#### WORLD HEADOUARTERS

16 Forge Park, Franklin, MA 02038 Tel: +1 (508) 520-0083 Fax: +1 (508) 520-2288

www.speedlinetech.com

### MANUFACTURING FACILITIES

ACCEL/ELECTROVERT Highway 5 South, Camdenton, MO 65020 Tel: +1 (573) 346-3341 Fax: +1 (573) 346-5554

CAMALOT/MPM 16 Forge Park, Franklin, MA 02038 Tel: +1 (508) 520 0083 Fax: +1 (508) 520 2288

# SALES AND CUSTOMER SUPPORT OFFICES

U.S.A. 2541 Technology Drive Ste. 401 Elgin, IL 60123 Tel: +1 (847) 426 4787 Fax: +1 (847) 426 7383

MEXICO Carretera Base Aerea #5850 Km. 5, Edificio 11 Zapopan, Jalisco, Mexico Tel: +52 (3) 818-9017 Fax: +52 (3) 818-9816

EUROPE Speedline Technologies GmbH Im Gefierth 14 D-63303 Dreieich, Germany Tel: +49 (0) 6103-8320 Fax: +49 (0) 6103-832-299

ASIA/PACIFIC Speedline Technologies Asia Pte Ltd 150 Kampong Ampat, #05-08 KA Centre Singapore 368324 Tel: +65-6286 6635 Fax: +65-6289 9411

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8/05



## MPM UP2000 HiE SPECIFICATIONS **BOARD HANDLING** Minimum/ 2" x 2" (50.0 mm x 50.0 mm) to Maximum size 20" x 16" (508 mm x 406 mm) (16" or greater board lengths require dedicated workholder) Thickness range 0.015" to 0.500" Underside component 0.50" (1.0" optional) clearance Programmable up to 60"/sec Machine interface (1524 mm/sec) transport speed Transport height Adjustable 34.5" to 41" (876 mm to 1041 mm) from floor Method of support in Magnetic pins, optional print/vision cycle dedicated workholders Method of board Underside vacuum, Y-axis snuggers and Z-Grip fingers hold-down Conveyor configuration Factory-configurable front or rear rail justified User definable Transport track feed direction PRINT PARAMETERS 18" x 16" Print area (457 mm x 406 mm) (x,y)-0.050" to +0.1" Snap-Off (-1.3 mm to 2.5 mm)1 to 60 lbs (0.4 kg to 27 kg) Squeegee pressure (Balanced Control) 1 to 50 lbs (0.4 kg to 22.5 kg) Squeegee pressure (Self-Level Head) 0.25" to 12"/sec Squeegee speed (6.35 mm to 305 mm/sec)

VISION	
Fiducial method	2 to 5 models standard fiducials or pads
Fiducial type	All conventional fiducials accepted
Camera system	MPM unique high speed ball screw system with patented optics
PERFORMANCE	
Vision alignment repeatability	±0.001" (±0.025 mm) at 6 sigma (Cp greater than or equal to 2.0*) verified with glass plate capability test**
Vision Alignment accuracy	$\pm 0.001''$ ( $\pm 0.025$ mm) at 6 sigma (Cp greater than or equal to $2.0^*$ ) verified with CeTaQ <sup>TM</sup> CmController <sup>TM</sup> capability test**
Cycle time	< 11 seconds (excluding print stroke)
FACILITIES	
Power Requirements	Either 115 VAC@60 hz, 30 A or 220 VAC@50 hz, 20 A
Air Supply Requirements***	80 to 125 psi (5.52 to 8.63 bars) at 4 cfm (1.9 L/s) (standard), at 25 cfm (11.8 L/s) (with optional vacuum wiper
Height (excluding light tower)	64.44" (1636.7 mm) maximum
Depth	63.24" (1606.3 mm)
Width	46" (1168.4 mm)
Weight	1500 lbs (677 kg)
Crated Weight	2500 lbs (1134 kg)

<sup>\*</sup> The higher the Cp, 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 Cp is greater than or equal to 2.0.

## 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.

<sup>\*\*</sup> The CmController™ test is an optional test that can be preformed on request by a customer prior to the shipment of their printer.

\*\*\* Optional vacuum wiper requires 25 CFM (during the vacuum stroke only)