Ink-jet coding system demonstrates reliability & longevity

Cott Beverages avoids costly downtime with easy-maintenance, workhorse coding equipment.

Part of Cott Corp., Cott Beverages, St. Louis, MO, is one of the world’s largest providers of retailer brand soft drinks. Cott Beverages partners with major grocery and mass merchandise retailers to build their private-label or retailer-brand programs with high-quality, affordable carbonated soft drinks, sparkling and flavored waters, energy drinks, sports drinks, juices, juice drinks, smoothies, and ready-to-drink teas. Cott Beverages also markets its own brands, including Cott, RC, Vintage, Vess, Stars & Stripes, Ben Shaws, Carters, Red Rooster, Red Rain, and So Clear.

With nine bottling plants in the U.S., six in Canada, three in the UK, and two in Mexico, Cott Beverages supplies more than 200 retailer and licensed brands of beverages and ships approximately 25 million cases per year from the St. Louis plant alone.

Cott Beverages had been experiencing difficulties with its ink jet coding system for cases and tray packs at its St. Louis, MO plant. The inks were causing messes, and the print heads constantly were being sent back to the supplier for repairs. Cott Beverages found itself having to keep several spare print heads in inventory to avoid downtime on its large bottle (1-, 2-, and 3-L) production line which produces approximately 12,000 cases per eight-hour shift. The plant runs 24/7.

The company needed a reliable high-resolution ink-jet system for marking required information such as bar codes, date codes, and product identifications on the cases and trays.

Cott Beverages maintenance manager Mike Roach recalls, "We were looking at replacing our coders because they were making messes and causing a lot of downtime. The old coders we had were outdated, and we were looking for a system with flexibility and good print quality. The system we had before relied on shop air for the pressure and moving the ink. It was limited as far as print resolution and was accurate only 60 to 70 percent of the time. The rest of the time, we were either working on it or trying to clean up the ink mess. It was pretty cumbersome.

"I had five print heads sitting on the shelf just so I had enough for replacements, and I was only running two to three lines with them. So I had twice as many heads in spare as I was printing with, just to keep up with the problems. And we were paying anywhere from $1,000 to
$3,000 to get the print heads rebuilt. Towards the end, every few weeks we were sending one or two heads back.

“Todd Cork, the north-central regional sales manager for Diagraph (www.diagraph.com), came by, and we started working with Diagraph to come up with a good system. I gave Todd samples of the type of corrugated that we had. He ran samples on the Diagraph IJ system, and they looked good. Then we did a beta test with some Diagraph equipment.”

CODER RELIABILITY & LONGEVITY

In 2004, Cott Beverages participated in the beta test for new printheads from Diagraph. The printheads performed so well that Cott still is using them today. For six years now, Cott Beverages has been using a Diagraph Model IJ 3000 large character high-resolution ink jet coding system with two Trident-based Model J384 porous printheads to code their products. That printing equipment, which went into beta tests at Cott in 2004, is still performing with high efficiency today without replacement or repair. The result has been elimination of costly downtime.

Mike Roach notes that the Diagraph printing equipment runs smoothly with minimal maintenance needed. He says, “We got the cleaning schedule down, and we don’t have to baby the equipment. We let it run, and very seldom do we have a coding issue. With the Diagraph system, you have a visual display, and as long as you know how to navigate through the menus, you can pretty much find whatever you want with minimal training. Honestly, with the Diagraph system, I was able to put it on the line and kind of neglect it. Diagraph was monitoring the operation.

“These are not needy systems. They don’t have to have someone standing there watching them print every minute. If we started to miss a dot, the Diagraph service guy, Jeff Dill, would come out and clean the print heads. Dill installed the equipment, and he stops by every once in awhile to check on things. He takes really good care of us and lets me know when we need to do this or that on maintenance.”

As far as coding performance flexibility, Roach says, “When the case goes by, it gets ink jet printed on two sides, and we can print pretty much whatever we and our customers want—for example, best buy dates and manufacturing codes. It’s all scannable, so it’s easy to track. The legible information printed is basically for traceability and recall. It gives us the ability to say that we made this pack on this day on this line, and we know everything about it. So, if we need to know, for any reason, where that product went, we can find it.

“And these print heads are pretty efficient on ink usage. With our old system, we would go through quarts and quarts of ink in a month’s time. With the Diagraph ink-jet coding system, we can get thousands and thousands of codes from one bottle of ink.”

ALPHA TEST IN PROGRESS

In an effort to cut back on corrugated board and paper costs, Cott Beverages has been exploring the most efficient ways to code directly on the plastic shrink-film over wraps of the beverage case and tray packs. Cott Beverages currently is evaluating the potential of non-porous ink-jet printers now in development by Diagraph to address that challenge.

—Judy Rice