# Do you know where your ingredient containers have been?

***by Mark Corser, CEO, CM Process Solutions, 1269 Pomona Road, Corona, CA 92882, USA.***

No food processor would knowingly permit pathogens or other contaminants to enter the processing plant. Yet, when they allow packages containing outsourced food ingredients to be received and go into the plant without being sanitised, they take a risk that amounts to the same thing. Where did they come from? Who handled them?

The use of container sanitising equipment helps to ensure that pathogens and other contaminants do not get into the processing plant, where they can taint in process and finished food products.

Otherwise the end result could be food products exposed to pathogens or other contaminants, potentially causing consumers' harm, product recalls and costly litigation that will taint brand names and lose business.

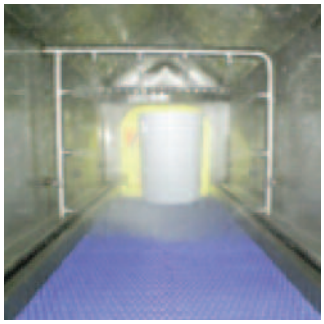
The packaging that contain ingredients for foods such as ready meals might have been exposed to any number of unwanted substances. This is particularly the case among US manufacturers of ready meals and fresh foods such as sandwiches and salads, or heat-and-eat items such as fresh pizza.

The problem is that when ingredients such as cheese, dough, shrimp or other outsourced ingredients are shipped with their outer packaging, whether buckets, bags or cans, that packaging is exposed to dirt, chemicals, and other contaminants that are present in delivery trucks or other forms of transportation.

Did the packaging get exposed to passing contamination by birds? Was the handler before the pack entered the plant as clean and hygienic as the staff in the plant?

This potential problem exists throughout the US, where the sanitising of containers coming into food processing plants is not a common procedure.

This is ironic because most plants apply procedures and employ washing and sanitising equipment to



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ensure that pathogens and other contaminants do not enter the food preparation areas.

For example, many US plants have sophisticated, automated washing systems that clean the buckets, trays and other vessels used to convey foods throughout the cooking and finishing processes.

However, when it comes to the ingredient containers that are delivered to the processor's plant, a thorough sanitising operation is often missing which allows the contaminants from the wild and from the unhygienic handler to go straight into a high risk area.

Farzad Shahsavarani, VP of Operations, Fresh Food Solutions at Flying Food Group (FFG), agrees. "There is not always a clear understanding when we are talking about the areas of low risk and high-risk or high-care areas in the food processing plant," he says.

"Keeping foods free of contaminants requires a lot more than just walls and doors and traffic flow. Some processors do not realise that contaminated containers entering the plant are exposing their products to environmental impurities and possible pathogens."

FFG serves over 300,000 fresh, quality meals and snacks daily to customers in the airline catering, grocery, food service and specialty markets. Customers include over 70 premier airlines – primarily international carriers – and leading food retailers, including Starbucks' cafes across the US.

Shahsavarani says that in Europe, sanitising of food containers arriving from outside sources is routine.

"The food processing industry there is largely self-policing about this," he says. "However, in the US, that is not a routine practice. But in the future, it is very likely that globally accepted higher food safety standards will come into play like those required by the Certification Schemes meeting the Global Food Safety Initiative. This would include sanitation of food packaging."

Shahsavarani adds that what is needed is a fail-safe system that provides assurance that containers are fully sanitised all round, before they enter high-risk or high-care areas of the processing plants.

***The use of container sanitising equipment ensures that pathogens and other contaminants do not get into the processing plant, where they can taint finished food products, tarnish brand names and even instigate recalls and litigation.***

Typically, he thinks this would be an automated system, such as a conveyor belt and spray tunnel that sanitises packages of all types with a uniform concentration of sanitising solution as they travel from low-risk to high-risk or high-care areas.

The type of sanitising equipment to which Shahsavarani refers is often known as a 'barrier tunnel' or 'sanitising tunnel' in Europe.

The tunnel passes from lower care to higher care areas and the ingredients packs can only enter along a conveyor belt-driven system that sprays a mixture of water and a sanitising agent to disinfect the containers as they pass into the food processing plant where they are to be opened. Sanitising sprays are normally composed of a mixture of water and 0.5-1.0% detergent formula.

Although most detergents kill bacteria and other biologicals on contact, a formula is available to protect containers that are likely to be stored for hours or even days.

A variety of sanitising tunnel sizes and configurations are available, including design-built customised models. A good example of a typical system is the Econoscan distributed by CM Process Solutions.

The Econoscan conveys the container through a tunnel where a solution of sanitising detergent is misted onto the items from top, bottom and sides.

The speed of transit through the tunnel can be set and easily adjusted to operate at between 3-12ft per minute, according to the user's requirements.

The water used in the process is recycled, and detergent is continually topped off after the water is recycled.

The system is economical and easy to use. Although the Econoscan is an entry-level system, it is a heavy-duty performer and requires very little maintenance or other service.

Price is sometimes a consideration with food processors, although American companies have a tendency to invest capital where reasonable returns are expected.

Although this kind of equipment does not contribute directly to profits, it certainly qualifies as a good insurance policy against potential recalls for any container-borne pathogens or other contaminants from getting into finished food products.

Also, the equipment will last for 20 years, so if you amortise the cost over that period, it will hardly be noticeable. What will be noticeable to inspectors and visiting customers is that you are taking food safety seriously. ■

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