



Separator





Reasons for Separation

- Assortment Production: More than one type of container on one production line
 - Quicker job change for smaller batches
 - Larger scale production does not need to be stopped when smaller batches are being produced
 - Produce a number of different product types in a smaller space
 - A number of products can be manufactured on a single line, allowing variety
 - Must be separated before inspection
 - Inspection machines are product specific



Reasons for Separation

- Bottling plants

- Recycled containers

- When a pallet of used containers returns to a plant to get refilled, they are often a mix of types

- It is important that the correct container reaches the correct destination



Bertram Elektrotechnik Separator

- **Precise recognition**
 - Recognition of even the smallest differences between containers
These differences can be: size, form, colour, embossing, mouth, lid-type, labelling, etc.
- **User friendly**
 - Simple addition of new products
- **Quick job change**
 - Fixed camera system, does not need to be changed for different products
- **Low maintenance**



Bertram Elektrotechnik Separator

- Works together with an Allocation system (such as Bertram Elektrotechnik Allocator) to divide containers onto different tracks
- Easy integration into existing systems
 - Open and standardised communication interface
- Robust user interface
 - Designed in such a way, that the user can see it even when the door is open



How does it work?

- Camera System
 - Intelligent image processing
 - Fixed camera positions
 - Does not need to be adjusted for job changes
 - 1 or 3 cameras with corresponding mirrors and lighting
 - Makes a full 360° picture when 3 cameras are used
 - Compares picture to “taught-in” pictures of all products



How does it work?

- With an Allocation System

- The Separator should be connected to an allocation system

The allocation system is controlled by the Separator

The Separator communicates to the allocation system which containers it needs to push to which track

The distance is measured using photo cells, ensuring a precise and stable allocation



Software

- Developed by Bertram
- User friendly
 - Simple addition of a new product
 - A product can be added by the user at the machine
 - 20 products (the more products the better the result) need to pass through the system in a number of directions
 - The system uses the pictures made during this process to recognise the products during production
 - Easy job change
 - The user can choose and edit which products are to be sent to which lanes simply on the user interface



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Video





Technical Data

Width	1000 mm
Height	2215 - 2500mm
Depth	1070mm
Speed	Max. 750 containers/min
Product Diameter	max. 140mm
Product Height	max. 375mm



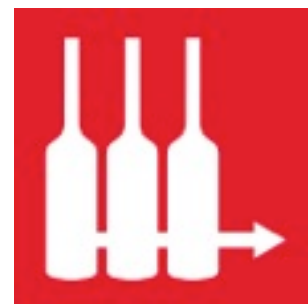
Orientator



Separator



Allocator



Line Control

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