

Mini Clean Steam Generator



First for Steam Solutions

EXPERTISE | SOLUTIONS | SUSTAINABILITY

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How clean is your steam supply?

Steam is an essential source of heat for product and equipment decontamination within the food & beverage industries.

The need to conform to the most stringent standards of hygiene and contamination control means that the quality of the steam produced supports the need to consistently produce contaminate-free products. Vigilance is needed to ensure suitable controls are established and adhered to where steam is in direct contact with the product or process.

Our new Mini Clean Steam Generator (m-CSG) helps control and maintain the product quality within your applications by ensuring high quality steam is produced.

Are you compliant?

Steam is often seen as an ideal sterile and contaminant-free source of energy. However, as is the case with any medium that is in contact with the process, precautions should be taken to minimise the potential risk of contamination occurring which could be a hazard to human consumption, or potentially affect the taint or colour of the product.

There are many standards, guidelines, and legislations in place across the food & beverage industries to ensure products are made safely. The m-CSG helps you meet these requirements as we have ensured that it is compliant with EC 1935.

This regulation states that the m-CSG:

- Is safe to be in contact with the product
- Must not transfer its components into food in quantities that could endanger human health
- Must not change food composition in an unacceptable way or deteriorate its taste and odour
- Is manufactured according to good manufacturing practice



Why use clean steam?

Steam is the most energy efficient, reliable and flexible way to transfer heat for many food and beverage operations. Steam is routinely used in direct contact with food products, but this can raise quality or even food safety issues if the correct standard of steam is not used.

The grades of steam commonly used in industry today range from basic plant steam, through to filtered (culinary) steam and clean steam. While plant steam meets the demand for heat transfer applications in many industries, some food companies use filtered steam, with even more now turning to clean steam because:

- It helps ensure product quality and the potential for steam contamination is eliminated
- It maintains brand integrity by producing contaminate free products
- The use of clean steam helps you to be compliant with various regulations and standards in the food and beverage industry



Italian pasta manufacturer ensures a high level of product quality by installing a Spirax Sarco mini clean steam generator

Company: Gluten free pasta manufacturer **Location:** Italy

Objective: Minimise the risk of process contamination for pasta drying

Solution: Installation of Spirax Sarco mini clean steam generator

Results: The risk of process contamination from poor quality steam is removed, ensuring product quality is not compromised



Is the m-CSG right for you?

Clean steam is providing the answer for many applications in the food & beverage industries where standards are increasingly demanding and public concerns on the safety of food consumption has made steam quality of paramount importance. The m-CSG can help meet those standards and ensure you deal with your customers concerns in a safe manner.

It is a compact, ready to install clean steam generator that is capable of generating up to 300kg/h of clean steam.

The steam generator and all parts in contact with the clean steam and feedwater are made of 316L stainless steel. This eliminates the risk of contamination within the process, providing you with peace of mind and high quality product.

Combining modern technology with package design expertise, we have created a mini clean steam generator capable of producing clean steam to the highest quality standards.

Features	Benefits
EC1935 certified design	Supplying high quality clean steam to your processes
All parts in contact with the clean steam and the feedwater are 316L stainless steel	Prevents risk of corrosion or contamination of clean steam supply
A range of service agreements available to suit your requirements	Safety and efficiency assured – you can concentrate on your core business while we do the rest
Pre-assembled unit	The unit is ready to install reducing downtime
High quality, low maintenance components	Reliable operation with low cost of ownership
Precisely matched automatic controls give constant clean steam production	Clean steam supplied to your process at the correct pressure and flowrate however demand fluctuates
Compact modular design	Fits through a plantroom door saving floor space and maximising output from minimum footprint

Typical applications for the m-CSG

The m-CSG is ideal for applications where the production of high quality steam is essential. To find out how it can help you, contact your local Spirax Sarco representative today.

Applications

Sterilise In Place (SIP)

Steam is often used to sterilise filling heads and aseptic filling lines



Direct injection into the product

Large quantities of steam can be injected directly into the product for processes such as cooking. Therefore, steam must be closely controlled to avoid contamination



Aseptic filling

Ensure product shelf life is not affected by guaranteeing the sterility of the product during the packaging process



Humidification

This is where the steam is added to the air within the process. In food and beverage processes, the steam quality is a vital consideration to ensure product quality





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* Manufacturing sites



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