

COBRA Placement Systems

Galil Teams With COBRA to Place Components to Within $\pm .005$ "



The COBRA Placement System automatically and accurately places components to $\pm .005$ ".

As the demand for smaller, more advanced electronic devices like cell phones and PDAs continues to increase, so does the demand for smaller die-cut, converted components.

These are typically adhesive backed films, foams or foils cut into specified shapes and delivered to the manufacturer on a continuous liner. They are used for insulating, protecting, and adhering components in electronic devices.

When accuracy, lowering costs and increasing reliability are vital issues, manually placing these components to their targeted area may not be optimal, particularly in high throughput manufacturing operations.

To address this, COBRA Placement Systems designed a system that automatically removes the components from a continuous roll using their patent pending "liner driven" placement actuator. This allows the vacuum head to contact and align with the die-cut component before it is removed from the liner, resulting in controlled, accurate placements better than $\pm .005$ inches without die-cut part distortion.

Providing the repeatable, precise movement and positioning of the liner through the COBRA System is Galil's DMC-2143 4-axis Ethernet motion controller.



Dave Whelan, President of COBRA, says one axis controls the liner. "The other 3 axes are reserved for customization, like controlling an XY table to move a tray or adding a 4th axis to control pneumatics pressing force. This provides flexibility in a cost-efficient manner."

Whelan added, "With a COBRA System, having the multi-axis controller capability doesn't box you in. So, when it comes time to add that extra parts sensor, automation or motion, you don't have to go through the expense and hassle of adding another control system."

"Also, because Galil's programming language for handling multitasking threads is flexible, we are able to run five threads at a time. One thread is used for background error checking, so anytime the machine stops, we know why and can adjust accordingly."

Capable of accommodating die cut components ranging from .125" to 12", the COBRA System also allows rolls of converted components to be loaded in under 15 seconds, and can place 1" parts every 2 seconds or less.

Customizable software and straightforward operator interface allows for easy operation and control, which is vital as each type of die-cut component requires a certain degree of down force when placed (i.e., a label that goes on a laptop has different requirements than a critical and sensitive piece of electronics). With the COBRA System, the user can dial in the specific

amount of pressure to apply.

"I've worked with Galil for 15 years because of their low cost, high performance, and live applications support," said Whelan. "In addition to the precise motion control on a repeatable basis, I like that their controller comes with plenty of I/O and includes position tracking to allow the commanded move distance to be changed while in motion."

"Galil provides the flexibility to address those electronics, computer, medical and automotive manufacturers who have challenging needs that require a custom solution at a fair price." ■

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