

Yamato



Checkweigher **I series**

Self Diagnosis
Self Recovery
Optimum Control
Remote Maintenance

INNOVATION IN MOTION



INNOVATION IN MOTION

Checkweigher I series

● INDUSTRY-LEADING PERFORMANCE LEVELS

Speed

480ppm (max. 50%UP^{*})

Accuracy

±0.15g (max. 50%UP^{*})

*Compared to conventional models

● EASY OPERATION

Auto-tuning
for Optimum Control

● THE BEST STRUCTURE FOR OPTIMUM FOOD SAFETY & MAINTENANCE

Easy to clean

WATERPROOF

IP67, IP69K^{*1}

Enhanced Load Cell Protection: 3000N



● HIGH RELIABILITY & SAFETY IN USE

^{*1} Reject Verification for All-Direction PATENT PENDING

^{*1} Self Diagnosis, Self Recovery, Optimum Control, & Remote Maintenance Function

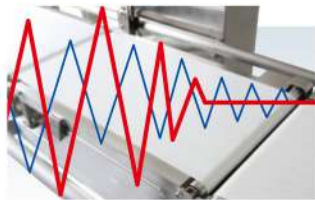
*1: option

Ensuring the Highest Level of Quality and Safety

Industry-Leading Performance Level

50% improvement in weighing speed and accuracy (*Compared to conventional models)

- The new digital load cell does not require auto zeroing due to temperature changes, thus resulting in faster operation.
- The optional dual load cell further increases weighing accuracy.
- The highly responsive load cell stabilizes the products impact with expedience therefore allowing high speed and high accuracy weighing.
- A wider variety of infeed and weighing conveyor sizes maximize speed and accuracy by suiting the specific product being weighed.



Easy Operation

- Yamato's original "Automatic program setting system" allows initial settings to be performed without any complicated parameters.
- The new CE3000 indicator utilizes 12.1-inch color touch screen and 3D Animation, thus offering higher visibility and better usability.
- The LED lights located at the top of the indicator can be set to 7 different colors in accordance with the operation, so that the current operational status can be seen from a distance.
- Any operational level on the display can be reached in 3 quick and easy steps.



Automatic program setting display



Operation History Retrieve Function

Outstanding Food Safety

- I series waterproof models are IP67 compliant. IP69K compliance (optional) enables high pressure and temperature water washing.
- The tubular legs minimize dust accumulation, while the flat design and open-frame structure provide ease of cleaning and a high level of food safety.
- Adopts an anti-bacterial conveyor belt made of resin.
- Compliant with HACCP and GMP.



Open-frame structure



Anti-bacterial conveyor belt

Ease of Cleaning & Maintenance

- Parts replacement time alert function
The indicator shows the time for replacing consumable parts and making maintenance checks. This prevents malfunctions and minimizes downtime.
- The round, bar-shaped stopper enables the load cell to withstand up to 3000N, thus contributing to efficient cleaning, maintenance, and decreasing downtime. **PATENT PENDING**
- The error status indication function shows where a malfunction has occurred and how to respond to it, thus enabling quick and appropriate recovery from errors.
- Modularization of parts makes previously complicated repair and maintenance easy.
- Conveyors can be removed and reattached very simply without the need for any special tools.
- Anti-error monitor and alert function (weighing error, photo sensor error, etc.)



Maintenance history display



Error status display



Alert function display



Easy removal of conveyor

Reliability & Safety

- All-direction reject verification function (optional) **PATENT PENDING**
By installing sensors in all directions, this function is able to confirm whether defective products are being properly rejected and prevents those products from being passed on to the next line.
- Self diagnosis and countermeasure display function
Error and abnormal situations, such as overload error, A/D converter error, and countermeasure is shown on the display.
- Check item alert function
The indicator shows items which need to be checked before starting the daily operation.

Environmental Responsibility

The Checkweigher I Series reduces power consumption by 30% (*Compared with a conventional model)

- The 7-color LED light function makes operation without the main screen possible, using only LED light indication.
- The backlight is automatically turned off when the unit is not in operation for a specified period of time.
The conveyor can also be stopped automatically when the unit is not operated for a period of time in order to save energy.
- Minimizes the environmental impact by reducing the number of components by 10%. *Compared to conventional models
- Compliant with RoHS



Features of the Control Panel



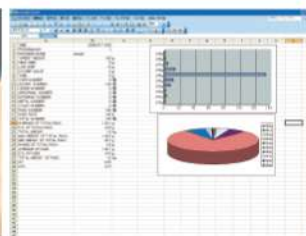
12.1-inch color touch screen



Printer (Option)



USB memory port



Making use of cumulative production data

Overall Versatility Means Lower Cost of Ownership

- On-site height adjustment is possible. The main frame and the legs can be separated easily. A variety of leg lengths enables almost any requirement to be met without major modifications.



- The compact and flexible design enables the unit to be replaced and to be installed into almost any production line without major modifications.

Options

- IP69K (Factory fitted only)
- Wide Range of Pass Line Height Variations
- Determinate Quantity and Weight Packing Function
- All-Direction Reject Verification Function **PATENT PENDING**
- Signal Light
- Tri-colored Light
- Printer
- Dual Load Cell
- BCD Product Input
- Feedback Control
- Automatic Conveyor Stop Function (For saving energy)
- Wireless LAN Function
- Data Acquisition
- Wind Cover for Reject Device
- Cover Open Safety Sensor
- RS232C / Ethernet
- External Indicator
- Conveyor Guide
- Blue Belt
- BCD Output
- Wind Cover

Handling Capability



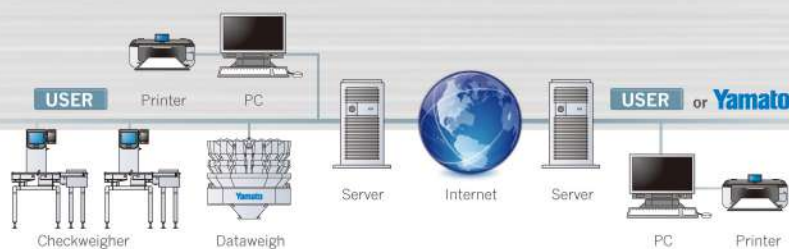
Broad range of packaging



Wind Cover

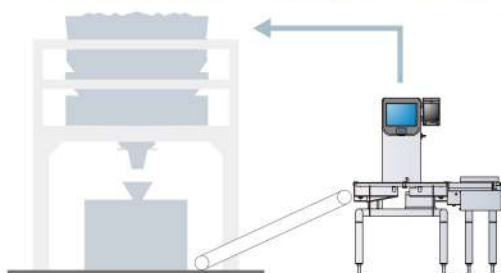
Network Connection Capabilities

The ability to network with peripheral devices improves the production yield rate and saves labor costs.



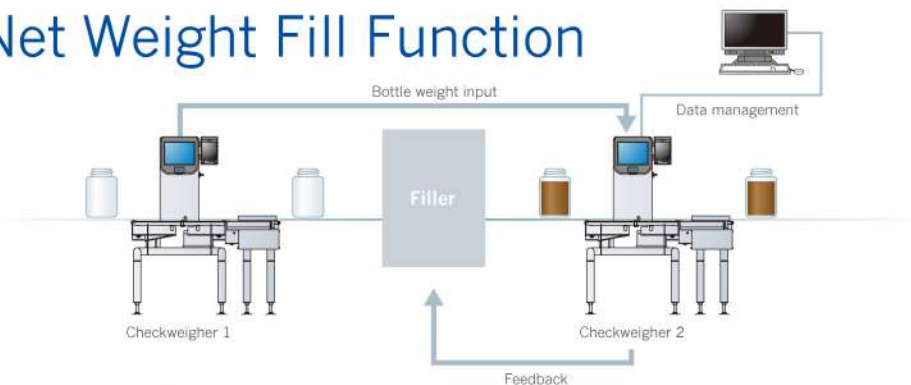
Operation History Data Retrieval Function
After products pass Checkweigher, as well as the weighing value, the resulting operational history data is automatically recorded and transferred to a PC or saved on USB memory. That production output data can be managed centrally and easily utilized for analysis or diagnosis purposes. This function improves traceability and enables the most demanding needs to be met, including customer requests for verification data.

Feedback Control with Dataweigh



The Dataweigh, multi-head combination weigher, combines the weight of products fed from a number of weigh buckets and delivers a combined weight that is as close as possible to the target weight. Checkweigher then weighs the product and displays the actually measured value. With its feedback control function, Checkweigher sends back the actual weighed value to Dataweigh so that the necessary adjustment in Dataweigh's combined weighing process can be made and the combined weight will be even closer to the target value. This feedback function thus results in better weighing quality, a higher yield rate, and savings in labor costs.

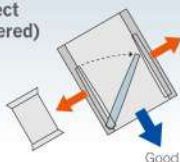
Net Weight Fill Function



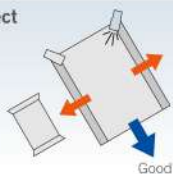
Checkweigher 1 weighs the empty container, then the Filler inserts the contents. Checkweigher 2 weighs the filled container, calculates the net weight, and feeds back that net weight to the Filler for more accurate feeding.

Reject Device

Diverter Reject (air / motor powered)



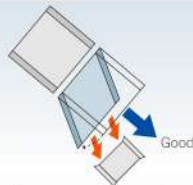
Air Blast Reject



Model	AI21624WI AI2(3)1633WI AI2(3)1644WI	AI2(3)2433WI AI2(3)2444WI
Width	160mm	240mm
Length	400mm	400mm
Height	160mm	160mm
Weight	300g	300g
Speed (Max.)	400ppm	400ppm
Air supply	0.4 - 0.7MPa, 5NL / time	

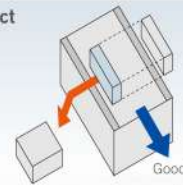
Model	FI31660WF (Air)	FI31660WFM (H) (Motor)	FI32460WF (T) (Air)	FI32460WFM (H) (Motor)	
Products size (Max.)	Width	160mm	240mm	240mm	
	Length	400mm	400mm	400mm	
	Height	200mm	200mm	200mm	200mm
	Weight	2200g	2200g (1100g)	2200g (3300g)	2200g (1100g)
Speed (Max.)	270ppm	180ppm (220ppm)	200ppm	100ppm (150ppm)	
Air supply	0.4 - 0.7MPa, 0.4NL / time		0.4 - 0.7MPa, 0.4NL / time		

Driven Drop Flap Reject



Model	SI21624WF SI21633WF SI21644WF	SI22433WF SI22444WF
Width	160mm	240mm
Length	400mm	400mm
Height	130mm	130mm
Weight	2200g	3300g
Speed (Max.)	100ppm	100ppm
Air supply	0.4 - 0.7MPa, 0.4NL / time	

Pusher Reject



Model	PI21624WF PI21633WF PI21644WF	PI22433WF PI22444WF
Width	160mm	240mm
Length	400mm	400mm
Height	200mm	200mm
Weight	2200g	3300g
Speed (Max.)	180ppm	160ppm
Air supply	0.4 - 0.7MPa, 2.5NL / time	

The specifications shown above are for CSI models. Contact our sales representative for information applicable to CMI model.

Standard Models

Specifications

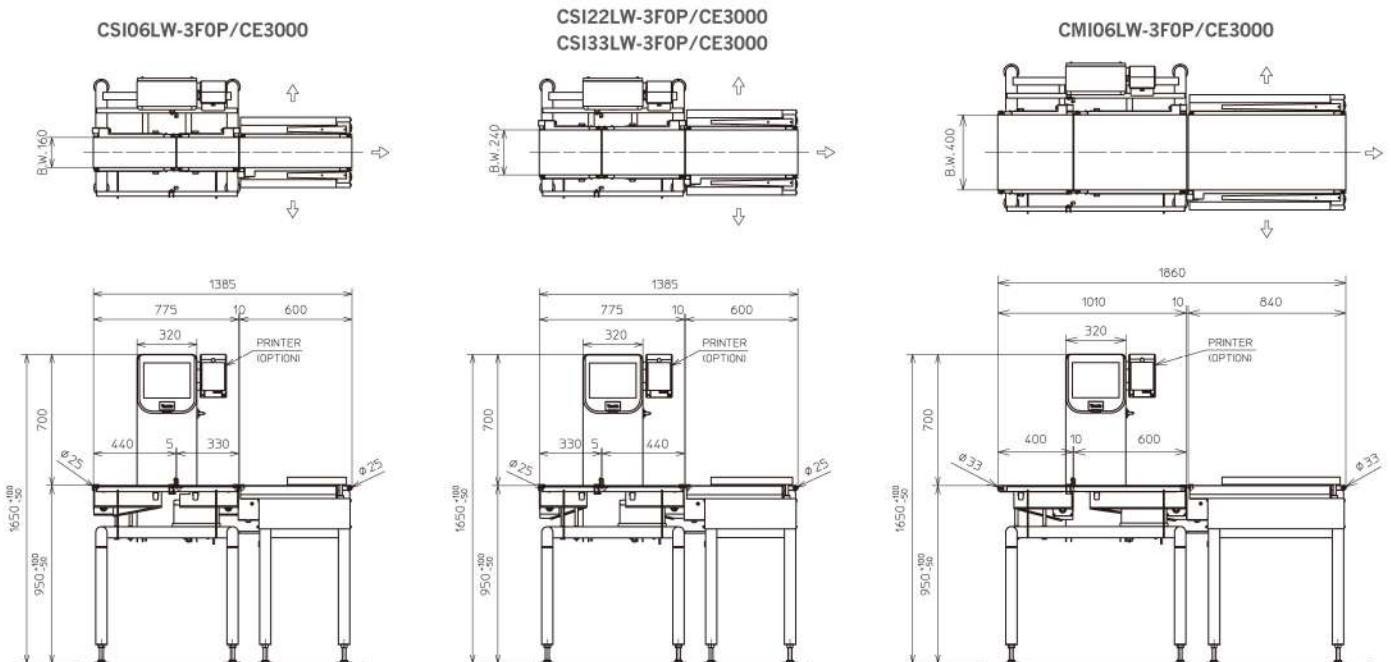
Model	CSI06LW	CSI22LW	CSI33LW		CMI06LW	
Range	6~600g	20~2200g	30~3300g		60~6000g	
Minimum graduation	0.05g	0.1g	0.1g	0.2g	0.2g	
* Accuracy (Max.)	± 0.15g	± 0.3g	± 0.3g	± 0.5g	± 0.5g	
Weigh System	Digital load cell					
* Speed (Max.)	480ppm	480ppm	310ppm	190ppm	130ppm	
Conveyor Variation	Length	240 / 330 / 440mm	240 / 330 / 440 mm	240 / 330 / 440 mm	400 / 500 / 600mm	400 / 500 / 600 mm
	Width	160 / 240mm	160 / 240 mm	240 mm	320 mm	320 / 400 mm
IP Protection Class	IP67 (Option : IP69K)					
Power Supply	AC100 ~ 240V ±10%, 50/60Hz, Single Phase					
Air supply (Reject device*option)	0.4~0.7MPa	0.4~0.7MPa	0.4~0.7MPa	0.4~0.7MPa	0.4~0.7MPa	
Number of programs	300	300	300	300	300	

Design, specifications, and descriptions are subject to change without notice.
Standard specification is indicated by bold font.

*Depend on product characteristics.



Dimensions



The above system layout is merely an example. Actual layout and dimensions will vary according to the combination of the Infeed Device, Weigh Conveyors and Reject Device. Contact our sales representative for layout and dimensions appropriate to your particular requirements.