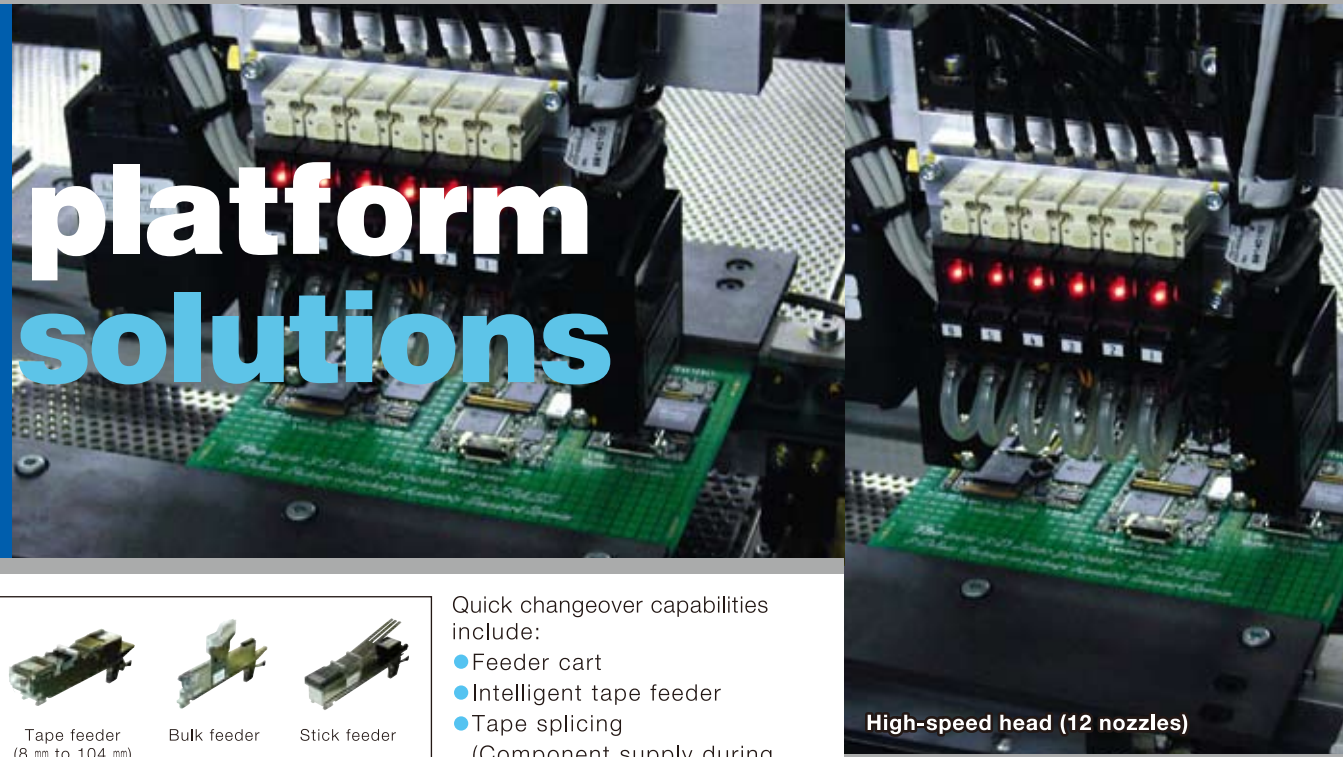


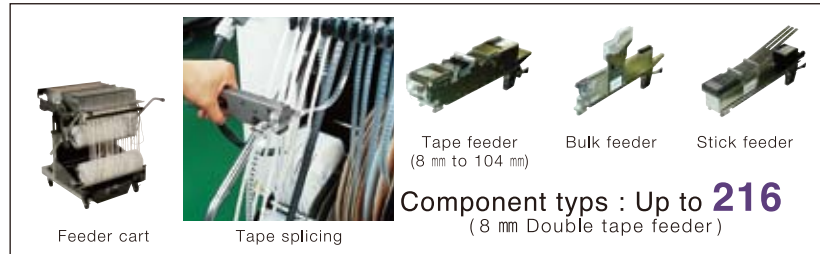


Our Solutions, Your Value

one platform solutions



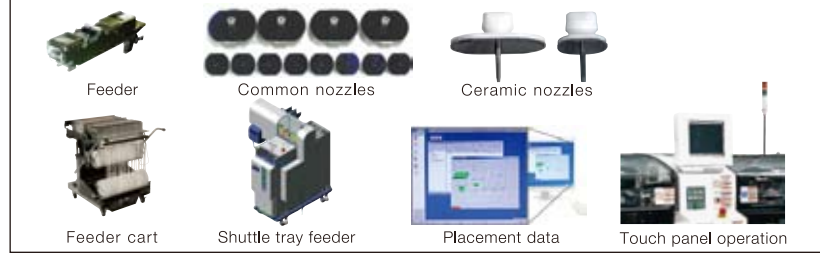
Quick
changeover
capabilities



Quick changeover capabilities include:

- Feeder cart
- Intelligent tape feeder
- Tape splicing (Component supply during operation)

High modular
compatibility



High compatibility with CM402 series realized through modular manufacturing concept.

⚠ 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.

eco ideas Panasonic Group products are built with the environment in mind.
<http://panasonic.net/eco/>

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

Inquiries...

Panasonic Factory Solutions Co., Ltd.
Corporate Sales Division

1375 Kamisukiawara, Showa-cho, Nakakoma-gun, Yamanashi 409-3895, Japan
TEL +81-55-275-9148
FAX +81-55-275-6269

All data as of December 1, 2011

Ver. December 1, 2011

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CM602-L
 Model No. NM-EJM8A
GM+PLUS Ver.5
 Generalized Ver.5 (Optional)
 High-flexibility LS 8 nozzles
 Newly optimum engine Ver.5 (Optional)
 High-speed 12 nozzles

● Modular High Speed Placement Machine

● With further increased productivity and enhanced component handling capabilities, the reliable, proven CM Platform has evolved to a placement machine that realizes excellent line balance and easier handling.

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

Model ID	CM602-L
Model No.	NM-EJM8A
PCB dimensions	L 50 mm × W 50 mm to L 510 mm × W 460 mm
● High-speed head	12 nozzles
Max. speed	100 000 cph (0.036 s/chip (Type A-2))
Placement accuracy	± 40 μm/chip (Cpk ≥ 1)
Component dimensions	(01005") 0402 chip *5 to L 12 mm × W 12 mm × T 6.5 mm
● High-flexibility head	LS 8 nozzles
Max. speed	75 000 cph (0.048 s/chip (Type A-0))
Placement accuracy	± 40 μm/chip, ± 35 μm/QFP ≥ □ 24 mm, ± 50 μm/QFP < □ 24 mm (Cpk ≥ 1)
Component dimensions	(01005") 0402 chip *5 to L 32 mm × W 32 mm × T 8.5 mm *6 When the generalized Ver.5 is optionally selected (01005") 0402 chip *5 to L 100 mm × W 50 mm × T 15 mm *6
● Multi-functional head	3 nozzles
Max. speed	20 000 cph (0.18 s/QFP (Type B-0))
Placement accuracy	± 35 μm/QFP (Cpk ≥ 1)
Component dimensions	(0201") 0603 chip to L 100 mm × W 90 mm × T 25 mm *7
PCB exchange time	0.9 s (Board length : up to 240 mm Under optimum conditions)
Electric source	3-phase AC 200, 220, 380, 400, 420, 480 V, 4.0 kVA
Pneumatic source *1	0.49 MPa, 170 L/min (A.N.R.)
Dimensions	W 2 350 mm × D 2 290 mm *2 × H 1 430 mm *3
Mass *4	3 400 kg

*Values such as maximum speed and placement accuracy may vary depending on operating conditions. *Please refer to the "Specification" booklet for details.
*1: Only for main body *2: Dimension D including direct tray feeder: 2 565 mm *3: Excluding monitor and signal tower
*4: Standard configuration: excluding batch exchange cart and tray feeders. This may differ depending on configuration.
*5: The 0402 chip requires a specific nozzle/feeder. *6: When T is more than 11.5mm, special nozzles are needed. Please consult us separately.
*7: When T is more than 21mm, special nozzles are needed. Please consult us separately.
*8: When T is more than 6.5mm, special nozzles are needed. Please consult us separately.

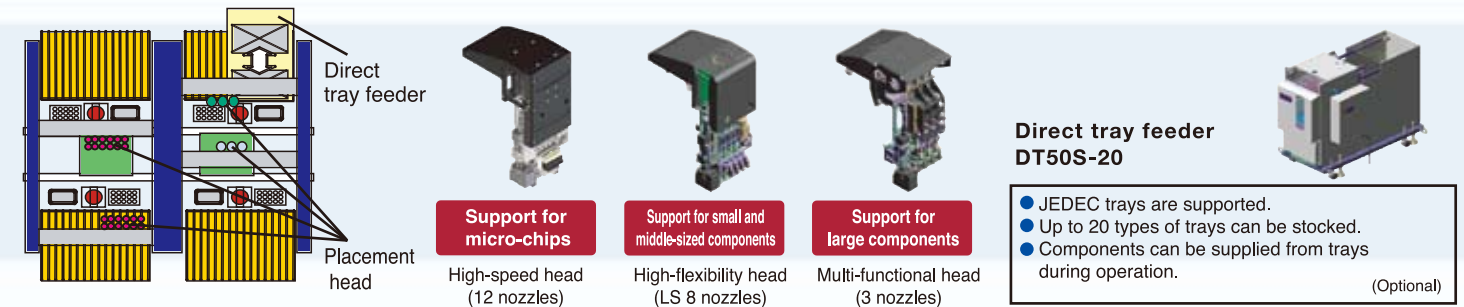
one platform solutions

for world-class manufacturing

A wide range of variations

The most suitable module can be selected to place components from microchips to odd-shaped components, as well as depending on the products and the production volume.
*Heads configuration can be changed after purchase.

Machine configuration



Configuration type		12 nozzles / 12 nozzles	12 nozzles / 8 nozzles	8 nozzles / 8 nozzles	12 nozzles / 3 nozzles	8 nozzles / 3 nozzles	3 nozzles / 3 nozzles
Head combination	A	Type A-2	Type A-1	Type A-0	—	—	—
	B	—	—	—	—	—	Type B-0
	C	—	—	—	Type C-1	Type C-0	—
Direct tray support	One side	D	Type D-3	Type D-2	Type D-1	Type D-0	—
	Both sides	E	—	—	—	—	Type E-0
		F	—	—	Type F-2	—	Type F-1

Improves actual productivity with lighter high-speed head and new optimization



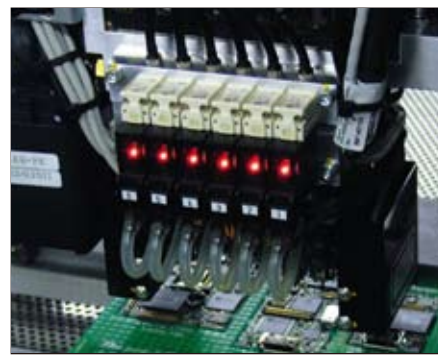
New high-flexibility 8 nozzles head Further component handling capability



Improves area productivity with compact feeder carts

Increases placement reliability by the 3D sensor

Multifunctional transfer unit supporting POP and C4

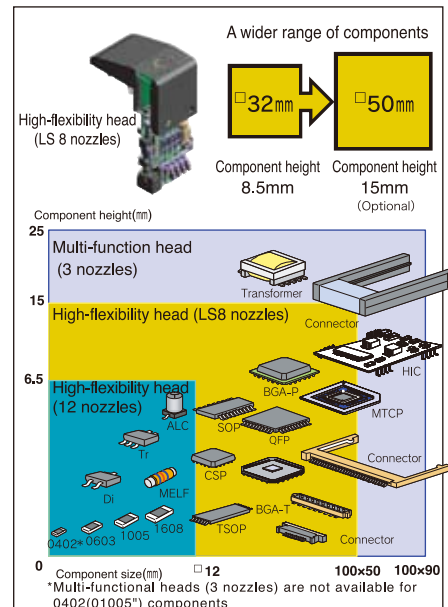


Actual productivity (IPC9850)
69 500 cph (Type A-2)

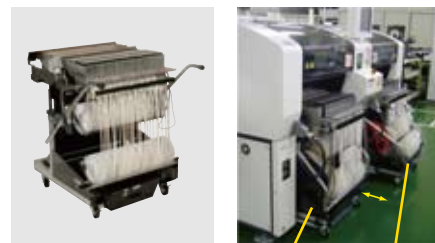
Conventional Ver.4	Tact time
Newly optimum* engine Ver.5	Tact time Reduction

*PT200 Ver 7.70.00 or later

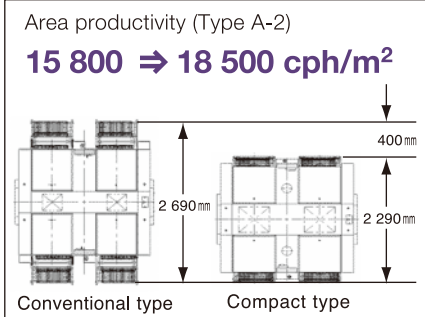
Lighter high-speed head and new manufacturing sequence optimization has increased productivity by **7 %** compared to the former optimization model Ver.4.



The generalized Ver.5 (optional) expands existing component range. A wide variety of components, ranging from a 0402 chip to 50mm and a large size connector (100 x 50mm), have become mountable. The 3D sensor and direct tray feeder can be installed as before providing superior handling capabilities for odd-shaped components.



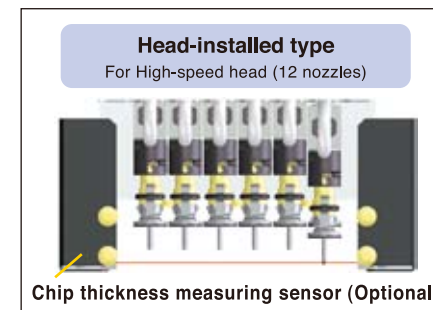
Feeder cart (Compact type) Compact type Conventional type



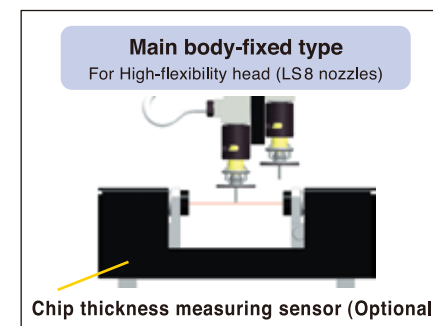
200mm decrease in Feeder cart size

- Area productivity has increased by 17%
- Equipment maintenance has improved

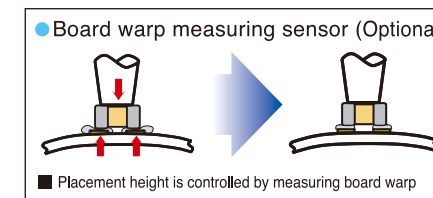
*The Compact Feeder Cart has compatibility with Conventional Feeder Cart. Both types of the Feeder Carts can be used at the same time.



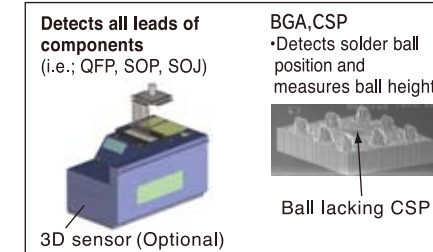
- Component bring-back check function
- Component thickness measurement function after components are changed
- Nozzle tip check function



Component thickness measurement function after components are changed



High-quality placement for IC component via the 3D sensor

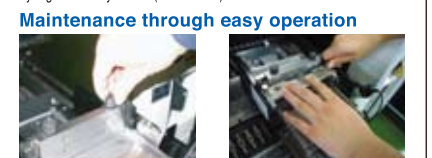


High-speed detection via batch scanning.

Highly versatile unit accurately transfers solder/flux for POP top packaging/C4 mounting on the bump side

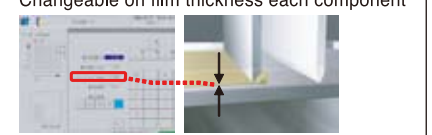


Placement speed 0.65s/chip
4 components x two-time batch transfer by high-flexibility heads (LS8 nozzle)



Squeegee Installation & removal without tools
Scraper Installation & removal without tools

Changeable film thickness
Programmable squeegee gap using data
Changeable on film thickness each component



	Max. dimension	*High-speed heads (12 nozzles) are not supported.
8 nozzles	□20mm	
3 nozzles	□38mm	