

Model ID	NPM-VF	
	Standard conveyor	Anvil conveyor (Option)
PCB dimensions	L 50 mm × W 50 mm to L 510 mm × W 460 mm	L 50 mm × W 50 mm to L 460 mm × W 400 mm
Max. PCB mass *1	Up to 3 kg	
PCB thickness	0.3 to 8 mm	
PCB flow	Left ← Right / Left → Right (Flow direction is selectable)	
Insertion direction	360° (±180°) *1 degree unit	
Insertion push force	Up to 100 N	
PCB Exchange time	4.5 s	5.5 s
Clinch specifications	Clinch angle : 60 degrees outward clinch Clinch pitch : 2.5 to 40 mm Lead bend angle : 10 ~ 40° Lead diameter : φ0.4 mm to φ1.0 mm (soft copper) φ0.4 mm to φ0.8 mm (hard copper / CP wire)	
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	
Electric source	3-phase AC 200 , 220 , 380 , 400 , 420 , 480 V 2.7 kVA	
Pneumatic source	0.5 to 0.8 MPa , 200 L / min (A.N.R.)	
Dimensions	W 1 866 mm × D 2 332 mm × H 1 554 mm (Main body only) W 2 166 mm × D 2 332 mm × H 1 554 mm (When downstream extension conveyor is connected)	
Mass	2 590 kg (Only for main body : This differs depending on the option configuration)	

Head Configurations

3-station head	Body chuck + Nozzle + Nozzle	Tact: Max. 0.65 s / component *2,3,6
	Body chuck + Nozzle + Swing nozzle	
	Body chuck + Nozzle + Lead chuck	
	Body chuck + Swing nozzle + Lead chuck	
2-station head	Body chuck + Body chuck	Tact: Max. 0.9 s / component *2,3

Component Supply

Stick	S	Max. component dimension : W 20 × L 80 × H 20 mm / Max. stick width : 24 mm / Max. component mass : 2 kg in total (including stick mass)
	L	Max. component dimension : W 60 × L 80 × H 45 mm / Max. stick width : 64 mm / Max. component mass : 2 kg in total (including stick mass)
Radial tape	Max. body dimension : Max. Φ20 × H 30 mm / Lead pitch : 2.5 / 5.0 / 7.5 / 10.0 mm	
Tray	Max. tray dimension : L 230 × W 335 × D 69 mm / Max. pallets per feeder : 20 / Max. mass : 20 kg (magazine + pallet + tray + components)	
Bulk	*4 Customized spec	

Machine Configuration	Max. number of products to be loaded	Stick S	Stick L	Radial	Tray
		Front	30-slot fixed supply unit *5	15	7
Rear	30-slot fixed supply unit	15	7	10	—
	13-slot fixed supply unit + single tray feeder	6	3	4	20
	Twin tray feeder	—	—	—	40
	Single tray feeder + Bowl feeder × 2 *4	—	—	—	20
	Bowl feeder × 4 *4	—	—	—	—

System

Programming and Software	NPM-DGS · AM-LNB · LNB, Option : PanaCIM, iLNB	Note: Max. 3 NPM-VF can be connected to AM-LNB Up to 15 machines of the NPM series (including NPM-VF) or the SP series can be connected to LNB
Optional functions	Component verification, Traceability, Automatic changeover, Host communication, iLNB line control including other company's machine	

SMT components *7

Applicable components	Min. dimensions : L 5 mm × W 5 mm or larger (For tape, embossed tape of 12 mm or larger)							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. *4 : Custom specs - Connection via the host feeder. *5 : For front side configuration, select between 30 stations fixed supply unit (Std.) or feeder cart. (Option) *6 : For Body chuck + Nozzle + Nozzle *7 : Standard conveyor specs						
Placement specs	Head: Nozzle only Placement accuracy : QFP ±0.05 mm (Cpk ≥ 1) Max. tact time : 3 000 cph (per head)													
Supply unit (embossed tape)	Tape feeder width	12 / 16 mm	24 / 32 mm	44 / 56 mm	72 mm	88 mm	104 mm							
	30-slot supply unit	30	15	10	7	6	5							
	13-slot supply unit	13	6	4	3	2	2							

⚠ Safety Cautions

- Please read the User's Manual carefully to familiarize yourself with safe and effective usage procedures.
- To ensure safety when using this equipment, all work should be performed according to that as stated in the supplied Operating Instructions. Read your operating instruction manual thoroughly.

Panasonic Group products are built with the environment in mind.

For details here



Panasonic GREEN IMPACT

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Panasonic CONNECT

2024

Electronics Assembly System

Odd-form Component Insertion Machine

Catalogue

Model ID

NPM-VF

Model No.

NM-EJR9A



NPM
NEXT PRODUCTION MODULAR



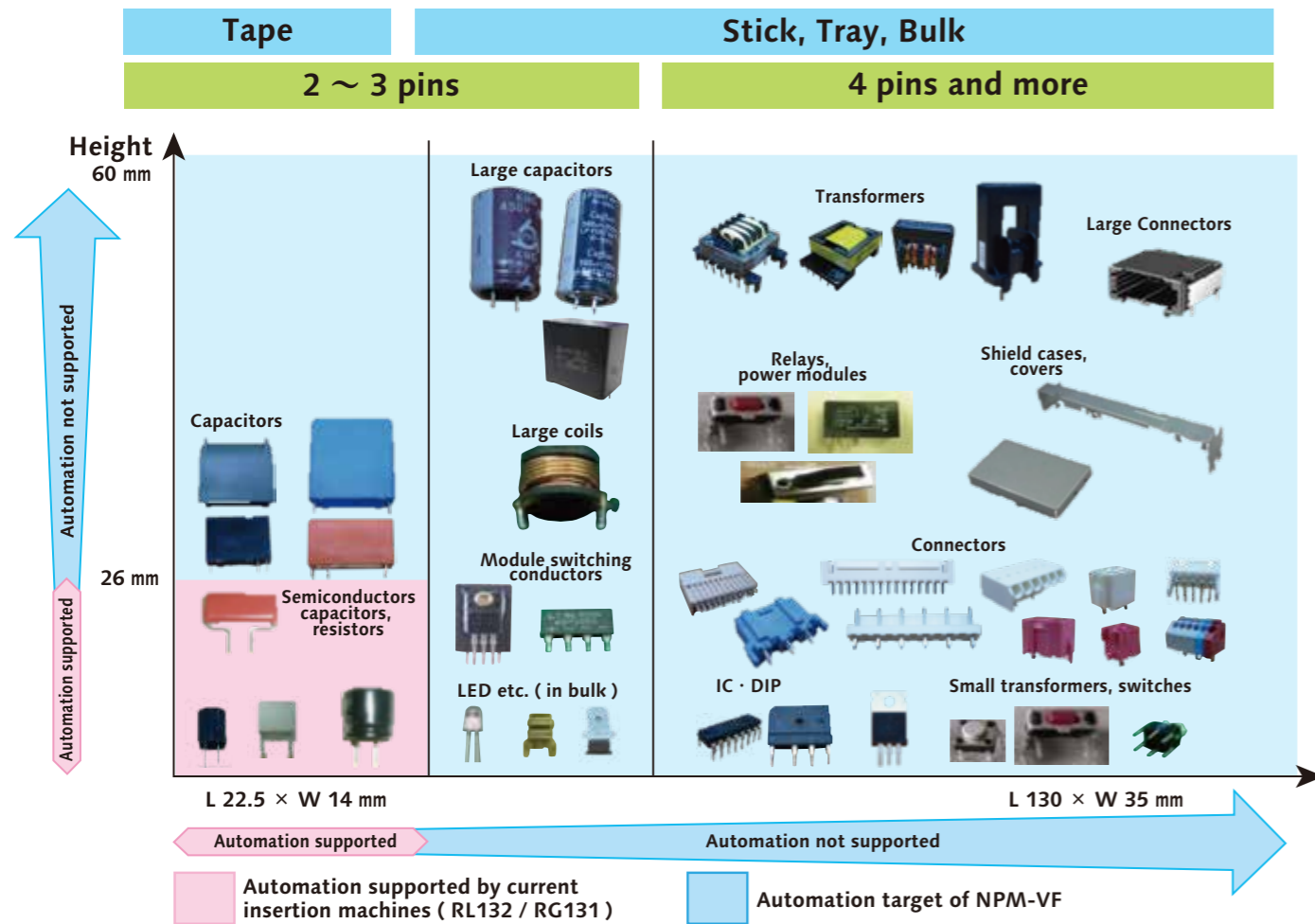
*It may not conform to Machinery Directive and EMC Directive in case of optional configuration and custom-made specification.

NPM-VF Innovating PCB assembly process via automation of odd-form components insertion

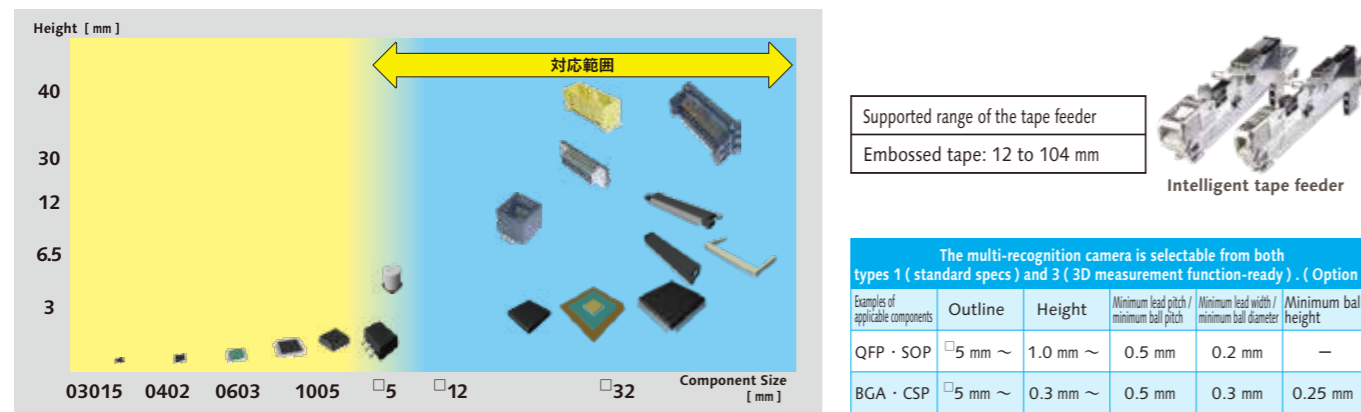
Features and aims of NPM-VF

- 1** Automation of odd-form components insertion process. In addition, SMT specifications* are also supported.
*supports both SMT placement + odd-form insertion (developing).
- 2** Versatile and flexible : various configuration of head tools and machine feeder configuration to adapt to different types of components.
- 3** Contribute to manpower reduction and stable production with high productivity, flexibility, high quality insertion.

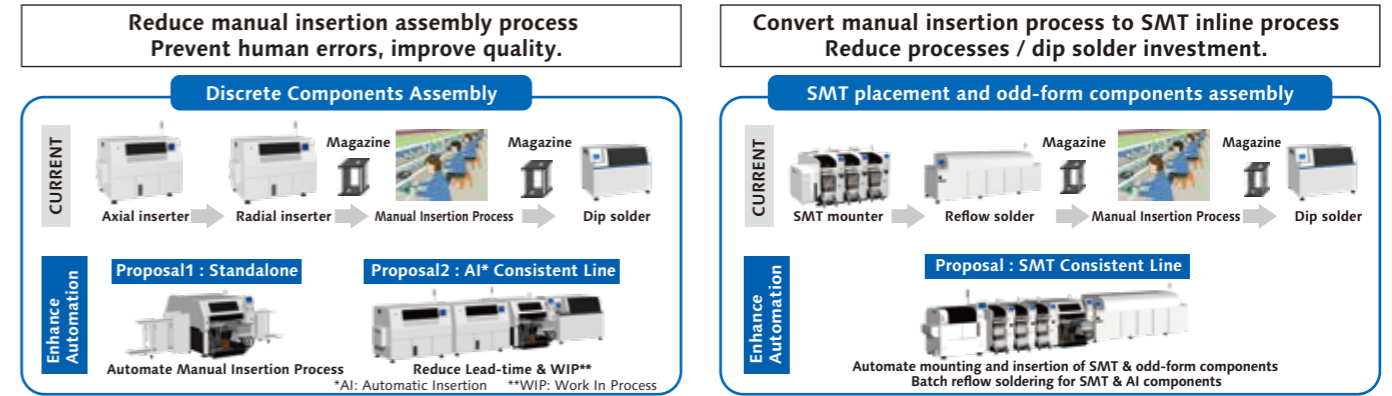
Applicable Components



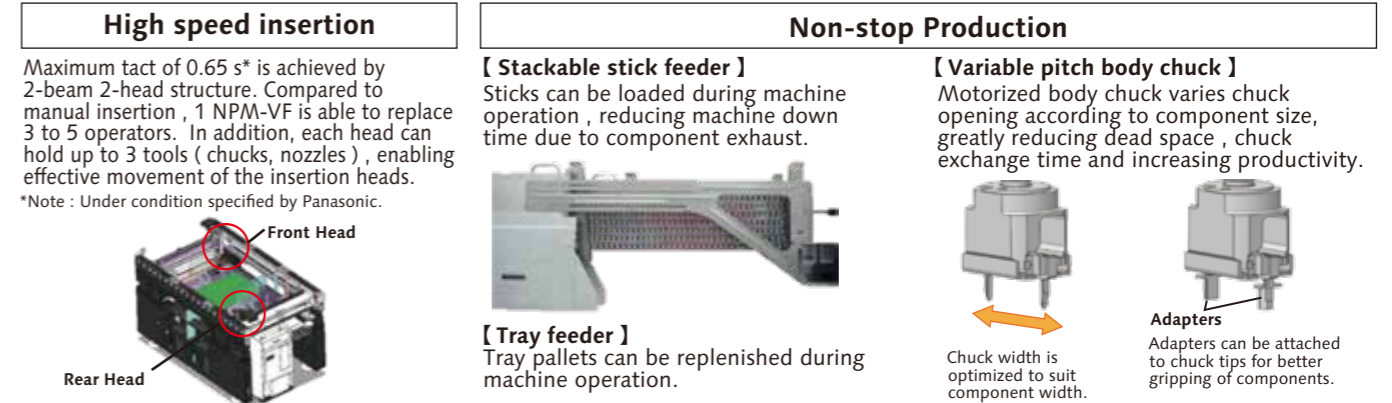
Support for SMT components



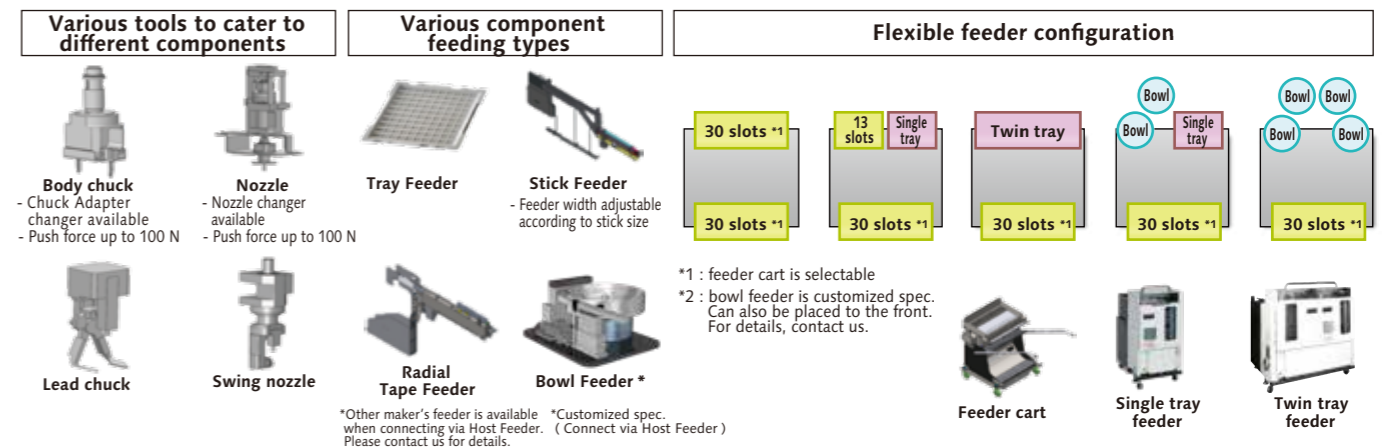
Line Solution



High Productivity



Versatility



Quality Insertion

