GLUING & QUALITY INSPECTION SOLUTIONS FOR THE

COATING & CONVERTING
INDUSTRIES

VALCO MELTON®

Adhesive Dispensing & Quality Assurance Systems

MELTING & DOSING
SMART & M SERIES

As manufacturers of adhesive dispensing equipment, we take pride in providing a complete solution that covers the **entire hot melt coating process**, from adhesive melting and dosing, to application, web handling, and quality inspection. To meet the varying needs of different processes, we offer a selection of pre-melters, buffer tanks, and melters that cater to all melting requirements.

SMARTDRUM
DRUM UNLOADERS

- Achieve the **highest melting rates** in the industry when working with any type of adhesive delivered in 200-liter drums, even with acrylic adhesives.
- Main machine network communication protocols Profinet and Ethernet.
- Connect to the control panel screen through a VNC server
- **The Drum Management System** controls up to 8 drum unloaders and sends a signal based on the current production needs. An alarm system notifies users when each drum needs to be changed.

SMART PS
REMOTE PUMPING STATIONS

- Pumping stations provide a **controlled dosing** to guarantee **grammage and pattern consistency.**
- Separately control gear pumps to achieve a precise volumetric dosing.
- Improve adhesive grammage precision, pattern consistency and overall quality.
- **Immediate Hydraulic Response**. Reduce product and adhesive waste during machine ramp up and ramp down.
- **Close-Loop Control**. When working with Akura applicators and Weight Inspekt grammage control, the average grammage of each hydraulic zone in the applicator may be controlled in close-loop with the gear pumps.
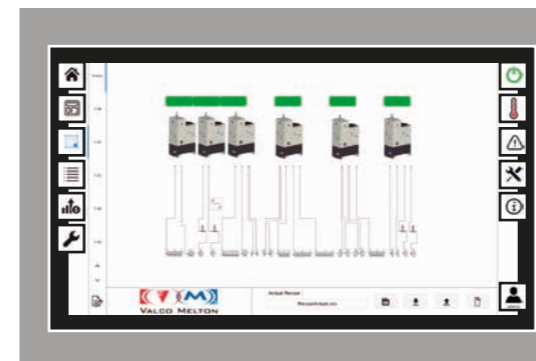

M SERIES
ADHESIVE MELTERS

- Available tank capacities: 170, 350, and 600 L.
- M Series melters can work as a **buffer tank** in combination with drum unloaders or extruders. Buffer tank kits available.
- They can also be used as a **direct melter**, normally when working with EVA, waxes or paraffins.
- Achieve high melting rates while ensuring excellent heat control and stability. M melters are designed for lower energy consumption.
- Main machine network communication protocols Profinet and Ethernet.
- Can feature up to 4 gear pumps (up to 100cc).

SMARTMELT
ADHESIVE MELTERS

- Available tank capacities: 15, 30, 65 and 120 L.
- SmartMelt Series units guarantee an accurate control of the glue application, even at full production speeds and during machine ramp up and down.
- Main machine network communication protocols Profinet and Ethernet.
- Can feature up to 4 gear pumps (up to 15cc).
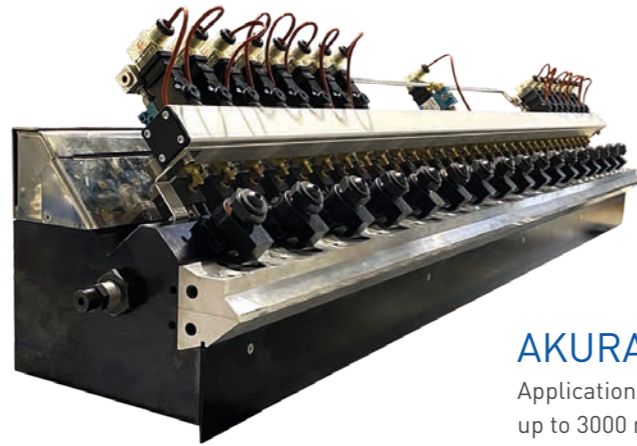
SMART CONTROL

Smart Control allows the operator to visualize and manage the complete hot melt dispensing system (drum unloaders, melters, applicators, and accessories).

Easily control your working process, create recipes, modify parameters, and program alarms.

The system also generates and displays adhesive usage reports and simplifies maintenance monitoring with scheduled notifications when maintenance or replacements are required (resistors, modules, pumps, filters...).

HOT MELT APPLICATION
AKURA SERIES

AKURA PFL

Application widths
up to 3000 mm

AKURA PF

Application widths
up to 1100 mm

Akura Series Benefits:

Homogeneous Adhesive Distribution

Akura applicators feature a number of independent hydraulic zones, each zone fed by a gear pump.

Automatic Flow Adjustments

When incorporating Weight Inspekt grammage control systems, the adhesive flow of each hydraulic zone may be controlled automatically, working in close-loop with the gear pumps.

CLOSE-LOOP

Akura M Specific Benefits:

Immediate Hydraulic Response

Akura M applicators incorporate built-in gear pumps on the applicator body, which guarantees an immediate hydraulic response and a good tolerance during machine ramp up and in non-contact applications.

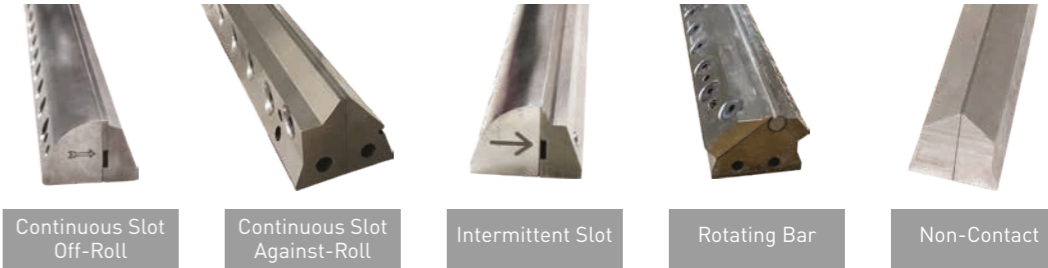**Single or Multi-Stream Options**

The bulit-in gear pumps may be single or multi-stream, which allows for a better flow control without the need for individual module adjustment.

AKURA M

Controlled dosing for
the lowest grammages

LIP OPTIONS

Easily switch between
different lip options.

Continuous Slot Off-Roll | Continuous Slot Against-Roll | Intermittent Slot | Rotating Bar | Non-Contact
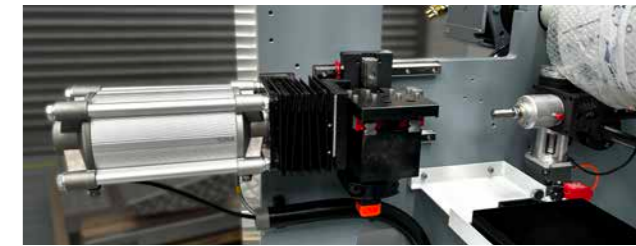
FLOW ADJUSTMENTS

For high-speed applications, MI Modules guarantee a sharp cutoff. MPH-RM Modules feature a micro-regulation system for high precision on the adhesive dosage.
When working with high viscosities or high adhesive flows, Akura applicators feature a specific flow regulation system.

MI Modules | MPH-RM Modules | Flow Regulator

BRACKET OPTIONS

Utilizing the appropriate mounting bracket guarantees a correct adhesive penetration, coat-weight, and easy pattern adjustments. Akura brackets are designed to easily switch from off-roll to against-roll position, and allow users to control the position of the applicator against the roll from the PLC through a stepper motor.

AKURA
COATING STATION

Incorporate hot melt coating capabilities to your production process with Valco Melton's Akura Coating Station. Fitted with one of our Akura Series hot melt coating applicators for streak-free coatings up to 3000 mm wide, and a chilled, motorized back-up roll (diameter and rubber hardness defined for each project).

Akura Coating Station Benefits:

- For manufacturers working with **water-based or solvent-based adhesives**: Akura Hot Melt Coating Stations help you expand your product portfolio in a cost-effective manner, by incorporating products where hot melts or UV hot melts are better suited, or higher line-speeds are required.

- For manufacturers using **gravura-bath** as their glue application system: upgrade to an enclosed gluing system and enjoy an improved thermal stability and minimized adhesive pollution.

- For **siliconizers**: incorporate linerless capabilities to your siliconizing line.

HOT MELT COATING LINES
LP SERIES

LP Series Coating Lines are designed to coat and laminate a variety of substrates, offering a complete control of the coating process through programmed recipes and close-loop capabilities.

Coating Station

Hot Melt Applicator
LP Series Coating Lines feature one of our Akura Series hot melt applicators.

Back-Up Roll
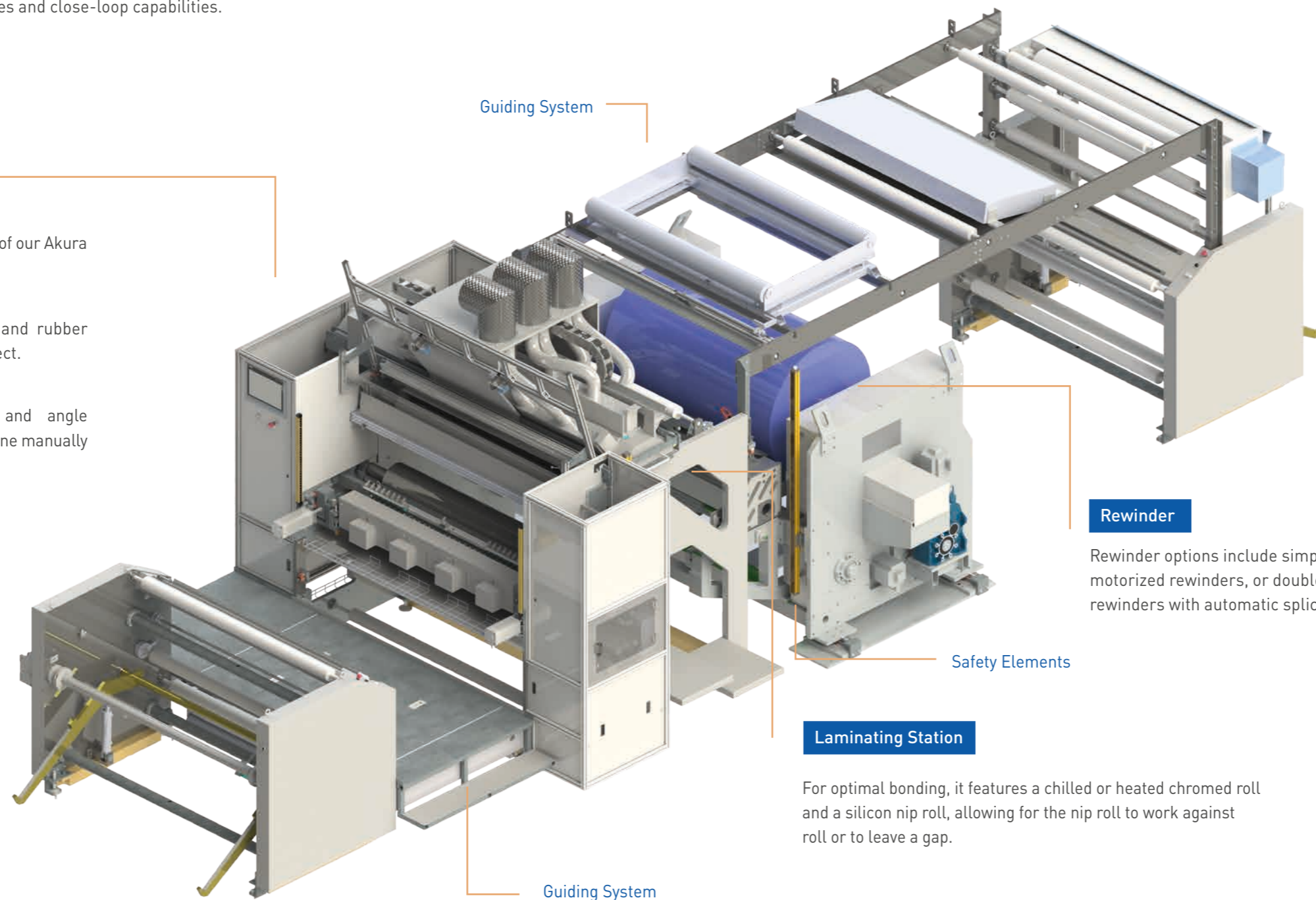Chilled and motorized. Diameter and rubber hardness are defined for each project.

Mount Assembly
Our brackets allow for X, Y, and angle micro-adjustments, which can be done manually or through a stepper-motor.

Accessories

UV Lamps
Available accessories include UV lamps for curing UV hot melts. They may incorporate a UV dosing sensor.

Corona & Infrared Treatments
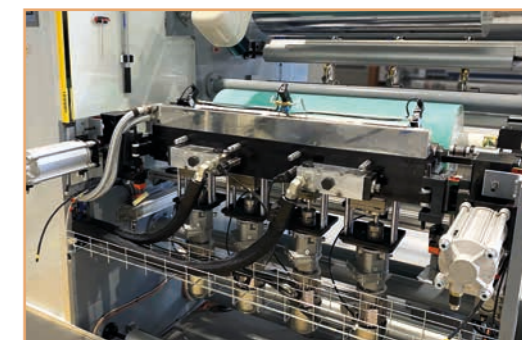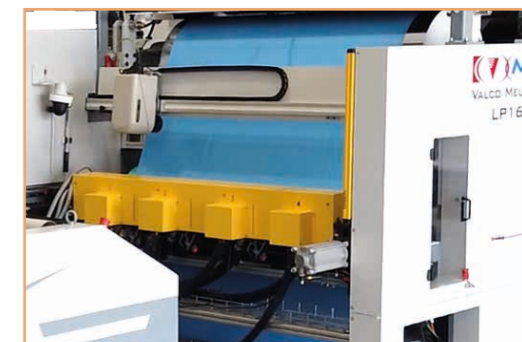Installed over the coated or laminating substrate to improve the anchoring

Quality Inspection
Incorporate Coat Inspekt vision inspection systems with automatic defect clasification, and Weight Inspekt grammage control systems to achieve in-line coat-weight inspection and an automatic grammage adjustment working in close-loop with the gear pumps.

Guiding System

Rewinder
Rewinder options include simple, motorized rewinders, or double rewinders with automatic splicing.

Safety Elements

Laminating Station
For optimal bonding, it features a chilled or heated chromed roll and a silicon nip roll, allowing for the nip roll to work against roll or to leave a gap.

Guiding System
Guiding systems activated by a photocell automatically correct the position of the material to maintain the desired web path.

Unwinders

Coated Substrate & Laminating Substrates
Different unwinder options for the coated and laminating substrate unwinders are available to suit multiple project requirements. From brake action based on roll diameter to motorized unwinders working in close loop with a load cell, or turret unwinders with automatic splicing to eliminate machine downtime during roll changes.

CUSTOMIZED TO YOUR REQUIREMENTS

Valco Melton's LP Series are suitable to serve a variety of industries and manufacturing processes, including labels, tapes, graphics, medical tapes and protective wear, automotive, textiles, construction, or other laminated materials delivered in roll format.

LP Coating Lines range from 350 mm to 1600 mm wide, and can work with different hot melts and UV hot melts, on substrates as varied as papers, foams, foils, PVC's, PE's, PU's, PP's, textiles, or nonwovens.
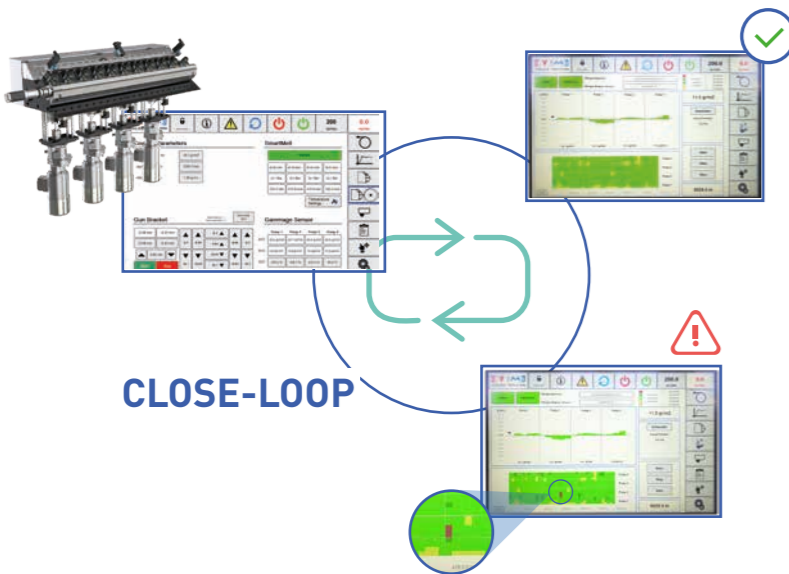
QUALITY INSPECTION
INSPEKT SERIES

Lumitio by Valco Melton

Lumitio is Valco Melton's brand for quality inspection and process management solutions for the coating and converting industries.

WEIGHT INSPEKT
GRAMMAGE CONTROL SYSTEMS

- Measure the adhesive coat weight inline, independetly from the substrate thickness with Weight Inspekt infrared grammage control system, and gain precise and valuable insight about the gluing process.

- Avoid down time and product loss associated with sample measurement. Weight Inspekt works inline - no need to stop/restart the line.

- Access a complete overview of the coating process. For each roll produced, Weight Inspekt stores an adhesive distribution map together with the working parameters defined on the recipe.

CLOSE-LOOP

WEIGHT INSPEKT & AKURA SERIES

When working with Akura applicators, Weight Inspekt allows to control the average grammage of each hydraulic zone in close loop with the gear pumps. As deviations are detected, the system automatically adjusts the adhesive flow for the out-of-tolerance hydraulic zones.

CONNECTIVITY & TRACEABILITY MODULES

Connect Inspekt

Promote an efficient communication exchange between different production processes. All details about defects detected by Coat Inspekt and Weight Inspekt are transferred to the slitting station, providing essential information for the effective planning and execution of recovery or rework operations.
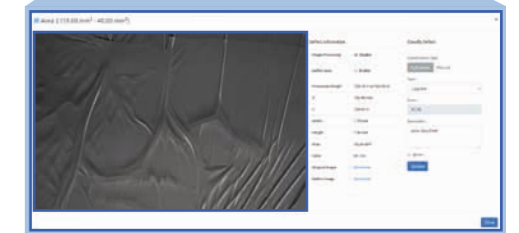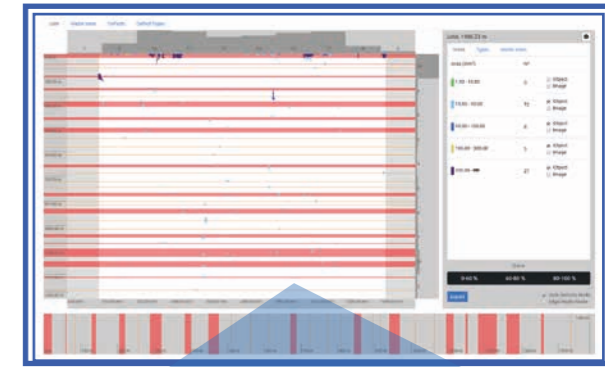
Track Inspekt

The system generates an alert when operators scan the barcodes of raw materials and coating line components and they don't correspond to the ones specified in the production order.
Detailed information about each product batch can be printed and transferred to the following step of the process, for complete product traceability.
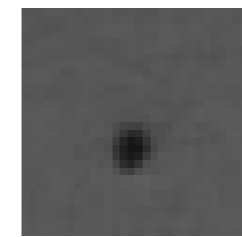
COAT INSPEKT
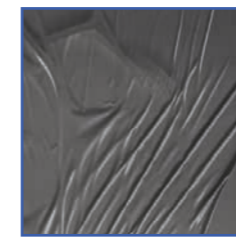### VISION INSPECTION SYSTEMS

- **Guarantee defect-free products**. Detect any defect on the roll, with the ability to eliminate it in the slitting station.

- **Minimize waste** with real-time error detection. Operators can take immediate corrective actions to any alert, reducing waste and overall production costs.

- **Store images and production reports** for further analysis and complete product traceability, to allow teams to take data-based, informed decisions that enhance product quality and process efficiency. This makes Coat Inspekt a vital tool for manufacturers **continual improvement strategies.**

- All defects logged in the system are presented on a user-friendly **roll defect map**. Users may zoom in on specific waste areas to see actual images of each and every defect. Information about the waste areas marked for removal may be transferred to the slitting station using the Inspekt Connect module.
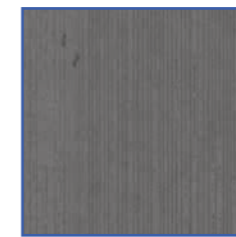
Automatic defect categorization by artificial intelligent into five preset categories.

SPOTS	WRINKLES	SCRATCHES	MISSING GLUE	EXCESS OF GLUE

PROD INSPEKT
MANUFACTURING EXECUTION SYSTEM

Align all company areas through the use of accurate data and uncover your production's hidden growth potential.

- Integrate and centralize all your production related data into a single platform.

- Share accurate information across all departements for informed, data-based decisions.

- Nine separate modules include quality, consumables tracking, maintenance and production planning, complaints management, energy consumption, machine data, labeling, and KPI.

KPI · Planning · Quality · Machine Data Collection · Consumables Management · Complaints Management · Maintenance · Labeling · Energy

ACCESSORIES & UPGRADES
ELEVATE YOUR COATING PERFORMANCE

SMARTMIXER
ADHESIVE MIXING STATION

- The SmartMixer allows users to reformulate adhesives, add some colourings, or certain drugs commonly used on medical applications, inline.
- Incorporating a flow meter at the input of each component guarantees the precise dosing required. A flow meter at the output is frequently used for confirmation.
- Static or Dynamic options available.

SMARTFLOW
FLOW METER SYSTEM

- SmartFlow metering systems continuously monitor the amount of adhesive dispensed and compare it to the applicators set point.
- Automatically adjust the dosing unit pump speed when the system detects that the actual flow is deviating from the set point.
- SmartFlow controllers feature a programmable mapping of input and output signals to control different production lines with independent product specifications.

SMARTFOAM
FOAMING STATION

- Reduce adhesive density by up to 50% while maintaining its bonding capabilities.
- Foaming improves certain adhesive properties such as open time, wetting, and compression, and increases the contact surface.
- The optimal solution for gap or joint filling, as it reduces the use of adhesive and results in lighter products.

ONE TRUSTED SINGLE SUPPLIER
FOR ALL YOUR COATING AND LAMINATING NEEDS

Valco Melton brings over **70 years** of expertise in designing and manufacturing gluing and quality inspection technologies for a wide array of industries. In the coating and converting industries, our tailored coating solutions are ideal for processes such as **tape, medical tape, graphics, protective films, or label manufacturing**, and can be used across industries as diverse as **textiles, flexible packaging, or automotive**.

Dedicated Coating Team & Facilities

One of our manufacturing facilities in Orkoien, Spain, is entirely dedicated to the coating business, where our specialized Coating & Laminating team is fully committed to the research and development, design, testing, manufacturing, installation, and post-sales support of hot melt coating equipment.

Single Supplier for the Complete Coating Process

As a manufacturer of adhesive dispensing equipment, we take pride in providing a **complete hot melt coating solution** that covers the entire process, from adhesive melting and dosing, to application, web handling, and quality inspection.

75+
DIRECT FIELD TECHNICIANS
Plus a strong network of authorized technical support through VM's distributors

Unbeatable Technical Support

Our coating equipment is backed up with an unbeatable post-sales service and technical support. Our global network combines over 75 direct field technicians with an extense authorized distributor network.

Lab Testing Facilities

Additionally, we have two lab testing facilities, one located in our world headquarters in Cincinnati, Ohio, USA, and the other in Orkoien, Spain. These locations allow us to provide dedicated support to the coating industry and ensure our clients receive the highest quality products and services.

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ALL LOCATIONS

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Adhesive Dispensing & Quality Inspection Systems