CLARiSUITE™ increases automation and reduces costs at Jelly Belly

Jelly Belly Candy Company makes more than 50 flavors of Jelly Belly® jelly beans, producing 1,680 beans per second between its facilities in Fairfield, California, and Chicago, Illinois. In addition, the company offers more than 100 gourmet candies, including not only jells and gummies, but also chocolate-covered, sugar-free and seasonal confections. To manage the packaging of all these products for distribution, flexible factory automation is essential to Jelly Belly’s success.

Jelly Belly’s production line includes variable data printing systems that enable the company to easily change the information being coded on primary and secondary packaging for each product it produces. The systems also allow Jelly Belly to reduce their inventory costs by purchasing plain corrugated boxes and film to package the jelly beans and other candies, instead of storing a wide variety of preprinted materials. Jelly Belly relies on Thermal Transfer Overprinters (TTO), Large Character Marking (LCM) systems and Continuous Ink Jet (CIJ) printers from Videojet. All of which are networked by Videojet’s CLARiSUITE™ software, which streamlines message management across its facilities in the United States and Thailand.
Jelly Belly’s niche is the ability to produce and package both large and small batches of candy, and the company’s various offerings mean that some confections are produced in large quantities, while others require smaller batches or seasonal production.

Many of these products are bagged in film packages, and each product package requires unique information specific to that particular product, such as expiration date, ingredient list, nutritional information, product weight and logo.

Initially, Jelly Belly used hot stamp printers with titanium plates. As their production increased, Jelly Belly began looking at new technologies to reduce lead times and make changes simpler, while continuing to print all the information it required at high production speeds. It also sought a solution to accommodate customer requests for custom printing.

To accomplish these tasks, Jelly Belly installed 18 Videojet DataFlex® TTOs. The DataFlex printers provide Jelly Belly the flexibility it needs to create images and messages for coding on both the front and back of bags. The printers can run up to three shifts per day, six days per week to keep up with Jelly Belly’s packaging demand. Plus, the clutch-less ribbon technology automatically ensures efficient use of printer ribbon and reliable operation.

Approximately five staff members are trained to create messages and maintain the central database for the software, helping to ensure coding accuracy. Line operators need only to scan a bar code on a ticket with their project information, and the DataFlex printer automatically accesses the database for code information. This eliminates the need for operators to manually set up coding information, reducing the possibility of mistakes or inconsistency from one production line to another.
“Jelly Belly has found all three types of coding equipment from Videojet extremely reliable in both uptime and print quality. In addition, the printers integrate well into Jelly Belly’s packaging processes, helping the company maintain the productivity levels that have made it a leader in the confectionary industry for more than 100 years.”


Once products are packaged in bags or boxes, they are placed within corrugated cases for palletizing and shipping. The corrugated cases are printed with two bar codes: a case code and a lot code to enable traceability. Human-readable information is also printed on the cases to reference the contents of the box. This information can include the product name, weight and ingredients statement.

The large character marking system used to code the cases must offer a print area large enough to accommodate longer ingredient statements, like the one needed for a variety pack of jelly beans. For its case coding applications, Jelly Belly chose Videojet 2300 LCM systems because they provide consistently high-quality printing at one-tenth the price of labeling.

“It is critical that we are able to network the printers,” plant engineer Jim Schneider says. “We use software from Videojet to maintain a central library and database of all our messages.

“All our plants access this single source of information via Videojet CLARiNET® network software at each plant,” says Schneider. “With the number of product items and ingredient lists we have, it is important that any updates to packaging information are uniform across all three facilities.”

Having all the printers networked streamlines Jelly Belly’s coding processes, which is especially important because its production lines are integrated along every step of the coding and packaging process. At the palletizing area, the bar codes are scanned, which tells the printers in the palletizing area to print additional information on the boxes, including the human-readable data. Further down the line, the bar codes are scanned again so a robotic arm can sort the boxes to place them onto pallets, which are then shipped to the warehouse.
With all this integration, every piece of equipment must run accurately, or Jelly Belly faces the possibility of shutting down the entire line.

“It is extremely efficient for us to have all our products transported down a single conveyor to the palletizing area,” Schneider says. “However, this also means the products have to be sorted at the end of the line to be placed on the correct pallet for shipping. If our machines can’t read the bar codes, they can’t sort the cases correctly.

We run about 70 boxes per minute, so it is important that every piece of equipment on the secondary packaging and palletizing line can keep up.”

“Job Selection”

The product or appropriate code can be selected at the CLARiSUITE-installed PC or Videojet printer. Or, a bar code can be scanned from a work order or from the product itself with a hand-scanner.

“Product Coding and Marking”

Information such as date/place of manufacture, best-before date, lot/batch number and a wide range of both production and consumer information is accurately applied to every product.

“Coding Accuracy Alerts”

Throughout the packaging line, scanners check codes for accuracy. If a coding accuracy issue is detected, the alarm beacon can be activated and the line can be stopped or the product rejected automatically.