

HARMONY AMONG VARIABLE DATA CODING METHODS BENEFITS SHISEIDO'S NEW JERSEY PACKAGING FACILITY



As a leading global cosmetics manufacturer, Shiseido Co. is known for high-quality beauty care products. Uncovering the secret to the Tokyo-based company's success since its founding in the 1870s lies in its name — “Shiseido” suggests a richness of life that can be reached solely through a harmony of mind, body and soul.

The company even takes the harmony approach to its production lines, including the methods it employs to place variable data on both products and packaging at its Davlyn Industries facility in Monroe Township, N.J. There, a harmony among laser coding, small character continuous ink jet printers and, more recently, thermal transfer overprinters — all from Videojet Technologies Inc. — means crisp and consistent codes are always applied no matter the substrate, line speed or number of daily code changes. The seamless interplay between those technologies not only benefits Shiseido for tracking and tracing purposes throughout the supply chain, but it also enables it to meet a U.S. federal requirement for including lot numbers on packaging. Plus, the convenience the technologies afford means the facility's team of mechanics can attend to more important maintenance matters within the plant besides marking and coding.



“When selecting variable data marking and coding equipment, I primarily look at the quality of the print,” says Bryan Kafka, mechanical engineering manager at the Monroe Township facility, one of three Shiseido facilities in the United States. “From an operations standpoint, the quality is high for each Videojet technology, as is the overall ease of operating the equipment.”

Quality of characters crucial

Shiseido purchased Davlyn Industries, one of its top copacking partners, in 1989. The Monroe Township facility has a staff of about 300 and manufactures and fills Shiseido products such as mascara, lip gloss, pressed powder and foundation to supply to warehouses and distribution centers worldwide. High-quality product has always been a key pillar of Shiseido's mission, which is one reason Davlyn began investigating laser coding in 2007.



“The laser coders offer high-quality, consistent characters. In addition, we are evaluating adding a vision check system for the codes themselves to the production line, which requires higher-quality codes with a nice contrast,” Kafka says. “As an extra benefit, lasers don't require consumables, like printing ink and make-up fluids.”

Validation of this course of action didn't take long. Kafka says Davlyn began with one Videojet® 3120 10-watt laser coder as a demonstration unit and during the first day it was installed on a production line, the clear code quality was apparent. Within two years, the facility has deployed eight additional Videojet 3120 laser coders with additional units used at other Shiseido facilities. The laser coders are used on a daily basis, typically to mark four-digit alphanumeric lot codes on primary packaging. The length of time and number of times per day that the coders are used can vary depending on the needs of the various production lines.

“We use the laser coders to place lot code information on a folding carton,” Kafka says. “For example, for a tube of lipstick that is placed in a box, the four-digit lot code is placed on the box itself, which occurs at the end of the production line.”

Six plant mechanics are responsible for the daily operation of the Videojet 3120 laser coders, but Davlyn also relies on knowledgeable, local Videojet service technicians to solve complex machine issues. The Davlyn personnel handle everything from relocating the coders from line to line, to changing their orientation within a line, to code changes, which can occur several times in a workday. That requires flexibility and ease of use to maximize throughput, which is afforded by the laser coders’ detachable head and Windows®-based Simple Operator Interface and SmartGraph software.

“There are many different products that we make and package, so I have created a couple of generic code templates. These templates hold all the key laser printing data, and we just type a new lot code into the programmable logic controller and either mechanically or electronically adjust the placement,” Kafka says. “We set up every job each time and do not save each job as a ‘recipe,’ as there will be far too many recipes to handle efficiently.

“We can manipulate the code to fit our needs. The font size can be changed through the laser coders’ software as can the orientation of the code — for example, 90- or 180-degree rotation. The systems have an encoder attached to the conveyer so that once the code is placed in a certain location, it remains there regardless of changes to belt speed.”

The code quality that impressed Shiseido corporate personnel more than two years ago continues to impress Kafka.



“Our packaging is chipboard material, so we are typically removing the outer, colored layer and exposing the white substrate underneath,” he says. “The characters are well-defined and provide a nice, crisp look.”

Legacy, modern technologies meld

In addition to its successful laser coding applications, Davlyn also highly regards its small character continuous ink jet printers at the Monroe Township facility. The company uses approximately 15 Videojet Excel® small character continuous ink jet printers for coding both a product itself and its packaging. For example, the printers will mark a code on a piece of primary packaging and possibly the folding carton, if a Videojet 3120 laser is not used for that application.



The small character continuous ink jet printers offer flexibility by being able to print both black and yellow inks, based on the color of the substrate. Mechanics handle the routine printhead cleaning on the continuous ink jet printers and related issues, like printer orientation and adjustments. The mechanics or line operators handle code generation, which is facilitated by a simple user interface.

In early 2010, the company added a Videojet DataFlex® Plus thermal transfer overprinter to its marking and coding repertoire to replace a hot stamper that was placing codes on bottom labels. The reason for the change was, once again, high quality and convenience, Kafka says.

“A hot stamp will be more than 200 degrees, and changing the code on that is like changing old linotype characters — and it’s not the easiest thing to do when it’s hot,” Kafka says. “To change the code on the DataFlex Plus, all we have to do is go to the touchscreen, hit a couple of buttons and enter a new code.

“It’s an easier changeover because you’re not dealing with that heated block on the hot stamp and the print quality is better than the typical embossing.”

As with the continuous ink jet printers, the DataFlex Plus thermal transfer overprinter operates seamlessly with the Videojet 3120 laser coders. The former marks labels that are placed on the primary product itself by a label applicator, while the latter marks the folding carton into which the product is inserted.

Ease of use for entire team

Kafka says the harmonious existence of the full complement of variable data marking and coding solutions has been a boon for his team of mechanics. Instead of devoting valuable time to marking- and coding-related issues, they can tend to more urgent matters, like ensuring throughput is maintained for the wide variety of product the facility handles. That time adds up and makes the entire operation more efficient.

“When I talk about ease of use, it’s for them,” Kafka says of his mechanics. “When we install equipment, they are the ones who are going to be using it every day, so the interface has to be suited for them. The high-quality codes and ease of use make the printers and coders extremely well-suited to our applications.”



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