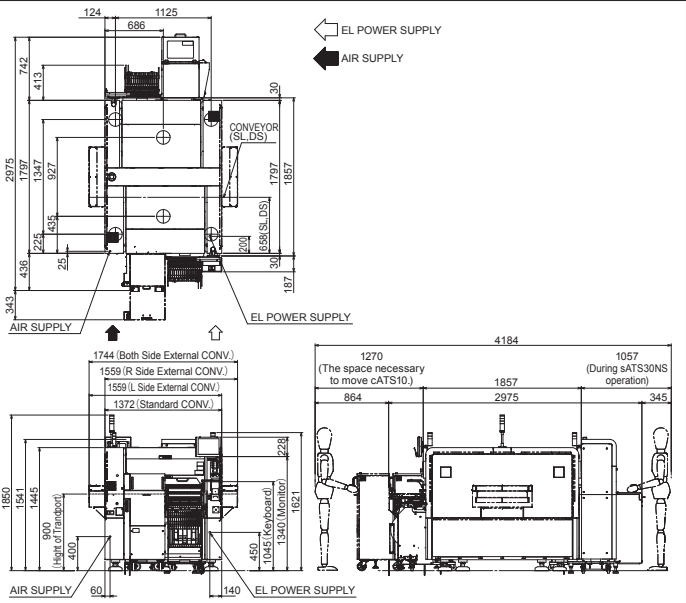


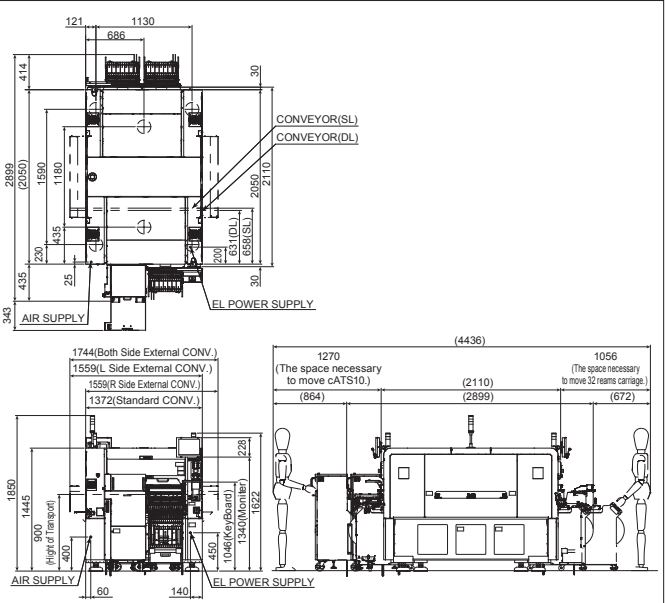
■ Specifications ★ Specifications and appearance are subject to change without prior notice.

Model	YSM20R TypePV	YSM20R TypeSV	YSM20W
Applicable PCB	Single lane L810 x W490 to L50 x W50 Dual stage Note : For X-axis 2-beam option only 1PCB conveyance : L810 x W490 to L50 x W50 2PCB conveyance : L380 x W490 to L50 x W50		Single lane L810 x W742 to L50 x W50 Dual lane Note : For X-axis 2-beam option only L810 x W356 to L50 x W50
Head / Applicable components	High-Speed Multi (HM) Head ^{Note} : 0201 to W55 x L100mm, Height 15mm or less Note : Please contact us for info regarding mounting 0201 components. Odd-shaped components (FM : Flexible Multi) head : 03015 to W55 x L100mm, Height 28mm or less	High-Speed Multi (HM) Head : 03015 to W55 x L100mm, Height 15mm or less Odd-shaped components (FM : Flexible Multi) head : 03015 to W55 x L100mm, Height 28mm or less	
Mounting capability (under optimum conditions as defined by Yamaha Motor)	X axis 2-beam : High-speed multi-purpose (HM : High-speed Multi) head x 2 95,000CPH	X axis 2-beam : High-speed multi-purpose (HM : High-speed Multi) head x 2 90,000CPH	X axis 2-beam : High-speed multi-purpose (HM : High-speed Multi) head x 2 80,000CPH
Mounting accuracy	±0.035mm (±0.025mm) Cpk≥1.0 (3σ) (under optimum conditions as defined by Yamaha Motor when standard evaluation materials are used)		
Number of component Types	Fixed plate : Max. 140 types (conversion for 8mm tape feeder) Feeder carriage exchange : Max. 128 types (conversion for 8mm tape feeder) Trays for 30 types (Fixed type : max., when fitted with sATS30) and 10 types (Carriage type : max., when fitted with cATS10)		
Power supply	3-Phase AC 200/208/220/240/380/400/416V +/-10% 50/60Hz		
Air supply source	0.45MPa or more, in clean, dry state		
External dimension (excluding projections)	L 1,374 x W 1,857 x H1,445mm (Main unit only)		L 1,374 x W 2,110 x H1,445mm (Main unit only)
Weight	Approx. 2,050kg (Main unit only)		Approx. 2,500kg (Main unit only)

■ YSM20R External dimension



■ YSM20W External dimension



DISTRIBUTOR



● 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.



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PCB ASSEMBLY SYSTEM

SMT Innovation

Z:LEX YSM20R / YSM20W

High-End High-Efficiency Modular



SMT Innovation

High-End High-Efficiency Modular

Z:LEX YSM20R / YSM20W

The YSM20R brings the 1-head solution to another higher level making it the world's fastest^{Note} all-purpose surface mounter

Note : Components mounting speed (CPH) for a surface mounter with the 2-beam, 2-head layout. Based on Yamaha survey as at January 2018.

The 1-head solution!

Needs no head replacement!

0201^{Note} to large-size components

Note : when using high-speed general-purpose head on YSM20R Type PV

Highest speed in its class worldwide!

95,000 CPH (under optimum conditions as defined by Yamaha Motor)^(When using YSM20R Type PV)

Handling large PCBs

L810 x W742 mm (Supports YSM20W)

Max. feeder count

140 types (under fixed specifications: conversion for 8mm tape feeder)



Feature 1 Achieves both a whole new dimension of versatility and high-speed for mounters via the 1-head solution

1 head solution

Two types of heads are available that bring the "one head solution" to an even higher dimension capable of accommodating a wide range of parts while maintaining high speed with no head replacement. High-speed general-purpose heads can be used for ultra-small (0201) chip parts.



High-speed multi-purpose (HM : High-speed Multi) head

This universal type head made for high-speed mounting and versatility supports from ultra-tiny chips of 0201 (mm) to large-size components of 55 x 100 mm and height of 15 mm. (When using YSM20R Type PV)



Odd-shaped components (FM : Flexible Multi) head

Super wide-ranging type head supports load control, and handles a broad spectrum of components from ultra-tiny chips of 03015 (mm), to ultra-large components of 55 x 100 mm and tall components of heights to 28 mm.

Superb mounting performance 95,000 CPH (under optimum conditions as defined by Yamaha Motor)

Improving mounter operation from component pickup to mounting and using high-speed XY axes achieved production of 95,000 CPH which is 5% higher than conventional models. (When using YSM20R Type PV)

Huge improved adaptability to actual production

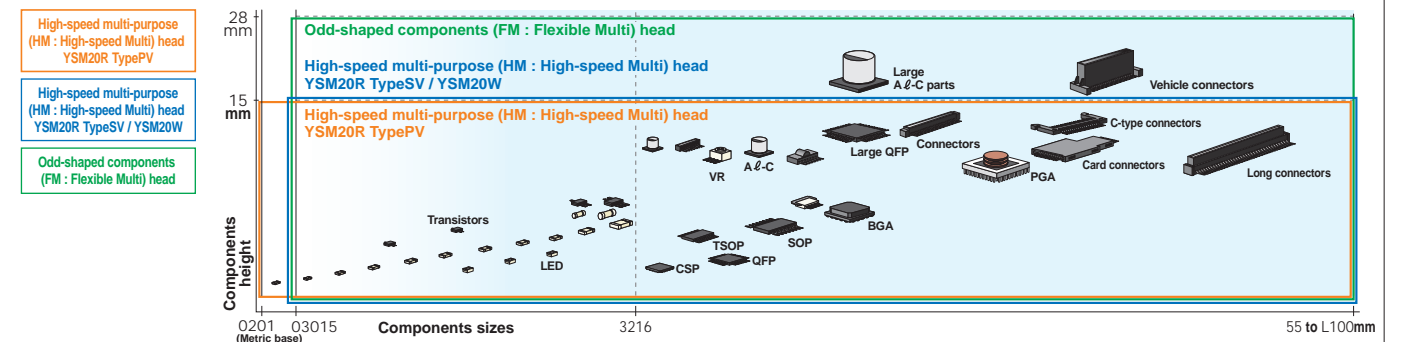
Mounting a new type wide-scan camera increases and expands recognition capability to support high speed mounting of parts down to only 0.8 mm to 12 mm in size. Also, use of side lighting gives high-speed recognition of ball electrode parts such as CSP (chip scale packages) and BGA (ball grid arrays). (Supports YSM20R Type PV) YSM20R Type SV/YSM20W scan camera supports component sizes up to 18 mm

Beam variations available in 2 types

Achieving a common platform allows selecting from 1-beam and 2-beam for configuring the X-axis according to production mode and mounting capability. Note : YSM20W only supports 2-beam configuration.

Feature 2 Wide support capability turns the concept of "Limitless EXpansion" into a reality!

Compatible components



Conveyors available in freely configurable variations

YSM20R

Conveyor system is selectable from dual stage, single lane. Supports PCB sizes to a max.L810 x W490 mm (Dual stage, single lane for conveying single PCB). Single lane also available in M size specifications (max. PCB size L360xW490 mm) having superior cost performance.

YSM20W

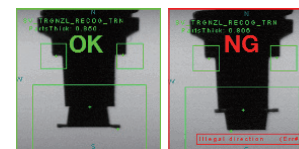
Conveyor system is selectable from single lane and dual lane. Now offers much greater PCB compatibility and conveys PCB in sizes to a max. L810 and W742 mm, payload 10 kg, and PCB thickness to 8 mm (single lane).

	L=810	L=380 L=380	L=810	L=810
	Single lane	Dual stage (2 PCB conveyance)	Dual lane conveyance of 2 boards with identical widths	Dual lane Conveys 2 boards of different widths
YSM20R	W=490 Supports dual-stage single PCB transport	W=490		
YSM20W	W=742 Conveys heavy objects to a max. of 10kg		W=356	W=662

Feature 3 Numerous functions to support high-quality mounting are included as standard features.

Side view function

Detects pickup status and component's presence with no downtime loss.



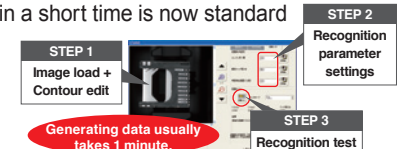
Blow station

Automatic blow cleaning function keeps nozzle clean for long periods.



High-speed smart recognition

Highly robust "High-speed Smart Recognition" that also creates recognition data for custom or unique components in a short time is now standard equipment.



Feature 4 Achieves highly-streamlined parts supply

sATS30NS Auto Tray Sequencer (ATS) for nonstop tray replacement

A new function has been added to the sATS30 Auto Tray Sequencer for automatic tray exchange and component feed. This new function automatically ejects pallets with empty trays during operation and feeds pallets with new trays into the machine. Operator can remove the pallet with empty tray and replenish pallet with full tray and press feed button. Pallet will automatic be supplied into the magazine. The magazine can be exchanged during changeover without stopping automatic operation. (Supports YSM20R Type PV)



sATS30NS

Newly developed and designed ALF (Auto Loading Feeder)

Newly developed ALF, Auto Loading Feeder, can supply tape-mounted parts just by inserting a tape without stopping the machine. The unique center open technique from Yamaha drastically reduces part pickup errors that occur from static electricity and the residue when peeled from the tape. No recovery of top tape is needed which vastly increases the operating rate.



Nonstop feeder carriage exchange system

A cover with shutter was mounted on the pickup part of the opening used during carriage clamp and release. The shutter automatically closes when the carriage is detached so that carriages can be exchanged without stopping the machine. This improve the machine productivity. (Supports YSM20R Type PV)



ZS feeder

Also supports thin, light-weight, compact, single lane type motorized intelligent feeders. Customer can select from non-stop feeder replacement function specs. Specs also support conventional SS feeders.

