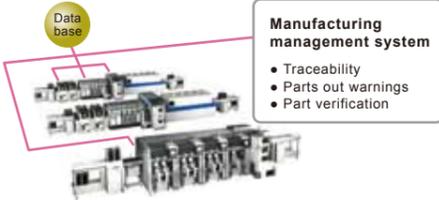




## Improved quality (options)

**FUJI** *trax* for sFAB



SmartFAB uses Fujitrax, which has a long proven record of use with SMT equipment, to gather together important production data.

### Local verification

Part loading mistakes can be prevented at the machine (locally).

- Because a dedicated server is not required
- There is no need to set up a network.
  - No complex setup required.
  - No maintenance costs.



## Applications

### Power module assembly

The SmartFAB assembles stacked parts, dispenses flux and handles dies at high speed and with high precision in a clean environment.



### 3D-MID placement, curved surface placement (CuSP)

\*Under development

Assemble the parts you want onto various types of work. From standard placement on flat panels to 3D placement onto multifaceted bodies, SmartFAB enables new types of placement.



## Machine specifications

sFAB50	
Work size (W x L)	48 x 48 mm to 435 x 500 mm (single conveyor) 48 x 48 mm to 410 x 340 mm (cut & clinch)
Work thickness	0.4 mm to 6.0mm
Reel capacity	Up to 15 types (when using radial feeders on an sMFU)
Placing heads	Carrier head: sH02 / sH01 / sG04 Processing head: sJD
Assembly accuracy	±0.050 mm (3σ) cpk ≥ 1.00
Applicable part size	sH02: 1608 to 200 x 200 mm (diagonal length of 282.9 mm) Height 110 mm sH01: 1608 to 190 x 190 mm (diagonal length of 268.7 mm) Height 110 mm sG04: 1608 to 25 x 25 mm (diagonal length of 29.7 mm) Height 25.4 mm
Part weight	sH02 / sH01: 200g sG04: 20g
Machine dimensions	W 1,000 x D 2,025 x H 1,665 mm
Machine weight	1,400 kg (Excluding conveyance/supply/head sections)

## PCB assembly application standard specifications

Work size (W x L)		48 x 48 mm ~ 345 x 500 mm (single conveyor + BPU) 48 x 48 mm ~ 250 x 410 mm (cut & clinch + BPU)
Parts	Axial parts	Tape width: 52 mm, Tape feed pitch: 5 mm / 10 mm, Lead diameter: φ0.4 to φ0.8 mm, Insertion pitch: 5 mm / 7.5 mm / 10 mm / 12.5 mm / 15 mm
	Radial parts	Tape feed pitch: 12.7 mm / 15 mm, Lead diameter: φ0.4 to φ0.8 mm, Insertion pitch: 7.5 mm or less
	DIP parts / odd-form parts	Up to 160 x 160 mm or diagonal length of 226.3 mm or less (standard nozzles) Up to 200 x 200 mm or diagonal length of 282.9 mm or less (long nozzles)
Production capability		Chip parts: 3,200 cph (1.2 sec / part) Radial parts: 2,100 cph (1.7 sec / part) Connectors: 1,900 cph (1.9 sec / part)

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Cat. No.sFAB\_2014\_Aug\_E



# Extreme flexibility and limitless expandability

Modular Type Multi-purpose Automated Fabrication Machine

# SmartFAB



Modular Multi-purpose Automated Fabrication Machine

# SmartFAB

## Automating manual work is the key to reducing costs

Manual work such as insertion or assembly occupies many workers in the production line.

SmartFAB can be used to automate processes which were previously beyond the capability of machines.

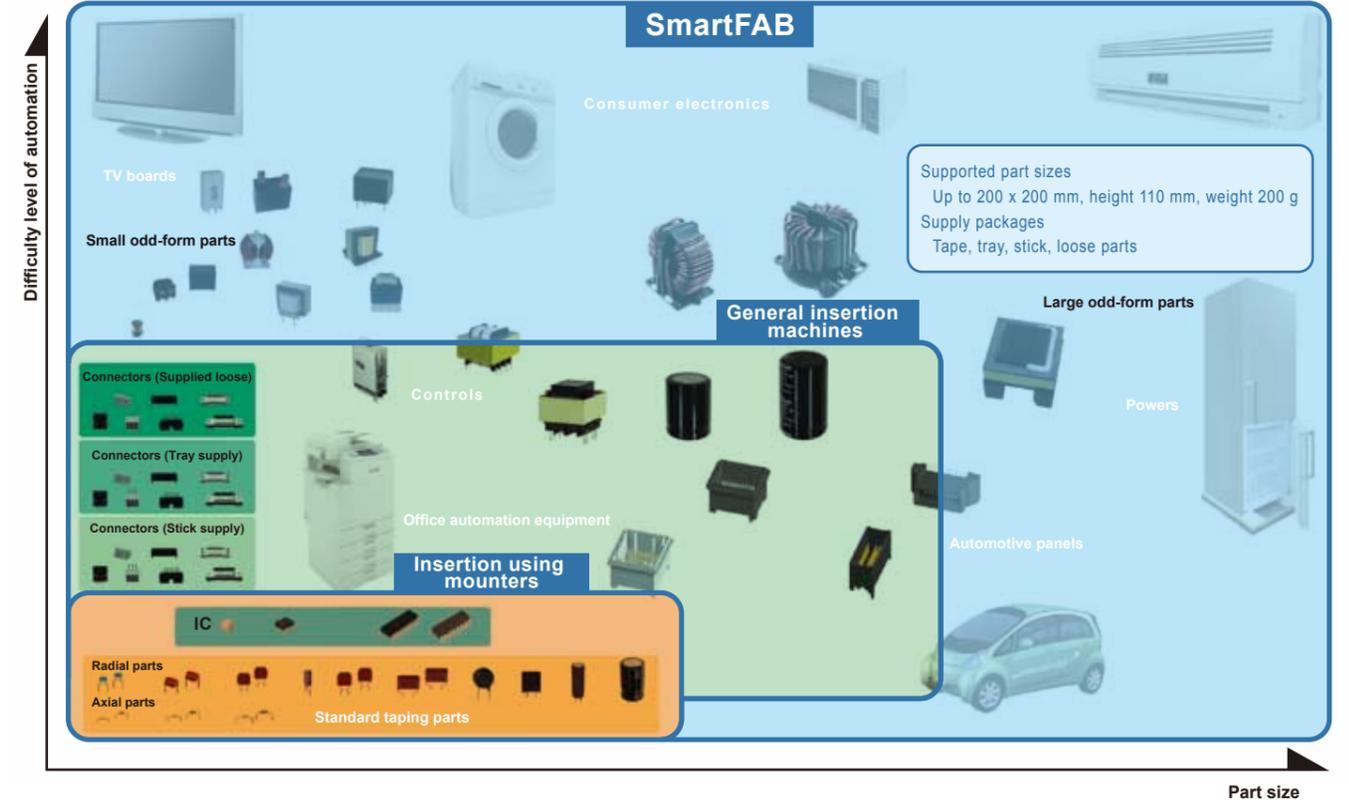
Going beyond direct movement in the X, Y, and Z directions, the SmartFAB makes assembly from various directions possible.

It can also improve your quality, cost, and delivery (QCD) by automating various processes such as assembly which requires attachment or screw tightening, heat bonding, curved surface placement, and other pre- and post-insertion processes with a twin head configuration and peripheral units.



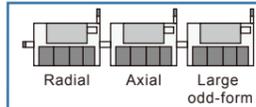
## Unparalleled part support range

Because the SmartFAB can handle large and heavy parts which aren't possible on other insertion machines, a wider range of applications can be automated and you can be sure of the work quality and time required to complete production.



## Automation of many types of insertion parts

The SmartFAB doesn't just automate everything from axial and radial parts to large odd-form parts, it is the ultimate flexible machine which can even handle pre- and post-insertion processes in one machine.



### Supply various part types to the machine

**Axial part feeder\***

Axial parts

**Radial part feeders**

Radial parts

**Stacked stick feeder**

Stick parts

**Tray unit**

Tray parts

**BPU\* (Bin picking unit)**

**Bowl feeder\***

Loose parts

**Pivoting nozzle\***

Parts can also be supplied with the leads facing sideways.



### Pre-forming

**L-bending feeder**

Also supports parts with leads which are bent into an L shape for insertion.

**Lead correction at the stick feeder**

The leads only are pressed with correction performed by deformation before insertion.

### Accurate insertion

**Chuck for leaded parts**

Accurately inserts parts by holding and correcting leads.

**Mechanical chuck**

Heavy parts can also be handled accurately.

**3-in-1 chuck\***

Three sets of work can be handled by this one mechanical chuck tool. Parts can be inserted accurately by holding and correcting the leads.

### Post-forming

**Cut and clinch**

Bends and fixes the lead tips to prevent parts from coming off or falling over after insertion. Replace existing insertion machines smoothly without disrupting your current line process.

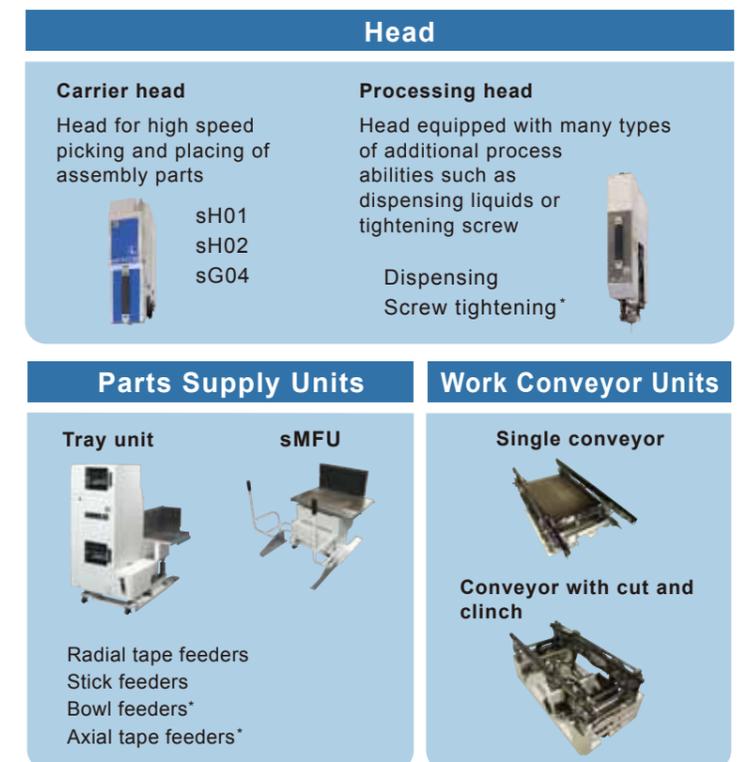
**Selective soldering\***

Parts are inserted into the panel and soldered in the same machine. No weight jigs or spacers between the panel and parts are required to aid part stability.



## Build-up platform which can be set up quickly for production

The SmartFAB modularizes factors required for assembly work such as the parts supply, work conveyor and assembly head. Units can be connected to the base machine to build the perfect line that meets your needs.



\*Under development