Speedline technologies

Value leadership redefined.

Class-leading accuracy and repeatability.

Operational simplicity.

MPM

MPM 125™ Stencil Printer

Affordable Performance

MPM

MPM 125

MPM 125. It's no longer necessary to sacrifice performance for price.

The MPM 125 offers advanced, patented technology, high reliability, best in class accuracy, and operational simplicity in a package that sets the standard for value leadership in automated stencil printing.

Reliability, Capability, Flexibility and Simplicity

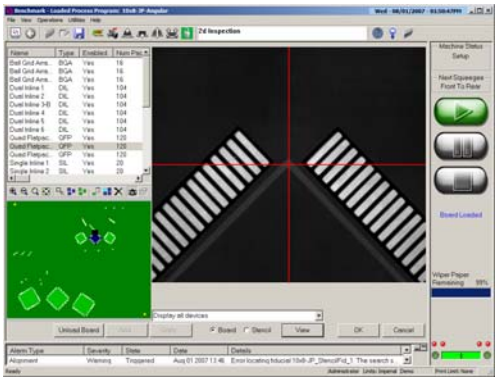
The perfect union of reliability, capability, flexibility and simplicity, MPM 125 surpasses all the competition in its price/performance class.

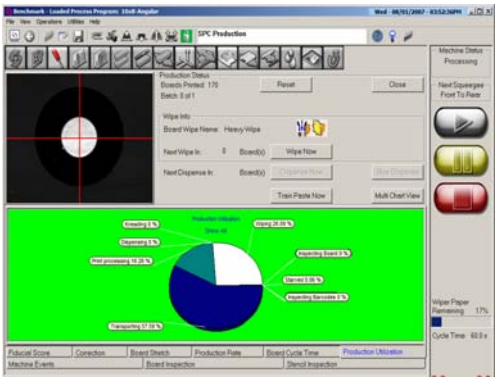
Accurate, Repeatable Performance

The MPM 125 printer features accuracy and repeatability normally associated with the most expensive, high-end equipment. This unique system proves that performance doesn't have to be sacrificed in a cost-effective system. The 125's ±12.5 micron at 6 sigma accuracy is the result of a precision engineered and integrated system. CANopen motion control architecture (originally developed for the award-winning Accela printer platform) yields exceptional performance in signal communication and high speed motion control while reducing design complexity. The state-of-the-art digital camera, which includes telecentric lenses, advanced optics and lighting techniques, results in unmatched vision performance in both alignment and post-print inspection. Patented designs utilized in the transport and squeegee systems maximize reliability, and up-time, reducing your cost of ownership.

Advanced Inspection and SPC Tools

The MPM 125 incorporates expanded 2D inspection capabilities, featuring both MPM's patented contrast and texture-based technologies with BridgeVision® and StencilVision™. Pad-level details can be viewed on-screen and device-level results are stored on a per-board basis as part of the powerful SPC program tools. The combination of detailed process information, expanded inspection capabilities and the fastest quantitative, post-print, device level data gathering in the industry allows your process engineers to effectively optimize the system for the highest machine utilization.



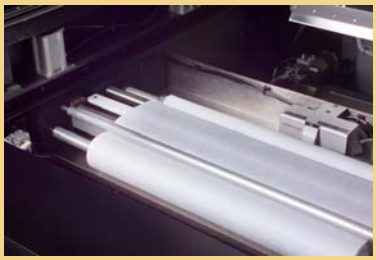


Easy to Learn, Easy to Use

Low cost of ownership can only be achieved when great performance is augmented by ease of use. The MPM 125 is designed with your operators in mind, so it's easy to learn and even easier to use. Speedline's Benchmark™ software provides a convenient graphical user interface within the familiar Windows® operating system. Built-in wizards provide direction for all machine functions, utilities and error recovery.

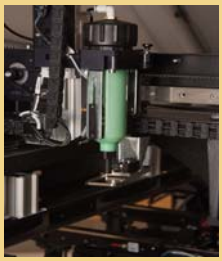
MPM 125: Affordable Performance

Best in class performance is achieved through best in class technology. The MPM 125 includes all the features and subsystems needed to provide high yields with today's toughest ultra-fine pitch components and lead-free printing requirements. As tomorrow's challenges unfold, the MPM 125's performance will continue to prove its unparalleled value.



Stencil Cleaner

This paper over plenum design, with venturi vacuum, patented roller solvent bar delivery system, and full software control, provides precise wet-dry wipe transition and exceptional cleaning results.

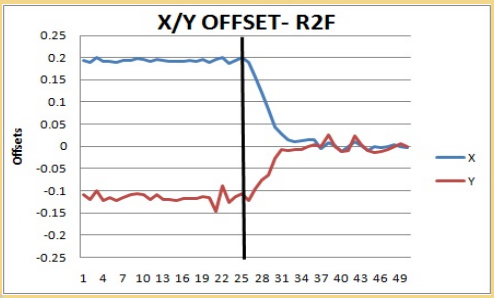


Paste Dispenser

Industry-standard sealed cartridges release precise amounts of solder paste, adhesive, flux, encapsulants, or ink as a clean bead across the stencil. Offers operator friendly, programmable deposition volumes, frequency, and placement.

SPI Print Optimizer

Building on our state-of-the-art print platforms, Speedline has developed a common interface which is capable of communicating with external Solder Paste Inspection (SPI) systems to continuously monitor and adjust X,Y and Theta registration to stay on target.



CANopen Architecture

Rapid signal communication for fast motion control is facilitated in a true multi-tasking environment to maximize throughput and minimize the number of wires and cables.

Benchmark Software

Designed for ease of use, process flexibility and control, Benchmark features an intuitive interface and instructional wizards to assist with operational tasks. Step-by-step guides and templates facilitate rapid set-up and changeover.

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Speedline technologies

Knowledge in process

MPM 125 SPECIFICATIONS

BOARD HANDLING	
Maximum Board Size (X x Y)	609.6 mm x 508 mm (24” x 20”)
Minimum Board Size (X x Y)	50.8 mm x 50.8 mm (2” x 2”)
Board Thickness	0.2 mm (0.008") to 5.0 mm (0.20”)
Maximum Board Weight	4.5 kg (9.92 lbs)
Board Edge Clearance	3.0 mm (0.118")
Underside Clearance	12.7 mm (0.5") standard Configurable for 25.4 mm (1.0”)
Board Hold-Down	Fixed top clamps, centernest vacuum
Board Support Methods	Magnetic pins Optional Gel-Flex, vacuum pins, support blocks, or Quik-Tool

PRINT PARAMETERS	
Maximum Print Area (X x Y)	609.6 mm x 508 mm (24" x 20")
Print Gap (Snap-off)	0 mm to 6.35 mm (0" to 0.25")
Print Speed	Up to 305 mm/sec (12.0"/sec)
Print Force	0 to 22.7 kg (0 lb to 50 lbs)
Stencil Frame Size	737 mm x 737 mm (29" x 29"), Adapters available for smaller sizes

VISION	
Vision Field-of-View (FOV)	10.6 mm x 8.0 mm (0.417" x 0.315")
Fiducial Types	Standard shape fiducials (see SMEMA standards), pad/aperture
Camera System	Single digital camera - patented look up/down vision

PERFORMANCE	
Total System Alignment Accuracy and Repeatability	±12.5 microns (±0.0005") at 6 sigma, Cpk of greater than or equal to 2.0*
Qualification is performed using production environment process variables; print speed, table lift and camera movement are included in the capability figure.	
Wet Print Deposit Accuracy and Repeatability	±25 microns (±0.001") at 6 sigma, Cpk of greater than or equal to 2.0*
Based upon actual wet printing with positional accuracy and repeatability verified by a 3rd party measurement system.	
Cycle Time	13 seconds standard

FACILITIES	
Power Requirements	200 to 240 VAC (±10%) single phase @ 50/60Hz, 15 A
Air Supply Requirements	100 psi at 4 cfm (standard run mode) to 18 cfm (vacuum wipe) (7 bar @ 5 L/s to 12 L/s), 12.7 mm (0.5”) diameter line
Height (excluding light tower)	1638.4 mm (64.5") at 940 mm (37.0”) transport height
Machine Depth	1593.1 mm (62.72")
Machine Width	1214 mm (47.79”)
Minimum Front Clearance	508 mm (20.0”)
Minimum Rear Clearance	508 mm (20.0”)
Machine Weight	860 kg (1896 lbs)
Crated Weight	1153.5 kg (2543 lbs)

* The higher the Cpk, the lower the variability with respect to the process specification limits. In a process qualified as a 6 sigma process (i.e., one that allows plus or minus 6 standard deviations within the specification limits), the Cpk is greater than or equal to 2.0.

Specification is subject to change without notice. Please consult factory for specifics.

ABOUT SPEEDLINE TECHNOLOGIES

Speedline Technologies is the global leader in process knowledge and expertise for the PCB assembly and semiconductor industries. Based in Franklin, Massachusetts, U.S.A., the company markets five best-in-class brands — Accel microelectronics cleaning equipment; Camalot dispensing systems; Electrovert wave soldering, reflow soldering, and cleaning equipment; MPM stencil and screen printing systems; and PROTECT global services, support, and training solutions. For more information, visit us at www.speedlinetech.com.

Speedline Technologies maintains an ongoing program of product improvement that may affect design and/or price. We reserve the right to make these changes without prior notice or liability.