

COAT-INSPEKT

Vision Inspection for Adhesive Coatings

Valco Melton's Coat-Inspekt offers real-time vision inspection for coating processes. An Artificial Intelligence system automatically classifies all errors detected into pre-set categories, facilitating an immediate and intuitive overview of the production status. This, combined with the historical data stored in the system, brings in a powerful tool for process analysis.



Defect Categorization by AI

All errors detected are automatically assigned to one of the following categories:

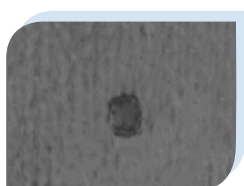
- Spots
- Missing Glue
- Lines or scratches
- Excess of Glue
- Wrinkles on the substrate

Filter information by category, defect size, and waste area.

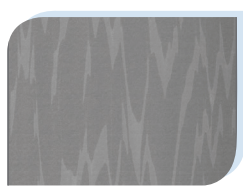
- **Improve customer satisfaction by guaranteeing a defect-free product.** Coat-Inspekt detects any and all defects on the roll, allowing you to eliminate them in the following step of the process, which is commonly the slitting station.
- **Minimize waste -- Reduce cost.** Real-time error detection allows your operators to take an immediate corrective response.
- **Support your continual improvement actions.** All defects are categorized by an artificial intelligence system, which provides you real-time insight on your production. These reports are stored for further analysis, and product traceability, allowing to take informed decisions to improve product quality and process efficiency.

Roll Defect Map

View the complete roll or zoom in to specific areas. Waste areas are indicated for removal on the following station.



Spots



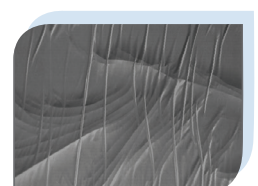
MissingGlue



LinesorScratches



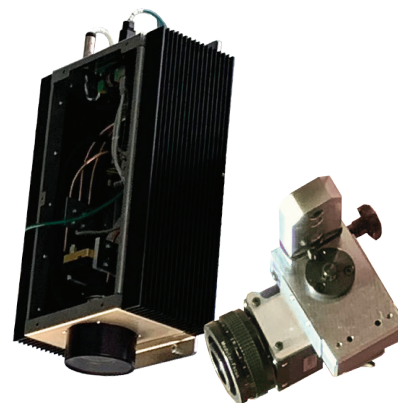
ExcessofGlue



Wrinkles

Full Package includes: vision inspection cameras and processor unit for image and AI, lighting system, bracketry, and a screen to visualize all data from the parent machine.

Camera options include our standard camera for line speeds of up to 150m/min and a high-speed option for line speeds up to 500 m/min. Both options detect errors as small as 1 x 1 mm.



FULL PROCESS REPORTING

When working with our LP Series Coating Lines, or Akura Coating Stations, the system records the working parameters defined on the recipe for each of the rolls produced. This information is stored locally together with the roll defect map.

Parameters stored include line speed, application width, grammage, coating die position, tensions (working and tension torque in the unwinders and rewinders), pressures (coating die against back up roll, laminating and rewinder nip roll), temperatures (adhesive and back up roll), as well as UV and corona dosing if applicable.



PRODUCT TRACEABILITY

Incorporating a barcode scanner provides detailed information about the substrates, adhesives, lips and shims used in the production of each roll.

This information is printed onto a label that is attached to the roll, transferring this information to the following steps of the process.

MISTAKE PROOFING - ERROR DETECTION

Prevent human error. Our LP Series Coating Lines and Akura Coating Stations locally store recipes for each of the roll types produced. Operators can scan the barcodes on the substrates, adhesives, lips, and shims during set up. In the event that any of these items don't fit the selected recipe, the system will alert the operator.

Technical Specifications

Coat-Inspekt	
Line Speeds	Standard: Up to 150 m/min High-Speed: Up to 500 m/min
Web Width	Modular System: 800 mm per camera
Max. Data Storage	48 Tb - Equivalent to approx. 55,000 reels (2000 m L x 1600 mm W) working at 500 m/min
Min. Defect Size	1 x 1 mm
Resolution	0.3 mm

For more information, visit valcomelton.com or contact your local representative

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