Product Inspection

CV Combination

Efficient Weight and Label Inspection



CV Combination

This fully integrated system offers weight control and completeness check combined with label inspection for all product shapes. The space-saving solution is fully configurable from standardized modules and offers advanced quality control.

Prevent Recalls and Reduce Waste
Detect under- and over-filled products to comply with weighing regulations and reduce waste. Inspect label data and quality defects to prevent recalls.

Small Footprint
The single frame with only four feet on the ground offers significant space savings. Shared conveyor belts and handling components reduce costs.

Lower Total Cost of Ownership
Benefit from one selection and configuration partner, a single service technician for both technologies and one fully integrated training offering.

METTLER TOLEDO

Flexible System Design



Mix our system components to match your application needs. Select from a range of standardized checkweighers and vision inspection systems to create the best combination for your production challenges.

Weight and Completeness Control



The C-Series checkweighers offer precision weighing at production speeds of up to 500 ppm in a combination system with FlashCell™ EMFR technology. Optional MID certification helps to comply with weighing regulations and reduces costly product waste.

Label Data and Quality Control



Choose from a variety of vision inspection systems to perform 100% automated label inspection for all product shapes. Verify label data and quality early in the production process to avoid recalls, prevent retailer fines and reduce waste.

Product Handling Excellence



Achieve maximum process stability and equipment efficiency for both label and weight inspection. A large selection of shared transition, transport, stability and sorting options are available for any packaging format.

Seamless Integration



Carry out configuration set-up and changes, such as product changeovers, only once for both integrated product inspection technologies via the checkweigher HMI. This saves time and reduces the risk of operator errors.

Connectivity Supports Automation



Various interface protocols including Ethernet, Fieldbus and OPC technologies enable IoT / Industry 4.0 initiatives to access, analyze and control production data anytime and anywhere. The system can be connected to the ProdX™ quality management software.

Product Handling Options

Achieve outstanding process stability and equipment efficiency through transition, transport, stability and sorting options for any packaging format:

- Achieve smooth product transport between customer equipment and the checkweigher for challenging applications with options such as small roller diameters for conveyors, side grips or top and bottom belts
- A wide range of spacing options such as timing screws, starwheels or spacing conveyors support correct product spacing for the weighing process for optimum results

Examples:



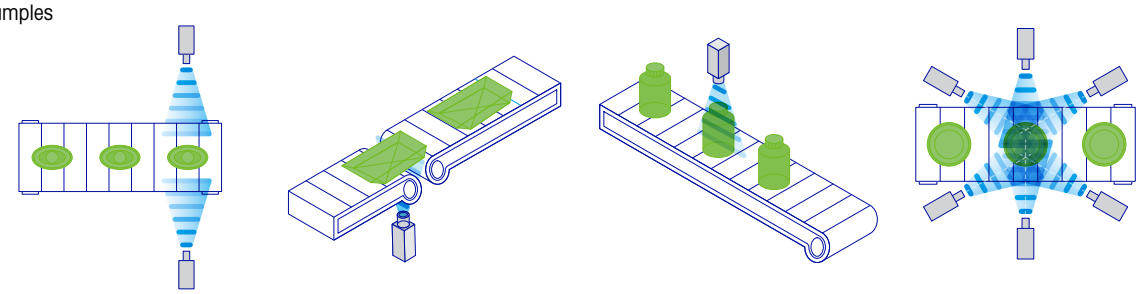
Guide rails | Spacing conveyor | Side grip conveyor | Star wheel | Timing screw

Camera Positioning Options

Different camera options are available to support your specific label design and packaging inspections:

- Camera postions are optimized for the applications and pre-configured by our experienced engineering team.
- One camera can perform multiple inspections, provided the inspection is in the same area of the label.

Examples



Side Cameras | Bottom Camera | Top Down Camera | 360° Inspection Head

Software Options

- Extensive reporting functions (e.g. statistical and counter reports, statistical process control)
- Audit Trail data and Authorized Acknowledgments of critical alarms support the customer to fulfill requirements for audit purposes
- Interface with the METTLER TOLEDO ProdX™ data management system for remote access and enhanced insight in production processes
- Industy 4.0 readiness with UPC UA and Fieldbus integration

CV Combination
Technical Specifications

Checkweighing	C33 Checkweigher			C35 Checkweigher		
Vision Inspection System*	**V11**	**V13**	**V15**	**V11**	**V13**	**V15**
Label Data Inspections	1D/2D Barcode, Alpha Numeric					
Label Quality Inspections	Label Wrinkles; Graphical ID; Label Placement; Label Skew					
Cap Inspection	Cap Color; Cap Skew; Cap Presence	—	Cap Color; Cap Skew; Cap Presence	Cap Color; Cap Skew; Cap Presence	—	Cap Color; Cap Skew; Cap Presence
Maximum Product Width	400 mm	400 mm	100 mm diameter	400 mm	400 mm	100 mm diameter
Inspection Area	Top; Side	Bottom	Side	Top; Side	Bottom	Side
Field of View	95 x 71 mm (default)	96 x 72 mm; 128 x 96 mm	110 x 83 mm; 120 x 90 mm	95 x 71 mm (default)	96 x 72 mm; 128 x 96 mm	110 x 83 mm; 120 x 90 mm
Product Shape	Cartons, oval containers or any oriented package	Flat packs, cartons, clamshells	Round packages, bottles, jars and tubs	Cartons, oval containers or any oriented package	Flat packs, cartons, clamshells	Round packages, bottles, jars and tubs
HMI	12 inch color touchscreen			15 inch color touchscreen		
Weighing Range**	25 g - 7,000 g			3 g - 10,000 g		
Maxiumum Product Weight	7.5 kg			10 kg		
Weighing Technology	FlashCell™ EMFR load cell; Strain Gauge load cell			FlashCell™ EMFR load cell		
Accuracy***	from ±0.05 g (50 mg)			from ± 0.01 g (10 mg)		
Transport Height	550 mm - 1,100 mm (± 50 mm)			550 - 1,500 mm (± 50 mm)		
Throughput	300 ppm			500 ppm		
Cleaning Requirement	Wipe Down (IP54);Low Pressure (IP65)			Wipe Down (IP54);Low Pressure (IP65)		

Each system is available with a 12 or 15 inch color touchscreen HMI and up to IP65 hygienic requirement rating.
* Choose one or more options from each Vision Inspection System to configure your system.
** Dependent on product (article) weight and the design and dimensions of the weighing conveyor being used.
*** Within official margins of error, depending on weight, dimensions and transport characteristics of the product being weighed.

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For more information

Subject to technical changes.
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