



## Specifications

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

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. Provides the highest productivity as well as 6 SIGMA level high quality printing.

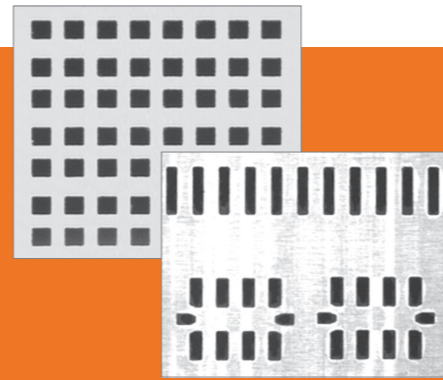


- Printing Accuracy : ±12.5μm@μ+6σ
- Printing Speed : 5sec
- Available for 03015 microchip printing
- Applicable PCB : 350(L)×250(W)
- Stencil Size : 736(L)×736(W)
- Machine Size : 1,376(L)×1,200(W)
- Dual Lane/ mixed production available  
(2 sets connected in parallel) / SPI feedback /  
Automatic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

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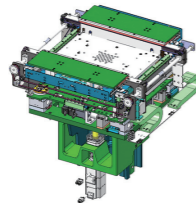


## Compact High Performance Screen Printer SP Series

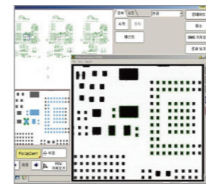


### 6 sigma level of high quality printing

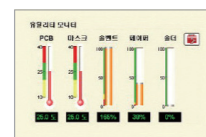
- **Alignment Accuracy :  $\pm 12.5\mu\text{m}@\mu+6\sigma$**   
Applies new alignment mechanism for high quality printing.



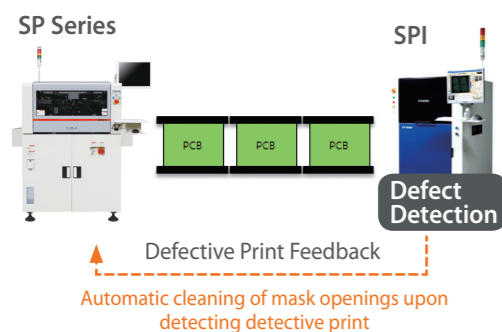
- **Print Defect Detection System**
  - Mask Opening Inspection Function  
Prevents defective printing by inspecting masks in advance using the Gerber file after replacing or cleaning the mask.



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

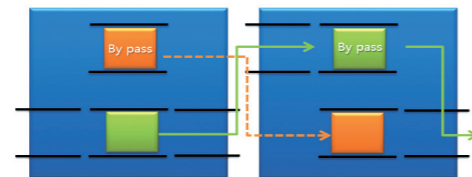


- **Defective Print Feedback System**  
Improves print quality and the non-adjusted production ratio by automatically inspecting and cleaning mask openings by receiving the feedback of the SPI print defect information.



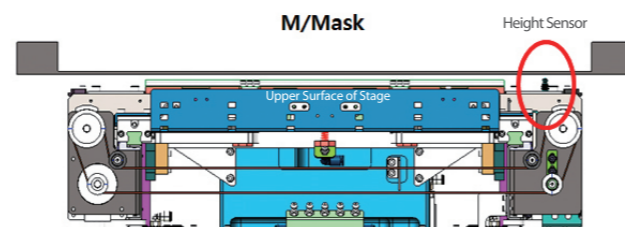
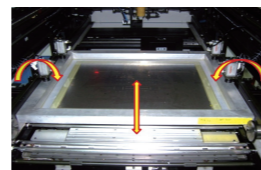
### Support for Mixed Production

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



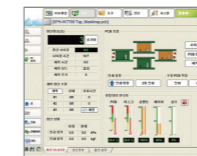
### Rapid Job Change

- **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.

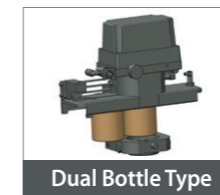


### Increased User Convenience

- **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.

