Printing A Philly Cheesesteak

A Philly cheesesteak sandwich is a culinary indulgence to some and a dietary staple to others. Thin slices of beef, chicken or pork piled high on an Amoroso-style roll with lots of melted cheese is a palate-pleasing treat that originated in Philadelphia, but can now be found in sandwich shops all over the world.

Many of those establishments are owned by Philadelphia natives who relocated but couldn’t find an authentic cheesesteak sandwich in their transplanted city, and thus decided to open their own shop. When they create their sandwiches, chances are the tender, thin slices of meat they use are from The Original Philadelphia Cheesesteak Co., a niche manufacturer of Philly-style sandwich steak product with two USDA-inspected processing facilities located in the heart of the “City of Brotherly Love.”

For years, the company has used a two-step process to code corrugated containers to ship its products — printing date and lot codes directly on the box with a dot-matrix ink jet printer, and then using a print-and-apply labeler to place a UPC bar code on the corner of the box. In 2007, the company consolidated those functions by switching to four Videojet® 2330 large-character continuous ink jet printers from Videojet Technologies Inc. (Wood Dale, IL).

The results have been tasty for The Original Philadelphia Cheesesteak Co. It has virtually eliminated coding-related downtime, and the cost for labels has also been eliminated. But most beneficial of all, the Videojet printers’ self-maintenance system continuously keeps printheads free of dust and other debris, resulting in consistently clear codes, which the previous two-step process could not produce.

“Crisp, clear codes are important to both our company and our distributors for tracking and tracing, warehousing and inventory, reordering, billing, and order fulfillment,” says Jim Trivelis, President of The Original Philadelphia Cheesesteak Co. “It’s all interrelated. Today, that’s how companies identify the product, store it, inventory, pick and verify orders, ship and bill. Clear codes set the tone for the entire supply chain process.”

Sales Through Many Channels The Original Philadelphia Cheesesteak Co. manufactures two types of product: raw frozen and fully cooked sandwich steaks. Product is sold through several channels, including national and regional distributors, which in turn sell to customers like sandwich shops, mom-and-pop delicatessens, and food service companies for stadiums and college campuses. The Original Philadelphia Cheesesteak Co. also supplies private-label product for quick-serve restaurant chains and convenience stores. In addition, through its Licensed-2-Sell program, the company sells product to further processors and

manufacturers that use the meat as an ingredient for pizza and salad toppings, appetizers, salads and ready-made sandwiches. A fair amount of product is also sold to the United States military.

But everything begins in its two processing facilities in Philadelphia, a 40,000-square-foot facility that manufactures fully cooked product, and an 80,000-square-foot counterpart for raw processing, which also serves as company headquarters and houses the Videojet 2330 printers.

Boneless boxed beef, boneless/skinless white-meat chicken and boneless boxed pork are contracted through major meatpackers. The meat is then processed by adding seasonings and marinades, before packing, freezing and tempering. After slicing, the meat is either portion-controlled and packaged at the raw processing facility, or cooked and packaged at the fully cooked facility.

From there, orders are prepared and shipped, but the latter had been an area of concern for The Original Philadelphia Cheesesteak Co. due to the inefficient two-step process for coding the corrugated containers. According to Trivelis, the dot-matrix ink jet printers tended to print codes that would blur or bleed, while the print-and-apply labelers experienced extensive downtime, which required workers to hand-apply labels, taking them away from other tasks.

“All of our customers were requesting higher quality for the UPC barcode and product information, which was one reason we were using print-and-apply labeling,” he recalls. “More and more distributors are going to automated scanning systems, and there are monetary penalties and the potential to lose business when codes are unreadable, so we needed to address that.”

Consolidating Coding Processes Realizing it would be more efficient and cost-effective to combine the two processes into one, Trivelis and his manufacturing and engineering staff began investigating large-character ink jet printers, finally choosing the four Videojet 2330 printers and installing them in the raw processing facility. Three of the printers receive product from three separate lines, while a fourth handles a single line. The company saw positive results immediately. The printers provided consistently clear variable data such as date, lot code, product code and UPC bar code on up to 30 boxes per minute, which translates to 12,000 boxes per eight-hour shift and 60,000 boxes per week.

“The print-and-apply labelers and dot-matrix printers just couldn’t keep up with those speed requirements,” Trivelis says. “The print-and-apply labelers required time for setup and would take several minutes to execute a code change.

“When we began considering consolidating the processes, we knew variable data on the boxes had to be readable, particularly the UPC bar codes, and at the same time, printing had to be fully automated. We didn’t want to have personnel handling that process.”

Many Daily Code Changes Because The Original Philadelphia Cheesesteak Co. has nearly 200 product SKUs, Trivelis says it’s possible for a line operator to change

codes up to 10 times per day. A laptop computer located in the production and plant engineering office maintains the global database of the company's product SKUs, all of which have been loaded onto the four Videojet 2330 printers. When a new SKU is added, it is created on the laptop and then transferred via USB memory drive to the printers. From there, choosing the desired code is a simple matter that takes less than a minute via the printer's touch screen.

"We have a uniform UPC bar code and product print solution for all of our products, and we find this format easier to maintain and program," Trivelis adds. "Once the global database has been installed in the Videojet printers, it remains static unless new SKUs are added or a customer requests a specific format change, which rarely happens. We also have the capability to provide UCC/EAN-128 bar code formats, which will allow us to include product description and company profile within the code itself. We aren't doing that yet, but the capability is there."

But even more important is the printers' self-cleaning and self-maintenance system, which eliminates wasted ink and downtime because line operators don't have to stop a line to prime, purge and clean the printhead. All ink used during the self-maintenance process is automatically recycled for re-use with no waste or spillage, ensuring a clean operating area, which wasn't the case with the dot-matrix ink jet printers. Plus, the user interface also features ink-use monitoring and low-ink warnings, allowing operators to add new ink without stopping production, another reason production speeds have improved at The Original Philadelphia Cheesesteak Co.

"My employees have told me it's a considerable savings of time, and it's one of the features that really sold them on this type of printing system," Trivelis says. "It's just much easier to handle and much cleaner.

Currently, the Videojet 2330 printers are each mounted on a custom-designed and fabricated four-wheel cart that slides in and out of a line, allowing them to be moved if necessary, providing an added layer of convenience.

The Future Trivelis expects the original fleet of Videojet 2330 printers to pay for themselves in about one year, due to savings on ink, labels and labor. He is also planning on replacing the labelers and dot-matrix ink jet printers on the two production lines at the fully cooked facility.

Scott Holdredge, director of manufacturing, says the Videojet 2330 printers are part of an overall plant automation strategy implemented by The Original Philadelphia Cheesesteak Co. With customers in markets as far away as Bermuda, southeast Asia, and the Caribbean, coupled with distributor demands for clear, readable codes, variable data printing takes on increased importance.

"The printing creates a nice appearance on the box for the customer," he says. "He can see what he's getting."

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