

# CSM Compact clean steam generator













**First for Steam Solutions** 

# CSM-C & CSM-E Compact clean steam generator

Spirax Sarco, the world's leading steam system specialist, has combined modern technology with package design expertise to create a compact generator capable of producing clean steam to the highest quality standards.

The microprocessor-controlled unit uses treated feedwater and plant steam to produce steriliser-grade clean steam. The standard range covers clean steam duties up to 600 kg/h at 3 bar g for CSM-C and up to 150 kg/h for CSM-E. The pre-assembled, skid-mounted package arrives factory tested and ready to be connected to your utilities.

#### **Benefits:**

- The CSM-C is a compact unit. It will fit through your plantroom door, offering maximum output for mimimum footprint
- The standard range of outputs are up to 600 kg/h
- Screen control panel with PLC and color touch screen, for easy parameter setting, monitoring, remote diagnosis and maintenance
- · Factory testing and PED overall certification
- The CSM-C is fully maintainable from all sides
- All wetted parts on the secondary side are 316L stainless steel
- The preheat system heats and circulates the feedwater, ensuring the removal of soluble gases prior to entering the boiler
- Fully compliant to European directive EN 285 and HTM 2031 approved



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## The range at a glance

Model	Clean steam capacity	Energy source
CSM-C	Up to 600 kg/h @ 3 bar	Plant steam
CSM-E	Up to 150 kg/h @ 3 bar	Electrical power

## Applications

CSM-C and CSM-E use is ideal when the high-quality of produced steam is essential. Several key applications are listed below. For other uses or industries please contact Spirax Sarco's local agent, who will advise you appropriately.

Applications	Industries
Sterilisers	Healthcare
Sterilise in place (SIP)	Food and beverages
Direct injection into the product	Pharmaceuticals
Clean room humidification	Biotechnology
Operating environments	Electronics
Laboratories	Beverages and bottling







#### How does the CSM-C work?



#### How does the CSM-E work?



### The package promise

We have long recognised that our customers want assistance with complex steam applications which do not form part of their core business.

We will assess your clean steam requirements, provide pre-engineering services, supply and advise on the installation of the generator and assist in start-up, and commissioning.

You will deal with one vendor throughout the whole process, who will take on the responsibility for everything, leaving you to do what you do best - running your business.

CSM-C and CSM-E are the package solution to your requirement for clean steam. Its compact design includes everything required to turn water into the right fluid for your clean process.



Certification of HTM2031 for CSM-C

## Key features and benefits

Key features	Key benefits
Proven design raises clean steam efficiently.	High quality clean steam meets the healthcare standards HTM 2010 and HTM 2031, and the requirements of EN 285.
Pre-assembled unit.	Minimal installation time and trouble-free commissioning. One vendor.
Precisely matched automatic controls give constant output.	Clean steam supplied to your process at the correct pressure and flowrate however demand fluctuates.
Compact modular design.	Fits through a plantroom door, saves floor space. Maximum output for minimum footprint. Multiple units can be connected together side by side.
PLC control with touchscreen visual display.	Easy parameters setting and supervision. Data check in real time and historical memory of the system.
High quality, low maintenance components.	Increase MTBF. Reliable operation with low cost of ownership.
All wetted parts on the secondary side are 316L stainless steel.	Prevents risk of corrosion or contamination of clean steam supply.
Can be connected to remote control system.	Remote access options: Level 1 - SMS & E-mail alarms Level 2 - Web access
Designed and built in full accordance with PED 97 / 23 / EC.	Fully traceable manufacturing documentation available.
Range of service agreements to suit your requirements.	Safety and efficiency assured - you can concentrate on your core business while we do the rest.

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