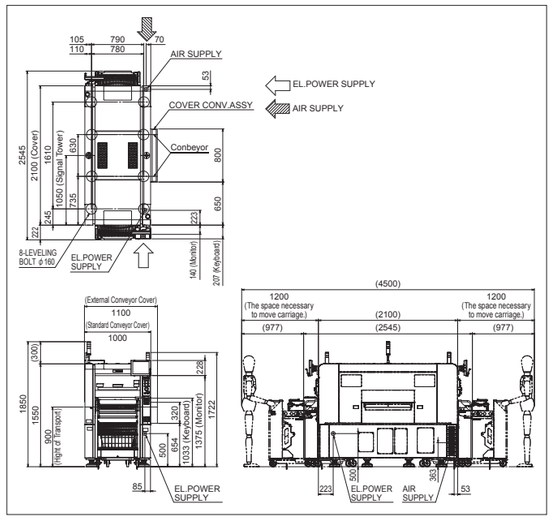
Z:TA-R Specifications

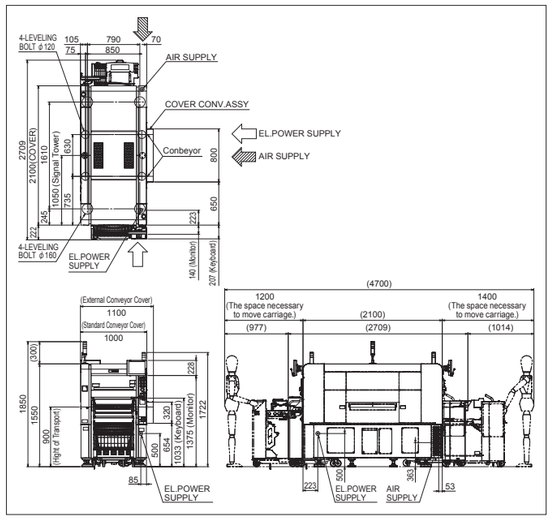
★ Specifications and appearance are subject to change without prior notice.

Model		Z:TA-R YSM40R	
		4-beam, 4-head specs. (YSM40R-4)	2-beam, 2-head specs. (YSM40R-2)
Applicable PCB		L700 x W460mm to L50 x W50mm	
Applicable components	Ultra-high-speed (RS) head	0201* to □6.5mm (Height 2.0mm or less) ★ Option	—
	Multi (MU) head	03015 to 45 x 60mm (Height 15mm or less)	0402 to 45 x 100mm (Height 15mm or less)
	Flexible (FL) head	—	0603 to 45 x 100mm (Height 25.5mm or less)
Mounting capability (under optimum conditions as defined by Yamaha Motor)		200,000CPH (When using RS head)	58,000CPH (When using MU head)
Mounting accuracy (★ Under optimum conditions as defined by Yamaha Motor when standard evaluation materials are used)		±35μm (25μm) Cpk ≧1.0 (3σ)	±40μm (30μm) Cpk ≧1.0 (3σ)
Number of component types ★ 8mm width tape conversion		Max. 80 feeders with RS heads Max. 88 feeders with MU heads Max. 84 feeders with RS x 2 + MU x 2 heads	92 feeders with MU or FL heads
Power supply		3-Phase AC 200/208/220/240/380/400/416V +/- 10%	
Air supply source		0.45MPa or more, in clean, dry state	
External dimension		L1,000 x W2,100 x H1,550mm (excluding projections)	
Weight		Approx. 2,100 kg	

YSM40R-4 External dimension



YSM40R-2 External dimension



DISTRIBUTOR

- The models shown in the photographs in this catalog may differ slightly from the standard specifications.
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YAMAHA
Revs Your Heart

PCB ASSEMBLY SYSTEM

SMT Innovation

Z:TA-R YSM40R

Ultra-High-Speed Modular

SMT Innovation

Ultra-High-Speed Modular

Z:TA-R YSM40R

Achieves revolutionary productivity of 200,000 CPH*1 giving it the world's fastest speed on a compact platform

*1:Comparison of chip mounting capability (CPH: chips per hour) under ideal conditions among 4-beam 4-head class surface mounters. In-house research as of April 2016.

World's fastest
200,000 CPH (in-house comparison under ideal conditions)

Compact
Machine width of 1 m

Flexible
Available in 3 head variations

Astounding line length productivity
200,000 CPH/m (in-house comparison under ideal conditions)

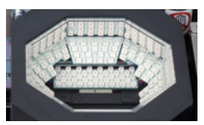
Feature 1 Highest productivity in the world!

World's fastest! 200,000 CPH

The speed is achieved by the leading-edge technology including innovative high-speed rotary heads and servo motors incorporating new, high-speed algorithms, etc.

Multi-camera system

Innovative multi-camera system has faster recognition speed along with high accuracy.
This system can also include a coplanarity check function and side-view camera.



Multi-camera

Ultra-high-speed rotary head

Delivers revolutionary productivity by employing our unique simultaneous component pickup technology, newly developed rotary control technology, and heads are lighter than previous high-speed heads.

Ultra-high-speed ZS feeder

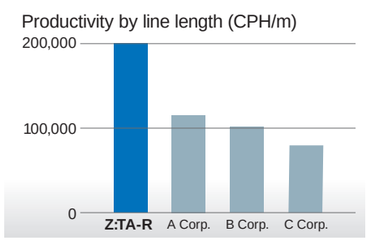
A light-weight compact motorized feeder incorporates a new type control algorithm to ensure super-high-speed operation.*2

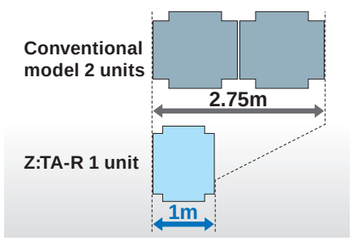
*2:The currently used ZS feeder can be optionally upgraded to the ultra-high-speed ZS feeder by upgrading the software version and adjusting with the tune-up station.

ZS feeder

Compact space-saving design

Even though a 4-beam unit, its small footprint and its design feature a width of only 1 meter and depth of 2.1 meters.
The Z:TA-R delivers superb productivity per line length and productivity per surface area. It is a powerful tool for making maximum use of limited factory space!





Feature 2 Flexible response for different production configurations!

3 types of head variations

Allows replacement with 3 head types to match the production configuration.

Ultra-high-speed head (RS head)

RS head delivers powerful productivity spanning a range from tiny 0201 to 6.5mm square on up to heights of 2mm.

Multi-head (MU head)

MU head offers the advantages of both component adaptability and high-speed to handle components from 03015 chips through 45x100mm and heights up to 15mm.

Flexible head (FL head)

FL head is ideal for large component from 0603 chips through 45x100mm and heights up to 25.5mm.

Beam variations in 2 types

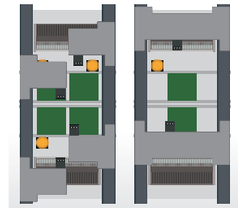
Select from two types of beam variations to prioritize maximum CPH speed or component diversity. Select the 4-beam type that prioritizes component mounting or the 2-beam type that offers flexible handling of a wide range of components including odd-shaped chips.

4-BEAM

Optimal type to serve as a high-speed chip shooter

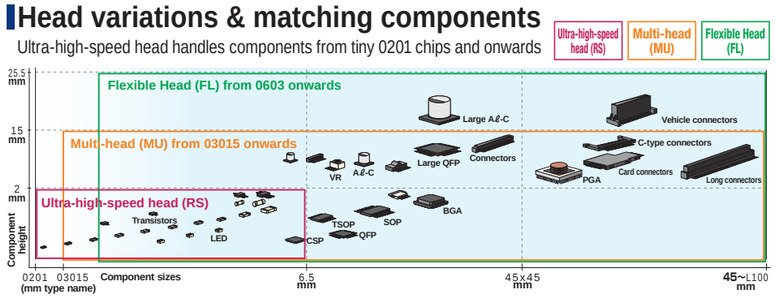
2-BEAM

This general-purpose type allows mounting tray feeders at front and rear.



Head variations & matching components

Ultra-high-speed head handles components from tiny 0201 chips and onwards



Flexible nozzle station

Nozzle station (ANC) is changeable to match the head. Also handles nozzle free layouts for high-speed head compatibility.

ANC unit

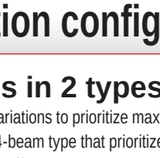
Dual lane system handles large-size PCBs

The YSM40R employs the dual lane system that gives superb versatility in feeding 2 parallel lanes of PCB in sizes ranging from small to midsized PCB on up to large-sized PCBs of 700mm in length.

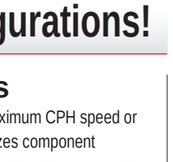
4 Stages (4-beam only) | 2 Stages | Large-sized PCBs

Wide range of feeder Carriages

Feeder carriages available for the YSM40R include externally attached quick-change replacement feeders and carriage type tray feeders attachable at the machine front and rear.



Automatic tray supply carriage

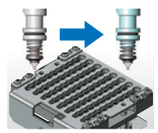


Feeder exchange carriage

Feature 3 High tech to support high mounting quality & a high machine operating rate

Nozzle health care function

Automatically diagnoses the nozzle function and appearance and replaces any problem nozzle with a spare nozzle as needed.



Rotary head tip filter

A filter attached to the shaft tip prevents dirt and grime entering, thereby minimizing down-time and maintenance costs.

High speed side-view camera

Monitors the component retention state in real-time with no loss at 3 periods or namely, right after pickup, right before mounting, and right after mounting.

Blow station

The blow station automatically self-cleans the nozzle shaft to drastically reduce the time normally required for maintenance. It is also effective on nozzles for extremely small components such as 0201 chips.

Auto recognition optimizer functions

These functions including e-Vision for auto-generation and tracing of recognition data, and smart recognition to easily create component data for complex shapes to help prevent pickup and component recognition errors.

Highly stable & reliable pickup system

This system automatically maintains highly reliable component pickup by employing a high-performance vacuum pump, pickup position auto-correction function, and pickup height auto-teach function.