

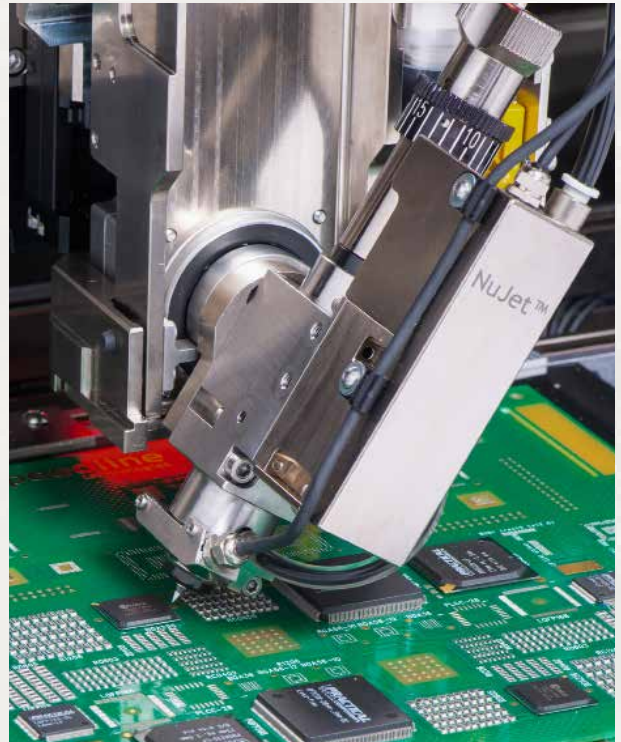
# Advanced Tilt and Rotate

**Patented technology that enables reduced wet-out areas, improved capillary flow for underfill and access for dispensing on side walls or around tall components.**

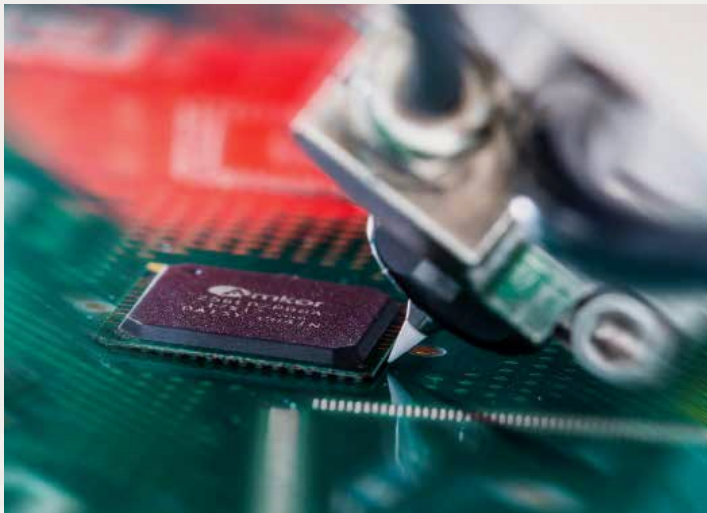
PCB designs are ever more challenging for dispensing with increased component densities, reduced material keep out zones, and a broad mix of component heights. The Prodigy's Advanced Tilt and Rotate option solves all these challenges and more with its patented design and operation.

State of the art rotary actuators provide a fast, high precision, zero backlash mechanism that is guaranteed to provide increased productivity and yields over alternatives. Packaged into the Prodigy system, proprietary motion and controls allow articulation of the dispense pump in sub-degree increments for both axes as many times as you need for total flexibility.

This enhanced solution enables total programmable control over both axes, allowing the user an unlimited ability to program each axes exactly as their product requires. Setup and calibration are automated functions that run after the machine has been initialized and/or if the pump has been removed and replaced. These routines ensure that the camera needle offsets at different angles and rotations are known.



*This new, innovative and patented Tilt and Rotate option positions Camalot as an industry leader for dispensing performance, quality and value.*



### Key Features

- DC servo control for both axes
- 0.01 degree resolution
- Up to +/- 45 degrees of Tilt and +/- 90 degrees of rotation
- Both axes programmable in sub-degree increments
- Automatic setup and calibration
- Extended fluidics and nozzles provide additional clearance for "hard to reach" applications

# Advanced Tilt and Rotate



## FAQs

**Q: How can the Tilt and Rotate function improve my process?**

A: These functions enable reduced wet out areas around components, improved capillary flow for the underfill process and access to dispense on side walls, underneath or around tall components.

**Q: Are both the Tilt and Rotate axis programmable?**

A: Yes, both are fully programmable with the process program. Each axis can be used individually or combined allowing unlimited flexibility.

**Q: Is the calibration process automated?**

A: Yes, up to 20 different tilt/rotate positions can be calibrated.

**Q: What level of programmable control is available for the Tilt and Rotate functions?**

A: Each axis is controlled by a servo drive and can be programmed to move in 0.1 degree increments.

**Q: What is maximum the pump can be tilted or rotated?**

A: Up to +/- 45 degrees of Tilt (pump dependent) and +/- 90 degrees of rotate.

**Q: How many times can Tilt and Rotate be used in a dispense program?**

A: The Tilt and Rotate function is unlimited in program positions.

**Q: Can the Tilt and Rotate option be upgraded in the field?**

A: Yes, the option can be upgraded at your factory by an appointed service technician.

### TILT AND ROTATE SPECIFICATIONS

Rotate Angle	+/- 90 degrees
* Tilt Angle	+/- 45 degrees
Drive System	Harmonic servo drives (both axis)
Pump Compatibility	NanoShot/NuJet (Auger consult factory)
Needle to Camera Position	Automatically calibrated
In Program Adjustment	Automatic
Programmable Positions	Unlimited
Programmable Increments	0.1 degrees
Encoder Resolution	0.01 degrees
Weight	2.3 kg
Syringe Size	10 - 55 cc (depending on mount location)
Platform compatibility	Prodigy single head configuration

\* Pump specific



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# Camalot

Electronic Assembly Dispensers

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