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[^0]MPM UP2000 HiE SPECIFICATIONS

## BOARD HANDLING

| Minimum/ Maximum size | $2^{\prime \prime} \times 2^{\prime \prime}(50.0 \mathrm{~mm} \times 50.0 \mathrm{~mm})$ to $20^{\prime \prime}$ x 16 " ( $508 \mathrm{~mm} \times 406 \mathrm{~mm}$ ) ( 16 " or greater board lengths require dedicated workholder) |
| :---: | :---: |
| Thickness range | $0.015^{\prime \prime}$ to 0.500" |
| Underside component clearance | 0.50" (1.0" optional) |
| Machine interface transport speed | Programmable up to 60" / sec ( $1524 \mathrm{~mm} / \mathrm{sec}$ ) |
| Transport height from floor | Adjustable 34.5" to 41" <br> ( 876 mm to 1041 mm ) |
| Method of support in print/vision cycle | Magnetic pins, optional dedicated workholders |
| Method of board hold-down | Underside vacuum, Y-axis snuggers and Z-Grip fingers |
| Conveyor configuration | Factory-configurable front or rear rail justified |
| Transport track feed direction | User definable |

## PRINT PARAMETERS

| Print area | $18^{\prime \prime} \times 16^{\prime \prime}$ <br> $(457 \mathrm{~mm} \mathrm{x} 406 \mathrm{~mm})(\mathrm{x}, \mathrm{y})$ |
| :--- | :--- |
| Snap-Off | $-0.050^{\prime \prime}$ to $+0.1^{\prime \prime}$ <br> $(-1.3 \mathrm{~mm}$ to 2.5 mm$)$ |
| Squeegee pressure <br> (Balanced Control) | 1 to $60 \mathrm{lbs}(0.4 \mathrm{~kg}$ to 27 kg$)$ |
| Squeegee pressure <br> (Self-Level Head) | 1 to $50 \mathrm{lbs}(0.4 \mathrm{~kg}$ to 22.5 kg$)$ |
| Squeegee speed | $0.25 " \mathrm{to} 122^{\prime \prime} / \mathrm{sec}$ <br> $(6.35 \mathrm{~mm}$ to $305 \mathrm{~mm} / \mathrm{sec})$ |

VISION

| Fiducial method | 2 to 5 models standard <br> fiducials or pads |
| :--- | :--- |
| Fiducial type | All conventional <br> fiducials accepted |
| Camera system | MPM unique high speed <br> ball screw system with <br> patented optics |

PERFORMANCE

| Vision alignment repeatability | $\pm 0.001 "( \pm 0.025 \mathrm{~mm})$ at 6 sigma (Cp greater than or equal to $2.0^{*}$ ) verified with glass plate capability test** |
| :---: | :---: |
| Vision Alignment accuracy | $\pm 0.001 "( \pm 0.025 \mathrm{~mm})$ at 6 sigma (Cp greater than or equal to 2.0*) verified with $\mathrm{CeTaQ}^{\text {™ }}$ CmController ${ }^{\text {TM }}$ capability test ${ }^{* *}$ |
| Cycle time | $<11$ seconds (excluding print stroke) |

## FACILITIES

| Power Requirements | Either 115 VAC@60 hz, 30 A <br> or $220 \mathrm{VAC@} @ 0 \mathrm{hz}, 20 \mathrm{~A}$ |
| :--- | :--- |
| Air Supply <br> Requirements $^{* * *}$ | $80 \mathrm{to} 125 \mathrm{psi}(5.52 \mathrm{to} 8.63 \mathrm{bars})$ <br> at $4 \mathrm{cfm}(1.9 \mathrm{~L} / \mathrm{s})($ (standard $)$ <br> at $25 \mathrm{cfm}(11.8 \mathrm{~L} / \mathrm{s})$ (with <br> optional vacuum wiper |
| Height <br> (excluding light tower) | $64.44^{\prime \prime}(1636.7 \mathrm{~mm})$ <br> maximum |
| Depth | $63.24^{\prime \prime}(1606.3 \mathrm{~mm})$ |
| Width | $46{ }^{\prime \prime}(1168.4 \mathrm{~mm})$ |
| Weight | $1500 \mathrm{lbs}(677 \mathrm{~kg})$ |
| Crated Weight | $2500 \mathrm{lbs}(1134 \mathrm{~kg})$ |

* 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 .
${ }^{* *}$ The CmController ${ }^{\mathrm{TM}}$ 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)


## 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.


[^0]:    8/05

