

## Our Solutions, Your Value

Model ID	NPM-VF					
	Single conveyor	Anvil conveyor (Option)				
PCB dimensions	L 50 mm × W 50 mm ~ L 510 mm × W 460 mm	L 50 mm × W 50 mm ~ L 460 mm × W 400 mm				
Max. PCB mass *1	3kg	1kg				
PCB thickness	0.3 ~ 8 mm					
PCB flow*2	Left ← Right					
Insertion direction	360° (± 180°) *1 degree unit					
Insertion push force	Up to 100 N	Up to 50 N				
PCB transfer time	4.5 s or less	8.0 s or less				
Clinch specifications	Clinch angle: 60 degrees outward clinch Clinch pitch: 2.5 to 40 mm Lead bend angle : 10 ~ 30° Lead diameter : φ 0.4 mm ~ φ 0.8 mm (soft copper) φ 0.4 mm ~ φ 0.6 mm (hard copper / CP wire)					
Applicable components	Max. dimensions : L 130 mm × W 35 mm × H 60 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 ~ 0.8 MPa, 200 L /min (A.N.R.)					
Machine dimension	W 1 866 mm × D 2 332 mm × H 1 554 mm (Main body only) Note: Not including protrusion from signal tower and touch panel 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. 0.8 s / component *3,4,7				
	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. 1.1 s / component *3,4				
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. φ 20 × 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*5	Customized spec					
Machine Configuration		Max. number of products to be loaded	Stick S	Stick L	Radial	Tray
	Front	30-slot fixed supply unit *6	15	7	10	—
		30-slot fixed supply unit	15	7	10	—
		13-slot fixed supply unit + single tray feeder	6	3	4	20
	Rear	Twin tray feeder	—	—	—	40
		Single tray feeder + Bowl feeder × 2 *5	—	—	—	20
Bowl feeder × 4 *5		—	—	—	—	
System						
Programming and Software	NPM-DGS · AM-LNB Note: Max. 3 NPM-VF can be connected to AM-LNB					

\*1: PCB mass after insertion (including carrier mass)  
 \*2: Please consult Panasonic if PCB flow is Left→Right

\*3: Except when anvil is attached

\*4: Under optimum conditions

\*5: Customized spec

\*6: For front side configuration, select between 30 stations fixed supply unit (Std.) or feeder cart (Option)

\*7: For Body chuck + Nozzle + Nozzle

### 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.  
<http://panasonic.net/eco/>



Panasonic Group builds Environmental Management System in the factories of the world and acquires the International Environmental Standard ISO 14001:2004.

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**Panasonic**  
 BUSINESS

2016  
 Electronics Assembly System  
 catalog

Odd-form Component Insertion Machine



**NPM**  
 NEXT PRODUCTION MODULAR

## Manufacturing Process Innovation



Model Name **NPM-VF**

Model No. NM-EJR9A



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

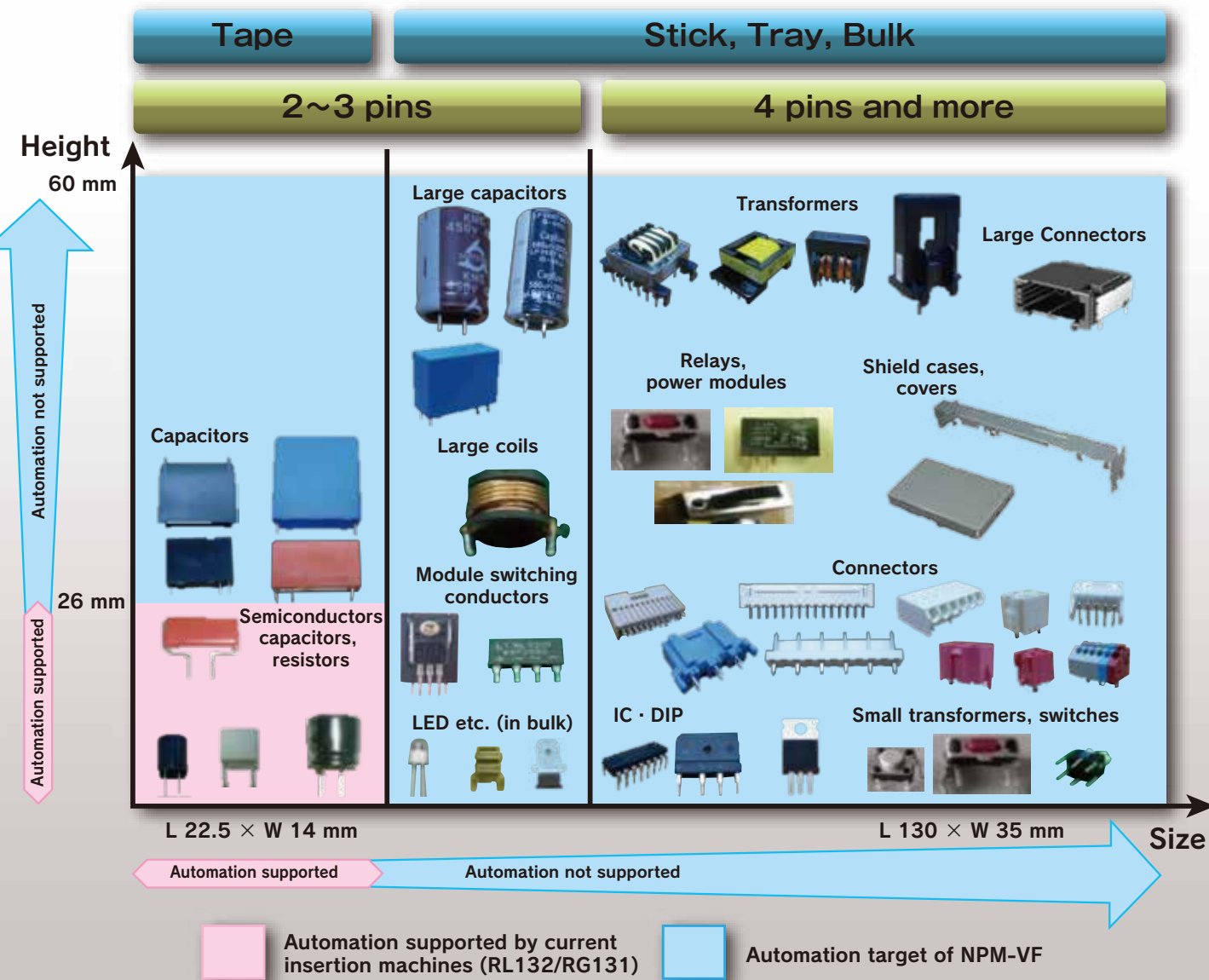
# NPM-VF Innovating PCB assembly components insertion

# process via automation of odd-form

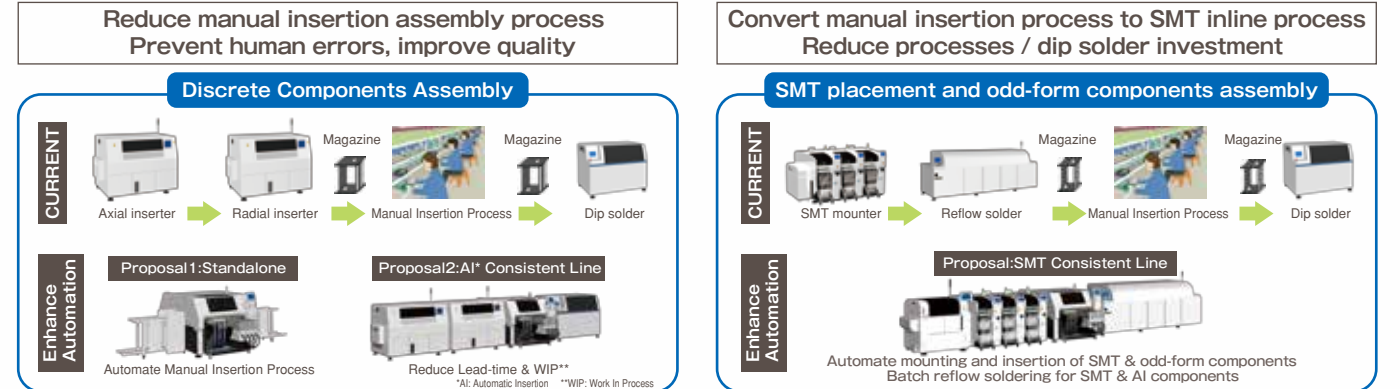
## Features and aims of NPM-VF

- 1 Automation of odd-form components insertion process, followed by integration with SMT specifications**  
\*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**

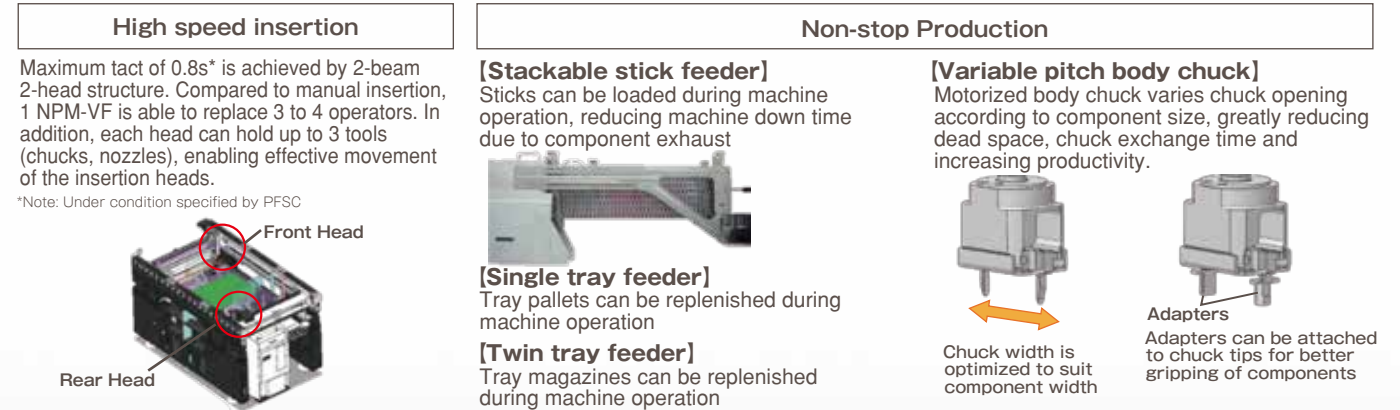
## Applicable Components



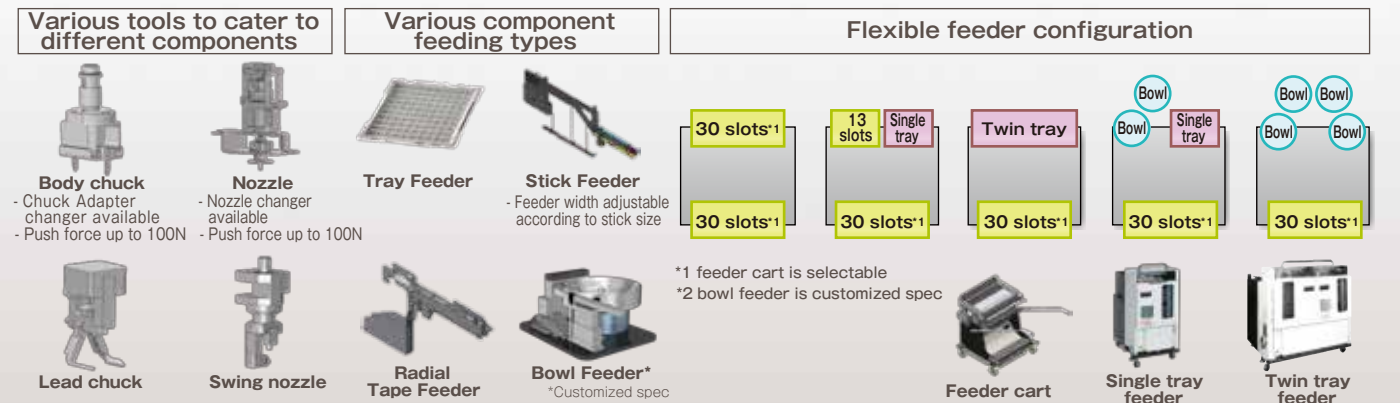
## Line Solution



## High Productivity



## Flexibility



## Quality Insertion

