

### 3800/5000 Dispensing Systems for SMT Applications

CAMALOT 3800/5000 Systems are in-line or stand-alone liquid dispensing systems for SMT applications. These systems are the "work horses" of the industry and are part of a family of CAMALOT dispensers with thousands of systems in the field. The 3800/5000 systems are reliable, durable, streamlined in design, and easily adaptable to handle a wide variety of circuit boards and substrates.



The systems utilize ball screws and servo motors (with closed-loop encoders) on all three axes to assure smooth, precise and accurate dispensing with an easy to use enhanced Graphic User Interface. These systems have been designed for the circuit board industry and use a conveyORIZED system to accommodate circuit boards up to 19" x 19" (483mm x 483mm) (CAMALOT 5000).

Speedline Technologies has the largest customer support network in the electronics and semiconductor industries, developing, manufacturing and supporting product innovations for its customers, offering a single-source for complete process solutions.

#### **AVAILABLE OPTIONS AND ACCESSORIES FOR THE 3800/5000 SYSTEMS INCLUDE THE FOLLOWING:**

Auto vision alignment with "one snap" fiducial correction, automatic Z-height sensors by touch probe or non-contact laser, automatic needle calibration station along with a variety of CAMALOT pumps.

#### **FAST AND RELIABLE**

- Linear bearing slides for smooth point-to-point movement and input/output zones (buffers) to reduce substrate transport time.
- Quick changeover time for customers with several size boards and substrates.
- Systems dispense up to 25,000 dots of solder paste or SMD epoxy per hour.
- Advanced motion control for independent acceleration and deceleration of the dispensing head.

#### **FLEXIBLE**

- Large dispense area up to 19" x 19" (483mm x 483mm)\* for the 5000 and 14" x 14" (356mm x 356mm)\* for the 3800 system.
- Handles various size boards and substrates to accommodate a wide variety of customer requirements.

#### **REDUCES COSTS**

- Compact foot print saves valuable floor space.

## GLOBAL COMPATIBILITY

- SMEMA compatible for in-line automation integration.

## TYPICAL APPLICATIONS

- Surface mount adhesives, solder paste, solder mask or conductive adhesives.

\*Various options may reduce dispense area.

3800-5000	
DISPENSE AREA*	
3800 System	<b>Maximum X</b> 14" (355.6mm) <b>Maximum Y</b> 14" (355.6mm)
5000 System	<b>Maximum X</b> 19" (483mm) <b>Maximum Y</b> 19" (483mm)
MECHANICAL	
3800 System	<b>Max Z travel</b> 2.0" (50.8mm)
5000 System	<b>Max Z travel</b> 2.2" (55.8mm)
Resolution	0.0005" (12.5 microns).
Max X, Y axis speed	16 in./sec (406mm/sec)
Acoustic noise	68 DBA
Drive system	High Speed Precision Ball Screw drives and DC Servo Motors with closed-loop motion control in X, Y and Z
CONVEYOR	
	Belt conveyor with manual or auto (optional) adjustable width with input and output buffers. Complies with SMEMA standards.
Conveyor clearance	1.56" (1" top/0.56" bottom) (25mm top/14mm bottom)
3800 System	<b>Conveyor lift</b> 14" x 14 (355.6mm x 355.6mm) with vacuum support pins
5000 System	<b>Conveyor lift</b> 19" x 19" (483mm x 483mm) with vacuum support pins
DISPENSING	
Dot placement accuracy	±0.003" @ 3 sigma (75 microns)
Dispensing method	Positive Displacement Pump and/or time pressure
Typical applications	Surface Mount Adhesive, Solder Paste, Solder Mask, Conductive Adhesive
Dispensing rate	Up to 25,000 Dots/hr, 0.125" (3mm) centers, 0.020" (0.5mm) diameter dot. Various based upon application
COMPUTER	
	Windows™ -style icon based software, designed for dispensing applications (Dot, Line, Arc, Circle, Round and Square Fill patterns)
Computer	IBM compatible PC
Program method	Teach mode with trackball; download from CAD
FACILITY REQUIREMENTS	
Power requirements	115 Volts, 60 Hz, 1 Phase, 10 Amps
International	220 Volts, 50 Hz, 1 Phase, 10 Amps
Pneumatic requirements	Min 80 PSI, 1CFM, 10 Micron Filtered Air
3800 System	<b>Weight (approx.)</b> 2185 lbs (993 kg) approximately depending on chuck size
5000 System	<b>Weight (approx.)</b> 2885 lbs (1311 kg) approximately depending on chuck size

3800 System	<b>Size (W x D x H)</b> 47" x 46" x 72.5" (1194mm x 1175mm x 1842mm) includes 13" (330mm) light tower
5000 System	<b>Size (W x D x H)</b> 60" x 51" x 76" (1524mm x 1295mm x 1921mm) includes 13" (330mm) light tower
Environmental conditions temperature	66°F (19°C) to 90°F (32°C)
Humidity	30-70%
MTBF	2000 hours
MTTR	30 minutes typical
	Specifications subject to change without notice * Various options may reduce dispense area