

Model ID	NPM-VF	
	Standard 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	Up to 3 kg	
PCB thickness	0.3 ~ 8 mm	
PCB flow	Left ← Right / Left → Right (Flow direction is selectable)	
Insertion direction	360° (±180°) * 1degree 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 ~ φ1.0 mm (soft copper) φ0.4 mm ~ 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 ~ 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) <small>Note: Excluding the monitor, signal tower and ceiling fan cover.</small>	
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)	

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

System	
Programming and Software	NPM-DGS · AM-LNB · LNB, Option : PanaCIM, iLNB <small>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.</small>
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)						
Placement specs	Head: Nozzle only Placement accuracy: QFP ±0.05 mm (Cpk ≥ 1) Max. tact time: 3000 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

*Placement tact time may differ slightly depending on conditions.
*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

⚠ 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.

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Inquiries...

Panasonic Connect Europe GmbH
Caroline-Herschel-Straße 100
85521 Ottobrunn · Germany

PFSE.info@eu.panasonic.com

<https://pfse.panasonic.eu/>

Panasonic Connect Co., Ltd.
Process Automation Business Division

3-1-1 Inazu-cho, Toyonaka City, Osaka
561-0854, Japan

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Model ID **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.

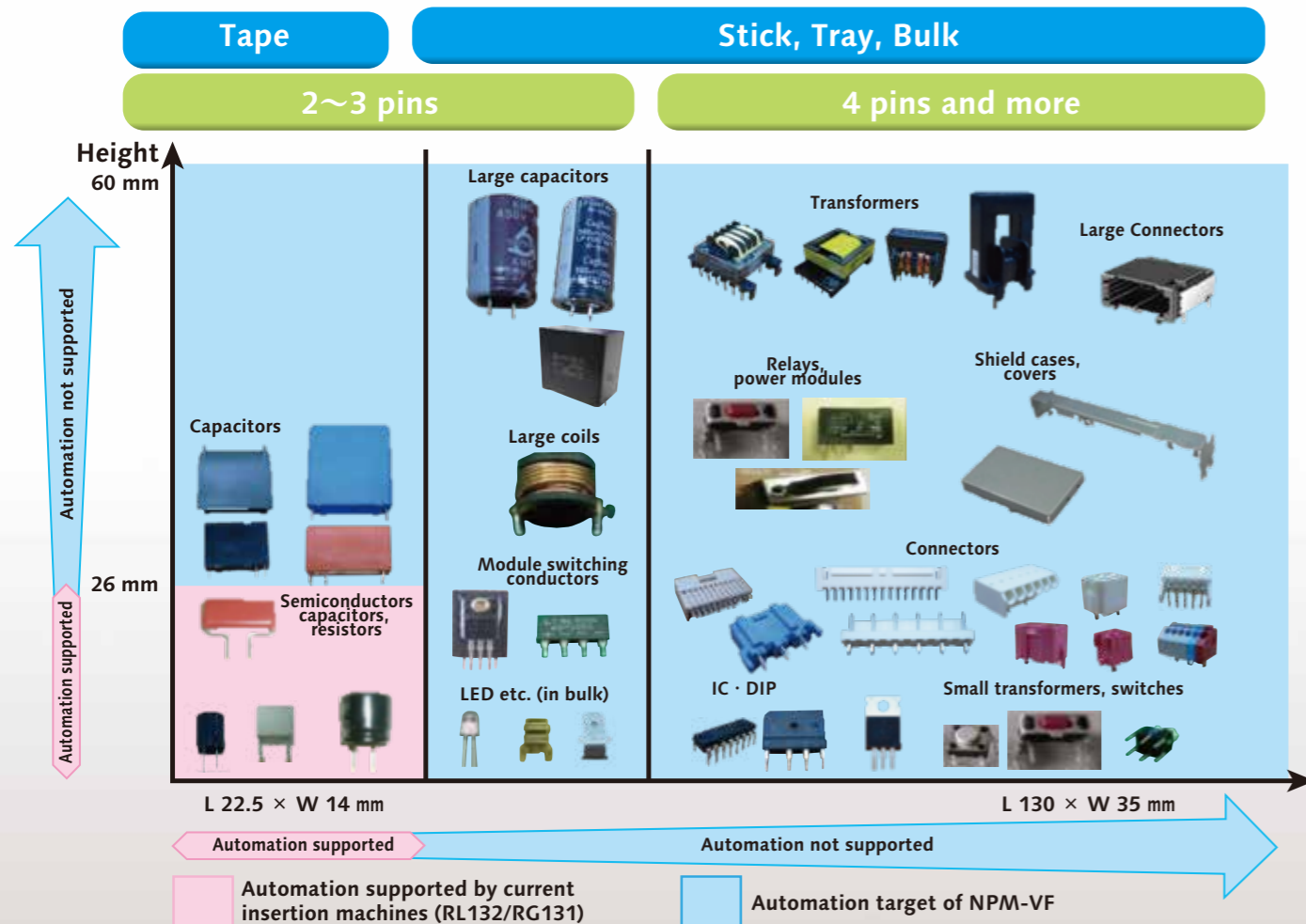
NPM-VF

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

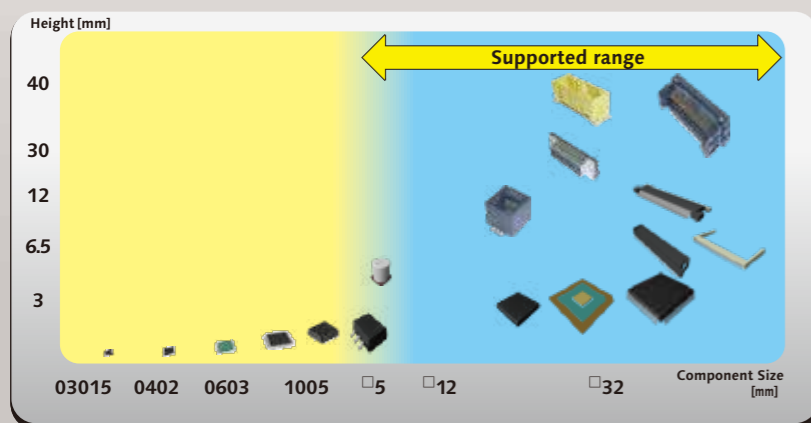
Features and aims of NPM-VF

- Automation of odd-form components insertion process. In addition, SMT specifications* are also supported.
 - *supports both SMT placement + odd-form insertion (developing)
- 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

Applicable Components



Support for SMT components



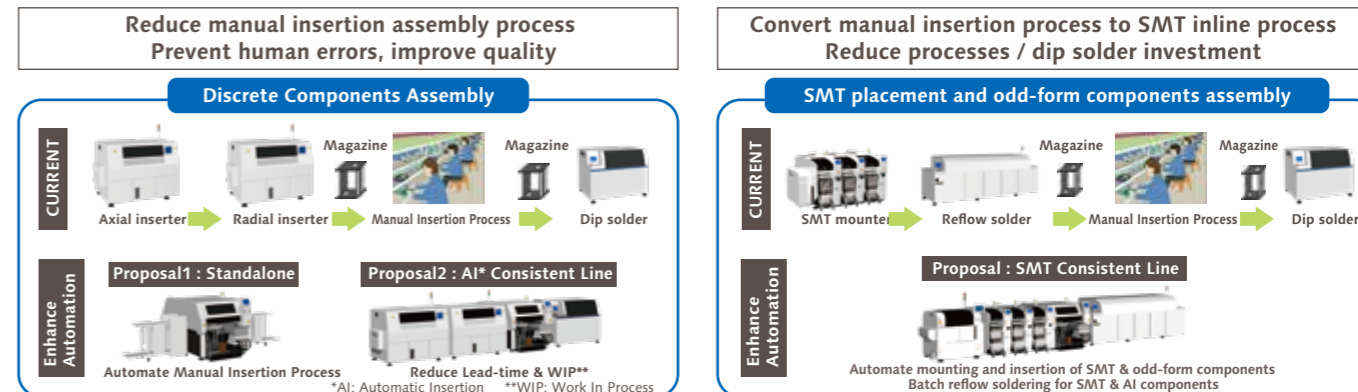
Supported range of the tape feeder
Embossed tape: 12 to 104 mm



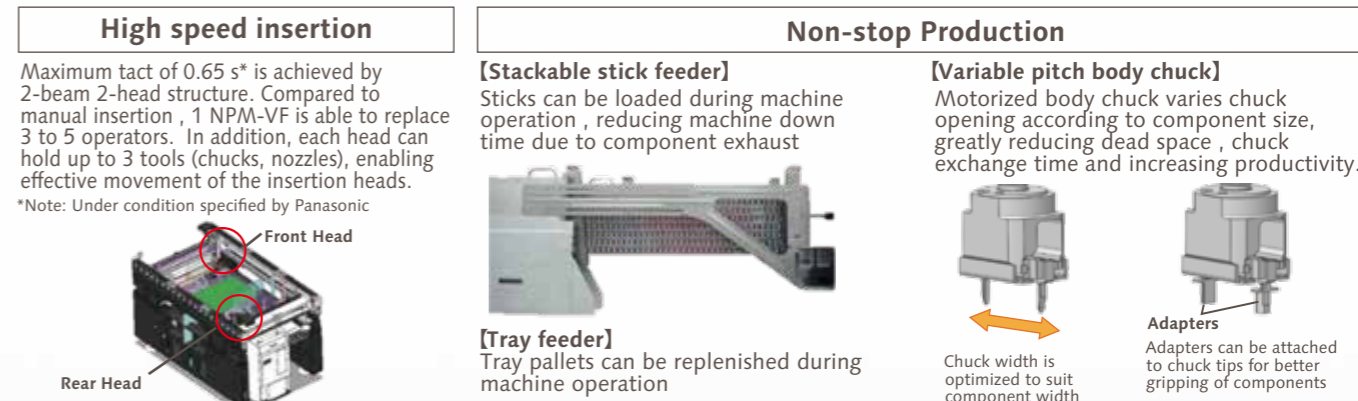
The multi-recognition camera is selectable from both types 1 (standard specs) and 3 (3D measurement function-ready). (Option)

Examples of applicable components	Outline	Height	Minimum lead pitch / minimum ball pitch	Minimum lead width / minimum ball diameter	Minimum ball height
QFP · SOP	5 mm ~	1.0 mm ~	0.5 mm	0.2 mm	—
BGA · CSP	5 mm ~	0.3 mm ~	0.5 mm	0.3 mm	0.25 mm

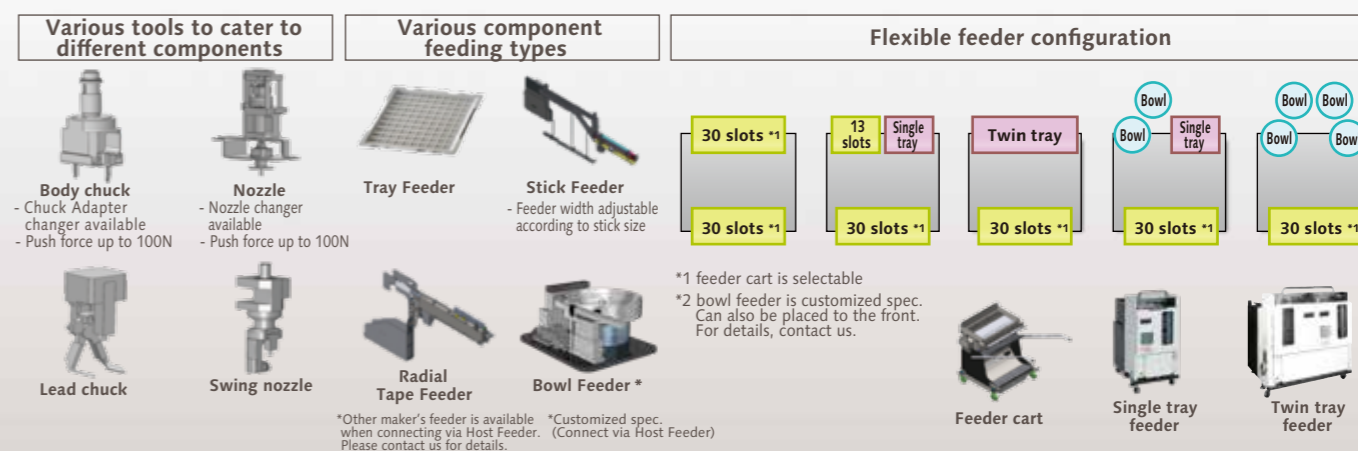
Line Solution



High Productivity



Versatility



Quality Insertion

