

New Technology
High Performance
VISION SCREEN PRINTER
HP-520S2



SJ INNOTECH Co., Ltd.



ISO9001
ISO14001

Global Small Giants
INNO-BIZ Corporation
Venture Business

Daegu City Star Company
Promising Export Company
Leading Medium Business

New Technology High Performance
VISION SCREEN PRINTER

HP-520S2



SJ InnoTech Co., Ltd.,

Which started manufacturing SMD equipment in 1997 Oct, has been constantly challenging researching and developing new technologies. In pursuit of innovative value creation in a rapidly changing business environment, with the challenge and enthusiasm for Global No.1, all of our employees are committed to providing superior quality, competitive products, we will do our best to be a truly trusted company with the best professional service.

Production Line

SMD

Vision Screen Printer, Equipment System (Loader, Unloader, Conveyor, Buffer)

Chip Resister

Chip Resister Printer, Laser Scriber

R&D

Glass & Film Screen Printer, Solar Metallization Inline System

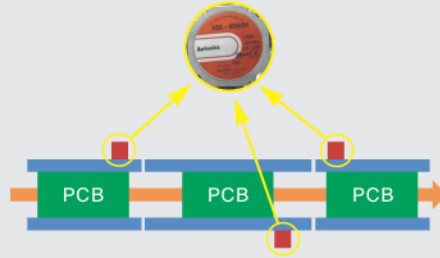
Work Table & Stencil

Heavy PCB Loading



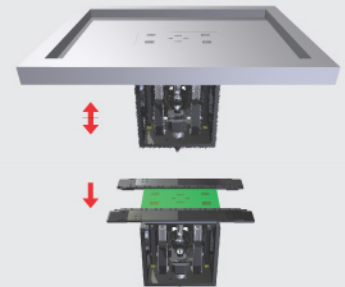
O-Ring Belt 4mm : 8Kg
Flat Belt : Over 8Kg

High Speed Conveyor



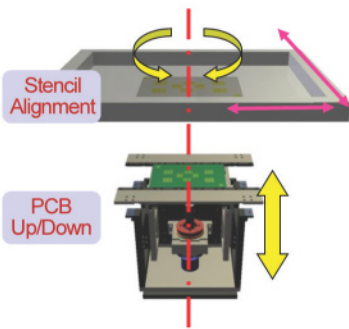
Reduce Cycle Time up to 5 sec

PCB Snap-off (Separation)



Motion Vibrations Separate

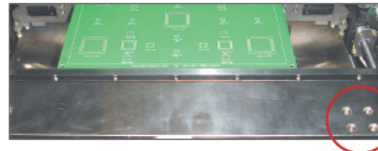
Stencil Alignment System



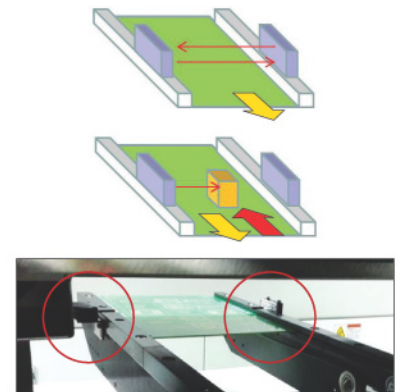
Free Size Stencil Change



Stencil Vacuum Hold

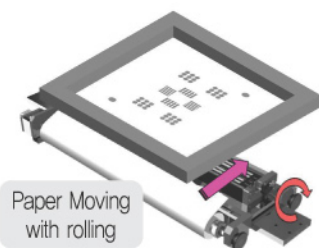
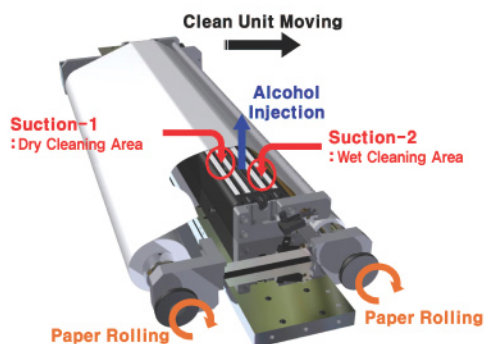


PCB Particle Detector

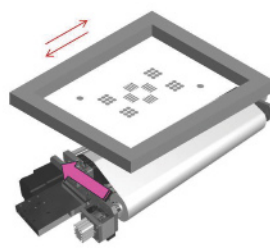


Cleaning

Double Cleaning effect at 1st cleaning with Wet & Dry Effect



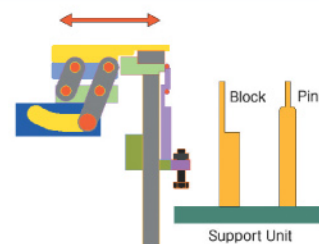
Winding Cleaning



Stencil Wave Cleaning

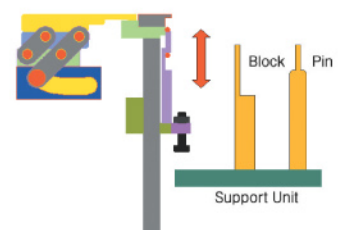
PCB Clamping

Top Link Clamp



Recommend PCB over 0.8t

Edge Clamp



Recommend PCB under 0.8t

Vision System

4-Point Fiducial Teaching

Coordinate Accuracy

2D Inspection

Inspection Area 1mm x 8mm
Speed Per site 400ms

Array PCB Inspection

Detect Incorrectly Mounted PCB/FPCB

CPK(Process Capability Index)

Repeatability & Accuracy

PRE CPK DATA

MACHINE: HP-520S - Sample, DATE: 2014.12.01

POSITION	MARK X1	MARK Y1	MARK X2	MARK Y2
Cpk Value	2.6089	4.0077	2.8386	2.9049

POST CPK DATA

MACHINE: HP-520S - Sample, DATE: 2014.12.01

POSITION	MARK X1	MARK Y1	MARK X2	MARK Y2
Cpk Value	5.1376	7.0598	4.7291	4.5694

Alignment
2.0Cpk@±12.5μm

Wet Print
2.0Cpk@±25μm

CPK Measure Tooling

X, Y Axis Alignment
Measure both Pre & Post CPK

Screen Printer ⇔ SPI (Close-Loop Control)

X-Axis

Y-Axis

θ-Axis

Axis Offset control
Auto offset & Cleaning,
Squeegee Pressure & Speed control,
By-Pass, Work Up/Down

MEX(Manufacturing Execution System)

Offline Barcode Manager

- Change Job File by Registered Barcode.
- SQZs, Stencil, Paste History Management.
- Count Limit & Reset Features.

2D Barcode Reading

Metrics Code

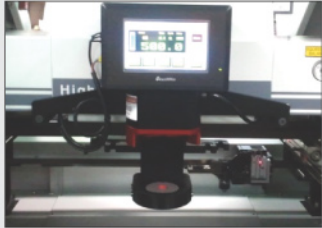
QR Code

Size up to 5x5mm,
Code Saved as CSV file
into Traceability

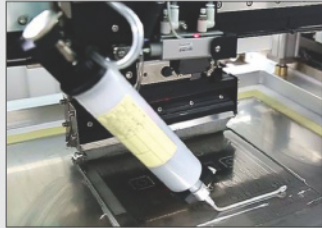
SQZ Speed & Pressure Control

- Real-Time Pressure Tracking
- Separate 5 Section for speed & Pressure Control

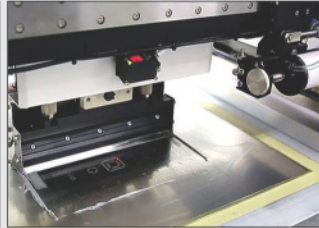
Auto Solder Dispenser



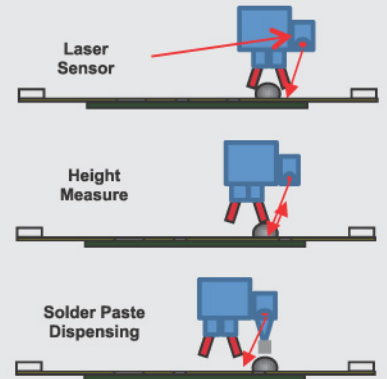
Tube(Jar) Type
Remote Monitoring



Syringe Type

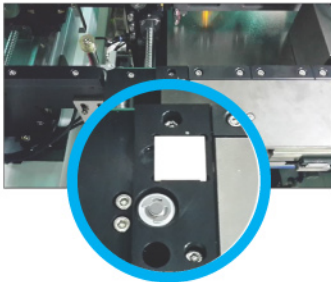


Solder Height
Sensor

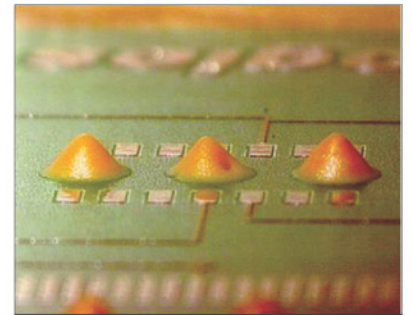
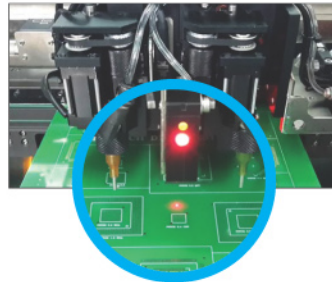


Two-Dot Dispenser

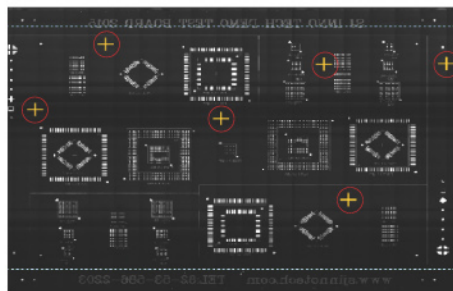
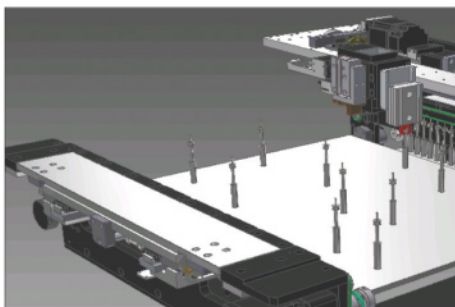
Purge Area DP Nozzle Touch Sensor



Laser Height Sensor

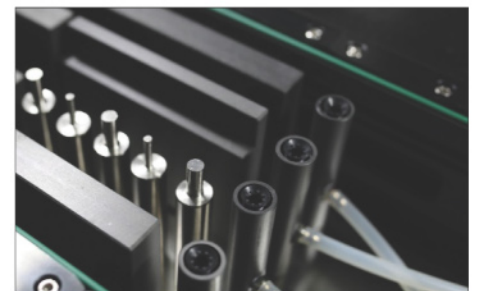


Auto Solder Dispenser



Point-and-Click Method

Auto Solder Dispenser



Auto Solder Dispenser



SJ InnoTech	HP-350LD	HP-520SII
Performance		
Alignment Repeatability & Accuracy	$\geq 2.0\text{Cpk} @ \pm 12.5\mu\text{m}, 6\sigma$	$\geq 2.0\text{Cpk} @ \pm 10.0\mu\text{m}, 6\sigma$
Wet Print Repeatability & Accuracy	$\geq 2.0\text{Cpk} @ \pm 25\mu\text{m}, 6\sigma$	$\geq 2.0\text{Cpk} @ \pm 25\mu\text{m}, 6\sigma$
Cycle Time (203 x 145mm PCB)	6 sec (Excl. Printing)	7 sec (Excl. Printing)
PCB Board Handling		
Min. Size (mm)	L 50 x W 50	L 50 x W 50
Max. Size (mm)	L 350 x W 300	L 520 x W 420
Thickness (mm)	0.4 ~ 6.5	0.4 ~ 6.5
Max. Weight (kg)	2	2
Underside Clearance (mm)	30	30
Support Method	Magnetic Pin & Block	Magnetic Pin & Block
	* Vacuum Type (Option)	* Vacuum Type (Option)
Clamping Method	Edge Blade (Recomm. 0.21 ~ 0.8)	Edge Blade (Recomm. 0.21 ~ 0.8)
	Top Link (Recomm. 0.81 ~ 6.0)	Top Link (Recomm. 0.81 ~ 6.0)
	* Vacuum Type (Option)	* Vacuum Type (Option)
Parameters		
Print Speed (mm/s)	1 ~ 150	1 ~ 150
Print Pressure (kg/f)	0.1 ~ 50	0.1 ~ 50
Snap-off Distance (mm)	0 ~ 5.0	0 ~ 5.0
Stencil Frame Length X (mm)	600, 650, 736	584, 600, 650, 736
Stencil Frame Width Y (mm)	550, 736	550 ~ 736
Vision		
Field-of-View (mm)	11 x 8	11 x 8
Fiducials Size (mm)	0.4 ~ 5.0	0.4 ~ 5.0
Facilities		
Dimension (mm)	L 1,330 x W 2,524 x H 1,482	L 1,560 x W 1,530 x H 1,490
Weight (kg)	Approx. 2,200	Approx. 1,200
Power	220v, 50/60Hz, 6.0kw	220v, 50/60Hz, 6.0kw
Pneumatic (Air)	0.5MPa, 40NL/min	0.5MPa, 40NL/min
Operating System	MS Window 10 32bit	MS Window 10 32bit
Host communication	SEMEMA	SEMEMA
Additional Features		
Auto Support Pin	Option	Option
2-Dot Dispenser	Option	Option
Auto Solder Dispenser	Option	Option
Stencil Vacuum Holder	x	Standard
Solder Height Measure	Option	Option
PCB Particle Detector	Option	Option
High Speed Conveyor	Option	Standard
CPK Measuring Tool	Option	Option
MES System	Option	Option
Off-Line Barcode	Option	Option
2D Barcode	Option	Option
Temperature Control	Option	Option
Touch Screen	Option	Option

HP SPI Series (HP-520SPI, HP-850SPI)

Printer with SPI (Solder Paste Inspection) Machine



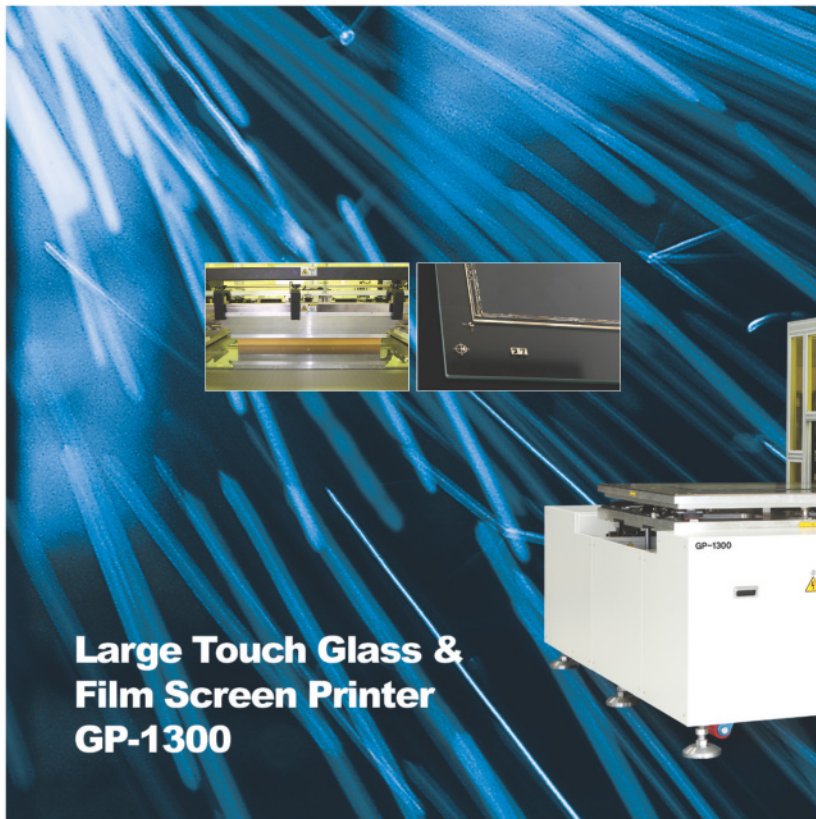
Laser Scriber (SLS-400B)

- Alumina Ceramic Substrate 0.1t ~ 0.5t
- Alignment Repeatability & Accuracy $\pm 3\mu\text{m}$

Chip Register Printer (SS-1600AS, SS-800AS)

- Alumina Ceramic Substrate 0.1t ~ 0.5t
- Alignment Repeatability & Accuracy $\pm 5\mu\text{m}$





**Large Touch Glass &
Film Screen Printer
GP-1300**



**Solar Cell Metallization
In-line System
SCM-36D / SCM18D**

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