Automatic Applicators Speed Molding-Maker's Labeling

Clifton Moulding Corp., manufactures molded wood products in various shapes, sizes and designs for the retail building-supply and home-improvement industry.

One of three Avery Dennison labeling systems in use at Clifto on its products.

At its Clifton, TX, facility, raw wood materials are processed by machines on 10 production lines. The machines feature multiple heads, or drums, containing an assortment of cutting knives, which carve wood to the desired shape and profile. About a third of the company's products carry stick-on UPC bar-coded labels for retail checkout purposes. Prior to July 2000, the labels were applied to individual products by hand. This was accomplished by an employee stationed at the end of the production line who would apply one preprinted bar-coded label to the flat side of each molding.

When the company received a request from a major retail customer that it place four bar-coded labels on molding measuring 10 ft. or longer, and two bar-coded labels on pieces shorter than 10 ft., it decided to look into automated label applicators. The request was made in order to speed up scanning at the point of sale, ensuring that sales clerks at checkout counters could easily locate a bar code even on longer pieces. Also, molded products are often trimmed in size by the retailer at customer request. The change would ensure that at least one bar-coded label remained on trimmed pieces. The new rules made automatic label application economically practical for Clifton.

"Hand-applying multiple labels to each strip of wood molding would have required two employees instead of one," says John Buhr of Woodmoulding.com, a systems integrator and consultant to Clifton Moulding. "This would have required hiring additional employees, increasing Clifton's labor costs. And it would have meant shifting employees from other activities in the factory to hand-apply labels."

Clifton officials discussed the application with Avery Dennison Retail Information Services, Greensboro, NC, and selected its Avery Dennison ALS 230 system. It has a dispensing speed of up to 100 ft. per minute, and accommodates label widths from 0.4 to 4 in., and lengths up to 39 in. The first unit began operation at Clifton in July 2000. Company officials were so impressed with its performance that two additional ALS 230 systems were purchased over the next two months.

The systems were first employed on production lines processing unpainted wood moldings. Eventually they were also used on the company's painted-molding line, which is considered a more difficult application. Here, paint is applied to moldings via a vacuum coater. Moldings are then dried in an infrared oven before labels are applied.

The Avery Dennison ALS 230 systems feature on-board industrial-grade PLCs, and are mounted on rolling T-stands equipped with casters. They can be moved from one production line to another as needed. Setup involves rolling the system into position at the back end of a production line, locking it in place, and attaching the

system's encoder wheel to the molding machine with a bracket. A crank on the T-stand allows for height adjustment. The encoder wheel is positioned so that it rides atop the finished wood as it exits the molding machine.

Workers prepare finished molding products for labeling by the Avery Dennison machine at the right.

After installation, the operator loads a roll of label stock preprinted with the correct bar coding and human-readable copy. The operator then programs the system's onboard computer with application data, including length of material being labeled, number of labels per piece and starting point. "The setup takes very little time," says Buhr. "It can normally be accomplished within the time it takes to set up the production run."
The ALS 230 system has proved highly reliable in the factory's sawdust-filled environment. Beyond periodic cleaning to remove sawdust from around the systems' applicator heads, maintenance requirements for the systems are minimal. The three ALS 230 applicators have allowed Clifton to satisfy retail compliance requirements without incurring additional labor costs. And since hand-labeling has been eliminated, the company has been able to use its existing workforce more efficiently. Workers who previously might have been needed to apply labels can now focus on more productive tasks. The company calculates that within 11 months of implementation, it recouped its investment in automatic labeling technology.
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