

**EM-560M EM-760L**  
**Multi-Functional SMD Placer**

**EM-620M**  
**Fine-Pitch SMD Placer**



**Compact**  
**Accurate**  
**Effective**  
**FLEXIBLE**

簡潔 ● 精密 ● 高效 ● 超彈性

**EM**  
**series**

**SMD PLACEMENT**  
SMD 元件貼片機

# FEATURE

# 特色

The mainframe is made as a monologue form and applies FEM (Finite Element Method) simulation analysis to ensure better rigidity and less noise.

機台採一體性鑄鑄而成，並配合FEM (有限元素分析法)進行結構分析，確保機台剛性及穩定性

Dual-Servo Motor drive Y arm with 6 Multiple mounting nozzles. High stability and high speed : 0.2 sec/chip  
Y軸雙伺服馬達驅動機構確保裝裝穩定性，搭載多組吸嘴取置頭，同時吸著貼片速度達0.2sec/chip

Optimized picking → vision → placing route  
視覺鏡頭裝置於取置路徑中，確保取件→視覺→置件為最短行程

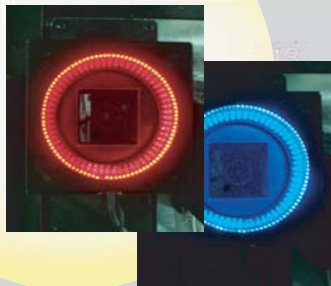
Each pick-and-place head has its own z-direction servo motor, which is designed for vertical motion control. The design can support all the nozzles' pick / recognize / place components at the same time. 每個取置皆配獨立Z軸全伺服馬達控制升降，可同時吸著/辨識/貼裝高度大小不同之零件

The system equips more than one  $\theta$  motor, which ensures the system can rotate more than one component to different angles at the same time.  $\theta$ 軸採雙伺服馬達獨立控制，不同零件在同一時間可以用不同角度置放

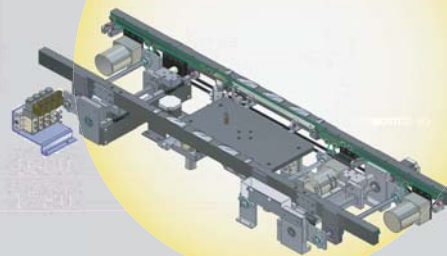
**High Rigid X-Y Frame Cae Base**  
高剛性X-Y 機台結構

**Full Servo-Drive Nozzles**  
全伺服驅動吸嘴

**Assorted Lighting Vision System**  
多樣化視覺系統














**Multistage Detachable Conveying System**  
多段、可拆式軌道



Multiple vision and lighting systems can recognize and align various components: On-fly vision for fast component placement; moving camera for system alignment, and fix camera for fine placement accuracy. The lightings can support components with special surfaces such as shielding case and transparent surface. 多組視覺系統可以配合多種照明光源，確保系統搭載部件的多樣性。飛行視覺系統可以加速搭載速度；移動視覺系統可以確保對位準確度；固定視覺系統可以確保搭載精確度。可辨識金屬或透明表面材質之部品

The conveyor is equipped with a front and back buffer zone between the main working area. When a PCB is carried to the working area, the next PCB is conveyed to the front buffer for standby. Once the PCB has finished, the system will automatically convey it to the back buffer or to the next machine. 中間段主要工作區之前後段皆配有buffer，當基板於中間段進行搭載時，下一塊預搭載之基板可先傳送至前段buffer區等待，待中間段基板搭載完成後再行送入。當中間段基板搭載完成後，系統會自動將其傳送至後段buffer區，或下一站連線機台。











## FEEDING SYSTEM/供料:

ITEM/SPECIFICATION 型號/規格	PIC 圖形
Tape Feeder 8mm(P=2)	
Tape Feeder 8mm(P=4)	
Tape Feeder 12mm(P=4)	
Tape Feeder 16mm(P=4)	
Tape Feeder 24mm	
Tape Feeder 32mm	
Tape Feeder 44mm	
Tape Feeder 56mm	
Manual Tray	
Hor. Stick Feeder(Single)	
Hor. Stick Feeder(Multiple)	
Hor. Stick Feeder(Multiple) 220v	
Multi Tray Feeder(20 types)	

# OPTION

# 選配

## NOZZLE /吸嘴:

ITEM 型號	PIC 圖形	SPECIFICATION 規格
AN1		RC0603~1005
AN2		RC1005~2012
AN3		RC1608~3216
AN4		RC3216 DIOD <3*5 Mini mode Transistor < 9*8
AN5		Cylinder Capacitor < D9 Tantalum Capacitor > 5*3 DIOD均可 SOP(~10.4*5.5*1.5) QFP(□5~□10) BGA(~□10)
AN6		SOP(~17.8*7.5*2) QFP(~□32) BGA(□32)
AN7		QFP(~□45) BGA(~□45)
AN8		Connector
ANV1		MELF φ2mm
ANV2		MELF >φ2mm

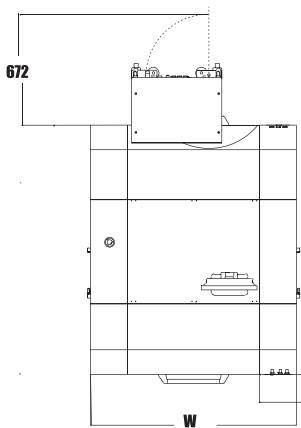
## VISION SYSTEM /視覺系統:



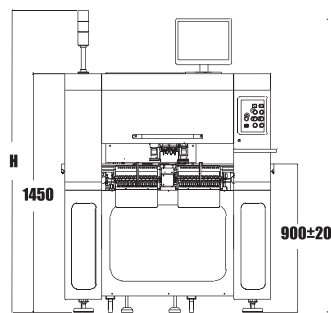
On-Fly Vision / 飛行影像 (Front 前側 / Rear 後側)		Fix Vision / 固定影像 (Rear 後側)	
FOV	Spec. 對應部品	FOV	Spec. 對應部品
10mm	0603~□8mm CHIP/SOT	15mm	1005~□26mm SOP, PLCC,BGA,Connector,P0.3 □22mm, 表面反射部品(Shielding Case)
20mm	1005~□15mm CHIP/SOT/SOP	20mm	1005~□32mm SOP, PLCC,BGA,Connector, P0.4 □32mm, 表面反射部品(Shielding Case)
		25mm	1005~□45mm SOP, PLCC,BGA,Connector, P0.5 □32mm, 表面反射部品(Shielding Case)
		25mm	1005~□22mm SOP, PLCC,BGA,Connector,P0.3 □22mm, 表面反射部品(Shielding Case) ** 一括取像 (Single View)

# Specifications 規格:

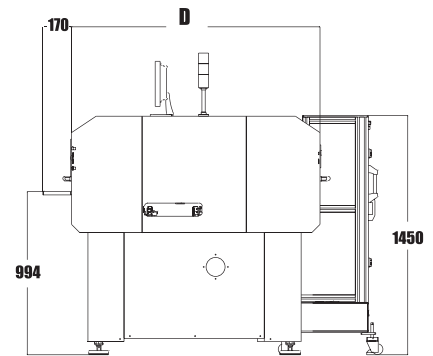
Feature 特色	Model 機種	EM-560M	EM-620M	EM-760L	EM-820L
	Spec. 規格				
1 Head 取置頭		6	3+1(Fine Pitch) 3+1(高精度)	6	3+1(Fine Pitch) 3+1(高精度)
2 Component Height Max. 最大部品高度		15mm			
3 Board Size (WxDxT) 對應基板尺寸		330 x 250 x 2 mm~50 x 50 x 0.5 mm		510 x 460 x 2 mm~50 x 50 x 0.5 mm	
4 Feeder Lanes 使用站數		80Lanes x 8mm Tape		120Lanes x 8mm Tape	
5 Component Supply Configuration 供料方式		8~44mm Tape Feeder, Stick, Tray			
6 Tact Time(Opt.) 最佳搭載速度		0.2 sec/Chip	0.25 sec/Chip	0.2 sec/Chip	0.25 sec/Chip
7 IPC-9850(CPH)		13,000	10,000	13,000	10,000
8 SMD Component Size 對應部品範圍		Chip: RC0603~3216 IC:QFP-P0.3□<20mm QFP-P0.5□<45mm		Chip: RC0603~3216 IC:QFP-P0.3□<20mm QFP-P0.5□<45mm	
9 Accuracy (mm) 搭載精度(mm)		Chip±0.06mm		Chip±0.06mm	
		IC±0.05mm	IC±0.04mm	IC±0.05mm	IC±0.04mm
10 Power Supply 使用電源		3-Phase AC 200~440V ± 10% 50/60Hz			
11 Rated Power Supply 使用電力		3KVA			
12 Supply Air Source 使用氣源		0.5~1.0MPa			
13 Air Consumption 空氣消耗量(ANR)		5.0~10 kgf/cm approx. 150L/min Dry & Clean Air 5.0~10 kgf/cm 大約 150L/min乾燥、清淨空氣			
14 Outline Dimension 設備尺寸(W x D x H)mm		1250 x 1510 x 1835		1720 x 1605 x 1835	
15 Weight 設備重量(kg)		Approx. 1,300		Approx. 1,700	



Top



Front



Side



EM-560M / EM-620M //EM-760L/EM-820L Outline Dimension

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