

Quality improvement

APC system

Feedforward to placement heads

- Feed forward the offset values calculated from solder position
- Chip components(0402C / R ~)
- Package component (QFP , BGA , CSP)

Post-printing inspection

Standard solder placement

Standard placement inspection

After reflow

Placement height control

Improves mounting quality by controlling the mounting height based on PCB warpage data and individual part thickness.

Without PCB warpage measurement

With PCB warpage measurement

Automatic support pin replacement

Support pins are replaced automatically to reduce labor and operator errors during changeover.

Component Verification option

Prevents setup errors during changeover Provides an increase of production efficiency through easy operation

For Wireless scanner (PDA)

- Wireless scanner *1
- Access point *1
- FA PC (LNB)
- AM100 Line
- Wireless scanner *1

- Component setup error prevention
Prevents setup errors through verifying the AM100 downloaded production data and component barcode data
- Array data activesync function
There's no need to select array data; data is verified with the AM100
- Interlock function
Equipment stops when it has an incorrect and / or incomplete verification
- Navigation function
Clearly provide a verification task with data display and Intelligent feeder performance in sync
- Scanner selection
Users can choose either a wired or wireless scanner (PDA)

*1:Please prepare a wireless scanner and related accessories by yourself

Mounting MES software (PanaCIM-EE Gen2)

Helps improve the entire factory's productivity and quality by supporting / directing operators and contributing to better management of the factory.

Material verification

Operation monitor

Material management

Operation analysis

Traceability

Maintenance

External interface

Automation reduces labor and helps improve quality

Automation reduces labor and helps improve quality

Feeder maintenance unit

Automatic tape splicing unit

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.

Panasonic GREEN IMPACT

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CONNECT

Modular Placement Machine

Electronics Assembly System

Catalogue

Model ID

AM100

Model No.NM-EJM4D

●Mixing a wide variety of machine layouts and a wide range of options to offer you an optimum line suitable for all types of production

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

Model ID		AM100
Model No.		NM-EJM4D
PCB dimensions		L 50 mm × W 50 mm to L 510 mm × W 460 mm
Placement speed		35 800 cph(0.1006 s / chip) , 12 200 cph(0.295 s / QFP □12 mm or less)
Placement accuracy(Cpk≥1)		± 40 μm / chip ± 50 μm / QFP □12 mm or less ± 30 μm / QFP □12 mm over to □32 mm or less
Component supply	Taping	Tape : 4 ~ 56 / 72 / 88 / 104 mm Tape feeder specification : Max.160 Tray feeder specification : Max.120*1 (Tape : 4 / 8 mm tape (small reel))
	Stick	Tape feeder specification : Max.40 Tray feeder specification : Max.30*1 (Single stick feeder)
	Tray	Tray feeder specification : Max.20 *1 Manually setting tray specification : Max.20 *2 (Option for the fixed feeder base)
Component dimensions		0402 chip*3 to L 120 mm × W 90 mm or L 150 mm × W 25 mm (T=28 *4)
PCB exchange time		4.0 s (where there is no placement component on the rear side)
Electric source		3-phase AC 200 / 220 V ± 10 V , AC 380 / 400 / 420 / 480 V ±20 V 2.0 kVA
Pneumatic source		Min.0.5 MPa to Max.0.8 MPa , 200 L / min (A.N.R.)
Dimensions		W 1 970 mm × D 2 019 mm*5 × H 1 500 mm *6
Mass		2 650 kg*7

*Values such as maximum speed and placement accuracy may vary depending on operating conditions.
*Please refer to the "Specification" booklet for details.
*1 : in case of Single tray
*2 : When installed on both sides of the rear fixed feeder base.
*3 : The 0402 chip requires a specific nozzle / feeder.
0402 mounting compatibility is optional.

*4 : For components with a height of 25 mm or more , a dedicated nozzle is required.
*5 :The D measurement indicates the size of the machine with the fixed feeder bases in the front and rear.
For front and rear feeder cart specifications , D measures 2 282 mm and, with the tray feeder connected (front side: fixed feeder base) , 2 105 mm.
*6 : The signal tower and touch panel are not included.
*7 : The machine body plus 4 fixed feeder bases (varies depending on the machine layout).

Any-Mix Any-Volume Solution

Concept ... One-machine solution for the pursuit of net productivity and high versatility

Equipped with 14 nozzle head that balances productivity and versatility.
-Placing components (up to 14 mm) *1 in the maximum speed. *2

Components ranges from 0402 to 120 × 90(mm) or 150 × 25(mm)

*1: for □14 mm-square size components CO.5 mm minimum



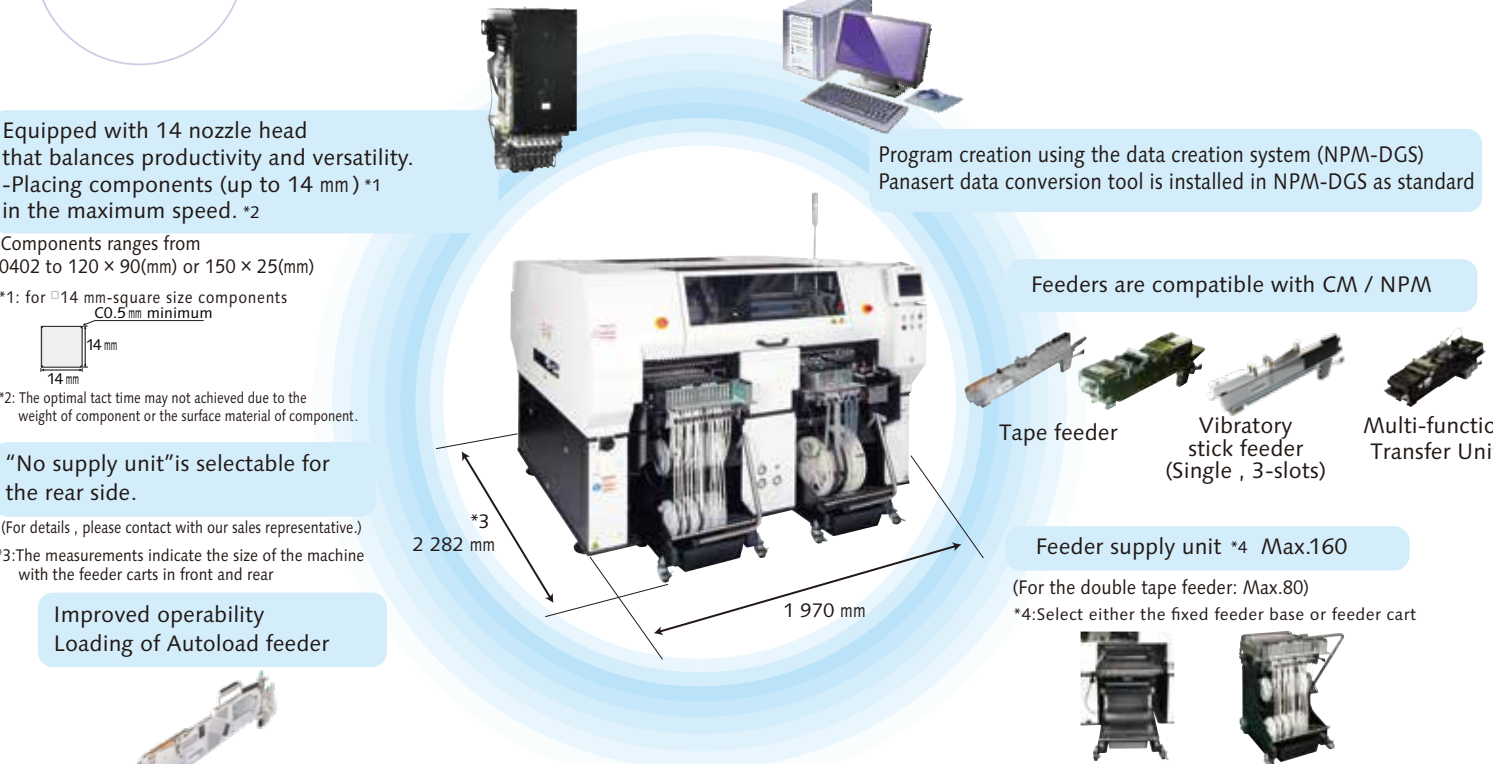
*2: The optimal tact time may not be achieved due to the weight of component or the surface material of component.

“No supply unit” is selectable for the rear side.

(For details, please contact with our sales representative.)

*3: The measurements indicate the size of the machine with the feeder carts in front and rear

Improved operability
Loading of Autoload feeder



Program creation using the data creation system (NPM-DGS)
Panaset data conversion tool is installed in NPM-DGS as standard

Feeders are compatible with CM / NPM



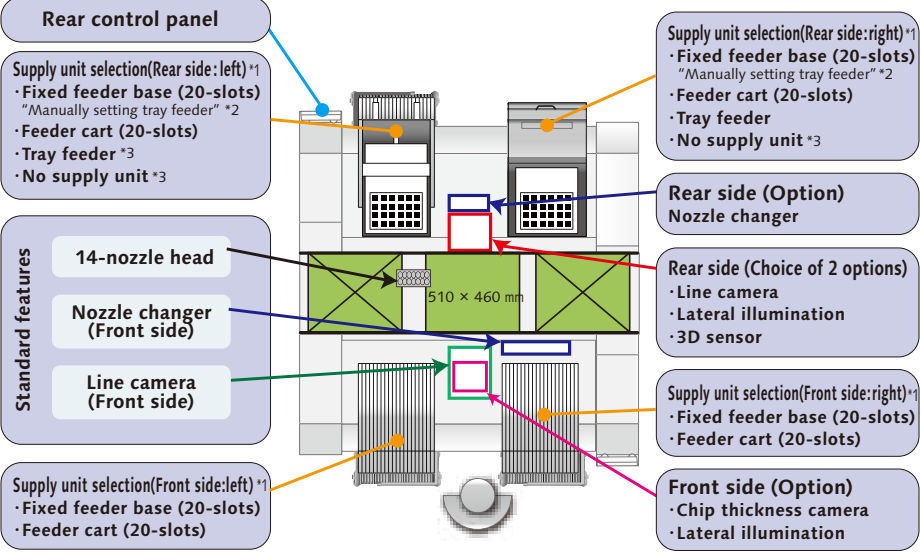
Feeder supply unit *4 Max.160

(For the double tape feeder: Max.80)

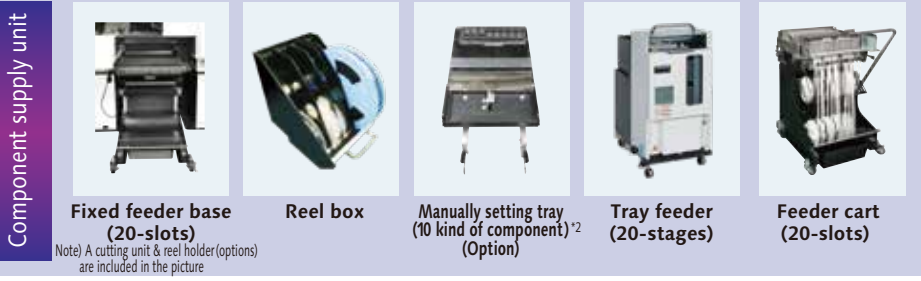
*4: Select either the fixed feeder base or feeder cart



Machine layout



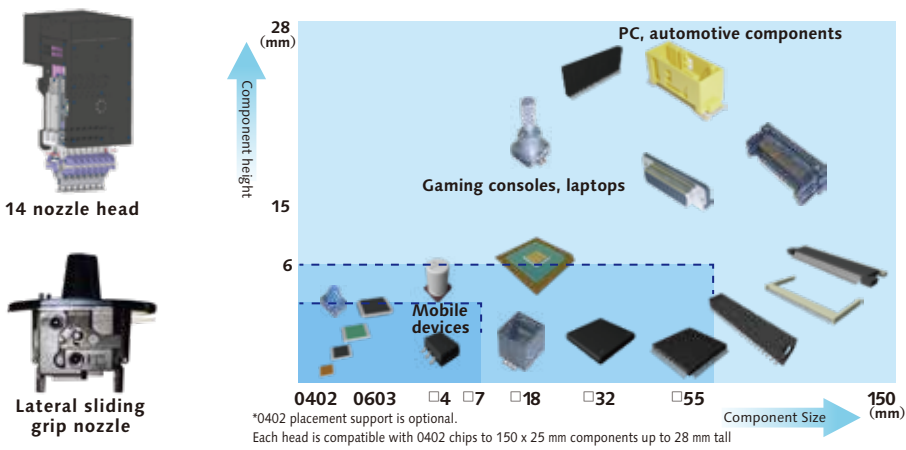
*1: When you select supply units for a machine, the fixed feeder base cannot be mixed with the feeder cart in the machine.
*2: The Manually setting tray is only installable on the rear fixed feeder base (one on each side).
*3: Please consult our sales representative.
*The above illustration is an example of machine layout.



Wide range of options

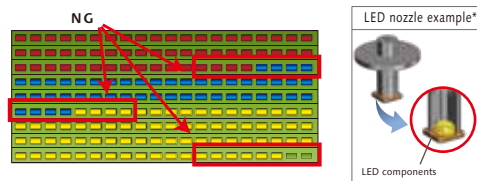
- Fixed feeder base options
 - ① Manually setting tray
 - ② Reel box
 - ③ Cutting unit & reel holder
- Multi-functional transfer unit
- Grip nozzle
- Rear side nozzle changer
- Rear side operation panel
- Chip thickness camera (front side only)
- Rear side camera (line camera or 3D sensor)
- Lateral illumination
- Automatic changeover
- Support station
- Feeder setup navigation
- Parts supply navigation
- APC system
- Height sensor (placement height control)
- Automatic replacement of support pins
- Component verification
- PanaCIM-EE ready

Part adaptability



LED Placement

Brightness Binning



Avoid mixing of brightness and minimizes component and block disposal.
Monitors remaining component count to avoid component exhaust during operation.

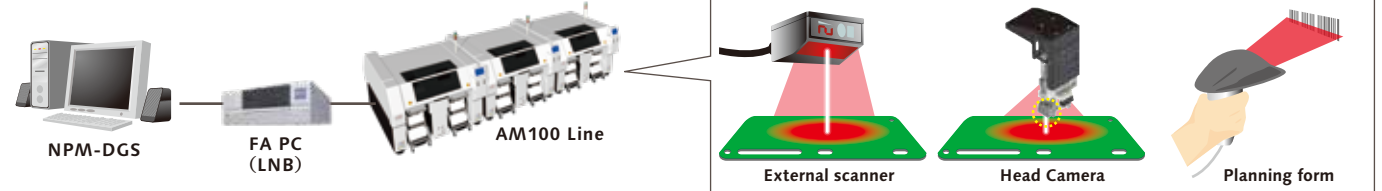
*Please ask us for nozzles that support LED components of various shapes

High productivity

High productivity / Automatic changeover option

Supporting changeover (production data and rail width adjustment) can minimize time loss

● PCB ID read-in type
PCB ID read-in function is selectable from among 3 types of external scanner, head camera or planning form



Off-line setup support station

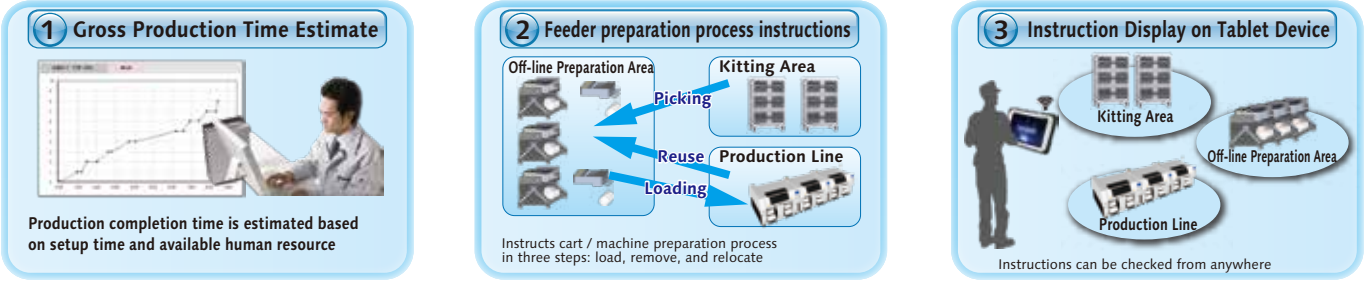
With the support stations, offline feeder cart setup is possible even outside of the manufacturing floor.

● Two types of Support Stations are available.

- ① Component verification station
 - Batch Exchange Cart Setup: Provides power to all feeders in cart.
 - Feeder setup: Provides power to individual feeders.
 - Component verification: Navigator that indicates any location where feeders need exchange.
- ② Power supply station
 - The simpler type of station composed of the batch exchange cart setup and the feeder setup features.

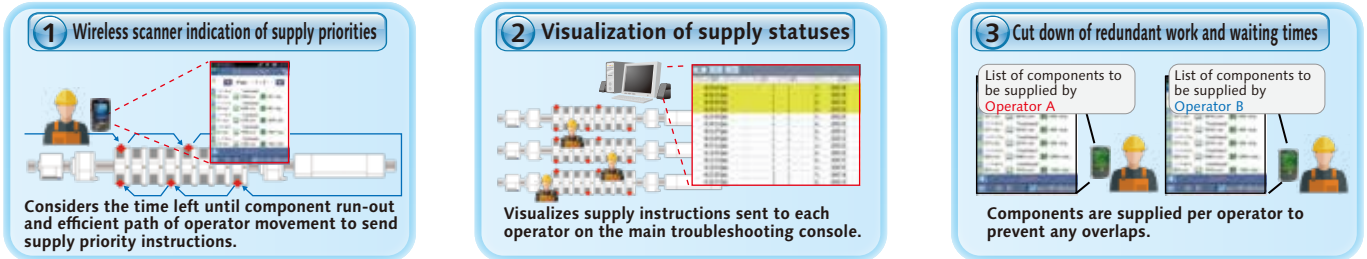
Feeder setup navigator option

It is a support tool to navigate efficient setup procedure. The tool factors in the amount of time it takes to perform and complete setup operations when estimating the time required for production and providing the operator with setup instructions. This will visualize and streamline setup operations during setup for a production line.



Operating rate improvement / Parts supply navigator option

A component supply support tool that navigates efficient component supply priorities. It considers the time left until component run-out and efficient path of operator movement to send component supply instructions to each operator. This achieves more efficient component supply.



*PanaCIM is required to have operators in charge of supplying components to multiple production lines.