

Advanced hygiene stations improve product safety through automation

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To prevent bacterial contamination at its source and reduce outbreaks of foodborne illness, food processors are increasingly turning to more advanced, fully automated hygiene stations designed to ensure obligatory compliance by employees before they enter high risk areas.

These hygiene stations can be designed to provide both boot and hand washing separately or at the same station, in multiple lanes in any combination of exit and entry to speed throughput, while still delivering consistent cleaning in high traffic areas. To ensure compliance, employees are only permitted through a turnstile after the full sanitising process has been completed.

According to Chris Stafford, VP of Operations for gourmet sausage producer Papa Cantella's, this level of enforced employee hygiene represents the next step in what he describes as the constant refinement throughout the industry of its sanitation and monitoring efforts.

"Our industry is constantly changing,"

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Chris told International Meat Topics. "We have moved from SOS regulations years ago to HACCP, to higher standards such as the Food Safety Modernization Act and independent third party audits."

Maintain consumer confidence

The stakes for the industry are high. If a food processor does not take a proactive food safety stance, and experiences a recall due to E. coli or salmonella for example, it could literally put the company out of business.

"If a recall were to occur, all your big vendors will immediately stop buying from you until you get it figured out. By the time you handle the issue, they are buying your product from someone else because they have customers that still want the product during that time," added Chris. The loss in consumer confidence in the product, and its impact on sales, is just as devastating.

Due to these concerns, food processors such as Papa Cantella's are moving beyond traditional employee hygiene techniques,



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such as hand washing and sanitising sinks, and dip mats and foaming sanitisers for footwear. The goal is to ensure 100% compliance through automated, hands-free hygiene stations that eliminates the potential of employee shortcuts during the process.

"If you do not have this type of employee hygiene equipment in place moving into the future, your customer base is going to dwindle to nothing in the next three to five years," predicts Chris, underscoring the importance of the issue.

Completely separate areas

With more than 30 years in the meat industry, Papa Cantella's has expanded from a fresh sausage company into cooked, gourmet sausages and now offers a full line of entrees for club and retail stores.

To make its products, Papa Cantella's brings in variety of whole, fresh, raw ingredients including all forms of meat to its Californian plant. Within the plant, operations are organised into a preparation area where spices are mixed and fresh ingredients chopped, a main production area for mixing and blending ingredients, and a cooking area for the ready-to-eat products. After the product is cooked and cooled, it is sent to a packaging room then refrigerated prior to shipment.

All these areas are kept completely separate, with employees working in only one area that has its own lunch and locker

room. Coats and footwear are provided, but not shared between areas.

At the entrance of the packaging room is an automated hygiene station from CM Process Solutions. This area is particularly critical to Papa Cantella's because the company's cooked product can be eaten straight from the package, even if most consumers choose to re-heat it first, so it is imperative that the company avoid the introduction of bacteria and other contaminants by employees during the packaging process.

The hygiene station, the compact UDK model from CM Process, washes the soles of the employee's footwear, while also delivering sensor-operated hand washing and sanitising that only requires the employee to place their hands into two openings. It is equipped with a stainless steel turnstile that automatically unlocks only when the employee has correctly followed the machine's requirements.

According to Chris the previous system for cleaning footwear involved sanitising foam that was sprayed at the entryway at pre-determined time intervals, followed by the application of a hand sanitiser rinse for employees prior to putting on their gloves and coats.

However, this left him with several concerns, primarily that employees might not follow the procedure completely every single time. He was also concerned that the spray foam might not be as effective as it dissipated, particularly right before the re-application of the foam by the timer.

"You are under the assumption that every employee is going to follow the procedure, but what happens if someone is late coming back from a break and they run in and put their coat on and do not sanitise their hands first?"

"With an automated hygiene station, I absolutely know 100% of the employees walking through it are getting their hands and boots sanitised," says Chris.

Consistent wash every time

For Adam Messmore, plant manager at Rana Meal Solutions, the advanced automation features fully addressed similar concerns, namely ensuring a consistent, predictable and thorough wash every time. Rana Meal Solutions is a division of one of Europe's premier fresh pasta and sauce producers, Pacifico Rana.

"These hygiene stations are automated to a level that provides a very consistent wash, so I know what to expect and it is not reliant on the employee's ability to interface with the equipment," Adam told us.

The first US venture for the company, Rana Meal Solutions produces authentic filled pasta and sauces for the US market at a full USDA approved plant in Illinois. The facility produces both a fresh, refrigerated product, as well as a frozen foodservice component.

At the plant, employees are instructed to



US processors are investing in automated hand and boot washing hygiene stations to improve food safety, avoid recalls and meet the needs of the FSMA.

remove their 'street' shoes when they come into the facility and change into facility supplied footwear. To avoid cross contamination between processing departments and avoid the spread of any environmental hazards from department to department, employees are required to wash that footwear upon entry into various food processing areas.

For this, Rana Meal Solutions installed four boot washing stations from CM Process Solutions that are strategically placed both at the employee entrance from the locker areas to the facility, but also at the entry to zones of higher risk.

"The plant incorporated this technology into the design, knowing that the technology existed," says Adam, who had installed similar equipment during a retrofit at a previous company.

The continuous passage boot washers are fully automatic, sensor operated, bi-directional boot washers. Boots are cleaned by two horizontally mounted brushes which clean the soles, and four vertically inclined brushes that clean the sides of the boots. The unit includes a chemical detergent injector system.

In the boot washing stations, designed with dual lanes, two employees can walk through the equipment at a time at a brisk pace.

The company can traffic 50 people through the equipment at break time in only a few minutes.

Adam selected boot washers over dip mats for their ability to mechanically scrub debris out of the shoe's tread using a brush, in addition to providing a chemical treatment. He was concerned that dip mats rely on meat or allergens embedded in the tread to fall off the bottom of the shoe without mechanical manipulation.

A boot washer is a more effective way of being able to guarantee that the cross contamination of allergens from raw meat are effectively removed from the tread of the soles of the shoes.

For Scott Hardiman, VP/GM of case ready meat provider Vantage Foods, 'uncompromised food safety' is the standard set by his company and promoted to retailers in the US and Canada. This dictates incorporating the most advanced global food processing technology available.

Vantage Foods delivers a full range of fresh meat products, including ground and sausage, to retailers throughout Canada and the Southeastern United States.

The company operates four state-of-the-art food processing facilities located in both the US and Canada. As such, they must meet the guidelines of both the Canadian Food Inspection Agency (CFIA) and the United States Department of Agriculture (USDA).

Over the years, Hardiman has seen some form of boot washer or dip bath in every meat facility he has ever worked in or visited. However, only recently has he seen more advanced automated, multi-lane walk-through boot washers at anything but the largest facilities.

"I've seen the automatic hygiene stations, but only in a large scale slaughtering facility. I've not seen the automated equipment scaled for a case-ready facility before," Scott told us.

Case-ready fresh meat

Vantage's second US service center, its fifth overall, is currently under construction in Camp Hill, Pennsylvania. The new facility is targeted for completion late in 2013 and will provide a full case-ready fresh meats program for the Giant Carlisle and Giant Landover Divisions of Ahold USA. At 162,000ft², with 850 employees, the Camp Hill facility will be the largest of Vantage's five service centres.

As part of the new construction, Vantage Foods is installing a complete hygiene station from CM Process. Scott cites the equipment's overall 'robust' nature along with the automatic features that make it easy for employees to successfully use it.

"The difference between the other units we were considering and CM Process' was really around the automation and ability to get people through quickly and yet still have the boots cleaned effectively.

Vantage Foods will continue to seek out and invest in the best food safety equipment available.

"I believe we, as processors, have an obligation to do everything we possibly can to ensure the best possible food safety environment and this is just another piece in the puzzle," added Scott. "No matter how diligent we are, we can never stop looking for ways to improve. We can not do anything less." ■