



# YSM10

## High-Speed Compact Modular Mounter

High-Speed Compact Modular mounter achieving both world's fastest speed and versatility in its class

Component range  
0201 mm chips to 55 × 100 mm  
sizes without requiring head replacement

Mounting Speed  
**46,000 CPH**  
(under optimum conditions as defined by Yamaha Motor)

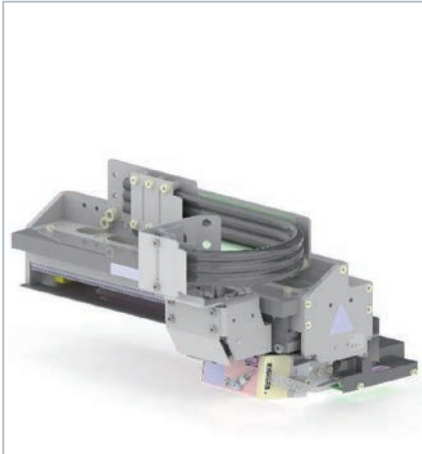
Integrates three YS12/12F model types  
into **1 unit**

Feeder Capacity  
**96 lanes**  
(8 mm tape conversion)

## Incorporating the best capabilities of 3 machines into 1 new platform

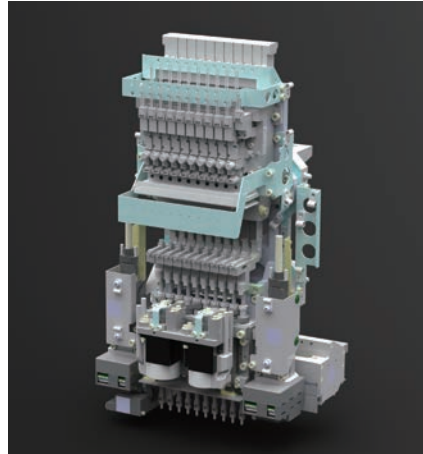
### The 1-head solution

Handles a wide range of components from 0201 (0.2 mm × 0.1 mm) ultra-micro-chips to large parts 55 mm × 100 mm and 15 mm in height and needs no head replacement since it uses high-speed general-purpose heads the same as high-end models.



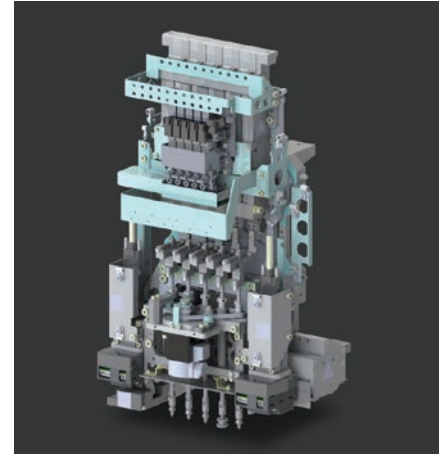
#### ● New scan camera

Improves scan camera performance that expands the size of high-speed mounting parts to 12 x 12 mm.



#### ● HM (High-speed Multi) head

Standard type with 10 nozzle specifications for a compact body, light-weight, high-speed and versatility.



#### ● HM 5 head

Economy type having 5 nozzles with HM headfunctions unchanged, it is selectable according to productivity and budget needs.

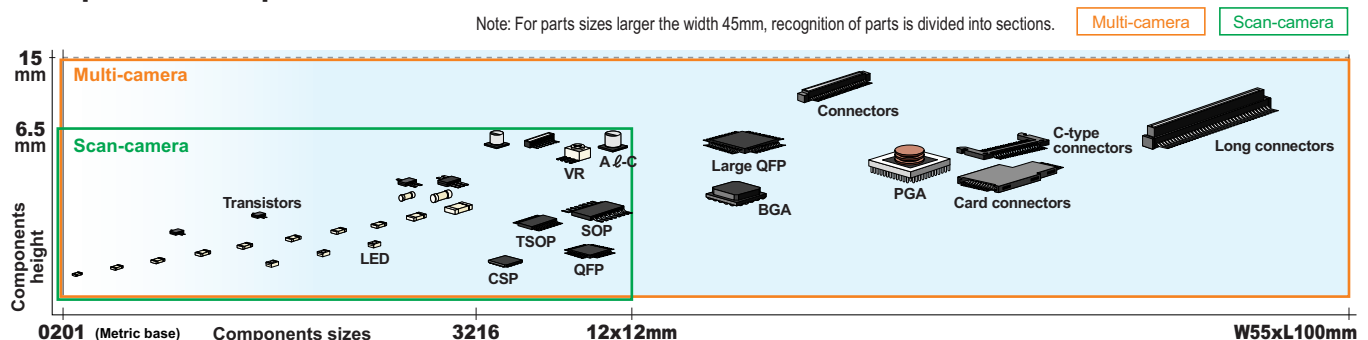
## Mounting speed making it No. 1 in its class

By adopting a new-generation servo system from upper-ranked models and utilizing a lightweight and compact universal type head we have speeded up mounting more than 25 % compared to conventional models to achieve the world's fastest mounting speed in its class of 46,000 CPH (chips per hour).

## Flexible response for different production configurations

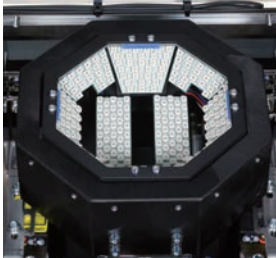
### Compatible components

Note: For parts sizes larger the width 45mm, recognition of parts is divided into sections.



### Multi-camera

High-speed and high-accuracy parts recognition to sizes up to 55 x 100 mm and heights up to 15 mm.



### Nozzle station

Automatic replacement of spare nozzles. Special/custom nozzles orders available.



### Automatic replacement tray supply unit "sATS15"

A maximum of 15 parts trays can be loaded (at tray pitch of 12.5 mm).



### Tape feeder

Electric-drive intelligent feeders "SS feeder" and "ZS feeder" fully compatible with all YS series models.



▲ SS feeder

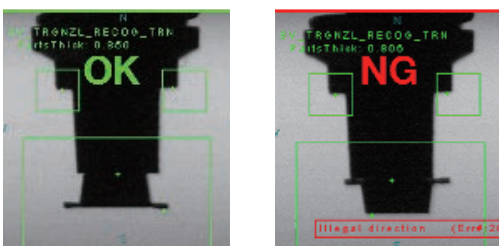


▲ ZS feeder

## Functions that ensure stable production

### Side view function

Eliminates mounting errors by detecting parts, missing parts, and part pickup status with no time loss.



### Automatic recognition optimizer function

Prevents pickup and recognition errors by applying a function (smart recognition) that does easy data generation for parts having complex shapes and also a recognition data auto-generator & tracking function (e-Vision).



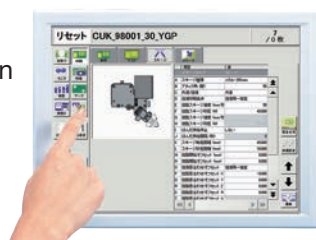
### Highly stable & reliable pickup system

Maintains superb part pickup performance by way of a pickup height auto-teach function and pickup position auto compensator function.

### Touch panel

Smooth and simple operation via easy-to-see and easy-to-use interface.

Displays text in 5 languages: Japanese, English, Chinese, Korean, German.



### Nozzle Cleaning Station

Nozzle shafts are automatically cleaned to keep them operable for long periods. The nozzle health check function applies automatic recovery process that applies with nozzle blow and protect function to prevent use of rejected nozzles.

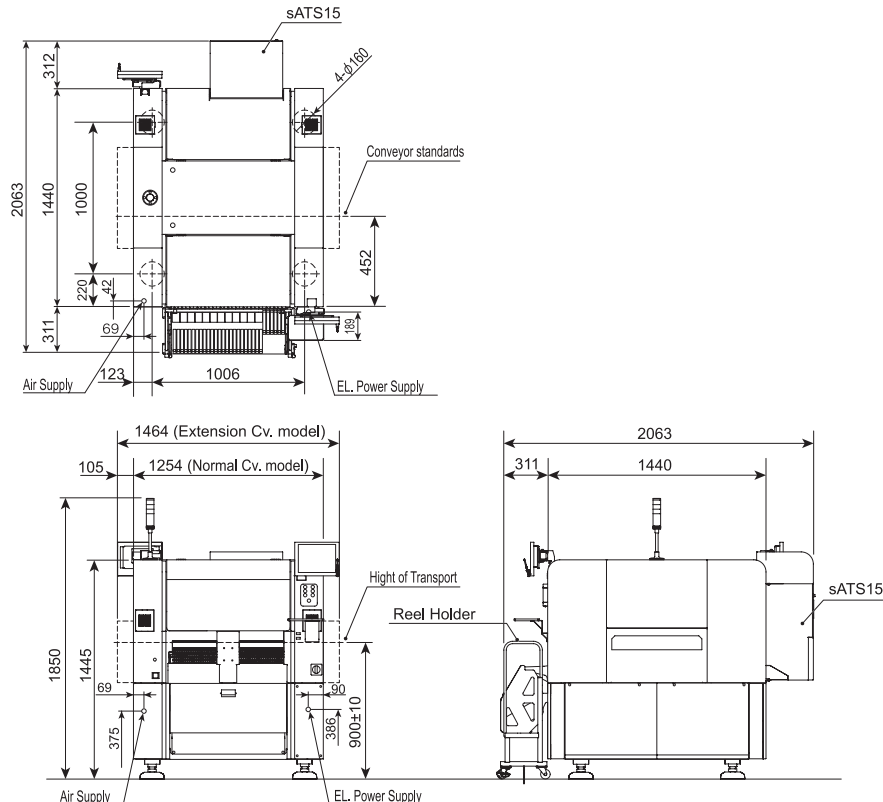


## Specifications

## YSM10

Applicable PCB	L 510 x W 460 mm to L 50 x W 50 mm Note: Available in lengths up to L 950 mm as an option
Applicable components	0201 mm to W 55 x L 100 mm (For parts sizes larger the width 45 mm, recognition of parts is divided into sections, applicable when tray handler sATS15 is used.), Height 15 mm or less. Note: A multi camera (option) is required for part heights exceeding 6.5 mm or part sizes exceeding 12 mm
Mounting capability	HM head (10 nozzle) specification: 46,000 CPH/30,000 CPH IPC9850 (under optimum conditions as defined by Yamaha Motor) HM 5 head (5 nozzle) specification: 31,000 CPH/20,000 CPH IPC9850 (under optimum conditions as defined by Yamaha Motor)
Mounting accuracy (Under optimum conditions as defined by Yamaha Motor when standard evaluation materials are used)	$\pm 0.035$ mm ( $\pm 0.025$ mm) Cpk $\geq 1.0$ (3 $\sigma$ )
Number of feeder positions	Fixed plate: Max. 96 types (conversion for 8 mm tape feeder) Tray: 15 types (maximum when equipped with sATS 15, JEDEC)
Power supply	3-Phase AC 200/208/220/240/380/400/416 V +/- 10% 50/60 Hz
Air supply source	0.45 MPa or more, in clean, dry state
External dimension	L 1,254 x W 1,440 x H 1,445 mm
Weight	Approx. 1,270 kg

Note: Comparison of chip mounting performance (CPH) under optimal conditions in 1-beam 1-head class surface mounters (In-house company research as of January 2017)



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