

# MPM Camalot

Electronic Assembly Equipment

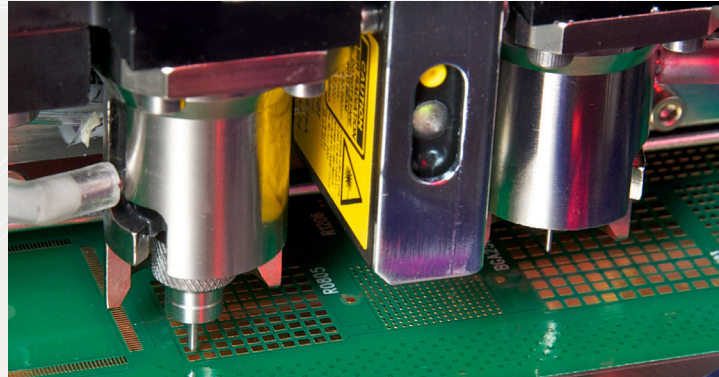
ITW EAE

## Camalot Inside™

Industry leading accuracy

Print and dispense in one platform

Flexibility and versatility



Leverage floor space and improve productivity with ITW EAE's MPM Momentum II platform with "Camalot Inside" dispense technology. Featuring the perfect union of over 25 years of experience in dispensing with the industry's leading print technology, this new productivity enhancement provides two discrete process functions in one platform.

Whether a customer is adding additional solder paste for components and/or epoxy for connectors, when equipped with Camalot Inside dual dispensing head option, an MPM printer can now apply both materials on mixed technology boards.

An on-board calibration station ensures repeatable, fast set-up and changeover maximizing production line flexibility and productivity. Laser height measurement can be provided at every location for consistent performance. Camalot's unique auger RPM regulation ensures optimum dispense speeds on a dot-by-dot basis.

No other printer can offer the field-proven, award-winning combination of MPM and Camalot technologies. Improve your production line's flexibility and productivity with dispenser-in-a-printer featuring Camalot Inside.

| CAMALOT INSIDE SPECIFICATIONS & CAPABILITIES |  |
|--|--|
| <b>XY Placement Accuracy</b>                 | +/-50um at 6 sigma (CeTaQ verified)              |
| <b>Z-Axis Accuracy</b>                       | +/-15um at 6 sigma (CeTaQ verified)              |
| <b>Throughput</b>                            | 4,500 DPH (1.00 mm dot)                          |
| <b>Minimum Dot Size</b>                      | 300um (material dependent)                       |
| <b>Dual Head Dispensing Capabilities</b>     | Dot, line, cavity, dual needle cleaning stations |
| <b>Print &amp; Camalot Inside AccuCheck</b>  | Accuracy verification tool                       |
| <b>Companion Product</b>                     | SmartTeach, offline programming tool             |

# FAQs - Camalot Inside

**Q:** On what machines is Camalot Inside available?

**A:** Momentum HiE and Momentum Elite

**Q:** What does the Camalot Inside option include?

**A:** The Camalot Inside option includes dual dispensing heads and related hardware mounted to the machine wiper gantry.

**Q:** Can this option be upgraded on existing printers?

**A:** At this time, the option is not available for upgrades.

**Q:** Does the Camalot Inside replace a Camalot dispenser?

**A:** No, as this feature is designed to add a small number incremental material "dots" to the processed board. Although capable of adding many additional "dots" the process will be time limited due to its speed.

**Q:** What is the Camalot Inside cleaning frequency?

**A:** Similar to any dot dispensing technology, the system should be cleaned after normal production. The system should not be allowed to sit for long periods of time with material in the head as the material will dry out and extend the cleaning cycle or worst case require a new cartridge.

**Q:** Is Camalot Inside easy to clean?

**A:** The system pumps require normal maintenance as outlined in the maintenance manual. The new needle cleaning stations allow automatic cleaning, no manual effort is required.

**Q:** Can both footed needles and un-footed needles be used?

**A:** Footed needles should not be used as there is the possibility of interference with the printed solder paste deposits. Only un-footed needles are currently provided with this feature.

**Q:** What size cartridges are compatible with the Camalot Inside option?

**A:** 10cc Cartridge Only

**Q:** What is the dispensing speed per dot?

**A:** 4500 dots/hour (1mm dot, 1.5mm pitch)

**Q:** What is the minimum dot size?

**A:** Minimum dot size for Adhesive is 0.3 mm. This is sufficient for dispensing 0402 components. This capability is needle size and material dependent and should be tested as necessary for different materials.

**Q:** What is the size of the allowable dispense area?

**A:** 22" (558.8 mm) in the X-axis, If the same material is being used in both heads (combination of left and right head travel). 20" (508 mm) in the X-axis, if different materials are used in each head. 20" (508 mm) in the Y-axis.

**Q:** Can a dispense program be run without printing?

**A:** Yes. A print cycle is required for the dispense cycle to be done, however a phantom print cycle can be adjusted so the PCB does not make contact with the stencil.

**Q:** Can files be downloaded with positioning information for dispensing?

**A:** Yes, the newly released Smarteach offline programming tool (sold separately) allows such productivity enhancement.

**Q:** Can Camalot Inside be used for dispensing at multiple heights or dispensing in a cavity?

**A:** Yes, cavity dispensing and multiple heights are possible.