

APPLICATION INFORMATION



LYNX-SPECTRA Bulk Inspection

Description

The inspection of bulkware allows the detection of cross-contamination, broken products and foreign matter in order to eject them.

For this application, Colour Product Inspection LYNX-SPECTRA CL or the high-resolution variety LYNX-SPECTRA HR is utilised.



Area of Application

Applicable Objects:

- Tablets
- Oblongs
- Sugar-coated tablets
- Soft and hard gel capsules

Inspection Criteria:

- Colour
- Size
- Broken product
- Perimeter
- Shape



Highlights

- High-speed inspection of up to 700,000 products per hour
- Systems with multiple cameras for detailed error recognition
- Large machine widths can be inspected
- Can be used on all common slat counters
- Can be used on all ETCs with vibratory conveyors
- Inspection of up to 48 V channels
- Detection of cross-contamination, broken product and foreign matter
- Exact position information of faulty products for individual rejection

■ Standalone System

For bulk inspection, scanware is offering a standalone solution as well as installation on vibratory and drum feeders. The compact Bulk Inspection Machine is a unit for the inspection of bulkware on 15 lanes on which a High-Res Colour Product Inspection LYNX-SPECTRA HR is placed. The corresponding algorithms inspect the products which are placed on the lanes using vibration. Up to 360,000 units per hour can be inspected. Simultaneously, the system is inspecting, counting, ejecting faulty products and checking for metal objects.

The counting unit uses a turnout for perfectly exact counting. Also, the collection container can be exchanged while the machine is running.

Standalone Unit Features

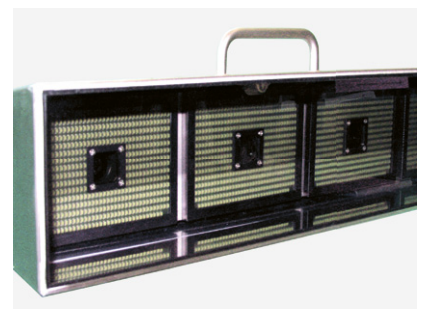
- High-resolution inspection of product colour, size, length, width, shape and perimeter
- 15 lanes are inspected simultaneously
- Presence of foreign product causes machine stop
- Individual product rejection with verification
- Absolute count accuracy
- Easy access for cleaning
- Flexible unit on locking casters



■ Hardware

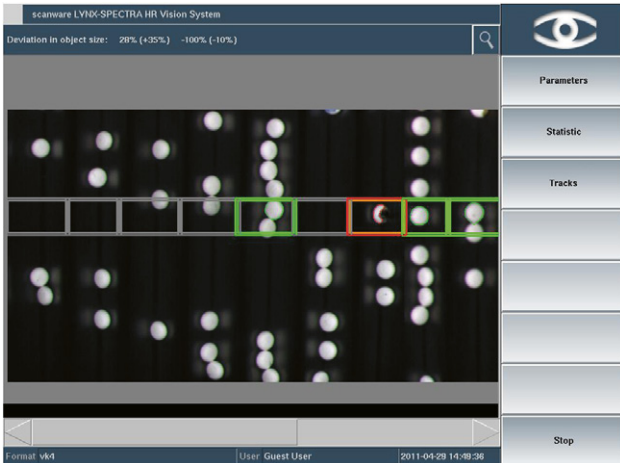
As with any other challenge for image processing, the illumination technology plays a crucial part in this application. The modular structure and the scanware technology used for the camera illumination modules ensure a massive reduction of reflections and optical distortions. The pre-processing of images with scanware's own hardware has a clear speed advantage, also for large images.

For the utilisation on wide machines, scanware has developed an illumination unit of up to one meter width.

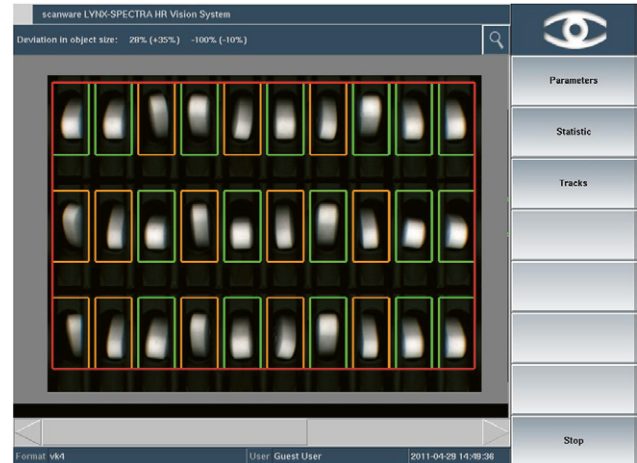


■ Software

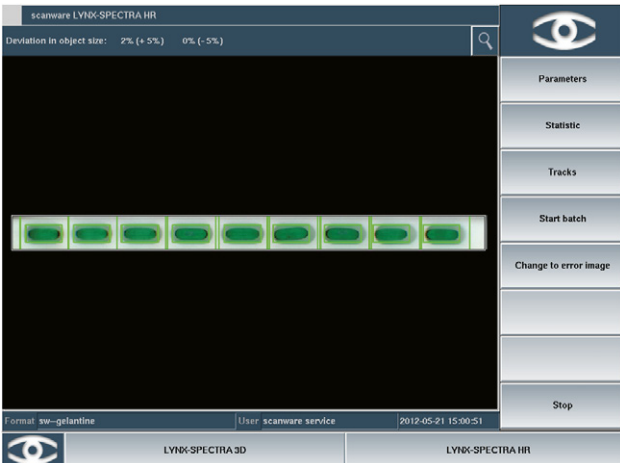
The quality inspection of bulkware requires that the vision system not only ensures suitable image resolutions and evaluation speed but also runs the correct algorithms for separating the products. These have to work in high speed, so that the classic inspection algorithms for colour, volume, and shape identification can be employed.



Evaluation on a vibratory feeder. The separating of the products that are randomly distributed on the lanes is undertaken by the software. Afterwards, product inspection takes place.



Evaluation on a slat counter. The upright products are inspected and signals processed. The above screenshot shows cross-contamination with smaller objects.



Evaluation on a large scale bulk inspection machine. The products are lined up by plastic skewers and presented to the camera. Separation of the product is not necessary.



Evaluation of soft gel bulk. Due to optical varieties, the separation of the products is crucial.



■ Further Application Options

Bulk Inspection can be used on various types of machinery:

Vibratory Conveyors

The inspection of bulkware can be installed on all common types of tablet counters with vibratory feeding. The combination of multiple cameras offers high resolution and thus enables the control of large machine widths.



Drum Feeder

The use of LYNX-SPECTRA on drum feeders is also possible. In this case, the system delivers exact position information to enable single-elimination of faulty objects.



■ The scanware Benefits

- Modular built for a multitude of installation options
- Real-time operation system QNX® for security and speed
- Uniform graphical interface and easy-to-follow menu structure
- Fully 21 CFR Part 11 compliant
- Hard- and software are expandable and upgradable
- Wear-free, electronically controllable scanware W-LED illumination
- Easy to install on all common packaging machinery
- Communication with machine via a VDMA-XML protocol
- Simultaneous use of numerous inspection parameters
- Variety of statistical tools
- Development of special tasks and requirements on your request
- Availability of all parts guaranteed for 10 years
- Service offering solutions and support within 24 hours

LYNX-SPECTRA Product Inspection

LYNX-SIGNUM Code Inspection

LYNX-FOCON Pore Inspection

LYNX-CAPA Track & Trace Solutions

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