ThermOmegaTech®

IMPROVE SANITATION PROCEDURES WITH WASHDOWN STATIONS

SIX FEATURES TO CONSIDER FOR AN EFFECTIVE WASHDOWN STATION

The Need for Sanitation in Industrial Environments

For fast-paced industrial environments, the speed of production is often a standard set and a goal to strive toward. In production, time is money, hemmed in by how quickly products can be produced and the speed at which lines can be turned over between runs.

While the product being produced varies widely by industry, the constant in almost any manufacturing environment is the need for cleanliness and sanitation.

To ensure the quality of products available to the everyday consumer, modern authoritative agencies such as FDA and USDA have outlined sanitation requirements that each facility must adhere to or risk being fined. These standards ensure consistent product quality, prevent food-borne illnesses, and caution against cross contamination.

These standards, by and large, are adhered to by creating a sanitation procedure unique to each individual facility with the intention of identifying production line hazards, sanitizing effectively and appropriately, and repeating as often as necessary in order to comply with local and federal regulations.

While the hazards present on a production line vary from facility to facility and depend heavily of the specific products produced, they all must be effectively and routinely removed to preserve sanitation and product quality.

Some of the hazards associated with the production of just about any product that must be mitigated include but are certainly not limited to:



- Product residue
- Liquid contamination
- Airborne contamination
- Transient soil from workers
- Detergent residues
- Microorganisms

Methods for identifying contamination risk areas also vary but range from a visual inspection to the use of a Ph swab or other detection equipment.

For some facilities, compliance is completed by a semi-routine cleansing when conditions are deemed to require it. For others, sanitation must be performed every shift, between line runs, or when switching between products being produced.

After determining the hazards to be removed, the next question is how to sanitize in a way that is both effective and convenient.

Chemical Options for Sanitation

The four main factors to consider when performing sanitization are concentration, temperature, time, and mechanical force applied. The ratios of each factor will vary depending on which of the below listed cleaning methods are implemented.

For facilities that implement chemical cleaners, this often take one or more of the below forms:

- **Foam:** a sanitizing foam is applied to the production line and rinsed off; may use some manual cleaning for stubborn substances.
- **Manual:** the manual scrubbing of the line and equipment by personnel.
- **Clean Out of Place (COP):** removing equipment and sanitizing them before placing them back in the line.
- **Clean In Place (CIP):** equipment is cleaned without moving it from the production line.

A downside of chemical cleaners, however, are the steps inherent to their use. They must be applied with the correctly diluted mix, potentially manually scrubbed, and then removed from the equipment.

For facilities in which time tables must be kept, these maintenance procedures can be lengthy, high-maintenance, and risk potential cross-contamination if the water source is used on different equipment (think mop and bucket).

High Temperature Washdown Stations

An alternative, or in addition, to chemical sanitation is a high temperature washdown station. For efficient, economical, and low-maintenance clean-ups, washdown stations are the ideal solution to minimizing downtime for maintenance.

While designs, distributors, and operation may vary, washdown stations are generally defined as a stationary piece of equipment that produces a stream of water for use in the removal of debris and sanitation.

Used in both commercial and industrial production facilities, washdown stations that produce water temperatures at 150°F (65.5°C) or above quickly cleanse and sanitize surfaces.

Commonly used in production facilities such as food processing, dairy, breweries, wineries, chemical, petrochemical, and pharmaceutical, washdown stations ensure a quick and easy clean-up while maintaining sanitation standards.

In the event that a washdown station produces flow at temperatures less than 150°F (65.5°C), a chemical agent is recommended to supplement sanitation.



Features That Increase Effectiveness

Incorporating a mixing valve that combines either hot and cold water or steam and cold water to a user-defined temperature for an effective cleansing in addition to industrial-use cleaning solutions, washdown stations are vital to ensuring effective sanitation.

With lengthy hoses and pressurized nozzles, they facilitate the removal of the targeted hazard as well as any cleaning agent residue and ease access to tight or small spaces.

While washdown stations come with a variety of different options from a multitude of manufacturers, the following features generally tend to increase their effectiveness:

- **Safety features:** Above all, the most important thing is operator safety. Washdown stations should have built-in features that prevent potentially dangerous over-temp or steam only operation.
- **Ease of use:** No complicated switches, dials, or multi-step procedures to initiate flow.
- **Temperature:** For stations that mix cold water with hot water or steam, it is helpful for the operator to be able to adjust temperature and have it confirmed by a thermometer for improved sanitation.
- **Minimal Maintenance:** Stations that allow for in-line servicing with minimal components to remove and no special tooling required simplify the maintenance process which reduces downtime so lines can get back up and running quickly.
- **Quiet operation:** Quieter washdown stations reduce stress on the operator and generally improves working conditions.
- **Uses on hand supplies:** Washdown stations may use a combination of cold water, hot water, and steam. It is recommended to select a station that uses pre-existing supplies for increased convenience and reliability.

By selecting a washdown station that satisfies the above criteria and is compatible with the facility into which it is to be installed, sanitation procedures will proceed with increased effectiveness while maintaining employee safety and improved working conditions.

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