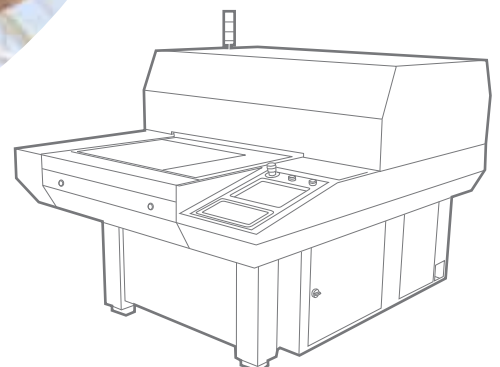


Sprint™ 120 Inkjet Printer

PCB Production Solutions



Sprint™ 120 Inkjet Printer

Streamlined for Volume Production



Featuring innovative DotStream Technology™ and UV LED curing, Sprint 120 delivers high speed and top quality printing for consistent, volume production of advanced legend designs.

Benefits

Consistent Printing with DotStream Technology™

- Precise drop control at high speeds
- Optimized algorithms for fine text and filled areas
- Customized print heads for electronics industry challenges and processes
- Patented nozzle cleaning station
- Air scrubber for clean printing environment

Volume Production with Top Quality

- Advanced LED-based UV curing on-the-fly
- High production quality with less passes than previous systems
- Uniform printing over challenging surfaces
- Accurate results on features down to 0.5mm

Easy and Flexible Operation

- No screen mask preparation required
- Intuitive and user-friendly interface for fast set-up
- Automated data transfer from CAM
- Pinless alignment for reduced load/unload time
- Flexibility to print side A-A or A-B



0.7mm text before DotStream Technology™
2 passes, 58 seconds



0.7mm text with DotStream Technology™
1 pass, 26 seconds

Consistent Printing with DotStream Technology™

The breakthrough performance of Orbotech's DotStream Technology™ delivers consistent inkjet output without compromising on throughput. Sprint 120 achieves full ink coverage in a single pass with precise drop control and optimized algorithms for fine text and filled areas. The system's print heads are specially customized for the challenges of electronics industry substrates and processes with features that extend their useful life including ink flow compensators and a patented nozzle cleaning station. An integrated air scrubber ensures a clean printing environment.

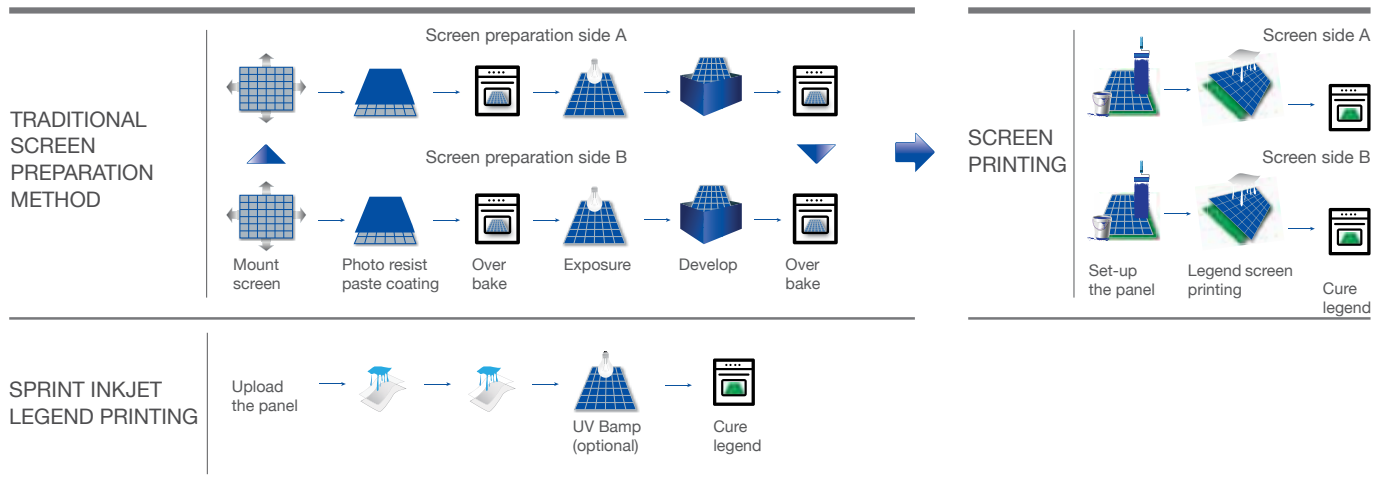
Volume Production with Top Quality

Introducing an innovative new approach to Orbotech's proven UV curing on-the-fly, Sprint 120 employs long-life LED lights for superior drop curing and printing of features down to 0.5mm. The result is high production quality with less passes than previous systems. With automatic measurements and scaling for each panel, registration accuracy of 35µm is achieved. Incorporating a high depth-of-focus (DOF) of 1.5mm, Sprint's accurate and uniform printing over challenging surface topography makes it an ideal choice for a range of today's most complex applications.

Easy and Flexible Operation

Sprint's digital printing solution shortens time-to-market with its easy, flexible operation¹. With its unique technology, the system eliminates the entire screen mask preparation process and requires only one baking cycle. Sprint 120 can print side A-A or A-B according to user-defined parameters. Pinless alignment eliminates the need for pinning holes and reduces panel load/unload time. Fully integrated hardware, including vacuum table, clamps and retractable bridges, completely flattens the printing area to ensure top quality results on warped panels and a variety of thicknesses. PCB and panel traceability is assured with multiple serialization and bar-coding options defined per panel, strip or individual PCB.

With UV LED curing and DotStream Technology™, Sprint™ 120 eliminates screen mask preparation.



Specifications

Max. Panel & Image	30.9" x 24.4" / 785 x 620mm
Min./Max. Panel Thickness	4 - 295mil, 0.1 - 7.5mm
Min./Max. Resolution	720 / 1440dpi
Min. Line*	3mil (75µm)
Min. Text Height**	20mil (0.5mm)
Registration Accuracy	±1.4mil (±35µm)
Depth of Focus	60mil (1.5mm)
Alignment	User selectable 3 or 4 point registration, CCD camera, manual or automatic
Print Mode	Side A-A or side A-B
Print Head	Min. dot size: 70µm, Min. drop volume 12pl
Software	Software RIP, Windows, Gerber RS-274X input, Push-to-Print, Multilanguage
Ink	Multiple inks from leading material suppliers Standards & Certifications: UL 94V-0, MIL-55110, MIL-31032, ASTM E 595, IPC-650, IPC-4781, AA-56032D Type II, RoHS, REACH, Halogen Free
Dimensions W x D x H	1620 x 1850 x 1600mm / 63.8" x 72.8" x 63"
Weight	1500Kg / 3307lbs

Printing mode		Feature size		Printing time*** [sec]
Resolution	Number of passes	Font size [mm]	Line [µm]	
Standard	1	0.8	200	26
Fine	2	0.7	150	58
Ultra Fine	4	0.5	100	116

* Lines of 75µm require special printing modes and well controlled solder mask surface tension.

** With 4 pass mode.

*** Net printing time for 24" x 18" panel size with 1" margin.

Sprint inkjet legend printers are a class-1 laser products. Laser specifications: red laser diodes, 650nm, 3mW max. power. Specifications are subject to change without notice.