

Speedline MPM AP 25/27 Specifications

Print Area:	2" x 2" (50mm x 50mm) to 18" x 16" (457mm x 406mm)
Board Size:	2" x 2" (50mm x 50mm) to 20" x 16" (508mm x 406mm)
Frame Size:	29" x 29" (737mm x 737mm) OD with adapter system for smaller frames.
Stencil:	X, Y adjustment + 0.5" (+ 12.7mm) Total Y axis travel = 8" (203mm) Theta adjustment + 3°
Service:	115V or 220V, 60Hz, 30 amp (220V, 50 Hz, 20 amp) Air – 80 to 125 psi at 4 cfm
Dimensions:	Conveyor Length: 51" (1295mm) standard; to 66" (1676mm) optional. Machine Width: 47" (1194mm) Machine Depth: 66.5" (1689mm) Machine Height: 54" plus 7" adjustment (1372mm plus 178mm adjustment) Shipping Weight: 1500 lbs. (667 kg)

Machine Vision Auto-Alignment

A single camera is mounted on a programmable X-Y gantry above the print nest area. Three linear motors allow for viewing multiple fiducial points on the stencil or substrate. The camera looks down at the PCB and up at the stencil, providing the highest level of alignment precision available. MPM's proprietary optics and illumination technology provide closed loop feedback.

Vision parameters automatically become part of the individual board profile data, and may be recalled prior to subsequent production runs for instant setup.

SPECIFICATIONS

Viewing Capability: 17.5" x 16"
(445mm x 406mm)

Field of View: 0.375" (9.525mm)
Horizontal x 0.300" (7.62mm) vertical

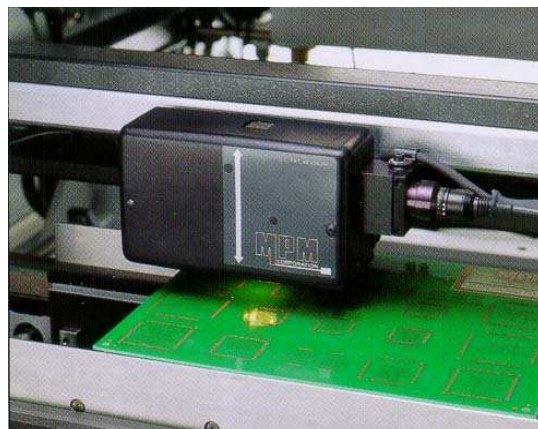
Maximum Teach Area: 0.130"
(3.302mm) square

Pattern or Fiducial:

- All conventional fiducials acceptable
Including circles, squares, bow ties,
and donuts, as well as standard
component pads.
- 0.30" to 0.100" (.762mm to 2.54mm)

Accuracy: + 0.001" (+.0254)

Repeatability: + 0.0005 (+ 13 microns)

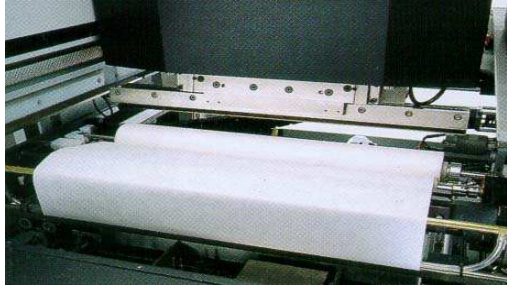


Automatic Stencil Wiper and Solvent Bar

Provides unassisted cleaning of the underside of the stencil at user-programmable intervals. The system allows variable wipe frequency, stroke speed, and wiping force, and accommodates various stencil sizes.

A solvent bar wetting system helps to remove any stubborn solder paste dried on the stencil. The system may be programmed for various combinations of wet and dry wiping.

Contaminants and paste removed from the stencil are trapped on easily replaced rolls of lint-free paper. This minimizes operator exposure to solder paste constituents.



SPECIFICATIONS:

Length of Wiping Blade:

10" to 19" (254mm to 483mm)

Stroke Distance:

Programmable from 2"
(50mm) to 16" (406mm)

Solvent Type: A variety of
non-CFC types available

Automatic Paste Dispensing System

Dispenses solder paste or other print medium onto the stencil in pre-programmed amounts and at pre-selected intervals, thus minimizing the adverse effects of prolonged exposure to the paste.

A pinch assembly precisely cuts off the flow of material; a custom profiling feature allows the amount of material to be varied across the stencil.

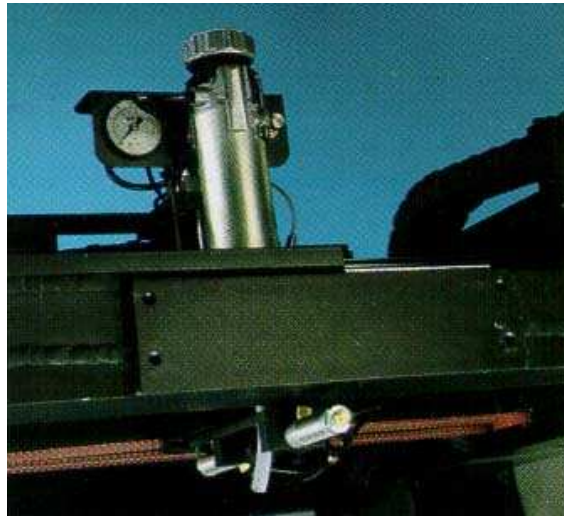
The system uses 2.5 oz or 6 oz Pyles cartridges to load solder paste. A disposable nozzle simplifies cleanup and minimizes operator exposure to materials.

Dispensing parameters are stored in memory for future use.

SPECIFICATIONS:

Pyles Cartridge Sizes: 2.5 oz. and 6 oz.

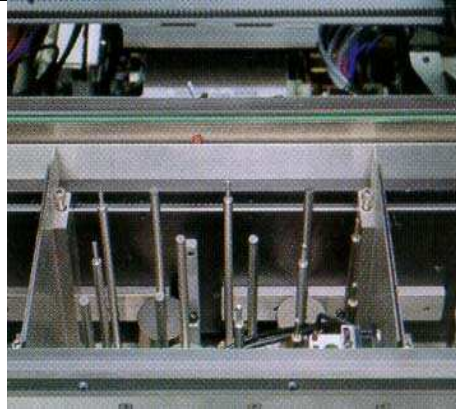
Dispense Path: Up to 16" (406mm),
perpendicular to squeegee stroke.



Board Handling System

In-line system features automatic track Width and speed controls for exceptional Flexibility. A sliding vacuum nest with Moveable magnetic support pins or blocks Makes setup faster and easier. Double-Sided boards are easily accommodated.

MPM's Board Handling System is Available with fixed front track or optional fixed rear track. The system is compatible with all major board loading and placement equipment.



SPECIFICATIONS:

Board Clearance: 0.5" (12.7mm) below board protrusion

Board Edge Clearance: Edge used by transport tracks and vacuum chuck 0.188" (4.775mm)

Transport Tracks: 0.2" to 35" (5.1mm to 889mm) per second, velocity range:

Left to right, right to left feed direction

Fixed track front or optional fixed rear track

Transport height 34.5" to 41" (876mm to 1041mm)

Snap-Off Distance: Programmable in 0.0004" (.01mm) increments. The range of snap-off that can be programmed is from -0.05 (-1.27mm) to +0.10" (+2.54mm). Stencil peel away speed is also programmable.

Tooling Pins: 0 to 1" (0 to 25.4mm) in from front or optional rear edge using replaceable conical pins. Available upon request.

Programmable Squeegee

Allows the operator to program squeegee downstop and pressure, and automatically levels the blade before printing. Left and right pressures, print speed, blade attack angle, and squeegee downstop can all be independently adjusted between front and rear squeegee blades to optimize printing performance. Pressure is controlled by frictionless air cylinders, which are independently driven by computer-controlled electronics pressure regulators. The automatic downstop system is driven by a precision ball screw and stepper motor, providing downstop accuracy of .0005" (.013mm).

Squeegee parameters automatically become part of the individual board file, and may be recalled from memory at any time.

SPECIFICATIONS:

Maximum Squeegee Travel: 18" (457mm)

Squeegee Speed: 0.25" to 5" (6.35mm to 127mm) per second.

Pressure: 1 to 60 lbs. (.453kg to 27 kg) accurate to 2% of full range.

Down Stop: Adjustable attack angle, squeegee sizes up to 19" (483mm)

Squeegee Blade: Optional metal trailing edge squeegee available

