CASE STUDY

PRODUCE COMPANY EMBRACES ULTRASONIC SEALING, VIRTUALLY ELIMINATES PACKAGE REJECTS

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How to achieve continuous product quality improvement, labor savings, film and material savings ... these were some of the goals on the wish list of a California-based produce company when it turned to Triangle Package Machinery Company in Chicago.

With several plants across the U.S., the produce company’s product line includes bagged salads, spinach, and lettuce. Packaging bagged leafy greens can be a labor-intensive process, as the plants had to rely on workers to visually inspect the bags. Bags that contained leaks or that contained product in the seal (PIS) were rejected, followed by additional time and labor to repackage the product.

This challenge led to discussions with Triangle Package Machinery about Ultrasonic welding. In 2012, Triangle introduced Ultrasonic welding as an option on its X-Series vertical form fill seal bagging machines. Because Ultrasonic welding uses sound waves rather than heat to seal a bag, product is pushed completely out of the seal area, resulting in 100% seal integrity. As an early innovator of Ultrasonic sealing in vertical form fill seal machines, the staff at Triangle was confident that the technology could help this customer achieve its goals.

After several months of evaluating their options, the customer chose Triangle’s Model XYM11U vertical form fill seal (vffs) bagger with Ultrasonic sealing technology. Initially, the produce company purchased six Triangle X-Series VFFS baggers with Ultrasonic sealing, and installed them in two of its facilities that packaged bagged lettuce and salad. Immediately, they began to realize the benefits of this decision.

With its ability to seal right through certain products, such as lettuce, package rejects due to poor seals were virtually eliminated. This meant considerable savings in labor and time, as bags with poor seals or product in the seal no longer needed to be taken out of production and reworked. In addition, the company saw significant savings in film, not only as a result of less rejected bags and scrap but because Ultrasonic welding provides a much narrower seal and less headspace than traditional heat seals.
With the improved results, the produce company soon replaced 12 more of their existing vffs baggers with Triangle’s Model XYM11U baggers equipped with Ultrasonic technology, and installed them in three of its plants throughout the country.

With a primary goal of quality improvement, the customer has been very pleased with its decision. “We chose Triangle in part because they are an extremely established bagger manufacturer that has the resources to make modifications and work through engineering in a very fast and efficient manner to make this a successful program,” states a company spokesperson. And, with headquarters in Chicago and sales and service locations throughout the U.S., Triangle was also able to offer solid U.S. service and support.

As of early 2016, Triangle has installed 28 vffs baggers equipped with Ultrasonic welding in various markets throughout the country, and is a market leader in providing Ultrasonic technology to the produce industry. In all cases, customers were able to use their existing laminate film structures and required no special film. And, with the ability to produce good sealed bags and no need for additional labor to check for product in the seal, the customers now have the opportunity to save even more by automating the case packing phase with robotic case loading.

Finally, the benefits of Ultrasonics extend beyond produce. Other industries that could benefit from this cold seal technology include confectionery, cheese, liquids, powders, and seafood.

For more information on Ultrasonic technology, improving your packaging lines, or solving a contamination issue, visit www.trianglepackage.com/ultrasonics.

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**BENEFITS & RESULTS**

- Reduced labor required to visually inspect and rework packages
- Continuous product quality improvement
- Increased throughput
- Less wasted product – leakers virtually eliminated
- Improved cost savings for material, film, and energy
- Provided the opportunity for additional savings by enabling automated case packing