YAMAHA

TRUSTED TECHNOLOGY

YRP10 NEW

SMT Innovation

Premium printer

World-class speed and performance!
Capable of fully autonomous changeover tasks!

Ultra-high-speed performance
6 seconds/cycle

Dual-lane independent production

Positioning repeatability
6σ ± 8 µm Cpk ≥ 2

Single-lane: L 510 x W 510 mm
Dual-lane: L 420 x W 330 mm

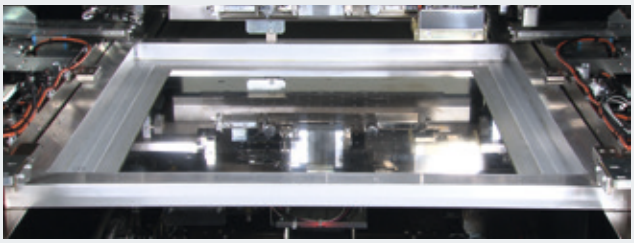
FEATURE 1 Ultra-fast cycle time

We achieved high productivity by totally redesigning the drive system to optimize the movement layout and cut the board transfer time to attain a cycle time including stencil cleaning of 6 seconds at the world's fastest level (optimal in-house conditions; normal print time is 10 seconds), reaching a speed 20 % faster than conventional operation.

FEATURE 2 Supports fully autonomous stencil exchange

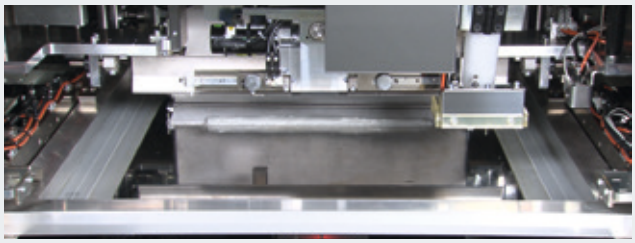
Automatic stencil exchange (option)

The function presets the stencil needed for the next production task while the printer is operating and automatically makes setups changeovers. Space-saving design with small footprint sets and recovers used stencils all in one batch at the machine rear. This slashes the time needed for stencil replacement since workers can do stencil presetting in advance whenever they have time available without having to stop the printer. The squeegee head is now equipped with a new solder receiver plate to prevent solder from falling onto the stencil during replacement.



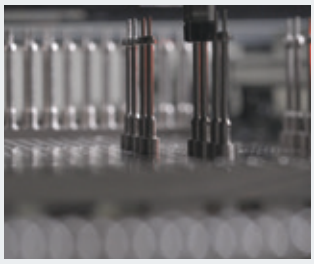
Automatic solder transfer (option)

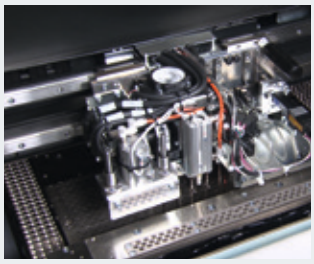
During stencil replacement, this function automatically scoops up solder paste remaining on the used stencil and swiftly transfers it to the new stencil now in place. Solder paste transfer takes place during auto stencil replacement while maintaining the rolling diameter which eliminates lost time and human error in setups and changeovers.



Automatic push-up pin exchange (option)

The function automatically replaces the push-up pins which support the PCB from below. Two gripper heads do high-speed replacements that not only slash setup/changeover times but also reduce human error. Even the large PCB such as 420 x 420 mm can be supported by maximum of 200 pins with a margin. Pin layout can be set using mounter data and images captured by AOI, simplifying data creation.





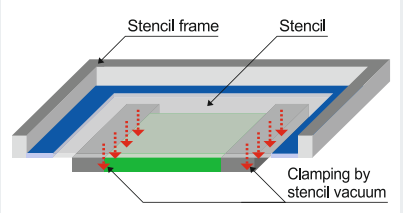
FEATURE 3 Delivers both high quality & super-accurate printing

YAMAHA's original 3S head [3S: Swing Single Squeegee]

Program changes squeegee attack angle and speed to an ideal setting to provide optimal printing conditions that match the solder being used.

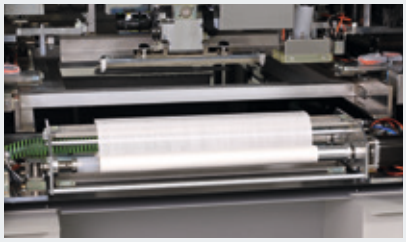
Stencil vacuum

A stencil vacuum mechanism delivers consistent high-accuracy printing with no effects from stencil droop. Also drastically cuts the setup time since no offset entry is needed during back and forth printing movement.



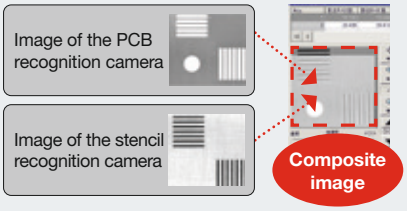
Auto cleaning system

High-efficiency cleaning system as standard equipment. New cleaner head ensures a huge reduction in cleaning cloth consumption.



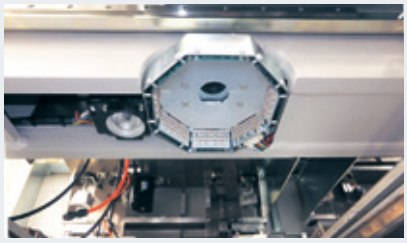
Composite image alignment function

By combining images from two cameras in one layer, the operation of the PCB for printing stencils and its relative positioning can be performed simply and accurately.



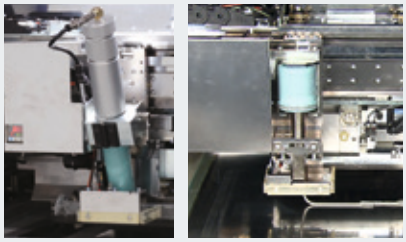
2D print inspection (option)

Supports full-on pro-level inspections with a dedicated camera. Feed-back from inspection results allows over-printing and stencil cleaning.



PSC system (option) [PSC: Print Stability Control]

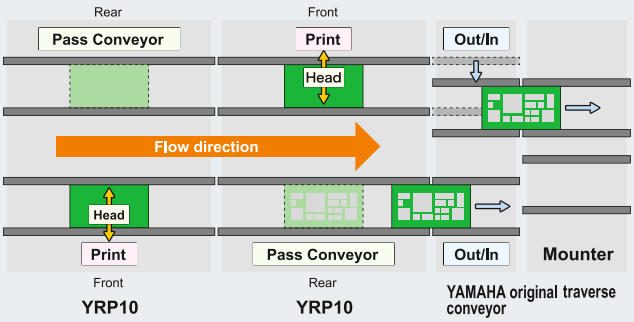
The PSC system stabilizes the rolling diameter of the solder paste that affects print quality. This system shortens the setup changeover time and reduces the amount of solder loss in the process. PSC is available in syringe type (6 or 12 oz./173 or 346 cc) or as POT type.



FEATURE 4 Dual-lane fully independent production

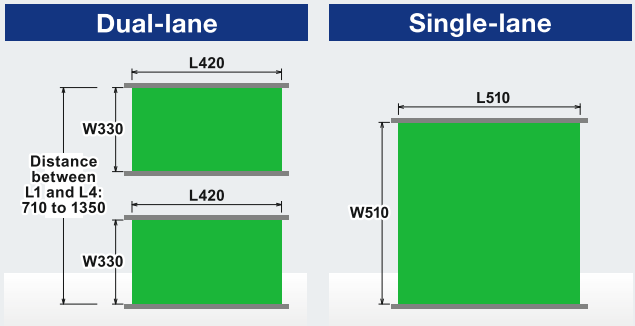
Flexible dual-lane

Connecting two YRP10s in series enables a fully independent dual-lane operation. Dual-lane operation and automatic changeover feature are supported at the same time. Addition of a traverse conveyor flexibly connects the YRP10s to the downstream equipment.



W330 mm dual-lane

Large PCBs the size of up to L 420 × W 330 mm can be produced in a dual-lane. You can increase the number of PCBs to take and the number of PCBs to be conveyed by the carrier, boosting production efficiency.



Full range of options

Touch panel

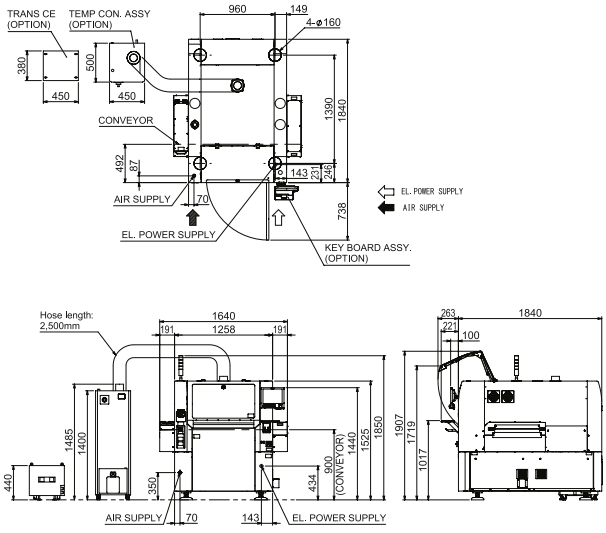
An easy-to-use and clear interface ensures smooth and sure operation. Display is switchable between 5 languages (Japanese, English, Chinese, Korean, German).

- 2D inspection camera
- PSC (auto solder replenishment)
- Right-to-left transport
- PCB vacuum system
- Temperature control unit
- Solder remaining quantity detection
- UPS system
- IT option

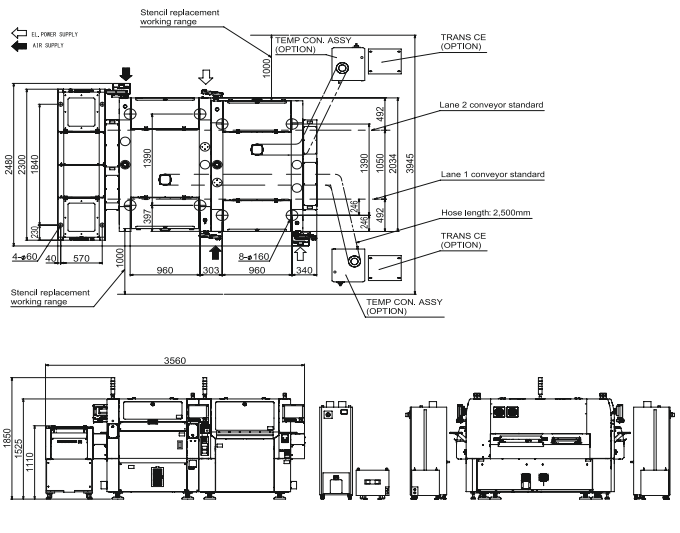
Specifications	YRP10
Applicable PCB	Single-lane: L 510 x W 510 mm to L 50 x W 50 mm Dual-lane: L 420 x W 330 mm to L 50 x W 50 mm
Printing heads	3S head (3S: Swing Single Squeegee)
Printing accuracy	Positioning repeatability (± 6 σ): ± 8 µm Cp ≥ 2.0 Printing accuracy (µ ± 6 σ): ±16 µm Cpk ≥ 2.0*
Printing line tact	6 sec
Applicable stencil size	L 750 x W 750 mm, L 736 x W 736 mm (29″), L 750 x W 650 mm, L 650 x W 550 mm L 600 x W 550 mm, L 550 x W 650 mm, L 584 x W 584 mm (23″)
Power supply	Single-phase AC 200 to 230V ± 20V
Air supply source	0.4 MPa or more
External dimension (excluding projections)	L 1,640 x W 1,840 x H 1,525 mm (Single-lane standard specification) L 3,560 x W 2,300 x H 1,525 mm (Dual-lane specification)
Weight	Printer: Approx. 1,710 kg Traverse conveyor: Approx. 450 kg

* Measured using CeTaQ under optimum conditions of YAMAHA

External dimension (Single-lane)



External dimension (Dual-lane)



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