Zarecki Expands Production with Integrated Conveyor System from Key Technology



Dehydrated fruit processor Zarecki has made a name for themselves across Europe since launching in 2017. Processing over 6,000 metric tons of fresh fruit every year, Zarecki brings together locally grown produce and modern technology to provide food manufacturers with top quality ingredients for their breakfast cereals, snack bars, confectionaries and more. In 2022, while expanding production with a new line that sweetens and dehydrates different types of berries, Zarecki turned to Key Technology and selected an integrated vibratory conveyor system with five Impulse™ shakers.



"The fruit on this section of our new processing line is as delicate as jellyfish, so our highest priority when choosing shakers was protecting the quality of these fragile berries," said Marcin Sosnicki, Managing Director at Zarecki. "Our new conveyor system also needed to handle a wide variety of fruits – you'd be surprised how differently a cherry behaves from a blueberry, plus we handle our apple products on this line for part of the year as well. Versatility and fast changeover were important criteria during our selection process."



"We knew Key was the ideal partner for this project because of their deep expertise with many kinds of food processing facilities worldwide. They bring creativity and ingenuity when identifying what will work best for unique applications like ours," explained Sosnicki. "The Key team took extra steps to research and test our products before presenting us with their recommendations."

Designed for processing and packaging lines that require precise metering and low maintenance drives, Key's Impulse shakers are ideal for product mixing, ingredient feeding, scale feeding and more because they start and stop quickly, which helps maximize product quality, throughput and line efficiency. Impulse is equipped with dedicated solid-state controls that enable conveying pan amplitudes to range from zero to 100 percent for superior production versatility.

"The Key team visited us in Poland two or three times to fully understand our operations during the design process and tailor our conveyors to fit our existing layout. Then, a Key supervisor came out to oversee the line assembly, installation, commissioning and first production – we never felt like we were on our own," said Sosnicki. "We had high expectations for Key's customer service, and they exceeded them."

Running at speeds of up to two metric tons of fruit per hour, Zarecki's new line sweetens cherries, currants and blueberries with infusion tumblers, which discharge the syrupy product into a flume system. From there, product is run through a series of three Impulse conveyors with specialized screens that de-syrup and de-juice the fruit. Next, an Impulse transfer conveyor directs the product 90-degrees around a corner and feeds an Impulse spreading conveyor featuring custom-designed lanes, which perfectly spread the infused fruit for presentation to the dryer's infeed system.

When this line is running apples, the product skips the de-syruping shaker and moves directly from a separate apple preparation line to the first Impulse de-juicing shaker, since the apples are not infused.

"One impressive aspect of this integrated conveyor system is it acts as a buffer between batch processing upstream and continuous processing downstream





at the dryer, which needs to be fed constantly," noted Sosnicki. "And since Impulse is equipped with electromagnetic drives, we can simply adjust the speed from the control panel when needed. This makes things easier for our operators at the same time it helps preserve our product quality and increase our line efficiency."

Impulse's magnetic drives also help minimize maintenance, with no sliding or rotating parts to wear and no belts or bearings to fail. Oil-free drives help protect food safety while rugged construction makes these conveyors ideal for 24/7 use in harsh

environments. All units are dustand moisture-resistant with an IP65-rated enclosure to ensure years of trouble-free operation. "Durability is a must-have in our processing facility to withstand our wet, hot environment and sticky, acidic products," said Sosnicki. "Impulse fits our needs perfectly."

"Overall, Key has been instrumental in helping us expand our business and provide the world-class dehydrated fruit that we are known for," concluded Sosnicki. "We couldn't have done this without Key and our Impulse shakers."

Key Technology

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