

## How Steam Generators Work in the Food Industry

Clayton Steam Generators are one of the most useful elements in the food industry and one of the most indispensable; They are generally intended for operations focused on sterilization and product washing, and are used as a means of heating, humidifying the environment, and controlling steam fluctuations in the production plant. In general, it is one of those indispensable tools for the proper development of food production and storage activities.

How do they work?

Steam Generators have a series of pipes through which water enters and is heated, the water must go from its liquid to gaseous state and then be released in a controlled manner in the places where it is required. Additionally, it can be added to other systems such as sterilizer to accomplish two tasks in the same space.

Uses in the food industry

Sterilization is one of the priorities when it comes to food production, this is because it is a consumer product, it becomes a perfect focus to transmit different diseases through viruses, bacteria and other microorganisms. By disinfecting food throughout the production chain, it is ensured that these transmitters will die and will not be able to carry pathogens that alter the quality of life of consumers.



Water vapor acts directly on microorganisms, altering humidity levels and increasing their optimal temperature for their survival, annihilating them to have a clean product that meets optimal standards to be consumed in the near future. It is a food-friendly system as it does not alter its composition like other types of gases or reagents that alter the chemical structures of food to protect it, something that, although effective, causes long-term damage for people and animals that feed on the product.

It is also used to clean and sanitize the environment of certain infectious agents that are transmitted through the air, such as influenza-related viruses, which can be

STEAM  
GENERATORS

Advanced  
Steam  
Technology  
that Is Safe,  
Efficient  
and Reliable



transported in the environment and rest in food to serve as a means of conduction to other organisms or directly infect employees in the production plant.

On the other hand, when it comes to packaged food or beverages, it is important to use steam to disinfect the containers before introducing the consumer product, so that it is completely protected inside and outside its packaging.

How to ensure the quality of the steam?

The main action that must be developed to ensure that the water vapor will be of high quality and will be able to fulfill its disinfection task is to clean the pipes through which the water and gas travel to prevent it from being contaminated along the way and not being able to disinfect. In

addition to that, it is important to ensure that the water used is clean and has as few microorganisms as possible, or at least enough so that when they turn into steam they do not survive. Likewise, the internal components, valves and all pipes must be cleaned and properly maintained to prevent contamination or through the process known as "rouge" a kind of rust that attacks stainless steel and changes the color of the metal depending on the amount of oxygen to which it is exposed. It's usually black.

**Clayton**

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