

Sanifan® Technology Helps Food Processors Avoid Allergen Cross Contamination

The most common food allergens are: milk, eggs, peanuts, tree nuts, soy, wheat, fish and shellfish. Known as the “Big 8” in the food processing industry, up to 90% of all severe allergic reactions are caused by these eight foods. During food processing, allergen cross contamination occurs when a residue or other trace amount of an allergenic food is unintentionally incorporated into another food that is not intended to contain that allergen. The possibility of allergen cross contamination is associated with every step of food production from the raw material stage of growing and harvesting crops to the use of shared storage, transportation, or production equipment.

Although most food allergy symptoms are relatively mild, some allergies can cause severe reactions and may even be life-threatening. Extremely minute amounts of allergens are capable of causing an adverse reaction. It is therefore imperative that processors ensure that their food products are not contaminated with undisclosed allergens. Food manufacturing companies which distribute food products that are found to be contaminated with an unlabeled allergenic food face product recall and potential liability. Product recalls can significantly damage a food processor’s business and reputation. According to the FDA, the cost of a product recall can rise to as much as five times the distribution cost of the product. Moreover, if a brand name suffers irreparable damage due to public concern and media response as the result of a recall, a food processor may find it has no choice but to halt production of that item or entirely close its doors.

Allergen cross contamination is more likely to occur when food processors use common production lines, rather than dedicating separate production lines for allergenic products. The routine act of product changeover is an opportunity for product that contains an allergen to contaminate a product that does not contain that particular allergen. However, dedicated production lines may be impossible for some manufacturers due to cost prohibitions or space limitations. The “Components of an Effective Allergen Control Plan: A Framework for Food Processors” published by the Food Allergy Research & Resource Program, stresses that thorough cleaning and sanitizing of common equipment is one of the most critical steps necessary to avoid cross contamination when production lines are shared. Inadequate cleaning of common equipment, such as conveyors, mixers and pumps as well as the motors that drive them, used on non-dedicated product lines makes allergenic cross contamination an undeniable risk.

Achieving the level of cleanliness and sanitation necessary to avoid allergen cross contamination may, however, be hard to realize. Allergen contamination can remain even when surface areas have been thoroughly cleansed. Hidden contamination is an especially prevalent occurrence on the fan and under the fan shroud of motors. Despite the exterior of the motor appearing clean, the danger of allergenic material remaining within the motor is a reality. Normal cleaning with high pressure spray equipment is not sufficient to remove allergenic material from under the fan shrouds of standard industry motors and cannot prevent future accumulation. Customary molded plastic motor fans have crevices, niches and knurls where allergenic debris is caught and trapped. As a result, an allergen contaminated motor fan can spread allergens from a previous production run unto the non-allergenic food now traveling along the conveyor it is powering. For instance, milk powder can land on non-dairy products or peanut dust can be propelled out of the fan into the food production area. Food processors are faced with the probable danger that allergens will be released while the fan is operating and inadvertently be distributed onto non-allergenic food products currently being processed or awaiting packaging on the production line. However, the cost of shutting down a production line to remove contaminated motor fan shrouds for regular cleaning can be substantial and may significantly delay a processor’s production schedule.

Stainless Motors, Inc.’s patent pending Sanifan ®Technology provides an innovative time and cost-saving solution to the issue of hidden allergen cross-contamination in motors for food processors. The novel design of Sanifan® Technology stainless steel motors eliminates the danger of allergens accumulating on fan blades and under fan shrouds. Sanifan ®Technology stainless steel motors are designed niche-free and allow the fan, endbell and fan shroud to be thoroughly cleansed of allergenic material during high pressure washdown. The new motor design uses a crevice-free polished stainless steel fan in place of the customary molded plastic fan. With this state-of-the-art fan blade design, there are no niches or recesses where allergenic food material can become trapped. Moreover, the fan is secured to the motor

shaft in a sanitary manner utilizing an elastomeric gasket that prevents metal-to-metal contact and eliminates niches. Use of specially designed elastomeric slingers / seals further eliminates metal-to-metal contact between the fan and endbell thus shielding the mechanical shaft seal from potential allergenic particles.

We offer the Sanifan® Series as our standard stainless steel series which offers our washdown duty design with the features described above and also the Sanifan® PLUS series which is a revolutionary design with clean in place (CIP) capability for the ultimate level of sanitation. Sanifan PLUS series motor has an integral spray head built into the endbell. A water port attached to the spray head endbell allows water or cleaning solution to be forcefully sprayed from *within* the area under the fan shroud *out* through the slots in the fan shroud. The water port is available in several connection configurations and inlet positions allowing for utilization in any application. As part of its exceptional design, a Sanifan® motor with an integral spray head endbell may be cleaned while the motor is running or stationary. The integral spray head is a particularly effective and complete sanitizing solution for processors of viscous food stuffs with high particulate buildup as can be the case with allergenic foods such as peanut butter, tree nut butters, and some dairy products. The integral spray head design also provides a strategic cleaning solution for motors situated near or under operational areas that experience occasional spills or runoffs.

Sanifan® motors are a key component of an allergen management/control program. Any food processor seeking to safeguard against potential liability and brand damaging product recalls needs to implement Sanifan Technology™ motors in its processing facility as a proactive and affordable step to eliminate unintentional food product allergen cross contamination. All motors from Stainless Motors are now being designed with Sanifan Technology™ and any of the nearly 2,000 existing Stainless Motors models will accommodate the new motor design. While Sanifan® Technology motors are important for all food processors, they are particularly essential for processors who are not feasibly able to dedicate specific production lines and equipment to the processing of food products containing allergens. Complete cleaning of all equipment on the production line, including motors, and the removal of all allergenic material is crucial before the production of non-allergen containing products may be commenced. Only Sanifan® motors from Stainless Motors, Inc. can be cleaned to this high standard without the necessity of removing the fan shroud as its patent pending niche-free design prevents allergenic accumulation on the fan blades and under the fan shroud. Utilizing Sanifan® Technology motors is a simple and cost-saving step for food processors to take to guard against allergen cross contamination and avoid both product recalls and liability.