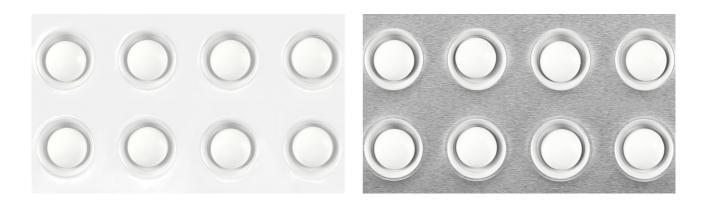
BLISTER & PRODUCT INSPECTION





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, area, 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 colour inspection. The Classic. Easyto-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





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 Colour at any time for colour 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 build 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 standardised 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.

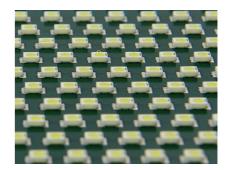
Evaluation unit

| Evaluation unit | 42 HP, 3.5 RU |
|-------------------------|--|
| Wide range power supply | 24 V DC PELV/SELC (safety extra low voltage) 18 – 30 V max. allowed voltage range |
| Standard I/O System | D-I/O 24 |
| Hard drive | 240 GB SSD |
| Frame grabber | scanware frame grabber for up to two Camera Link cameras, compactPCI serial |



Illumination

| Illumination unit | scanware, with up to 3,000 LEDs per unit |
|-------------------------|---|
| Illumination adjustment | scanware, 2 x 16 levels* |
| Illuminant | SMD-W-LED |
| Illumination types | Toplight, backlight, sidelight, diffuse light |



* = Toplight and backlight are set separately over two individual channels

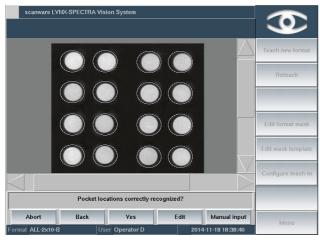


Software

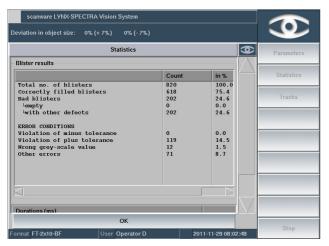
The classic among our product inspection systems offers a number of software features which increase both user comfort and security. Throughout, the user is guided by the easy-to-follow menu. The basic structure of all scanware systems is uniform so there is no training necessary when upgrading the system.

Some of our extraordinary software features:

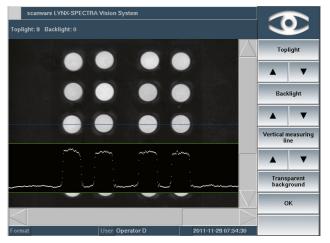
- Configurable machine stops for overfilling, position error, consecutive error etc.
- Partial teach-ins for size and greyscale
- Thorough Audit Trail



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.



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.



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.

| scanware LYNX-SPE | CTRA Vision System | | | |
|-------------------|--------------------|---------|---------------------|-------------------|
| | | | 9 | Load format |
| Format name | Δ | Version | Last modifi | 1 |
| 1x1 | | 1 | 2010-06-01 12 | Change format |
| AL-2x15-1 | | 1 | 2010-04-26 11 | |
| AL-2x15-F | | 1 | 2008-09-29 10 | Display reference |
| AL-2x15-F | | 2 | 2010-04-26 11 | mage |
| ALE-2x15-1 | | 3 | 2009-02-05 11 | Save format |
| ALE-2x15-2F | | 1 | 2008-10-22 10 | owronomia |
| ALE-2x15-2F | | 2 | 2010-07-09 18 | Format test |
| ALL-2x15-1 | | 7 | 2008-10-27 16 | Format test |
| ALL-2x15-10 | | 24 | 2010-07-08 15 | 1 |
| ALL-2x15-10 | | 25 | 2010-07-08 16 | Test run |
| ALL-2x15-10 | | 26 | 2010-07-08 16 | |
| \triangleleft | | | | |
| • | • | Abort | Load | Menu |
| ormat ALL-2x15-20 | User Operator D | | 2010-07-09 20:34:36 | Menu |

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 | High-speed CMOS camera | Colour resolution | 256 greyscales |
|------------------------------------|------------------------|-------------------|----------------|
| Camera interface | Camera Link | Objects per image | 224 |
| Camera resolution | 2, 5, or 12 megapixels | Format storage | >1,000 |
| Max. number of pictures per minute | 35 fps | 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.

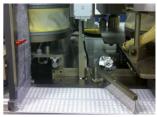
Refill Inspection

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
- · Hard- and software are expandable and upgradable
- Fully 21 CFR Part 11 compliant
- Wear-free, electronically controllable scanware W-LED illumination

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- Easy to install on all common packaging machinery
- Communication with machine via a VDMAXML_P or OPC UA 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

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International partners: Belgium | Brazil | Canada | China | Croatia | Denmark | Egypt | Finland France | Great Britain | Greece | Hungary | India | Ireland | Mexico Netherlands | Norway | Poland | Portugal | Puerto Rico | Romania Serbia | Slovakia | Slovenia | Spain | South Korea | Sweden | Switzerland | United States

Track & Trace