Momentum BTB Stencil Printer

The MPM Momentum BTB can be used as a stand-alone printer, or configured Back-to-Back with another Momentum BTB to create a two-printer, dual-lane productivity solution. This gives the user ultimate flexibility; print with Momentum performance now with a single machine, then add another system later and configure Back to Back to nearly double throughput capacity. Since they will be identical machines, there’s no learning curve; hit the ground running.

Q: What are the performance specs of the MPM Momentum BTB?
A: Alignment repeatability is ±12.5µ @ 6σ, Cpk>2; Wet Print accuracy: 20µ@6σ, Cpk ≥ 2, with 6σ Capability designed in and independently verified.

Q: Why Back-to-Back?
A: Back-To-Back (BTB) processing conserves floor space without sacrificing throughput volume or yields. BTB configuration is more than system positioning, it’s also about design. BTB models feature front access for electrical service, solvent reservoirs, and more for easy maintenance and accessibility.

Q: How much space does the Momentum BTB save for me?
A: Momentum BTB is 200mm shorter than the Momentum series Elite and HiE printers, so it conserves floor space when used singly as well as in Back to Back layout. When configured BTB, throughput is increased, but manufacturing line length is not.

Q: How is the Momentum BTB Flexible?
A: Because you can use it as a stand-alone printer with Momentum series performance, and add capacity (a second machine) later and arrange the machines back to back to create a dual-lane productivity solution. You don’t buy capacity you don’t need until you actually need it.

Q: Can the Momentum use the EnclosedFlow print system?
A: Yes. Solder paste is held within an enclosed chamber, directly pressurized during the print stroke to provide uniform and complete aperture filling for the full range of aperture sizes and fill types from fine pitch to high volume filling Paste-in-Hole.
Q: What are some of the innovative features and options available for Momentum BTB?
A: They include RapidClean, EnclosedFlow, EdgeLoc, Paste Height Monitor and more.

Q: What is RapidClean?
A: RapidClean is a faster, more effective system of cleaning stencils using solvent. RapidClean’s advanced plenum combines a vacuum and solvent stroke into a single wiper stroke cleaning effectively and reducing cycle time.

Q: What software/user interface operates Momentum?
A: Benchmark 4.0, which operates with the Windows 7 OS system and incorporates the familiar Benchmark GUI and functionality, with added improvements in feature function. Also incorporates new Open Software Architecture, OpenApps (Patent Pending), enabling easy two-way communication between the printer and your own in-house MES.

Q: What is EdgeLoc Tooling?
A: The EdgeLoc system securely holds the board during printing using a side snugging technique. Flippers engage to secure the board across the top edge, ensuring board flatness, and removing any warpage from the board.

Q: What is OpenApps?
A: Speedline’s powerful Benchmark® software suite and user interface features OpenApps™ Open Software Architecture (Patent Pending) that allows your MPM Printer to ‘talk’ to your MES System. You get functionality without custom development, and the ability to create your own apps! Speedline is the first SMT company to offer open software architecture.

Q: What is the Vision and Inspection System?
A: MPM’s patented printer-based Vision and Inspection System is a cost-effective way to verify print and paste deposit results. This system measures the amount of paste covering the target pad and compares it with the required coverage. 2D Inspection is integrated directly into the stencil printer. It’s an effective way to eliminate print defects and increase overall yields.

Q: What is the Paste Height Monitor? What does it do?
A: The Paste Height Monitor is an effective solution designed to prevent defects caused by inadequate volumes of paste on the stencil. It combines advanced software and sensor technology to effectively and very accurately monitor the paste bead for volume consistency.

Q: What is the SPI Print Optimizer?
A: MPM’s SPI Print Optimizer is a closed-loop process optimization tool that brings your Solder Paste Inspection (SPI) machine into communication with your Momentum printer through a common interface. When the SPI machine ‘sees’ X, Y, and Theta offset problems on PCBs being printed, it analyzes the data virtually instantly and gives the printer instructions to correct those offsets, automatically, and ‘on the fly’.