

NPM

NEXT PRODUCTION MODULAR

Manufacturing Process Innovation



Model ID **NPM-W2S**
Model No. NM-EJM5E



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

Model ID		NPM-W2S			
PCB dimensions	Single-lane *1	Batch mounting	L 50 mm × W 50 mm ~ L 750 mm × W 550 mm	2 position mounting	L 50 mm × W 50 mm ~ L 350 mm × W 550 mm
	Dual-lane*1	Dual transfer (Batch)	L 50 mm × W 50 mm ~ L 750 mm × W 260 mm	Dual transfer (2 position)	L 50 mm × W 50 mm ~ L 350 mm × W 260 mm
		Single transfer (Batch)	L 50 mm × W 50 mm ~ L 750 mm × W 510 mm	Single transfer (2 position)	L 50 mm × W 50 mm ~ L 350 mm × W 510 mm
Electric source		3-phase AC 200, 220, 380, 400, 420, 480 V 2.0 kVA			
Pneumatic source		0.5 MPa, 200 L / min (A.N.R.)			
Dimensions *2		W 1 280 mm *3 × D 2 477 mm *4 × H 1 444 mm *5			
Mass		2 390 kg (Only for main body : This differs depending on the option configuration.)			
Placement head		Lightweight 16-nozzle head	12-nozzle head	Lightweight 8-nozzle head	3-nozzle head V2
Max. speed		38 500 cph (0.094 s / chip)	32 250 cph (0.112 s / chip)	20 800 cph (0.173 s / chip)	8 320 cph (0.433 s / chip) 6 500 cph (0.554 s / QFP)
Placement accuracy (Cpk ≥ 1)		± 30 μm / chip (± 25 μm / chip *6)	± 30 μm / chip	± 30 μm / chip ± 30 μm / QFP □12 mm ~ □32 mm ± 50 μm / QFP □12 mm Under	± 30 μm / QFP
Component dimensions (mm)		03015 *7 *8 0402 *7 chip ~ L 6 × W 6 × T 3	0402 *7 chip ~ L 12 × W 12 × T 6.5	0402 *7 chip ~ L 32 × W 32 × T 12	0603 chip ~ L 150 × W 25 (diagonal 152) × T 30
Component supply	Taping	Tape : 4 / 8 / 12 / 16 / 24 / 32 / 44 / 56 mm		Tape : 4 ~ 56 mm	
		Max.120 (Tape: 4, 8 mm, Small reel)		Front/rear feeder cart specifications : Max.120 (Tape width and feeder are subject to the conditions on the left) Single tray specifications : Max.86 (Tape width and feeder are subject to the conditions on the left) Twin tray specifications : Max.60 (Tape width and feeder are subject to the conditions on the left)	
	Stick	—		Front/rear feeder cart specifications : Max.15 (Single stick feeder) Single tray specifications : Max.15 (Single stick feeder) Twin tray specifications : Max.15 (Single stick feeder)	
Tray	—		Single tray specifications : Max.20 Twin tray specifications : Max.40		

* Placement tact time, inspection time and accuracy values may differ slightly depending on conditions
* Please refer to the specification booklet for details.

*1 : Please consult us separately should you connect it to NPM-D3/D2/D. It cannot be connected to NPM-TT and NPM.

*2 : Only for main body

*3 : 1 880 mm in width if extension conveyors (300 mm) are placed on both sides.

*4 : Dimension D including tray feeder : 2 618 mm
Dimension D including feeder cart : 2 513 mm

*5 : Excluding the monitor, signal tower and ceiling fan cover.

*6 : ± 25 μm placement support option. (Under conditions specified by Panasonic)

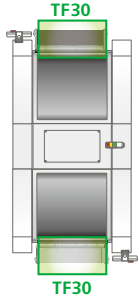
*7 : The 03015/0402 chip requires a specific nozzle/feeder.

*8 : Support for 03015 mm chip placement is optional.
(Under conditions specified by Panasonic, Placement accuracy : ± 30 μm / chip)

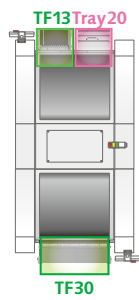
Basic Specification

Conventional NPM series comes with one simple beam, allowing for various operations ranging from an NPM series backup to multiple connection configuration

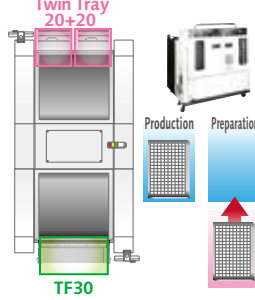
Rear & Front Feeder Layout



Single Tray Layout



Twin Tray Layout



1 Directly connectable to NPM-W2

Support for single- / dual-lane transport

2 Selection of the mounting head according to production form

Selectable from Lightweight 16- / 12- / Lightweight 8- / 3-nozzle head V2

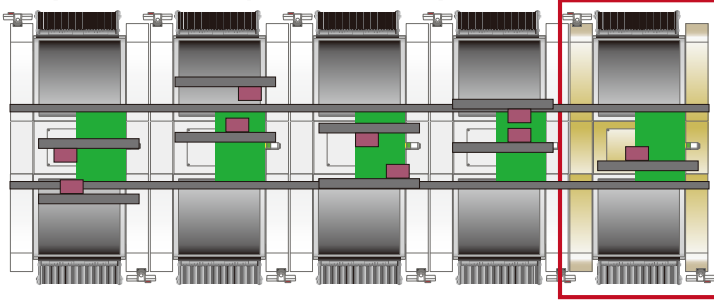
3 Mutual compatibility with NPM series

Shared use of the placement head/nozzle, tape feeder and feeder cart
*For details, contact our sales representative.

4 Adoption of 3-nozzle head V2

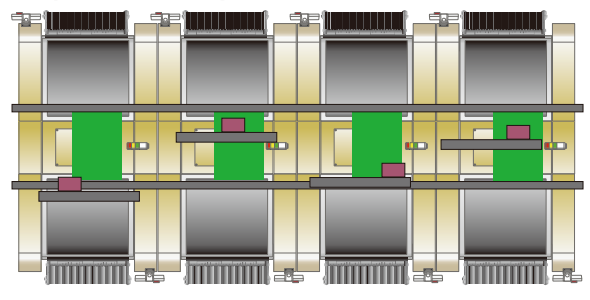
Capable of a max placement load of 100 N.

Operation example 1 (A backup to NPM line)



Line with 4 NPM-W2 models + 1 NPM-W2S model

Operation example 2 (NPM-W2S connected line)



Line with 4 NPM-W2S models

Optional functions

Inspection option before pick-up

Inspect tray or reel components before pick-up to prevent misplacement.

① Polarity inspection ⇒ Detects wrong component orientation



Average luminance



Pattern matching



Chamfering inspection

② Component number inspection ⇒ Detects wrong components, traces components.



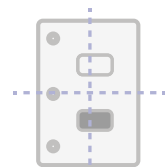
Text recognition
(lot number text)



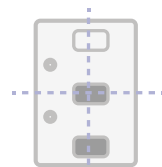
2D code recognition
(lot number text)

Automatic pick-up error recovery

When pickup/recognition error occurred, the machine automatically corrects the pickup position without stopping, and resumes production. That improves machine operation rate.
(Components : 4 mm embossed (black)/ 8 mm paper/embossed (black) tape component.
*Embossed tape (transparency) is not supported.)



Error



Automatic feed
Automatic teach

PIP lighting unit

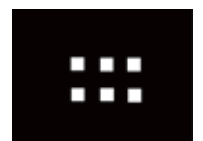
Recognizes the locations of insertion lead components, as well as bends in the components, before placement.



Conventional recognition camera



PIP lighting unit



Recognition images

⚠ 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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