# BLISTER & PRODUCTS

SPECTRA Black and White (BW)

■ Description

The system **SPECTRA Black and White** is mainly installed for quality control on packaging lines in the pharmaceutical sector. It inspects a number of product criteria such as presence, position, shape as well as double fillings and broken items. It is the cost-effective solution for tasks when cross-contamination can be ruled out due to the technical surroundings such as mono lines. Soft- and hardware can always be expanded to enable color inspection. The Classic. Easy-to-use, reliable and infinitely upgradable.

■ Area of Application

Applicable Objects:
▪ Tablets
▪ Oblongs
▪ Sugar-coated tablets
▪ Hard and soft gel capsules

Inspection Criteria:
▪ Presence
▪ Size
▪ Shape
▪ Perimeter
▪ Position
▪ Broken products
▪ Overfilling
▪ Surface defects

■ Highlights

▪ Magnificent speed and encompassing analytical options
▪ All parameters can be used simultaneously – at the same high speed
▪ Homogenous, reproducible and adjustable illumination – 16 levels available
▪ The system can be upgraded to **SPECTRA Color** at any time for color inspection

■ System

The use of the real-time operating system QNX® enables high-speed signal processing and high failure safety. Security is increased by more advantages of the system: The modular built enables the expansion for increasing and future requirements. This makes the system future-proof.

The system is fully compliant to 21 CFR Part 11; format versions are saved separately. The memory contains up to 50 images which are the basis for an individual suggestion of parameter settings. This offers a higher level of security than standardized settings that the user needs to adjust according to his inclination. It also offers higher user comfort.

■ Hardware

The Camera Link interface enables a safe data transfer even of large data. Compared to USB and FireWire, Camera Link enables a greater cable length. The evaluation unit offers high performance so all parameters can be used simultaneously at high speed.

Evaluation unit

Evaluation unit	19 inch built, 42 TE
Industry PC for frame grabber	Compact PCI Bus Interface
Wide range power supply	95-230 V ~
Standard I/O System	DIO8/16/32/48/64
Interfaces	2 x COM, 3 x USB, 2 x Ethernet, VGA
Hard drive	16 GB SSD, optional: 128 GB SSD
Framegrabber	scanware, for black and white matrix camera
Multiplexer	scanware, up to 6 cameras

Illumination

Illumination	scanware, with up to 3,000 LEDs per unit
Illumination adjustment	scanware, 2 x 16 levels*
Illuminant	Nichia SMD-W-LED
Illumination types	Toplight, backlight, sidelight, diffuse light
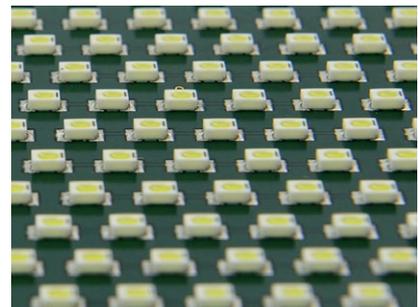
* = Toplight and backlight are set separately over two individual channels

■ Software

The classic among our product inspection systems offers a number of software features which increase both user comfort and security. Throughout, the user is guided by the easy-to-follow menu. The basic structure of all scanware systems is uniform so there is no training necessary when upgrading the system.

Some of our extraordinary software features:

- Configurable machine stops for overfilling, position error, consecutive error etc.
- Partial teach-ins for size and greyscale
- Thorough Audit Trail
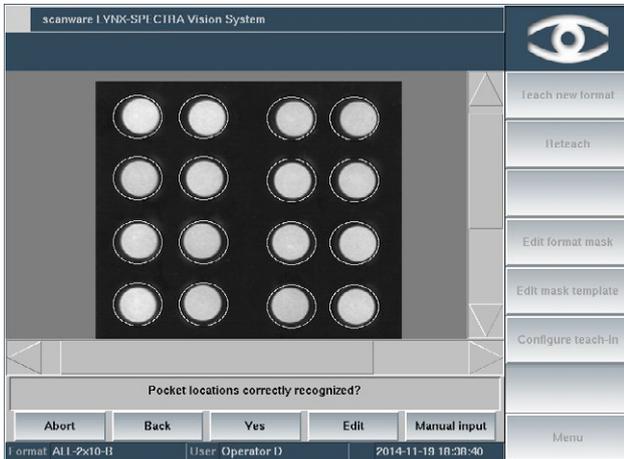
During teach-in, the system automatically generates evaluation parameters. These are calculated based on images and error images and can be adjusted by the user if desired.
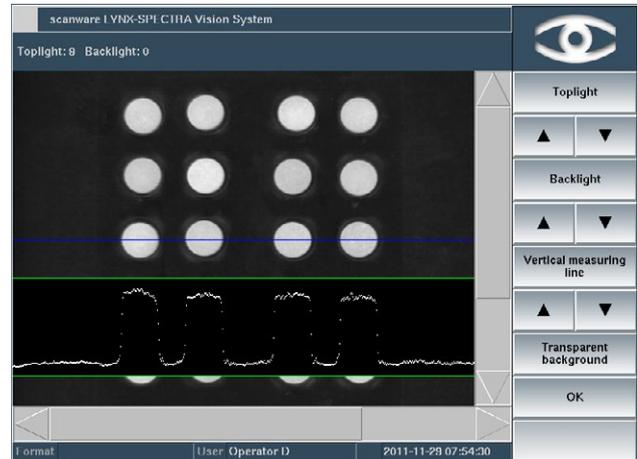
The illumination is adjusted to the optimal level for a different product or foil using a simple measuring line. The settings are saved as part of the format and consequently remain constantly reproducible.
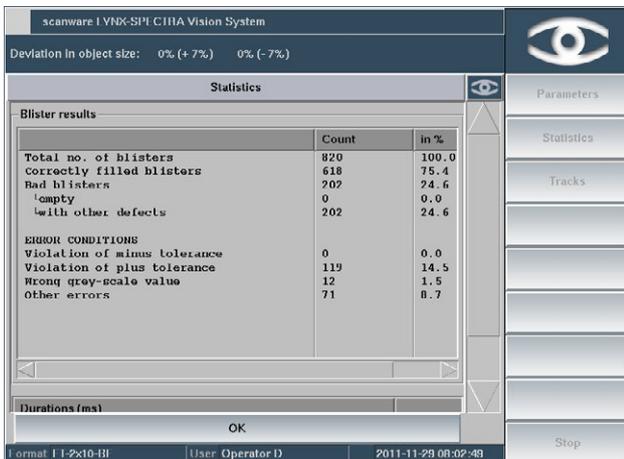
Continuous production statistics offer an evaluation of the number of ejected products as well as the reason of ejection and its frequency. Furthermore, the visualisation of previous results enables quick recognition of consecutive errors.
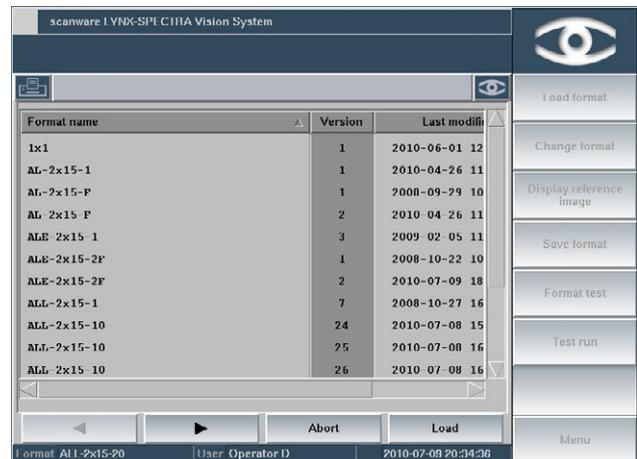
Fully compliant to 21 CFR Part 11: Automated logout, automated password changes as well as saving each format version enable highest security throughout the packaging process.

■ Technical Data

Camera technology	1CCD, JAI/Sony	Colour resolution	256 greyscales
Camera interface	Camera Link	Objects per image	224
Camera resolution	1,296 × 966 pixels	Format storage	>1,000
Max. number of pictures per minute	1,200	Number of cameras	1-6

■ Further Application Options

Inspection of E-Cigarettes
SPECTRA Black and White can also be used to inspect the correct position of e-cigarettes. Teaching screwing area and the cartridge as two individual products, the system is able to detect if the e-cigarette is facing the right way.

Bottle Inspection
During forming of small plastic bottles, **SPECTRA Black and White** inspects the folds at the opening and the bottom of the bottles. The flexible shape is then cut at both ends. With multiple cameras, the cut edges are inspected before the bottles are filled.
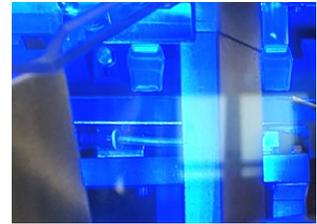
Pouch Position Inspection
When filling pouches, a tilted position will cause staining and insufficient sealing. Using **SPECTRA Black and White** will prevent that defective pouches pass on to distribution level. The camera inspects the correct position of the pouch during filling and causes ejection if the position of the pouch shows an angle.

Refill Inspection
With mono lines, having a refill station can reduce blister ejection. **SPECTRA Black and White** provides pocket-based filling information that enables a refill station to fill remaining empty pockets. Due to the short evaluation time, a second filling station can be placed near the original station.

■ Quality is visible.

- Modular build for a multitude of installation options
- Real-time operating 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

Management   **Packaging**   **Blister & Products**   **Codes, Text & Graphics**   **Track & Trace**   **Support**

scanware

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