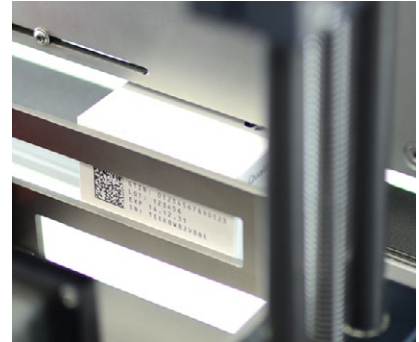


# SYSTEMS

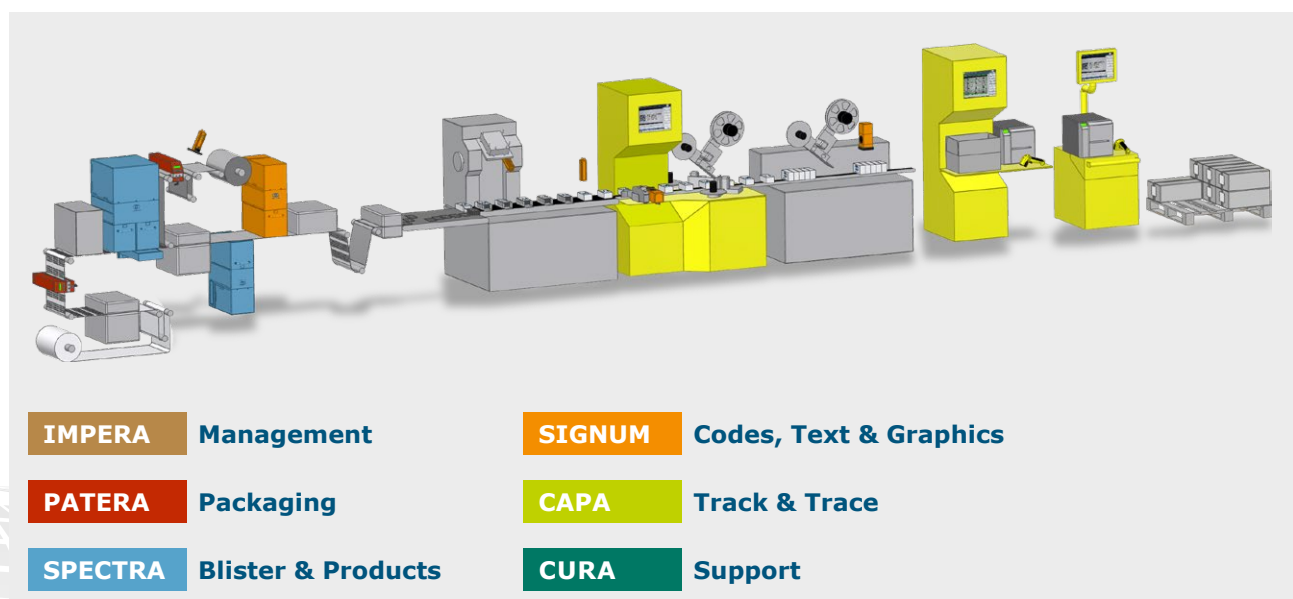




## SYSTEMS Overview

### Description

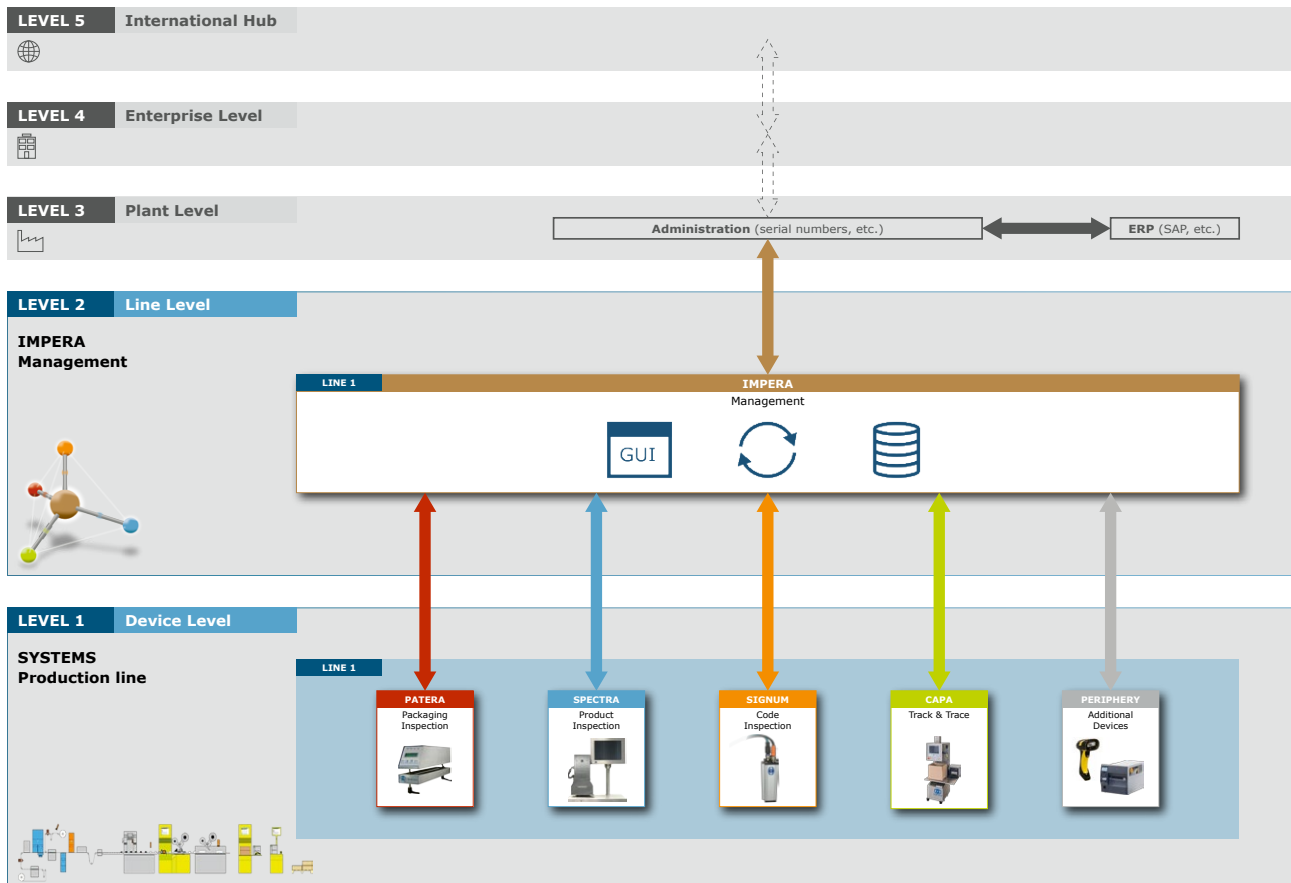
With over 3,000 installations worldwide and 30 years of experience in product and packaging inspection, scanware electronic GmbH is a leading supplier of optical inspection systems for the pharmaceutical, cosmetics and food industries. By developing of high-quality solutions Made in Germany, we enjoy an excellent reputation and support our customers as a reliable integration partner with technical know-how and innovative ideas.



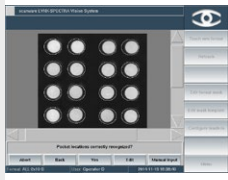


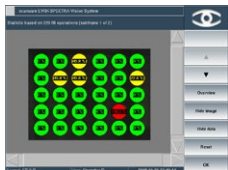
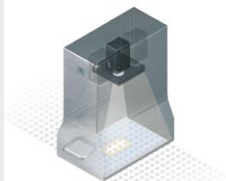


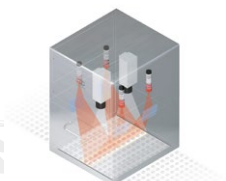
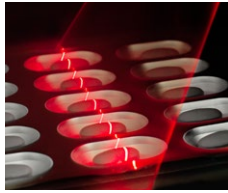
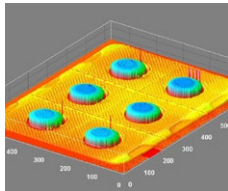
As one of the few suppliers on the market, we equip the packaging process along the entire line and offer efficient inspection systems as well as solutions for printing, labelling, tamper evidence sealing and verification. With **IMPERA**, we have a process-reliable and future-oriented management system in our product portfolio for serialisation and aggregation applications that ensures the traceability of products throughout the complete packaging and supply chain.









Software	Area of Application	Highlights	Level 3 Interfaces
<b>GUI</b> 	<ul style="list-style-type: none"> <li>Line Management</li> <li>Machine and device control on packaging lines</li> <li>Serialisation, aggregation and aggregation</li> <li>Mark &amp; Verify of folding-boxes, displays and shipping boxes</li> </ul>	<ul style="list-style-type: none"> <li>Modular and upgradable</li> <li>Functionality can be reduced to fundamental modules</li> <li>Individually configurable user interface</li> <li>Compatible with all scanware products</li> <li>Easy operation over scanware's GUI client</li> <li>Combination of decentral real-time data communication and centralized management of batch data</li> <li>Supports common code standards</li> <li>Job-related and intuitive graphical interface</li> <li>Fulfilment of customer-specific requirement profiles</li> <li>Flexible level 3 connection</li> <li>Simple and understandable usability</li> </ul>	<ul style="list-style-type: none"> <li>Arvato</li> <li>Atlantic Zeiser</li> <li>Hicof</li> <li>Prosaleks</li> <li>SAP</li> <li>scanware EPCIS</li> <li>Vimachem SSM</li> <li>Werum</li> </ul> 

## Schematic Diagram


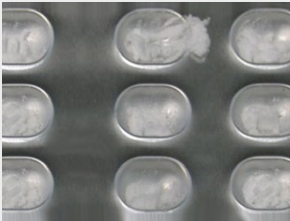
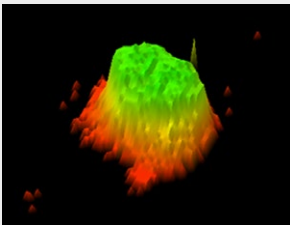





System	Area of Application	Inspection Criteria	Highlights	Example Pictures
<b>Black and White (BW)</b> 	<ul style="list-style-type: none"> <li>Tablets</li> <li>Oblongs</li> <li>Sugar-coated tablets</li> <li>Hard and soft gel capsules</li> </ul>	<ul style="list-style-type: none"> <li>Presence</li> <li>Size</li> <li>Shape</li> <li>Perimeter</li> <li>Position</li> <li>Broken products</li> <li>Overfilling</li> <li>Surface defects</li> <li>Consecutive error</li> </ul>	<ul style="list-style-type: none"> <li>Magnificent speed</li> <li>Encompassing analytical options</li> <li>All parameters can be used simultaneously</li> <li>Homogenous, reproducible and adjustable illumination – 16 levels available</li> <li>Use of the QNX® real-time operating system</li> </ul>	 
<b>Color (CL)</b> 	<ul style="list-style-type: none"> <li>Tablets</li> <li>Oblongs</li> <li>Sugar-coated tablets</li> <li>Hard and soft gel capsules</li> </ul>	<ul style="list-style-type: none"> <li>Presence</li> <li>Size</li> <li>Shape</li> <li>Perimeter</li> <li>Position</li> <li>Broken products</li> <li>Overfilling</li> <li>Surface defects</li> <li>Consecutive error</li> <li>Colour</li> </ul>	<p>Like <b>SPECTRA Black and White</b>, additional</p> <ul style="list-style-type: none"> <li>The system can be upgraded to <b>SPECTRA High Resolution</b> at any time in case of increasing requirements. That way, specialist requirements can be fulfilled.</li> </ul>	 
<b>High-Resolution (HR)</b> 	<ul style="list-style-type: none"> <li>Tablets</li> <li>Oblongs</li> <li>Sugar-coated tablets</li> <li>Soft and hard gel capsules</li> <li>Medical Strips</li> <li>Sealed products</li> <li>Special shapes</li> <li>Dialpacks etc.</li> </ul>	<ul style="list-style-type: none"> <li>Presence</li> <li>Size</li> <li>Shape</li> <li>Perimeter</li> <li>Position</li> <li>Broken products</li> <li>Overfilling</li> <li>Surface defects</li> <li>Consecutive error</li> <li>Colour</li> <li>Particles</li> <li>Print on product</li> </ul>	<p>Like <b>SPECTRA Color</b>, additional</p> <ul style="list-style-type: none"> <li>All blister geometries and combinations of product and packaging material can be recognised</li> <li>Inspection of various products in same blister possible</li> <li>Applicable for post-seal inspection</li> <li><b>Multi-camera systems</b></li> </ul>	 
<b>3D</b> 	<ul style="list-style-type: none"> <li>Tablets</li> <li>Oblongs</li> <li>Sugar-coated tablets</li> <li>Soft and hard gel capsules</li> <li>Dry powder</li> <li>Aluminium blisters</li> <li>PVC blisters after filling</li> <li>Multi-layered capsules</li> </ul>	<ul style="list-style-type: none"> <li>Presence</li> <li>Size</li> <li>Broken products</li> <li>Overfilling</li> <li>Consecutive error</li> <li>Geometry</li> <li>Volume</li> </ul>	<p>Safe inspection:</p> <ul style="list-style-type: none"> <li>Double filling, both stacked and next to each other</li> <li>Broken products next to and underneath the product</li> <li>Capped multi-layered tablets</li> <li>Low-contrast environments such as grey tablet in aluminium blister</li> <li><b>Multi-camera systems</b></li> </ul>	 





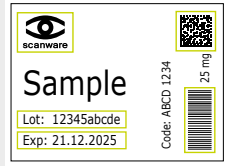

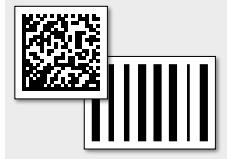
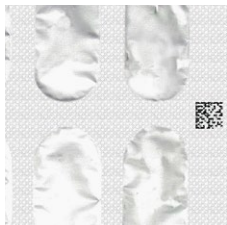



Application	System Usage	Area of Application and Inspection Criteria	Highlights
<b>Contraceptives</b>   	<ul style="list-style-type: none"> <li>• <b>SPECTRA High Resolution</b> with its designated algorithm combination</li> </ul>	<p>Applicable Objects:</p> <ul style="list-style-type: none"> <li>• Various colours in one blister</li> <li>• Various shapes within the same blister</li> <li>• Uncommon blister shapes like dialpacks</li> <li>• Special shapes, i.e. angular tablets with rounded edges, d-shapes or triangles</li> </ul> <p>Inspection Criteria:</p> <ul style="list-style-type: none"> <li>• Presence</li> <li>• Size</li> <li>• Colour</li> <li>• Shape</li> <li>• Perimeter</li> <li>• Broken product</li> <li>• Overfilling</li> <li>• Consecutive error</li> </ul>	<ul style="list-style-type: none"> <li>• Inspection of various products and shapes in same blister possible</li> <li>• Detection of smallest differences in colour and shape</li> <li>• All blister geometries can be recognised</li> <li>• Applicable for post-seal inspection</li> <li>• Resolutions of 1024 x 768 to 4092 x 768 pixels</li> <li>• Utilisation of 3CCD-cameras for extraordinarily high colour separation</li> <li>• <b>Multi-camera systems</b></li> </ul>
<b>Japan Quality</b>   	<ul style="list-style-type: none"> <li>• <b>SPECTRA High Resolution</b> with water-cooling system</li> </ul>	<p>Applicable Objects:</p> <ul style="list-style-type: none"> <li>• Tablets</li> <li>• Oblongs</li> <li>• Sugar-coated tablets</li> <li>• Soft and hard gel capsules</li> <li>• Special shapes</li> <li>• Sealed products</li> </ul> <p>Inspection criteria:</p> <ul style="list-style-type: none"> <li>• Smallest defects, such as:</li> <li>• Polishing errors</li> <li>• Particles on product or coating</li> <li>• Surface defects</li> </ul> <p>Furthermore</p> <ul style="list-style-type: none"> <li>• Colour</li> <li>• Presence</li> <li>• Size</li> <li>• Shape</li> <li>• Position</li> <li>• Perimeter</li> <li>• Broken product</li> <li>• Overfilling</li> <li>• Consecutive error</li> </ul>	<ul style="list-style-type: none"> <li>• Detection of minimal defects such as polishing errors, particles on product or paint</li> <li>• All blister geometries and combinations of product and packaging material can be recognised</li> <li>• Suitable for Post-Seal Inspection</li> <li>• <b>Multi-camera systems</b></li> </ul>













Application	System Usage	Area of Application and Inspection Criteria	Highlights
<b>Dry Powder</b>   	<ul style="list-style-type: none"> <li>• <b>SPECTRA 3D</b></li> <li>• <b>SPECTRA High Resolution</b></li> </ul>	<p>Applicable Objects:</p> <ul style="list-style-type: none"> <li>• Powder in part-filled pockets, for example pellets</li> <li>• Powder in pockets filled to the rim</li> </ul> <p>Inspection criteria:</p> <ul style="list-style-type: none"> <li>• Presence</li> <li>• Amount</li> <li>• Pollution of the sealing area</li> <li>• Colour and pollution of the powder</li> </ul>	<ul style="list-style-type: none"> <li>• Inspection of minimal dosage with low tolerances</li> <li>• Detection of pollution in combination with <b>SPECTRA High Resolution</b></li> <li>• Various construction designs for extra flexibility</li> <li>• Mask tracking for precise recognition of foil position</li> <li>• Volume data is saved for analysis of productivity</li> <li>• <b>Multi-camera systems</b></li> </ul>
<b>Bulk</b>   	<ul style="list-style-type: none"> <li>• <b>SPECTRA Color</b></li> <li>• <b>SPECTRA High Resolution</b></li> </ul>	<p>Applicable Objects:</p> <ul style="list-style-type: none"> <li>• Tablets</li> <li>• Oblongs</li> <li>• Sugar-coated tablets</li> <li>• Soft and hard gel capsules</li> </ul> <p>Inspection Criteria:</p> <ul style="list-style-type: none"> <li>• Colour</li> <li>• Size</li> <li>• Broken product</li> <li>• Perimeter</li> <li>• Shape</li> </ul>	<ul style="list-style-type: none"> <li>• High-speed inspection of up to 700,000 products per hour</li> <li>• Large machine widths can be inspected</li> <li>• Can be used on all common slat counters</li> <li>• Can be used on all ETCs with vibratory conveyors</li> <li>• Inspection of up to 48 vibration channels</li> <li>• Detection of cross-contamination, broken product and foreign matter</li> <li>• Exact position information of faulty products for individual rejection</li> <li>• <b>Multi-camera systems</b></li> </ul>






System	Area of Application	Inspection Criteria	Highlights	Example Pictures
<b>Print (HR)</b>  	<ul style="list-style-type: none"> <li>Small area recognition e.g. blister identification</li> <li>In-line single blister printing e.g.</li> <li>Late Stage Customisation</li> <li>Large area foil inspection</li> <li>Sachet and stick-pack machinery</li> </ul>	Print inspection: <ul style="list-style-type: none"> <li>Presence</li> <li>Completeness</li> <li>Readability</li> <li>Quality</li> </ul> Labels: <ul style="list-style-type: none"> <li>Letters</li> <li>Numbers</li> <li>Graphics i.e.:               <ul style="list-style-type: none"> <li>Company information</li> <li>Product data, Logos, pictograms or symbols</li> <li>Barcodes and 2D-Codes, i.e. DataMatrix</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Fast evaluation of data due to smart unicode library</li> <li>Automatic recognition of character orientation</li> <li>Copy of Evaluation Type feature for fast teach-in</li> <li>Automatic teach-in</li> <li>Error analysis in the format test</li> <li>Single masks movable</li> <li><b>Multi-camera systems</b> for inspection of large area prints</li> </ul>	 
<b>Codes (1 DC / 2 DC)</b>  	<ul style="list-style-type: none"> <li>Labels</li> <li>Package inserts</li> <li>Folding boxes</li> <li>Lidding foil</li> <li>Tubes</li> <li>And others</li> </ul>	1D-Codes: <ul style="list-style-type: none"> <li>EAN 8, EAN 13</li> <li>Code 32, Code 39, Code 128</li> <li>Interleaved 2/5</li> <li>DataBar</li> <li>Pharmacode</li> </ul> 2D-Codes: <ul style="list-style-type: none"> <li>DataMatrix</li> </ul>	<ul style="list-style-type: none"> <li>Easy, userfriendly, guided teach-in procedure</li> <li>Error analysis enables the optimisation of code printing</li> <li>High reading speed</li> <li>Reads up to 80 DataMatrix- and 150 barcodes per second</li> <li>Available in various builds</li> <li>All common codes can be decoded</li> <li>Format administration</li> <li>Display of results of all code readers</li> </ul>	 
<b>Ring Code (CL)</b>  	<ul style="list-style-type: none"> <li>Ampoules</li> <li>Vials</li> <li>Inspection of multiple items in blister or tray</li> <li>Single product inspection on labelling machines</li> </ul>	<ul style="list-style-type: none"> <li>Ampoules: Number of colour rings, ring colours, ring sequence, width, distance between rings, gaps and overall length of all rings</li> <li>Vials: Presence and colour of cap</li> <li>At the same time, the presence and colour of the label is inspected</li> </ul>	<ul style="list-style-type: none"> <li>Real colour recognition</li> <li>Inspection of ringcode and label in one single step</li> <li>Electronically controllable W-LED illumination for reproducible light conditions</li> <li>Two illumination levels can be evaluated in immediate succession</li> <li><b>Multi-camera systems</b></li> </ul>	 




System	Area of Application	Inspection Criteria	Highlights	Example Pictures
<b>Mark &amp; Verify (MV)</b> 	<ul style="list-style-type: none"> <li>Folding boxes</li> </ul>	<ul style="list-style-type: none"> <li>1D- and 2D-Codes e.g. Code 128 and DataMatrix</li> <li>Plain text e.g.               <ul style="list-style-type: none"> <li>Lot</li> <li>Expiry date</li> <li>GTIN</li> <li>Serial numbers</li> </ul> </li> <li>Print quality</li> </ul>	<ul style="list-style-type: none"> <li>Precise folding box guidance and ideal use of sensors</li> <li>Supports GS1, IFA Coding, CIP 13, ITS, Bollini IPZS, Royal Vignette Belge und China E-Coding</li> <li>Constant evaluation results</li> <li>Serialisation support</li> <li>Possible as compact add-on solution</li> </ul>	
<b>Tamper Evidence (TE)</b> 	<ul style="list-style-type: none"> <li>Folding boxes</li> </ul>	<p>Labels:</p> <ul style="list-style-type: none"> <li>Presence</li> <li>Position</li> </ul> <p>Optional:</p> <ul style="list-style-type: none"> <li>Print (1D and 2D codes as well as plain text)</li> </ul>	<ul style="list-style-type: none"> <li>Applicable for all common closing patterns</li> <li>High positioning accuracy</li> <li>Change of label roll is possible during ongoing operation</li> <li>Supports serialisation</li> </ul>	
<b>Bundle (BI)</b> 	<ul style="list-style-type: none"> <li>Bundle</li> <li>single folding boxes are possible</li> </ul>	<ul style="list-style-type: none"> <li>1D and 2D-Codes</li> <li>Completeness</li> </ul>	<ul style="list-style-type: none"> <li>Different camera positions possible (top, front, rear)</li> <li>Supports aggregation</li> </ul>	
<b>Case (CI)</b> 	<ul style="list-style-type: none"> <li>Folding boxes</li> <li>Bundle</li> <li>Shipper Cases</li> </ul>	<ul style="list-style-type: none"> <li>Readability of 1D and 2D codes e.g. Code 128 and DataMatrix</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of brushless motors</li> <li>Automatic adjustment of camera and illumination module when adding a layer</li> <li>Movable contact edge</li> <li>Supports serialisation</li> <li>Supports aggregation</li> </ul>	
<b>Mobile Base Station (MB)</b> 	<ul style="list-style-type: none"> <li>Shipper Cases</li> <li>Pallets</li> </ul>	<ul style="list-style-type: none"> <li>Labels               <ul style="list-style-type: none"> <li>Presence</li> </ul> </li> <li>1D- und 2D-Codes               <ul style="list-style-type: none"> <li>Content</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Can be used for various requirements               <ul style="list-style-type: none"> <li>Manual aggregation case</li> <li>Manual Aggregation Pallets</li> <li>Rework</li> </ul> </li> <li>Up to two printer attachments</li> <li>Possible as compact add-on solution</li> </ul>	



System	Area of Application	Highlights
<b>Foil</b> 	Detection of pores and micro fissures <ul style="list-style-type: none"> <li>• In aluminium bottom foil (formed or plane)</li> <li>• In aluminium lidding foil</li> </ul>	<ul style="list-style-type: none"> <li>• Can easily be integrated onto any existing blister machine</li> <li>• High detection capacity down to 25, 50, 100, 250 and 500 µm.</li> <li>• Internal shift register optional</li> <li>• Available in widths of 200 to 1,000 mm</li> <li>• Multi-lingual display</li> </ul>

## Service and System Check – NEW

<b>Description</b> So that your scanware systems run optimally and you can use all scanware advantages, we offer you a service for preventive system maintenance. Our service experts come to you at periodic intervals and issue our seal of quality after successful testing. 	<b>Our Service</b> Hardware verification, such as <ul style="list-style-type: none"> <li>• Function check</li> <li>• Calibration of the display unit</li> <li>• And much more</li> </ul> Software verification, such as <ul style="list-style-type: none"> <li>• Backup of formats, users, etc.</li> <li>• Data backup for the customer</li> <li>• And much more.</li> </ul> Additional service, such as <ul style="list-style-type: none"> <li>• Tips and brief instructions</li> <li>• Security check</li> <li>• Information about new features</li> <li>• And much more</li> </ul>	<b>Your Benefits</b> <ul style="list-style-type: none"> <li>• The reliability of your scanware systems is increased even further</li> <li>• The availability of your production facilities increases</li> <li>• The scanware system data is always up to date</li> <li>• The operating comfort of the systems is optimized</li> <li>• Maintenance times and costs can be planned</li> <li>• There is an exchange of knowledge between technicians and users</li> <li>• Your employees are always up to date</li> </ul>
---	--	--

## 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 &amp; Products



Codes, Text &amp; Graphics



Track &amp; Trace



Support



scanware



### scanware electronic GmbH

Darmstädter Straße 9-11  
 D-64404 Bickenbach  
 Telephone +49 6257 9352-0 Fax -22  
 info@scanware.de  
 www.scanware.de

### International Distributors:

Algeria | Brazil | Canada | China | Costa Rica | Egypt  
 France | Greece | Italy | Morocco | Puerto Rico | Russia  
 South Korea | Spain | Switzerland | Tunisia | United Kingdom | United States

