

# GP2 Technology, Inc.

## GP2 and Galil Automate Book Covers “On Demand”

A new, automated GP2 system can now produce cost effective hard book covers or cases “on demand.” A key to this flexibility is the accuracy of the high precision Galil controller at the heart of the system.

With on demand production, only the exact number of books needed for an order need be printed—perhaps only a single book. In the past, book publishers had to print at least 1000 copies to make production economically feasible.

GP2’s new Autocase SC2 machine registers the front and rear panels of the case to the cover material. It then folds the cover material precisely to make a finished case, which later goes to further binding operations. The machine is sold to libraries, corporations, and regional binderies that produce small runs of books, as well as to digital printers of hard cover books on demand.

The alternatives are either manual operation or expensive machines used for high-volume production. Manual cover making is prone to human error and often results in sloppy construction with loose folds or wrinkles. High-volume casemakers cost \$250,000 to \$600,000, and take up to an hour to set up, making them cost prohibitive for small runs.

The new Autocase SC2 machine uses the economical Galil DMC-2183 Ethernet controller. The card-level DMC-2183 saves space and money while offering Galil’s state-of-the-art features. Use of the Ethernet controller also simplifies interconnects and eliminates extra cabling.

In the casemaking process, an automated registration device registers and measures the case or cover boards using sizing arms. Galil’s dual encoder function reads the rotation of the sizing arms to establish xy measurements of the actual book cover. The material is then pressed, smoothed and folded over the edges of the panels to complete the cover.

In designing the Autocase SC2 machine, Galil’s ability to coordinate motion was important to GP2. Eight axes of motion guide servo motors in various aspects of production. Three axes manipulate the product back and forth, up and down, and in rotation. Gearing is also used to synchronize other processes with the motion. The remaining five axes are used to transport, fold, brush and clamp the cover. Galil’s high-speed latch feature synchronizes inputs with position for precise registration.

Use of the low cost DMC-2183 allowed GP2 to add features without increasing prices. For example, an operator



*The Autocase SC2 covers books accurately and cost-effectively.*

*Galil’s card-level DMC-2183 saves space and money while still offering Galil’s state-of-the-art features.*

panel was added instead of relying on push buttons. The measured size of the book is now displayed on a screen so that the operator can actually see the end result.

Service was another factor. According to GP2’s Tom Porat, “Galil technical support has always been very helpful. We’re more inclined to try something new when we are confident the support is available. With Galil, we have that confidence.”

The compact size and improved connectivity of the DMC-2183 also allowed GP2 to make a generic eight-axis controller box that can be used for more custom, fully automated machines. For example other, more elaborate machines being developed by GP2, have 24 axes using three eight-axis controllers connected by Ethernet. ■

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