

Compact High Performance

SP Series

Compact High Performance Screen Printer

A high performance printer of the SP series, created with the SMT technology of Hanwha Techwin. Provides the highest productivity as well as 6 SIGMA level high quality printing.

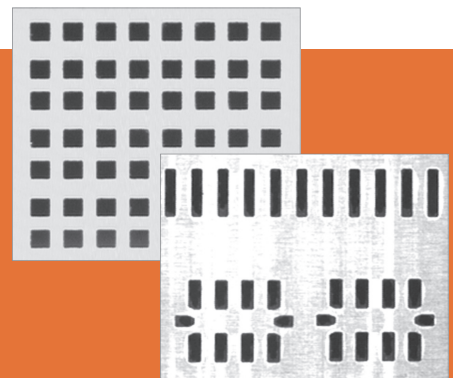


- Printing Accuracy : $\pm 12.5\mu\text{m}@ \mu+6\sigma$
- Printing Speed : 5sec
- Available for 03015 microchip printing
- Applicable PCB : 350(L)×250(W)
- Stencil Size : 736(L)×736(W)
- Machine Size : 1,376(L)×1,200(W)
- Dual Lane/ mixed production available
(2 sets connected in parallel) / SPI feedback /
Automatic mask setting and leveling /
Providing various user conveniences

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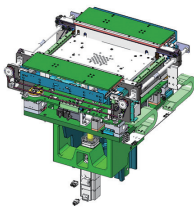
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6 sigma level of high quality printing

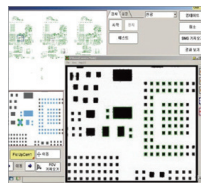
- **Alignment Accuracy : $\pm 12.5\mu\text{m}@\mu+6\sigma$**

Applies new alignment mechanism for high quality printing.



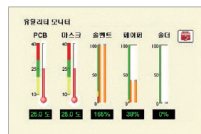
- **Print Defect Detection System**

- Mask Opening Inspection Function
Prevents defective printing by inspecting masks in advance using the Gerber file after replacing or cleaning the mask.



- PCB Temp. Measurement

Checks the PCB temperature suitable for printing before loading a PCB to ensure high quality printing.



- **Defective Print Feedback System**

Improves print quality and the non-adjusted production ratio by automatically inspecting and cleaning mask openings by receiving the feedback of the SPI print defect information.

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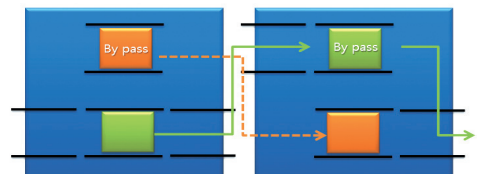
SPI



Defective Print Feedback
Automatic cleaning of mask openings upon detecting defective print

Support for Mixed Production

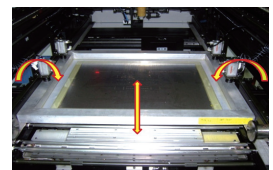
- Allows high speed mixed production by connecting two printers in series when applying the dual lane conveyor (bypass). (SP1-D2, SP1-W)



Rapid Job Change

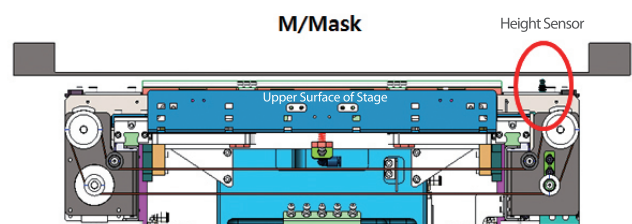
- **Automatic Mask Position Setting**

Allows rapid job change by automatically moving to the printing position for print setting when loading the stencil mask.



- **Automatic Leveling of Printing Height**

Allows automatic leveling of printing height to the initial printing height using the height sensor.



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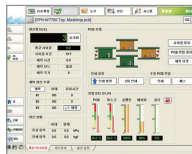


Increased User Convenience

Maximized Operational Convenience

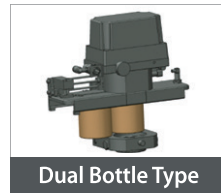
Operational convenience is maximized by monitoring a variety of information about production.

- Display of Various Production Information : Printing cycle, cleaning, planned production quantity, vacuum/ printing pressure
- Visualization of Utilities : PCB/mask, temperature, solvent, paper, solder
- Visualization of PCB Flow : PCB flow chart, print setup, manual PCB loading



Automatic Solder Supply Unit

Minimizes solder cream consumption by supplying solder automatically.



2D Barcode Tracking Function

Tracks and manages each PCB through data interface necessary for the 2D barcode system.



Various Options Available

Air Conditioner (External Type)

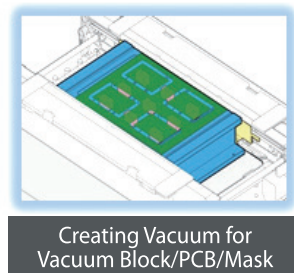
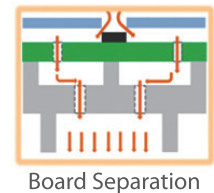
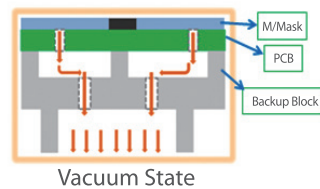
Maintains constant printing temperature for a stable printing environment.

- Product Name : HTC-1380
- Set Temperature : 20°C~30°C(±0.5°C)
- Power Supply : 220V, 1Phase, 60Hz
- Size : 497(W)×610(D)×965(H)
- Weight : Approx. 67kg



Fan Blower Unit (Creating Mask Vacuum)

Allows high quality printing by creating a vacuum below the PCB when printing micro components (0402/03015, etc.) to improve lead dropping efficiency.



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Specifications



Model Name	SP1-D2	SP1-C	SP2-C	SP1-W
Alignment Repeatability	±12.5um @ μ+6σ	±12.5um @ μ+6σ	±12.5um @ μ+6σ	±12.5um @ μ+6σ
Wet Print	±25um @ μ+6σ	±25um @ μ+6σ	±25um @ μ+6σ	±25um @ μ+6σ
Cycle Time	5sec(Excl. Printing Time)	5sec(Excl. Printing Time)	5sec(Excl. Printing Time)	7sec(Excl. Printing Time)
Board Handling				
Max.Size(mm)	330(L)×250(W)(Single Lane) 330(L)×250(W) (Dual Lane/Option)	330(L)×250(W)(Single Lane) 330(L)×250(W) (Dual Lane/Option)	350(L)×250(W)(Single Lane) 350(L)×250(W) (Dual Lane/Option)	510(L)×460(W)(Single Lane) 330(L)×310(W) (Dual Lane/Option)
Min.Size(mm)	50(L)×50(W)	50(L)×50(W)	50(L)×50(W)	50(L)×50(W)
Thickness(mm)	0.38~4.0	0.4~4.0	0.4~4.0	0.4~5.0
Max.Weight(kg)	1.5	1.5	1.5	3.0
Stencil				
Min.Size(mm)	550(L)×650(W)	550(L)×650(W)	550(L)×650(W) 650(L)×550(W)	550(L)×650(W) 650(L)×550(W)
Max.Size(mm)	650(L)×550(W)	650(L)×550(W)	736(L)×736(W)	736(L)×736(W)
Frame Thickness(mm)	30~40	30~40	30~40	30~40
Matching	Center Standard	Center Standard	Center Standard	Center Standard
Vision				
Function	Fiducial Recognition, Inspection	Fiducial Recognition, Inspection	Fiducial Recognition, Inspection	Fiducial Recognition, Inspection
FOV(mm)	10.6×8.0	10.6×8.0	10.45mm ± 2%	10.6×8.0
Fiducial Types	●, ▲, ■, ◆, +	●, ▲, ■, ◆, +	●, ▲, ■, ◆, +	●, ▲, ■, ◆, +
Fiducial Size(mm)	0.5~4.0	0.5~4.0	0.5~4.0	0.5~4.0
Operator Interface				
Hard Ware	LCD Monitor, Mouse & Keyboard	LCD Monitor, Mouse & Keyboard	LCD Monitor, Mouse & Keyboard	LCD Monitor, Mouse & Keyboard
Software Operating System	Window XP Embedded	Window XP Embedded	Window 7 Embedded	Window XP Embedded
Utility				
Power Supply	100/110/120/200/220/240V (±5%)Single Phase	100/110/120/200/220/240V (±5%)Single Phase	100/110/120/200/220/240V (±5%)Single Phase	100/110/120/200/220/240V (±5%)Single Phase
	Max.4.5kVA, 50/60Hz	Max.4.5kVA, 50/60Hz	Max.4.5kVA, 50/60Hz	Max.4.5kVA, 50/60Hz
Air Supply	Pressure 4.5~7.0kgf/cm ²	Pressure 4.5~7.0kgf/cm ²	Pressure 4.5~7.0kgf/cm ²	Pressure 4.5~7.0kgf/cm ²
	Max. 700Nℓ/min	Max. 700Nℓ/min	Max. 700Nℓ/min	Max. 600~700Nℓ/min
Mass	Approx. 1,290kg	Approx. 1,250kg	Approx. 1,150kg	Approx. 1,620kg
External Dimension(L×D×H mm)	1,300×1,475×1,895	1,326×1,200×1,904	1,376×1,200×1,904	1,540×1,650×1,921
Option List				
SPI	Auto Cleaning	Standard	Standard	Standard
	Auto Printing Offset Control	Standard	Standard	Option
Dual Lane Conveyor(Bypass)		Option	×	Option
Dual Lane Conveyor (Conveyor In Common Use at the Front and Rear)		×	Option	×
Air Conditioner(External)		Option	Option	Option
Fan Blower(Internal)		Option(External)	Option	Option
ASS(Auto Solder Supply)		Option	Option	Option
Stage Auto Leveling		Standard	Option	Standard
PCB Temperature Sensor		Option	Option	Option
Gerber Pad		Option	Option	Option
Default PCB Program		Standard	Standard	Standard
2D Barcode Tracability		Option	Option	Option

Hanwha Techwin/Machinery Solution

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※ Please note that specifications and product information in this catalog are subject to change without notice.



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