Emblème Maximizes Product Quality and Yield with VERYX® C140 Digital Sorter
Emblème Canneberge was established by three families of experienced growers last year to add value to the supply chain by offering frozen cranberries of superior quality. To maximize quality while maintaining the highest process yield, they needed the best digital sorter for their application. They selected the VERYX® sorter from Key Technology. Key tailors every VERYX system around the product characteristics and production objectives of each processor to detect and remove more foreign material (FM) and defects from the product stream with virtually no false rejects.

“We wanted to work with Key because they have world-class equipment and support it with great service. We chose VERYX because it’s Key’s most advanced sorter,” said Vincent Godin, President of Emblème. “All of our customers have very high standards in the specifications of the cranberries they want. Key helps us achieve those high standards.”

To sort their frozen cranberries at the high throughput they needed, Emblème selected the chute-fed VERYX C140, which features a 1400 mm-wide inspection area that sorts up to 13.6 metric tons (30,000 lb.) of frozen berries per hour. Key equipped Emblème’s sorter with front- and rear-mounted laser scanners that operate within the visible light and near-infrared wavelengths. VERYX performs object-based sorting, recognizing both the colors of objects and their structural properties and selecting optimal ejection strategies for each item in the product stream.

“With its front-and-rear sensors, our VERYX sorter looks at all sides of each object – no fruit that has a spot of rot gets by. This sorter removes leaves and twigs as well as other FM such as glass. By identifying colors, it catches white and yellow berries and fruit with color defects. The infrared detection enables the sorter to find and eject defective cranberries that are filled with ice, because this laser light scatters differently than it does on good fruit,” explained Godin. “VERYX gives us the confidence to seek GFSI certification, which we expect to have completed later this year.”

Emblème pulls cranberries from their freezer year round and runs them through a sizing and sorting line that is anchored by VERYX. First, a tote spiker breaks clusters and a bin dumper feeds an auger transport to a cluster breaker. Next, an Iso-Flo® size separation shaker from Key removes clusters and objects that are larger than 22 mm along with items such as small fruit, sticks and ice that are less than 10 mm in size. Berries and other objects between 10 and 22 mm in size continue on to a metal detector before a Key air cleaner removes lightweight material like leaves, prior to feeding the VERYX sorter. The sorter removes the remaining FM and berries with defects, as defined by Emblème. The sorter’s ‘accept’ stream leads to a Key size grader with grading screens that separate the good fruit into three size grades.
“This combination of equipment reliably produces the high quality cranberries we are looking for,” noted Godin. “Our Key Technology sales rep, Jean François Sylvain from Chisholm Machinery Solutions, helped guide us toward the ideal equipment for our application. In addition to maximizing product quality and yield, it was also important to us that this line be easy to operate.”

Designed for extreme ease-of-use, VERYX includes intelligent features that enable it to adapt to normal changes in the product and environment. With auto-learning, self-adjustment algorithms, predictive system diagnostics, smart alarms and more, VERYX can operate without operator intervention during normal production. “VERYX is operating virtually unattended here,” said Godin.

“The recipe function on VERYX is very useful. It’s as simple as loading a file on the user interface. Some of our customers have different specifications, which we can easily handle on this sorter. We create different recipes and save them in a library to draw from at a later date. Every time we run a particular product, we get consistent results,” explained Godin. “Some clients want berries that are only a certain level of red, so the sorter is programmed to detect and eject pink berries during those runs.”

Emblème currently operates their sizing and sorting line 16 hours a day, five days a week and expects this to increase as customer demand for their frozen cranberries rises. To help maximize equipment uptime and sorting performance, VERYX is equipped with Key’s RemoteMD™, which enables a two-way remote session between the sorter and a Key service technician to ease diagnostics and speed the resolution of any issues.

“With Key’s ‘Information Analytics’ capability, our VERYX sorter allows us to extract product and operational data, which is helpful in improving processes, including field production,” noted Godin. “For example, by monitoring the number of ejections for each type of defect, we learn about the quality of incoming product. If we see too many white or yellow berries, we can let that grower know and suggest that they add sulfur to their field a little earlier next year.”

“Our VERYX sorter gives us a competitive edge. It allows us to consistently produce frozen cranberries at the high quality standards our clients demand. That’s our biggest priority. This Key sorter achieves that while requiring a low level of labor and producing high yields,” concluded Godin. “It makes a very good impression when we walk our customers through our plant – they know that we’re using the latest technology.”