



Contribute to manpower reduction and stable production by automating the manual insertion process

NPM-VF

Innovating PCB assembly process via automation of odd-form components insertion This is a odd-form component insertion machine that realizes high productivity by automating manual insertion of odd-form components. It supports various types of odd-form components with various head and feeder configurations. The cameras scan PCB holes and component orientation to achieve high insertion reliability. The clinch function (optional) prevents protrusion of components and improves solder strength after flow to achieve high-quality insertion of odd-form components.

Key Features

Automation of odd-form components insertion process. In addition, SMT specifications are also supported.

Versatile and flexible : various configuration of head tools and machine feeder configuration to adapt to different types of components.

Contribute to manpower reduction and stable production with high productivity, flexibility, high quality insertion.

NPM-VF

<https://ap.connect.panasonic.com/p/h/en/products/smart-factory/npm-vf>

PCB dimensions (mm)	Standard conveyor : L 50 mm × W 50 mm to L 510 mm × W 460 mm Anvil conveyor (Option) : L 50 mm × W 50 mm to L 460 mm × W 400 mm
Applicable components	Max. dimensions : L 130 mm × W 35 mm × H 60 mm · L 150 mm × W 38 mm × H 29 mm / Max. component mass : 200 g
Insertion direction	360° (±180°) 1°degree unit
Max. PCB Mass	Up to 3 kg ^{*1}
PCB Thickness	0.3 to 8 mm
Insertion Push Force	Up to 100 N
SMT Components	Applicable components ^{*5} : Min. dimensions : L 5 mm × W 5 mm or larger (For tape, embossed tape of 12 mm or larger) Placement specs ^{*5} : Head: Nozzle only Placement accuracy : QFP ±0.05 mm (Cpk ≥ 1) Max. tact time : 3 000 cph (per head)
Max Speed	3-station head : Max. 0.65 s / component ^{*2 *3 *4} 2-station head : Max. 0.9 s / component ^{*2 *3}
Component Supply	Stick/Radial tape/Tray
Footnote Description	Please refer to the specification booklet for details. 1. PCB mass after insertion. (including carrier mass) 2. Except when anvil is attached 3. During 2-head operation (configured similar to 2-beam specs)

under optimum conditions.

supply unit (Std.) or feeder cart. (Option)

- For Body chuck + Nozzle + Nozzle
- Standard conveyor specs