

# Flexible High Speed Chip Shooter **SM471**

As a high performance chip shooter that applies two gantries equipped with 10 spindles per head as well as new flying vision, the SM471 realizes a chip mounting speed of 75,000 CPH, the highest in the world among chip shooters of the same class. In addition, it is applicable to 0402 chips to the largest □14mm ICs by default and increases actual productivity and placement quality by applying an electrically driven high speed and high precision feeder. Moreover, it is designed for mixed use with the SM pneumatically driven feeder to maximize the customers' operational convenience.



- 75,000 CPH(Optimum)
- 2 Gantry x 10 Spindles/Head
- Applicable Parts : 0402 ~ □14mm(H 12mm)
- Applicable PCB : Max. 510(L) x 460(W)(Standard)  
Max. 610(L) x 460(W)(Option)
- Electrically Driven High Speed and High Precision Feeder
  - Allows mixed use with an SM pneumatically driven feeder
- SMART Feeder
  - The world's first feeder equipped with Auto Splicing and Auto Loading functions

Flexible High Speed Chip Shooter

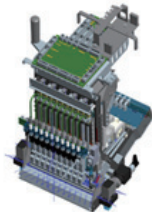
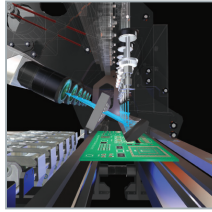
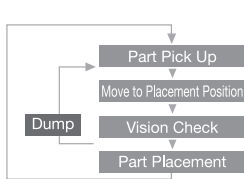
# SM471



**Realizes a Super-high Speed Placement Speed of 75,000 CPH**

**Realizes the Highest Placement Speed Among Chip Shooters of the Same Class by Adopting a New Flying Head Mechanism Equipped With 10 Spindles.**

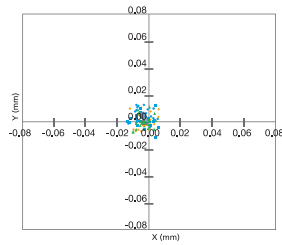
Since it allows part recognition without stopping after part pickup by applying its original On-the-Fly image recognition technology, the SM471 model maximizes the part placement speed by minimizing the time to move between the pickup position and placement position and by reducing the recognition time to almost zero.



## Placement Accuracy Correction System

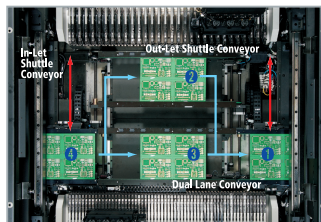
Chip  $\pm 50\mu\text{m}$  (Cpk  $\geq 1.0$ )  
The newly upgraded placement accuracy calibration system automatically checks and corrects the pickup point offset, head offset, C/V offset, etc. to allow reliable part placement.

Absolute Accuracy of  $\pm 50\mu\text{m}$  (Cpk 1)



## Dual Lane System

PCB Loading Time of "ZERO"  
Maximizes actual productivity by minimizing the PCB transfer time by adopting a first-in-first-out type shuttle inlet conveyor. In addition, it supports various placement modes according to production characteristics.



**Reinforced Applicability to Parts**

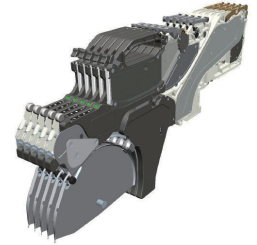
**Default Placement of Parts of 0402 ~  $\square 14\text{mm}$  (H 12mm)**

Reinforced its applicability to odd shaped parts by applying a 3-staged light system (side, coaxial and outer light). (CSP 0.4 possible)

**Electrically Driven High Speed and High Precision Feeder**

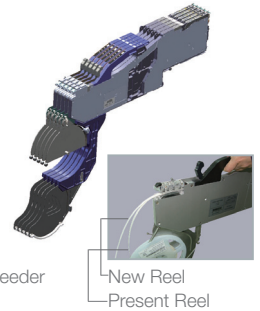
## Electrically Driven SM Feeder

- Allows integrated use of 0603/2P/4P
  - Equipped with a function to automatically align the pickup position between feeders to improve the simultaneous pickup rate.
  - Able to set various part supply speeds to improve the stability of part supply.
- ※Allows mixed use with an SM pneumatically driven feeder



## SM Smart Feeder

- The world's first feeder equipped with Auto Splicing and Auto Loading functions  
- Maximizes work convenience and actual productivity by automating the splicing process for part reel replacement normally performed by hand.
  - Applicable to reels with a small quantity of parts
- ※Allows mixed use with an SM pneumatically driven feeder



## Specifications

Model			SM471
Alignment			Flying Vision
Number of Spindles			10 Spindles x 2 Gantry
Placement Speed			75,000 CPH(Optimum)
Placement Accuracy	Chip		±50μm@μ+3σ (Based on the Standard Chips)
Component Range			Chip 0402 ~ □14mm(H 12mm) IC, Connector(Lead Pitch 0.4mm) BGA, CSP(Ball Pitch 0.4mm)
Board Dimension (mm)	Minimum		50(L) x 40(W)
	Maximum	Single Lane	510(L) x 460(W) 610(L) x 460(W)(Option)
		Dual Lane	460(L) x 250(W) 610(L) x 250(W)(Option)
	PCB Thickness		0.38 ~ 4.2
Feeder Capacity(Based on 8mm)			120ea / 112ea(Docking Cart)
Utility	Power		AC200 / 208 / 220 / 240 / 380 / 415V (50/60Hz, 3Phase) Max. 5.0kVA
	Air Consumption		0.5 ~ 0.7MPa(5 ~ 7kgf/cm²) 350Nℓ /min 50Nℓ /min
Mass			Approx. 1,820kg
External Dimension(mm)			1,650(L) x 1,690(D) x 1,485(H)

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