



VS Series Steam Sterilizers

Small capacity steam sterilizers for
hospitals, CSSDs and medical centers



Miele

Group
Member

Steelco

Miele Group Member

CUSTOMIZATION, INNOVATION, EXCELLENCE.



Customization. Innovation. Excellence.

Driven by customer needs

Steelco is a leading infection control solution provider, supplying the healthcare, laboratory research and pharma sectors. Active in over 100 countries, Steelco has equipped numerous world renowned hospitals and counts among its customers household names in the laboratory, pharmaceutical and industrial sectors.

Driven by customer feedback, Steelco develops, manufactures and supplies solutions that maximize infection control, safety, optimize processes and minimize costs. Already a leader in innovation in areas such as automation, the integration within the Miele organization has provided additional boost in technological development.

Steelco provides technical service and user training courses at the Steelco Academy as well as at customer sites. Our optional remote diagnostics capabilities and worldwide team of factory trained engineers ensure that you receive the service support you need to cost effectively maximize the uptime of your equipment.



Steelco VS Series

Steam sterilizing autoclaves



VS 2, VS 1



Single or double automatic sliding down door/s, capacity 1 or 2 STUs

2 chamber sizes with volumes of 67,5 and 143 liters



VS 1 TT



Single, manual door horizontal sliding left, capacity 1 STU

chamber size volume 67,5 liters
option: on stand closed cabinet

Key Advantages

a winning combination

Steelco has developed this range of 1 and 2 STU capacity steam sterilizers as a perfect solution for small facilities. Process speed and low media consumption make them also ideal devices for "fast track" sterile processes in large central sterilization supply departments.

Steelco sterilizers offer: versatility, safety, high performance, and process traceability with low total life costs.

Each model in the range of steam sterilizers combines high productivity with cost efficiency: an effective tool to reduce CSSD running costs.

Steelco sterilizers conform to:

European Directive for Medical Devices:

- 93/42/EEC and its revised versions

Pressure Equipment Directive:

- PED 2014/68/EU

Technical norms and standards:

- EN 285
- EN ISO 14971
- UNI EN ISO 17665-1
- IEC EN 61010-1
- IEC EN 61010-2-040
- EN 62366-1
- IEC EN 61326-1



**Eco
Friendly
Efficiency**

Process efficiency!

Steelco sterilizers are engineered to offer best-in-class solutions for the reduction of energy and water consumption giving users the lowest operating costs per load.



**Optimized
Process
Speed**

Speed is important!

Our focus is to provide customers with the fastest possible sterilization processes in compliance with international and local standards and always in relation to the load and Sterile Barrier System.

The liquid ring vacuum pumps allow for faster processes and are perfectly matched to each device chamber size.



**Shelves
Position
Configurable**

Make the most of the sterilizer's capacity!

Even in small sterilizers, Steelco provides the maximum load flexibility by repositioning the load levels of the semi-extractable shelves.



**Easy
Plug & Play
Installation**

Plug and Play!

This VS range of sterilizers is conceived as "plug and play" devices. There is no need for a compressed air connection, just an electrical supply, water inlets, and drain.

Steelco VS small capacity sterilizers are compact and designed to overcome architectural limitations such as door passages or lifts. Being provided with wheels, they can be easily maneuvered too.

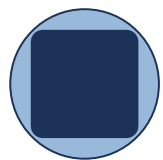
Efficiency & Affordability coming together



Affordable without compromises!

A range of affordable compact squared chamber sterilizers saving over 50% of unused volume in comparison with a cheaper round chamber construction with significant benefits in cycle speed, water, and energy consumption due to:

- less volume to maintain heated
- less operating time of the vacuum pump
- less steam to inject in the chamber



- Load volume
- Round chamber volume

Unrivalled levels of efficiency,
lowest operating costs per load!



VS 1 TT - VS 1 sterilization chamber with additional intermediate semi extractable shelf

Design & Performance coming together



Design strength

The simple and clean design of this range of sterilizers with few components is aimed for performance and reliability.

The fast heating, by electrically heated elements covering the complete chamber, ensures reduced cycle times and avoids cold spots leading to potential steam condensation.

The high performance water ring vacuum pump guarantees complete air removal and an efficient drying phase.

Process cycles

65 programmes of which 3 factory pre-defined for heating, instruments at 134°C/273.2°F and rubber at 121°C/249.8°F.

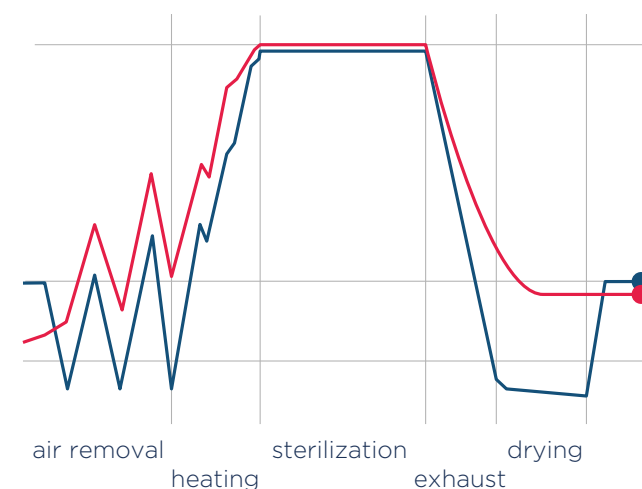
Customer programs, such as a Prion cycle, can be programmed and validated according to customer specifications.

Test/service programs

Air Leakage Test: used to verify the vacuum integrity of the chamber.

Steam Penetration Test (e.g. Bowie & Dick/Helix): used to check air removal and proper steam penetration.

PRESSURE
TEMPERATURE



Program	Load type	Temp.	Sterilization time	Total time without drying	
				VS 1 - VS 1 TT	VS 2
Heating	empty	-	-	10'	10'
Instruments	1 STU (15 kg) 2 STU (30 kg)	134°C	5'	30'	32'
Rubber	1 STU (7,5 kg) 2 STU (15 kg)	121°C	20'	40'	42'
Air leakage test	empty	-	-	20'	20'
Steam penetration test (Bowie & Dick)	empty	-	3'30"	25'	25'
Steam penetration test (Helix)	empty	-	3'30"	25'	25'

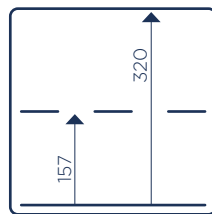
Ergonomics & Flexibility coming together

Shelves Position Configurable

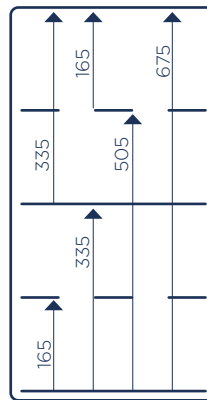
Make the most of the sterilizer capacity: even with small sterilizers, Steelco enables adding and easy repositioning of the load levels.

Each shelf is semi extractable (on both sides in case of double door pass-through models) to ease loading and unloading whilst reducing the risk of possible contacts with hot surfaces.

Useful loading heights in mm showing the combinations with the addition of intermediate shelves



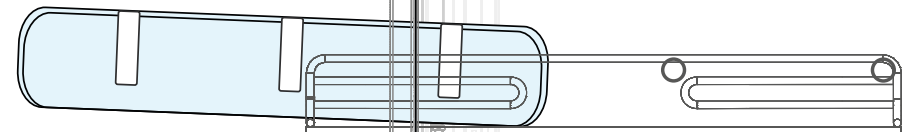
VS 1 TT - VS 1



VS 2



Semi-extractable loading tray



Steam feeding options

Depending on the model, Steelco VS devices are available for direct external clean steam supply (type "V") as well as with multiple choices of built-in or remote steam generators:

- electrically heated (type "E").
- combining the external steam source with a steam generator as back up solution (type "E/V").

Reliability & Serviceability coming together

Top quality materials, devices made to last!

The sterilization chamber, as well as the steam process piping, are made of high quality AISI 316 L stainless steel. This is a guarantee for long-term reliability and steam cleanliness.

The acid-proof stainless steel chambers and piping are fully insulated with a CFC-free thermal insulation that is covering easy to remove and to refit in case of service needs. With ease of service in mind, most piping is connected using stainless steel tri-clamps.



Safety first

The automatic doors of VS 1 and VS 2 are equipped with a safety anti-trap device to protect users.

The manual door version of the VS 1 TT model is equipped with a mechanism that keeps the door safely locked during the sterilization process until completion.

To prevent any potential water dripping onto the floor, the units are fitted with a water drip collection tray as standard.



Minimized service requirements

Maintenance of this range of devices is highly simplified and cost-effective.

Access for service is fully frontal via the hinged door which opens completely (and from the back if double door version). This grants access to all the components and streamline maintenance.

Flexibility & Control

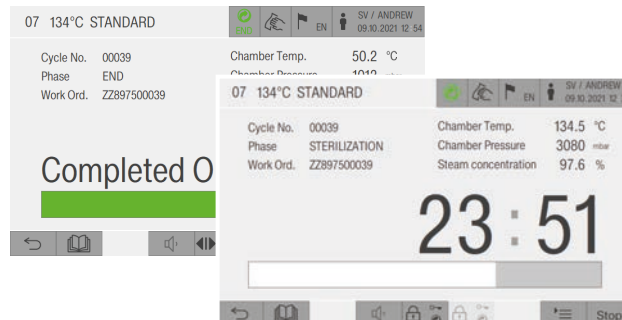
coming together

The large 7" touch screen control panel facilitates device control with bright, easy-to-read information even from a distance: an intuitive and practical aid for operators in their daily tasks. In addition, the well-thought-out and user-friendly design and touch screen is consistent throughout the portfolio of Steelco devices, supporting intuitive operation and reliable processes.

A user-friendly interface

Operators are supported in every step of their interaction with the device with clear and easy to understand operation tasks. Cycle programs can also be selected via barcode scanner.

The touch screen panel displays highly visible cycle status and alarm messages.



Cycle data storage

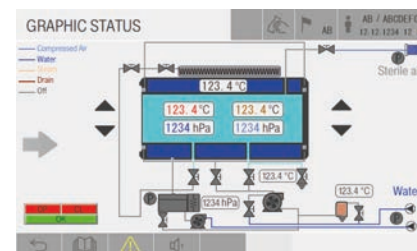
Cycle data is stored and available from the integrated printer. If the device is connected to the network data is send to a centralized traceability system.

User access levels

User access is split into 5 levels to ensure that only trained staff have access to specific functions: operator, department manager, service technician at the customer's site, authorized service technician, and manufacturer.

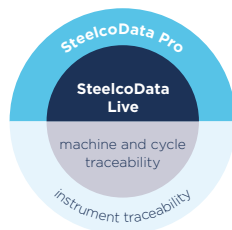
Technical service mode

The sterilizer is designed with few components to streamline maintenance. An easy-to-read synoptic panel allows for an in-depth overview of component status of the sterilizer, speeding up service interventions.



SteelcoData Live & Pro

Management & traceability system



To ensure the availability of the right instruments in the right place at the right time, reprocessed to the correct standard in the minimum amount of time, and the lowest cost consistently.

SteelcoData Live

is a web-based software allowing to see in real-time machine performance, cycle data, and alarms with historic records. When available from the device, utility consumption is also stored. Information is traced and efficiently visualized for device monitoring and data management with different authorisation levels.

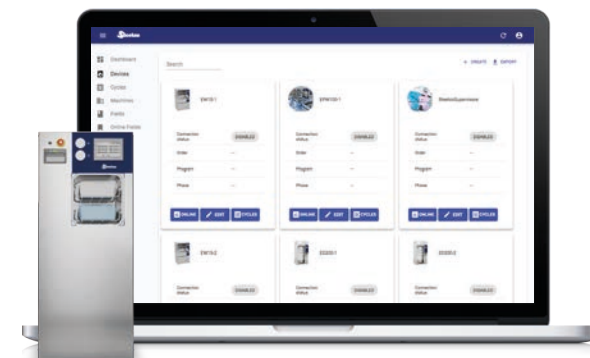
SteelcoData Live is also the link between Steelco machines and instrument traceability systems such as SteelcoData Pro.

SteelcoData Pro

provides you with the possibility to track sets as well as individual instruments from their point of use in the OR through each stage of reprocessing, transportation and storage until they are ready to be used again.

Software features:

- + Respects HL7 standard
- + Reliable information and data entirety
- + Traceability and backward traceability of user activities and material handling
- + Full coverage of activities in the CSSD
- + Real-time analysis
- + Efficiency improvement tools
- + Procedure automation, no unnecessary steps
- + Workstations can display only activities in the specific user's area of competence
- + Effective information sharing with customers
- + Can be integrated with other client software systems



Small footprint & Easy installation coming together



Steelco sterilizers VS range is designed for a simplified installation as "plug and play" devices without the need for an external compressed air. The sterilizer has a built-in silent air compressor and just needing flexible connections to the electrical main and water inlet and drain.

Thanks to the squared chamber sections, the VS range of sterilizers are compact to overcome architectural limitations (door passages, lifts...). Stand-alone units height is less than 2 meters and width as low as 63,5 centimeters.

Moreover, they are equipped with wheels for fast and easy positioning.

Leading in customized solution

A comprehensive range of devices allows Steelco to supply complete tailored sterile processing solutions from small clinics to large centralized sterile reprocessing departments. A complete system planning service is based on 3D architectural modeling helps customers in defining the layout configurations for new or refurbishment projects.



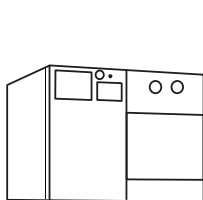


Capacity and Dimensions

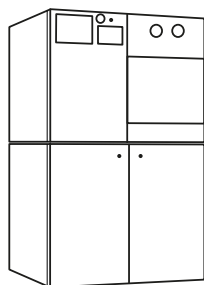
Layouts and configurations

Table-top

VS 1 TT



without stand
closed cabinet



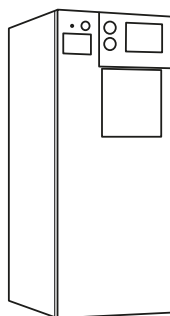
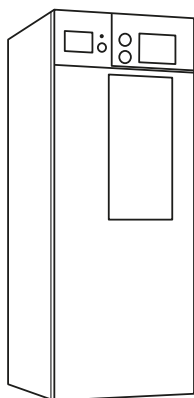
with stand
closed cabinet

Model	Chamber (WxHxD) - mm			Litres	Overall (WxHxD) - mm		
Single door							
VS 1 TT	330	330	620	67,5	910	700	783
VS 1 TT with stand closed cabinet						1465	

Loading height: 900 mm above finished floor when on stand closed cabinet.

Stand alone

VS 1 - VS 2



Model	Chamber (WxHxD) - mm			Litres	Overall (WxHxD) - mm		
Single door							
VS 1/1	330	330	620	67,5	635	1510	814
VS 2/1	330	700	620	143	760	1900	844 (*)
Double door							
VS 1/2	330	330	620	67,5	635	1510	814
VS 2/2	330	700	620	143	760	1900	844 (*)

(*) footprint (for outer dimensions of VS 2 add 30 mm for the panels). Loading height: 900 mm above finished floor.

Technical Data

Components and versions

	Steam sterilizers		
	VS 1 TT	VS 1	VS 2
Compliance with standards			
EN 285 and HTM 2010	•	•	•
Medical device directive 93/42/EEC	•	•	•
PED marking 2014/68/EU	•	•	•
Chamber and door			
Squared shape	•	•	•
Sliding door opening (horizontal, vertical)	←	↓	↓
Sliding door operation	Manual	Automatic	Automatic
Technical area			
Front access for service	•	•	•
Frame on wheels for easy machine transport/positioning	-	•	•
Built in air compressor feeding gaskets and valves	•	•	•
Load capacity			
Number of STU	1	1	2
Number of levels	1 up to 2	1 up to 2	2 up to 4
Suitable for stackable loads	•	•	•
Control system and traceability			
Touch screen HMI, loading side	7"	7"	7"
Barcode reader for cycle parameter recognition	◦	◦	◦
Integrated printer	•	•	•
Ethernet port for digital traceability (SteelcoData software)	◦	◦	◦
Power save UPS	-	◦	◦
Process cycles			
Working programs: heating, 121°C/ 249.8°F and 134°C/273.2°F	•	•	•
Test/service programs: vacuum, steam penetration (e.g. Bowie & Dick, Helix)	•	•	•
Custom programs: process needs to be validated under customer responsibility	•	•	•
Prion cycle: activated Steelco service technician, process needs to be validated under customer responsibility	•	•	•
Auto start function	◦	◦	◦
Process monitoring			
Air detector	-	◦	◦
Supply			
Built-in electrical steam generator	•	◦	◦
Direct steam feeding	-	•	•
Built-in combined steam feeding (direct/electrical generator)	-	◦	◦

• = Standard ◦ = Option - = Not available

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