UNIBLOC®
PUMPS

CASE STUDY
PECO FOODS



Leading Poultry Processor Tackles Challenging Forming Application with Unibloc Pumps

Background

From its early beginnings as a family-owned, small hatchery and feed mill in Gordo, Alabama, in 1937, Peco Foods has a rich history in the poultry processing industry. Through the decades, Peco has expanded its capabilities by adding growers (1940s), feed mills (1950s) and processing plants (1960s) to its business operations.

Today, Peco Foods, Inc. is still family-owned and has operated on the same principles embedded in its culture since its founding over 80 years ago. Headquartered in Tuscaloosa, Alabama, Peco is the eighth largest poultry producer in the United States. The company serves the retail, fast food, food service, industrial, and export markets from its 22 facilities across the Southeast U.S.

Food Safety

Food safety is a top priority for Peco Foods and part of its overall vision to be a world-class food company. Peco strives to be the "brand within the customers' brand" by driving food safety and quality to the customer every time. Food safety is part of the culture at Peco, not just a series of programs and protocols to follow.

Challenge

At its world-class processing plant in Pocahontas, Arkansas, Peco makes chopped and formed products for the QSR industry at a rate of 9,000 pounds per hour. The processing line is 90 feet long and relies on a hygienic pump to move the ground chicken through the line's six-inch piping. The chicken is processed at 26° - 28° F, making it very challenging to move the product while maintaining product integrity, safe pressurization, and productivity requirements.

In addition to overseeing day-to-day operations, Alan Risley, plant manager at Peco's Pocahontas plant, champions the company's commitment to Food Safety and shares his knowledge of food processing with other Peco leaders. So, when Alan could not maintain enough speed to keep the line full with the pump in use on the line, he called upon Unibloc Pumps for a different approach.

The Unibloc Pumps pump was able to keep up with the speed requirements at a lower RPM, preserving the protein lost with the previous pump. Even so, blocks of frozen chicken clogged the system, causing pressure spikes and damaging equipment. A four-inch metal detection system was also creating backpressure, causing further damage to the pump. Daily CIP routines sometimes resulted in the pump's rotor bolts being over-torqued, while planned stops to inspect the pump and line for foreign material slowed production. Anytime a potential of foreign material was identified, the impacted product was condemned. To keep the pump operational – and the food safe – costs added up quickly.

Approach

During the course of several months, Peco and Unibloc Pumps implemented various improvements to the line. A new inlet flange helped get the product to and through the pump, despite its viscosity and frozen temperatures. Additionally, the metal detector was sized up to six inches, matching the piping size and eliminating the backpressure.

Still, issues with over-pressurization remained, causing deflection of the rotor bolts, making them susceptible to breakage. Improper torquing of the rotor bolts after daily CIP only added to the issue. And foreign material intrusion was still a threat.

Fortunately, Alan was open to testing Uniblocs' QuickStrip® FoodFirst 600 pump. The design and construction of this pump addressed every challenge Peco was facing on its chicken nugget processing line. The QuickStrip FoodFirst pump is designed to eliminate rotor bolts, adding durability in the harshest applications. Simple, repeatable, one-way assembly guarantees proper performance and reduces damage from improper handling. The all stainless-steel design with no plastics and no o-rings improves detectability and minimizes foreign material risk.



"Unibloc Pumps was dedicated to the improvement of the line and stayed very engaged through the entire process," said Alan. "They offered good support, were open to issues, and chased items to resolution," he added.

Results

The QuickStrip FoodFirst pump increased uptime and reduced potential foreign material issues in an application that no other pump could handle. Product quality has improved through reduced pressures that eliminate overworking and consistent temperatures due to the absence of unplanned downtime. Alan estimates a savings of $250,000 annually with the increase in productivity and no product loss. Peco is also enjoying a longer pump life than expected.

"Unibloc Pumps offers great customer support, and the pump is well-built and addresses our needs," said Alan. When asked what feedback he hears from his operations team about the Unibloc Pumps solution, Alan stated, "Nothing, which is good because it means the pump is running well!"

Unibloc units are also in use at Peco's West Point, MS plant. The QuickStrip FoodFirst pump is slated to be installed at Peco's MSC facility, and the company plans to default to the FoodFirst pump as the primary choice for future projects.



About Peco Foods, Inc.

Peco is committed to the highest standards of performance necessary to exceed customer expectations. The company strives to be a leader within its industry and is focused on achieving this by ensuring compliance in Food Safety, Food Legality, and Food Quality through its Quality Management Program (QMP) and Process Empowerment Program (PEP).

Peco ensures that food safety is a comprehensive approach that begins with great care and attention to detail in its live operations and continues through processing and distribution to its customers. The company owns and operates eight facilities in the United States providing par-fry, individually frozen (IF), marination bag and blast, wings, deboned white and dark meat, bone-in dark meat, mechanically separated chicken (MSC), and paws to food service, retail, industrial and international customers.

www.pecofoods.com

About Unibloc Hygienic Technologies

An industry leader in flow control technology and performance, Unibloc Hygienic Technologies offers precision-engineered positive displacement pumps, AODD pumps, drum pumps, and other highly engineered products for demanding hygienic flow control applications. UHT serves a variety of hygienic industries, including food, beverage, bakery/confection, meat and poultry, brewery, pharmaceutical, and transportation, under the Unibloc Pumps, Flotronic, Standard Pump, and Hygenitec subsidiary brands. UHT's highly efficient, easy-to-maintain products help customers fight downtime, achieve a lower cost of operation, and meet deadlines with confidence.

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