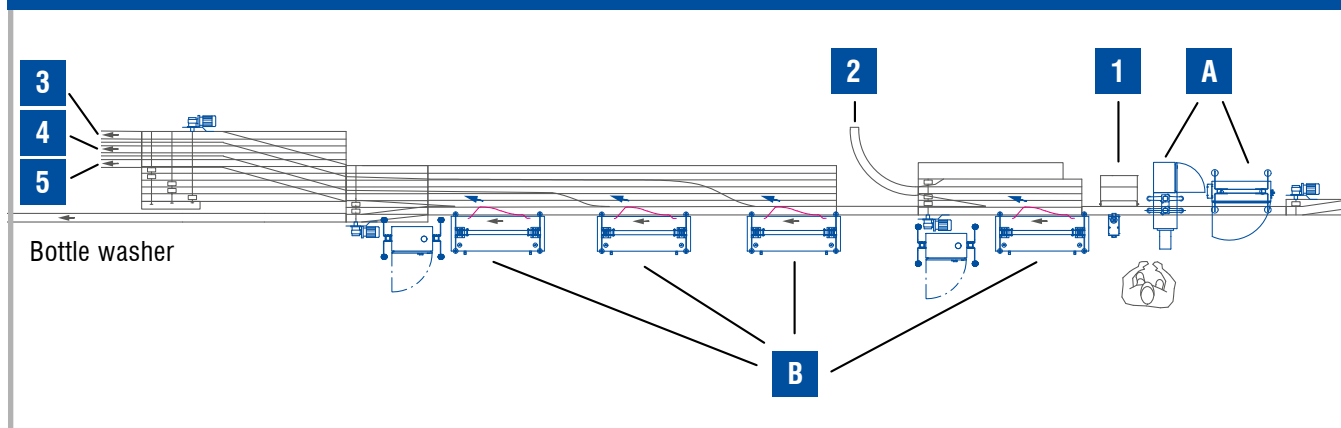
A Bottle sorting miho Multicon 4

B Reject system miho HSPM

Rejection channels

- 1** Defect bottles / PET → container
- 2** Foreign bottles → collection table
- 3** Frequent foreign bottles → collection table

Newly built bottle sorting at a medium sized brewery



A Bottle sorting miho Multicon 4

B Upright rejection by miho Leonardo M

Rejection channels

- 1** Defect bottles / PET → container
- 2** Frequent foreign bottles → collection table
- 3** Mono-fraction sorting
- 4** Mono-fraction sorting
- 5** Mono-fraction sorting