

Sorting Through Fresh Blueberries at Blueridge Produce





Blueridge Produce cleans and packs millions of pounds of fresh blueberries in an 8- to 12-week season. To increase production efficiencies and reduce labor while maintaining the highest product quality, they installed a VERYX® digital sorter from Key Technology. Tailored especially for Blueridge Produce, this sorter removes color defects and soft fruit as well as foreign material (FM) such as stems, leaves, metal, glass, rocks, paper, plastic and rubber of any color.

"We wanted a sorter that could handle more than 10,000 pounds of product per hour with at least 95 percent accuracy. Our priorities were speed and precision at a cost effective price. We decided Key's VERYX C140 was right for us," said Rhonda Driediger, the general manager of Blueridge Produce. "We replaced 12 sorters with this one VERYX. At the same time, we increased our throughput by 35 percent and reduced approximately 30 manual labor positions, because we no longer have to rely on hand sorting after digital sorting to achieve our high product quality standards."

VERYX is a family of belt- and chute-fed digital sorters that come in a variety of widths to accommodate small- to high-capacity production environments. The modular design enables each system to be configured to match each processor's exact requirements with the ideal sensor types, sensor positions, lighting, ejection system, product handling and software to sort by color, size, shape and/or structural properties, as needed. The VERYX C140, which Blueridge Produce selected, is Key's highest capacity chute-fed sorter. It's equipped with front- and rear-mounted laser scanners to view product from both sides.

"In addition to removing foreign material and color defects, our VERYX removes soft fruit – the bane of our existence. People can only find soft spots by touching every berry so hand sorting isn't effective. Automated 'soft' sorters with pads or fingers touch berries in only one place, so they're not completely thorough," explained Driediger. "The lasers on our VERYX sorter recognize soft fruit accurately, as well as foreign material and color defects, at incredibly high speeds."

"Prior to VERYX, we had six color sorters and six 'soft' sorters in-line removing foreign material, berries with color defects and soft fruit. When a sorter went down, the whole line went down. We wanted to remove these bottlenecks and improve our efficiency," noted Driediger. "Now, with one VERYX, we're able to sort all of our fresh blueberries at receiving instead of sorting on each packaging line."

Another important consideration when maximizing the quality of fresh berries is gentle handling. With VERYX, Key brings an expertise in both sorting and product handling to minimize impact and avoid bruising fragile fruit. Designed specifically for Blueridge Produce, an Iso-Flo® vibratory infeed conveyor spreads and singulates the product for presentation to the sorter. Next, Key's patented Chycane® chute, a concave-shaped slide inside VERYX, stabilizes the berries as they enter the inspection and ejection zones to produce a predictable trajectory, which increases defect and FM removal while minimizing false rejects to improve product quality and maximize yield.



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Blueridge Produce

To ease use, VERYX includes smart features such as auto-learning, self-adjustment algorithms, predictive system diagnostics and smart alarms. These advanced features enable the sorter to adapt to changes in the product and environment and operate at peak performance without operator intervention during normal production.

To simplify training, Key developed an intuitive user interface that provides different views to users of various levels, depending on their needs. Recipe-driven operation and repeatable system calibration ensure consistent performance and enable Blueridge Produce to run a new product or grade at the touch of a button. Operator qualification requirements are reduced, allowing a manually-skilled operator to become a proficient user of the technology in less than one hour.

"We had experience working with Key long before we purchased VERYX. We knew they'd be very engaged with us," said Driediger. "We have a Key Optyx® sorter in our IQF facility. We bought it used and asked Key to audit it and train us. We were impressed with their commitment. They don't just sell you something – they have a long term view of engineering, programming and service. Key is highly receptive to our feedback. We're getting absolutely great customer service."

"We want to be on the leading edge – always improving and looking for innovative technology that will produce our high quality products while saving money and labor," concluded Driediger. "VERYX will revolutionize fresh pack blueberry sorting with its high speed and accuracy."



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