

Conveyor Belt Cleaning Solutions for the Food & Beverage Industry



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In the food industry, conveyor belts are a vital tool for ensuring processes are completed quickly and efficiently. They serve a number of purposes, from transporting raw materials along production lines to conveying finished goods to packaging and shipping departments. No matter what type of food-related application they're used in, conveyor belts must be thoroughly sanitized at all times.

Since these components come into direct contact with food, they must be maintained in a way that ensures food quality and freshness. If not cleaned properly, a conveyor belt can become a source of cross-contamination and a breeding ground for microorganisms. Implementing proper cleaning and maintenance solutions is critically important for adhering to FDA food safety regulations while protecting customers and profits alike. In this eBook, we will explore the most common applications for conveyor belts within the food and beverage industry as well as Electro-Steam's leading conveyor belt cleaning systems.



Applications of Conveyor Belts in the Food and Beverage Industry

Conveyor belts transport food products throughout many stages of a production line. Let's take a look at some of the most common applications within the food and beverage industry.

Accumulation & Cooling

When food products complete the manufacturing process, sanitized conveyor belts transport these items to areas where they can accumulate before moving on to the next stage in production.

Depending on the type of food product, cooling mechanisms might also be in place to ensure food safety. Products like baked goods and ready-to-eat meals are the most common types of consumables featured in accumulation and cooling applications



Inspection & Metal Detection

Automated conveyor belts play an important role during food inspection processes. As food moves steadily along a line, operators can quickly yet thoroughly check for any quality control problems and address them without disrupting the workflow.



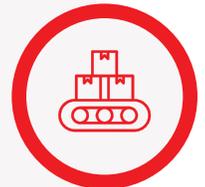


Washing & Sorting

With the right type of sanitary conveyor belt, sorting items like fresh produce for cleaning is simple and efficient. For these applications, conveyor belts are designed to safely endure washing processes without becoming damaged or negatively affecting product quality.

Packaging

Conveyor belt systems keep packaging lines running smoothly and help to accurately transport diverse food products. Anything from raw meat to delicate fruit or baked goods can be safely moved throughout busy manufacturing environments.



In all of these applications, conveyor belts come into direct contact with food items. For this reason, they must undergo thorough sanitization processes. However, many flat, solid conveyor belts are often hand-washed using strong chemicals. This process is not only inefficient, wasteful, and labor intensive, but it also puts potentially harmful chemicals near food products. A more consistent and reliable option is to opt for brushless cleaning systems that are simple to install and operate.

Importance of Conveyor Belt Cleaning & Maintenance

In the food and beverage industry, maintaining a high standard of cleanliness is essential for protecting belt hygiene and preventing health hazards from occurring. Ensuring that conveyor belts are well maintained and properly cleaned is essential for preventing profit loss, operational disruptions, and productivity setbacks. However, certain conveyor belts may pose cleaning challenges, requiring the use of appropriate cleaning methods and technologies to meet sanitation standards.



Conveyor Belt Cleaning System Considerations

One important aspect of an effective conveyor belt cleaning system is that it is installed away from the flow of materials to prevent food products from becoming contaminated. It's also important that any waste materials removed from the belt during cleaning do not adhere to the conveying structure or build up along the blades.

Another consideration for belt-cleaning systems is the potential damage that could occur. An improperly designed cleaning system can actually damage the belts it was installed to protect. To avoid this, the cleaning blade must be capable of moving away from the belt when an obstruction, splice, or damaged belt section moves past it. The cleaning system's tensioning should also feature a mechanism to provide protection from the shock of a splice impact.

Installing a brushless cleaner is an effective way of obtaining a thorough clean without having to perform manual labor. Brushless cleaning devices are typically mounted directly onto the conveyor belts themselves to clean and sanitize efficiently, without lengthy downtime. With these systems, a dry steam vapor is used to dissolve the bond between unwanted materials and the conveyor belt's surface. Any leftover food residue becomes suspended in the dry vapor before being vacuumed away.

This technique is beneficial because it does not require any chemicals and uses very minimal amounts of water. Cleaning systems like these are suitable for many types of conveyor belts, including systems that move:

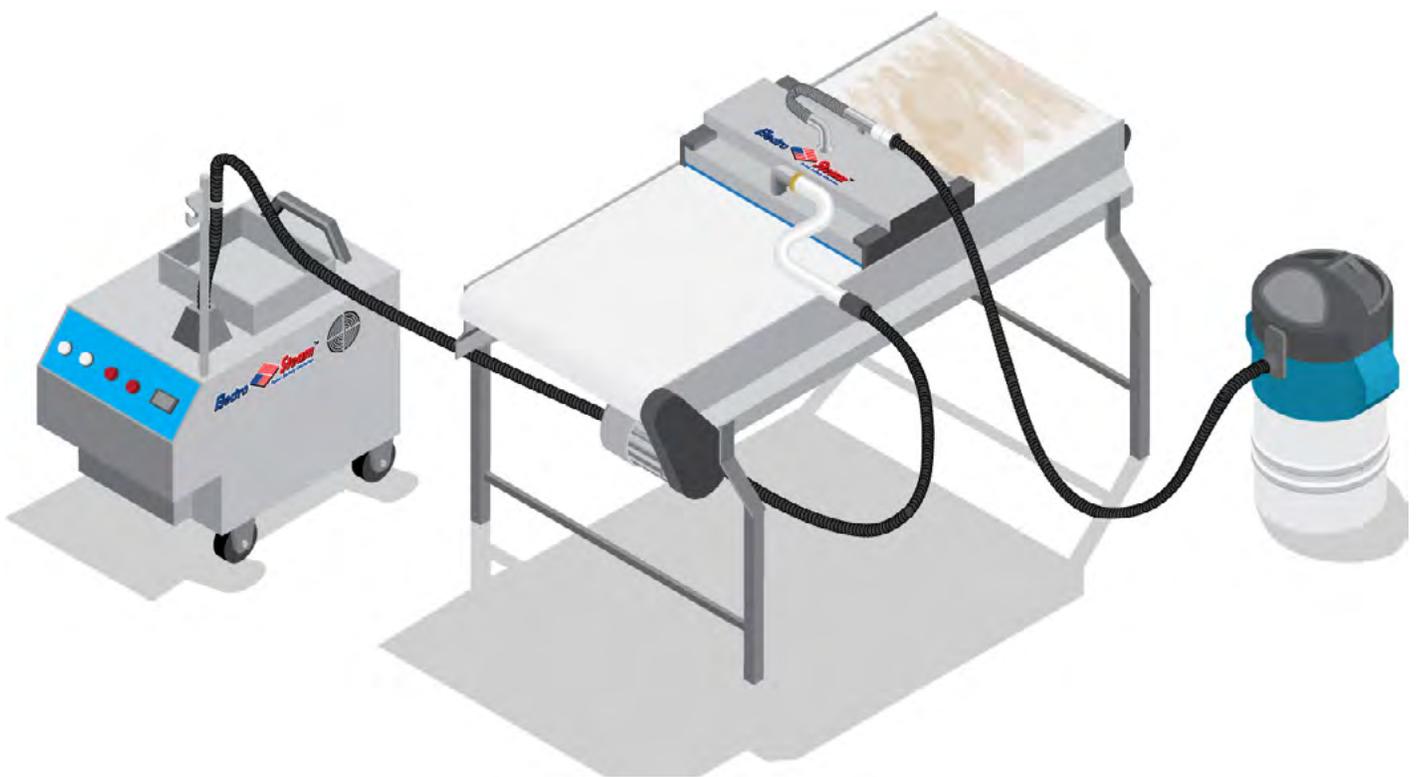
- Raw materials from storage to processing areas
- Finished products to packaging lines
- Packaged goods to a shipping area



Electro-Steam's Conveyor Belt Cleaners

At Electro-Steam, we develop industry-leading conveyor belt cleaning systems that integrate with existing food and beverage production processes. We offer multiple solutions to meet a diverse range of sanitization requirements.

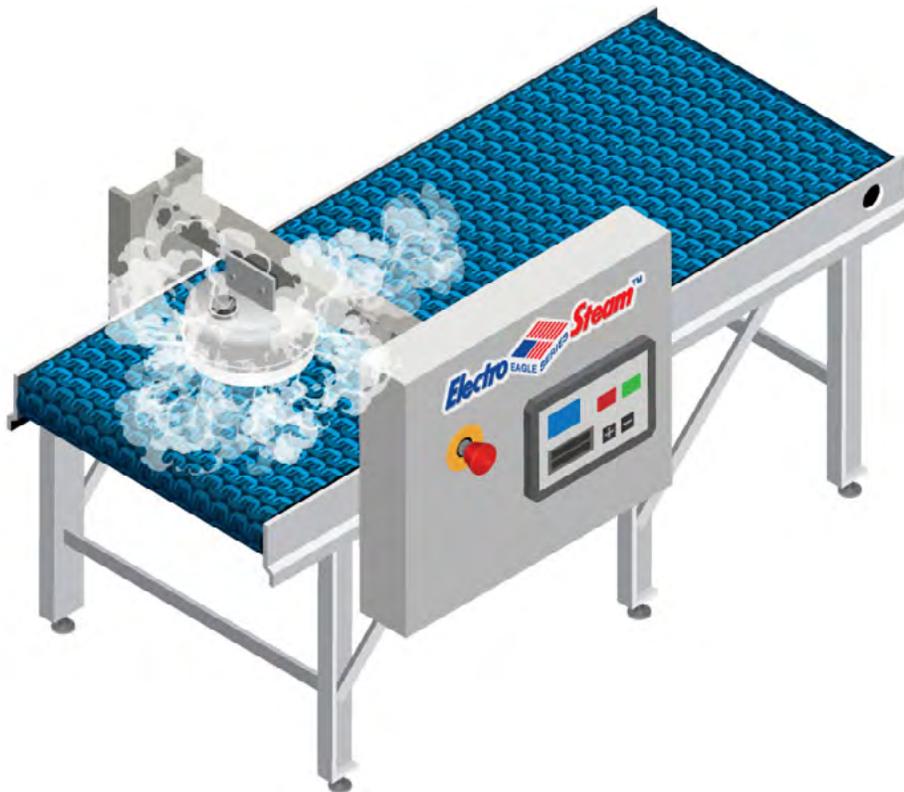
The Eagle Series Automatic Brushless Belt Cleaner



This product was developed to simplify the cleaning process. Within as little as one minute, you can easily install the cleaning attachment to your belt and achieve 100% coverage. After the cleaning process is complete, the brushless belt cleaner can be removed just as quickly as it was installed. This product features a cleaning head without any moving parts, for maximum belt protection.

The Eagle Series cleaner eliminates the risk of human error from sanitizing processes and removes the need for manual labor and chemicals. Since it runs using very little water, this cleaner also significantly reduces wastewater disposal. The thorough sanitization that this product achieves meets or even exceeds regulatory requirements for food safety, making it ideal for food and beverage applications.

The Jet System Modular Conveyor Belt Cleaning System



This powerful cleaning system safely integrates with virtually any existing conveyance structure. It is simple to install, lightweight, and portable while providing thorough sanitization of many soil types. The Jet System features a completely programmable robotic arm and rotating steam head that can handle belt widths ranging from 12 inches to 72 inches. It achieves full surface-width coverage and thoroughly cleans using dry vapor steam for a hands-free sanitization experience.



This system was developed to overcome the unique challenges of modular conveyor belts, which can experience significant damage and wear from carryback accumulating across their parts. This system eliminates these challenges using high-powered, high-temperature steam for complete surface cleaning. The Jet Cleaning System won't interrupt your operations or pose a safety risk to your employees. Using its robotic features, you can automate and streamline your cleaning processes.

Conveyor Belt Cleaning Solutions from Electro-Steam

Electro-Steam has provided the food and beverage industry with innovative steam-cleaning solutions for over 70 years. Our line of industrial steam cleaners is used throughout food processing operations, bottling facilities, manufacturing plants, and numerous other applications. No matter how rigorous your needs are, we have a system that will exceed your expectations. For more information on the advantages of dry steam cleaning, [reach out to our team](#) or request a free demo today.

About Us

Electro-Steam offers dry steam cleaners and steam generators for companies in food and beverage, packaging, wineries, breweries and other markets. In addition to our steam cleaning systems, we have also been an OEM manufacturer of electric steam generators since 1952 – one of the oldest manufacturers of these products in the United States. With years of experience over a wide range of industries and applications, Electro-Steam is recognized as the industry leader in the design and manufacturing of dry steam vapor generation, cleaning and sanitizing systems that are superior to other equipment.

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