



YSP10 ^{NEW}

SMT Innovation

Premium printer

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

Ultra-high-speed printing performance!
10 sec/cycle
12 sec/cycle incl. cleaning

Positioning repeatability
6 σ : $\pm 10 \mu\text{m}$

Handles large PCBs
L 510 x W 510 mm
Option L 650 x W 510 mm

Stencils size
Max. 750 x 750 mm

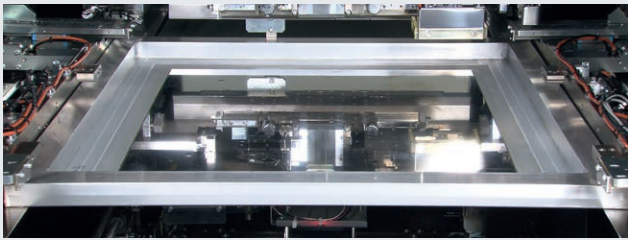
FEATURE 1 Ultra-fast cycle time

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 12 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

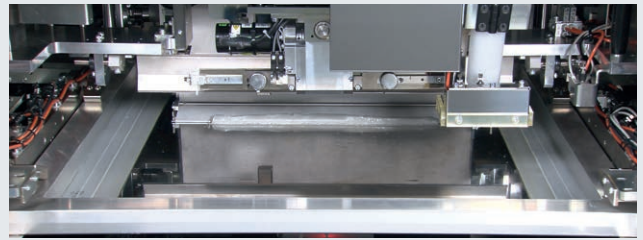
Automatic stencil exchange (option)

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.



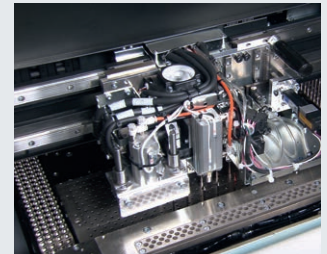
Automatic solder transfer (option)

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!

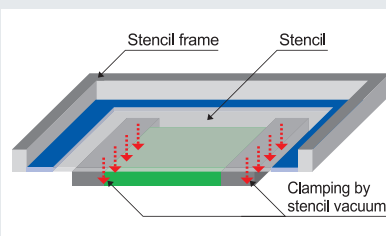
YAMAHA's original 3S head [3S: Swing Single Squeegee]

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.



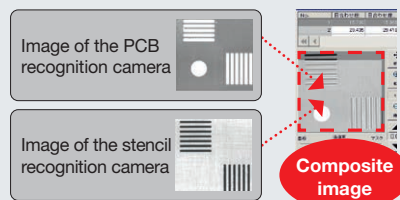
Auto cleaning system

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



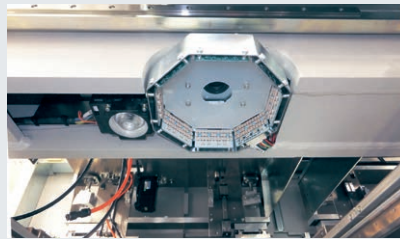
Composite image alignment function

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)

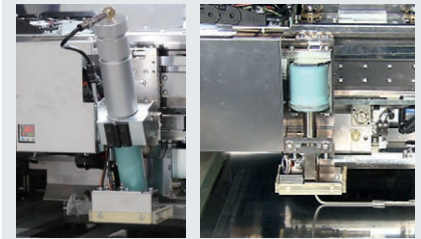
Supports full-on pro-level inspections with a dedicated camera. Feed-back from inspection results allow over-printing and stencil cleaning.



PSC system (option)

[PSC: Print Stability Control]

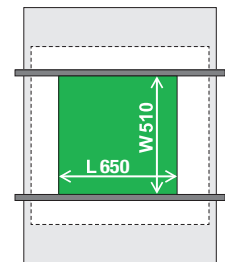
The PSC system stabilizes the rolling diameter of the solder paste that affects print quality. This system shortens the setup changeover time and reduces the amount of solder loss in the process. PSC is available in syringe type (6 or 12 oz./173 or 346 cc) or as POT type.



FEATURE 4 Supports extra-large boards & large-size stencils

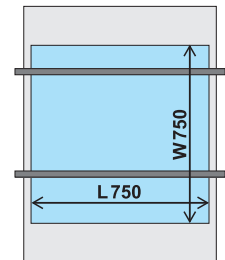
Supports extra-large boards

Large-size board support range up to L510 x W510 mm boards. Also extends support range to include large-size mother boards including multiple smaller boards, large-size liquid crystal panel lighting boards and large-size industrial boards. Handling of extra-large boards up to L650 x W510 mm – printing up to L600 x W510 mm is available as an option.



Large stencil sizes

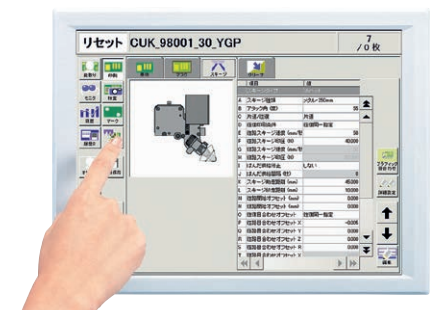
Supports L or large stencil sizes to maximum dimensions of L750 x W750 mm. Instantly handles up to 5 stencil types sizes with just one touch.



Full range of options

Touch panel

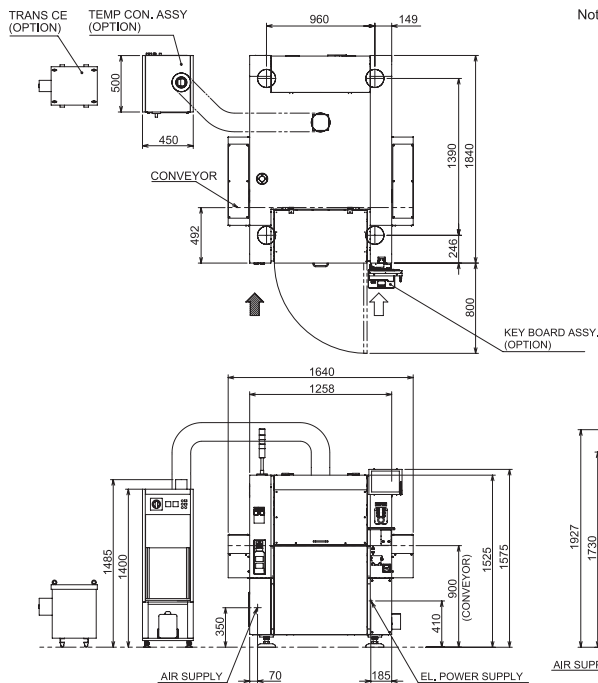
An easy-to-use and -understand interface ensures smooth and sure operation. Display is switchable between 5 languages (Japanese, English, Chinese, Korean, German).



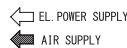
- 2D inspection camera
- PSC (auto solder replenishment)
- Right-to-left transport
- PCB vacuum system
- Temperature control unit
- Solder remaining quantity detection
- UPS system
- IT option

Specifications
YSP10

Applicable PCB	L 510 x W 510 mm to L 50 x W 50 mm (option: L 650 x W 510 mm)
Printing heads	3S head (3S: Swing Single Squeegee)
Printing accuracy	Positioning repeatability (6 σ): $\pm 10 \mu\text{m}$
Printing line tact	10 sec (standard printing: under optimum condition, including board transfer time and printing time) 12 sec (including cleaning: under optimum condition, including board transfer time and printing time)
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 584 x W 584 mm (23")
Power supply	Single-phase AC 200 to 230 V ± 20 V
Air supply source	0.45 MPa or more
External dimension (excluding projections)	L 1,640 x W 1,840 x H 1,525 mm (standard) L 1,973 x W 1,840 x H 1,525 mm (extension conveyor specifications) L 1,640 x W 1,990 x H 1,525 mm (auto stencil replacement unit specifications) L 1,973 x W 1,990 x H 1,525 mm (extension conveyor / auto stencil replacement unit specifications)
Weight	Approx. 1,700 kg



Note: Various options are installed.



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The models shown in the photographs in this catalog may differ slightly from the standard specifications. Specifications and appearance are subject to change without prior notice.