



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

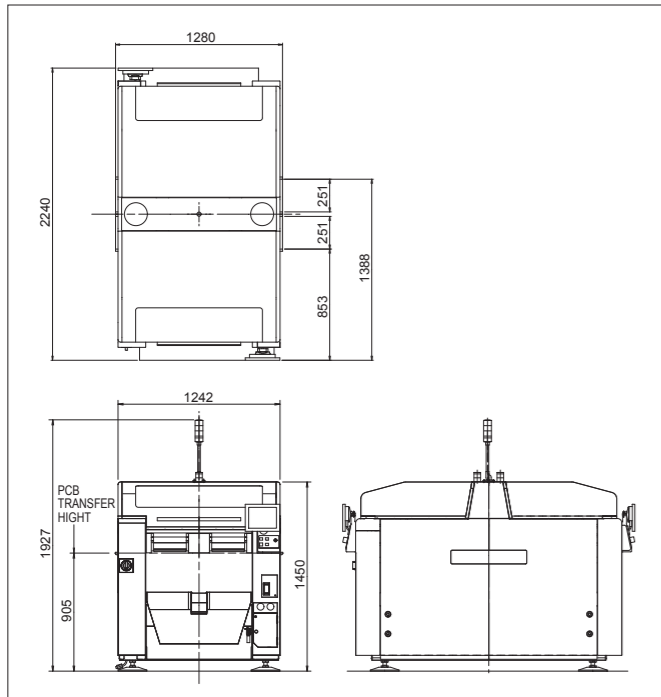
| Model | Σ-F8S | Σ-G5S |
|--|--|--|
| Applicable PCB | Single lane : L330 x W250 to L50 x W50mm (Option : L381 x W510 to L50 x W50mm) Dual lane : L330 x W250 to L50 x W50mm | Single lane : L610 x W510 to L50 x W50mm (Option : L1,200 x W510 to L50 x W50mm) Dual lane : L610 x W250 to L50 x W84mm (Single conveyance) L610 x W415mm (Dual conveyance) |
| Head / Applicable components | High-speed head : 0201 CHIP to 4.3 x 3.4mm, Height 2.0mm or less High-speed multi-purpose head : 03015 CHIP to 33mm square, Height 12.7mm or less | High-speed multi-purpose head : 03015 CHIP to 44mm square, Height 12.7mm or less Multi-Functional Head : 1005 CHIP to 72mm square, Height 25.4mm or less Connectors 150 x 26mm |
| Mounting capability | High-speed head x 4 specs : 150,000CPH (Dual lane) 136,000CPH (Single lane) | High-speed multi-purpose head x 2 specs : 75,000CPH (Single lane / Dual lane) |
| Mounting accuracy (Under optimum conditions as defined by Yamaha Motor when standard evaluation materials are used) | High-speed head : 0201/03015 : ±25µm (3σ)(140,000CPH) 0402/0603 : ±36µm (3σ)(150,000CPH) | High-speed multi-purpose head : 03015 to 0603 : ±25µm (3σ)(70,000CPH) 03015 to 0603 : ±30µm (3σ)(75,000CPH) Multi-Functional Head : IC:±15µm (3σ) |
| Number of component Types | Max.80 types (conversion for 8mm tape feeder) | Max.120 types (conversion for 8mm tape feeder) |
| Power supply | 3-Phase AC200V ±10% 50/60Hz | |
| Air supply source | 0.45 to 0.69MPa(4.6 to 7kgf/cm ²) | |
| External dimension | L 1,280 x W 2,240 x H 1,450mm (excluding projections) | |
| Weight | Approx. 1,940kg | Approx. 1,800kg |

SMT Innovation

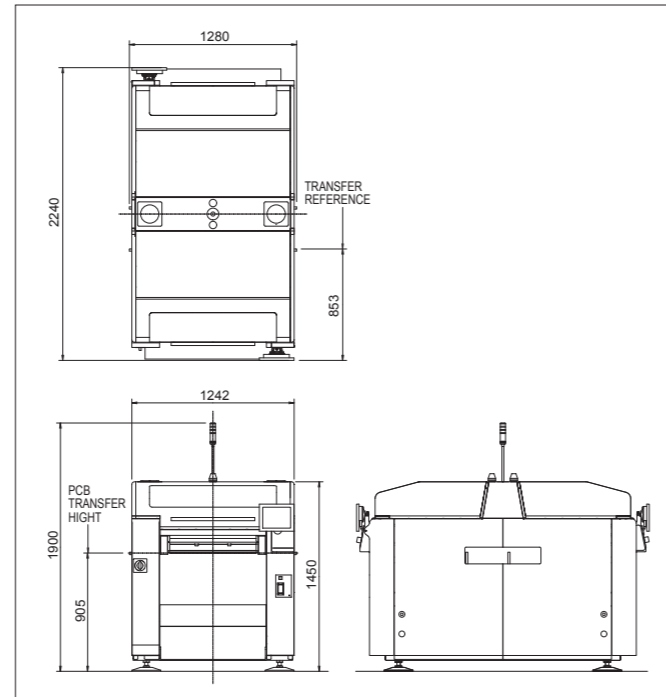


Premium Modular

Σ-F8S External dimension



Σ-G5S External dimension



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SMT Innovation

Premium Modular

Σ series
SIGMA

The "1-head solution" rotary head provides speed, versatility and high operating ratio.

Σ-F8S



Fastest speed in its class! Produces 150,000 CPH with 4-beam & 4-head

Super-high speed productivity!

150,000 CPH **25μm**
(under optimum conditions as defined by Yamaha Motor) (At 140,000CPH)

Applicable components

0201 to square 33mm

Σ-G5S



2-beam & 2-head ensures high speed and versatility, supports wide range of components

High-speed coupled with high accuracy!

75,000 CPH **25μm**
(under optimum conditions as defined by Yamaha Motor) (At 70,000CPH)

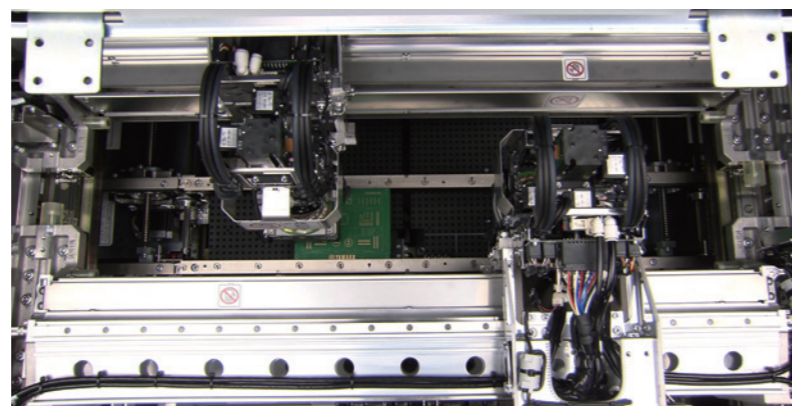
Applicable components

03015 to large-size components

Feature ① Overdrive motion delivers streamlined high-efficiency production

Overdrive motion (Σ-G5S)

- Simultaneous mounting by opposing heads promises high-efficiency production!
- Mutual pickups by opposing heads makes both heads be able to pickup all components in both front and rear supply area. Both heads can share units such as multi-stage tray feeders, coplanarity checkers, tape feeders and nozzle station, with no restrictions on component placement.



Σ-G5S : Simultaneous mounting via overdrive motion

Feature ② Direct drive head gives high-speed & high-accuracy

High-speed one-by-one pickup & mounting

- Using 15 nozzles per head produces 37,500 CPH which is the top industry production level!
- Rotary direct drive head has simple design using no external drive parts such as gears or belts yet gives high-accuracy mounting.



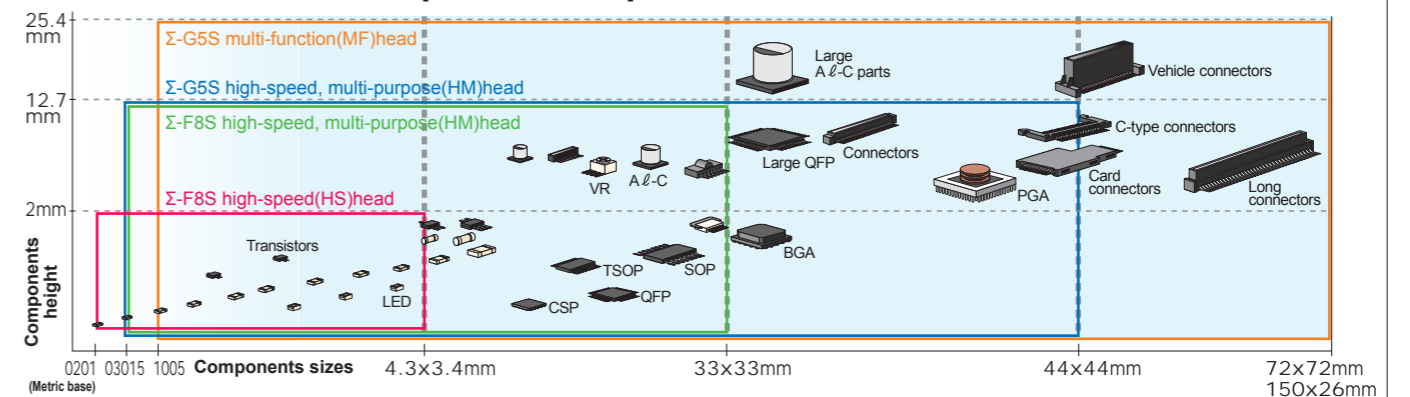
Side-view function

- Detect pickup status (components / no components / vertical) and measures components, then transfers components in feed-forward at the mounting height with no downtime loss.
- Also supports mounting components 'bring-home checks' (a nozzle check before pickup)



Feature ③ Even on rotary heads, Yamaha gives the 1-head solution!

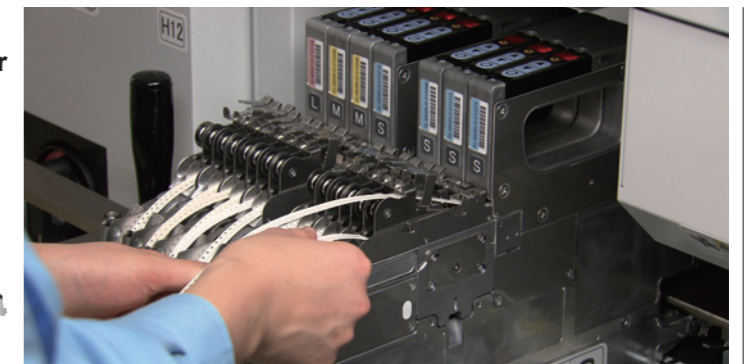
Head variations & compatible components



Feature ④ The Super Loading Feeder totally innovates components supply tasks!

Super Loading Feeder

- Auto-loading lowers the burden on the operator so that "anyone, anytime, can easily set" components for feed and supply.
- Supports continuous non-stop operation and needs no splicing!
- Non-peeling type cover tape prevents static charges, dust, and having to collect the cover tape.



Full range of feeder and supply device options to match your production format

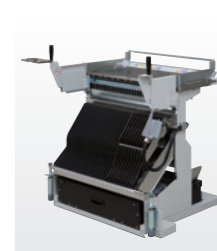
- Feeder carriage exchange
- Multi-stage tray feeder (Σ-G5S)
- Stacking stick feeder (Σ-G5S)
- Coplanarity checker (Σ-G5S)
- Flux coater unit
- ACV (Advanced Component Validation)
- LISA (Line Information Support & Administration)
- Application software



Flux coater unit



Stacking stick feeder



Feeder carriage exchange



Multi-stage tray feeder