Steelco VS L range
Bulk Laboratory Steam Sterilizers

Group
Member

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 renown 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 and contamination prevention, optimize processes and minimize costs.

Our focus on innovation has led us to become leaders in areas such as automation, improving the efficiency and working environment of those that use Steelco products.

Whether you are just wishing to replace a single small machine or **requiring assistance in designing** and **equipping your scientific or research laborator**y, Steelco and it's factory trained dealers are here to help you make the best decision possible that works for you and then support you every step of the way.

Steelco's catalogues of the **washing systems** for **life sciences and laboratory** applications:

Washer disinfectors for
life science applications

Laboratory glassware
washer disinfectors

Steam sterilizing autoclaves
for pharma and research laboratories

Steelco is the ideal partner for the sterilization of glassware and other items used in laboratory activities or life sciences applications. Customers appreciate the **versatility**, **intuitive functionality, high performance** and **reliability** of the VS L Series. With an extensive range, models are available for any size facility.

Our experienced layout design team can help you plan you new or refurbished department and our process engineering team can develop cycles specifically to best meet your needs.

R&D Department	
Scientific Laboratories	
Pharmaceutical Laboratories	

Supporting you every step of the way

Steelco provides technical service and user training courses at the Steelco Academy. 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 sterilizers. Spare parts are readily available from Steelco logistic and technical support center.

Steelco's catalogues for the **pharmaceutical applications**:

Pharmaceutical **washing and sterilization** systems

Steelco VS L bulk range
bulk steam sterilizers for your life science laboratory

Steelco steam sterilizers VS L series are designed for laboratory applications including research laboratories, bio-containment and animal care facilities.

VS L bulk sterilizers are engineered to offer best in class solutions for the reduction of energy and water consumption to give users lowest operating costs per load, ECO water saving packages reduce water consumption to nearly zero depending on chosen model and options

Up to 10 standard chamber sizes with a volume from 905 to 9.070 litres are available with pressure vessel and relief valves that are PED and/or ASME marked or according to the directives of the country of destination.

VS L Bulk Range
Automatic horizontal sliding door or manual hinged door

Chamber volume
from 905 litres (32 ft^3)
to 9.070 litres (320 $\frac{1}{3}$ ft^3)

Standard compliant

Steelco manufactures according the ISO 9001 quality system. Steam sterilizers VS L series meet the following standards requirements:

• 2006/42/CE (Machinery Directive)
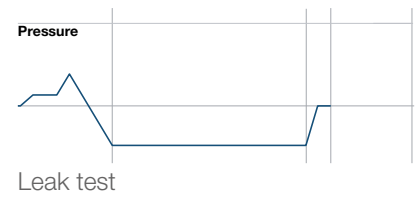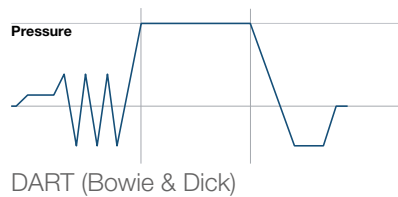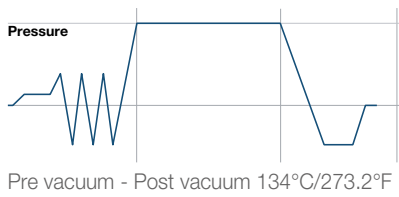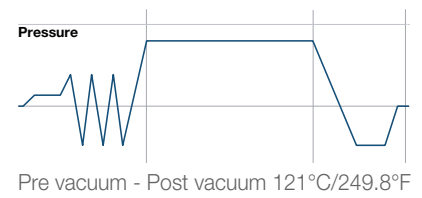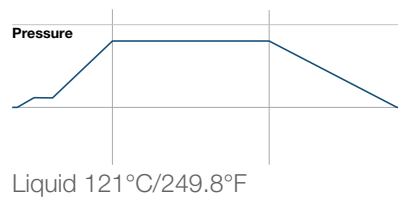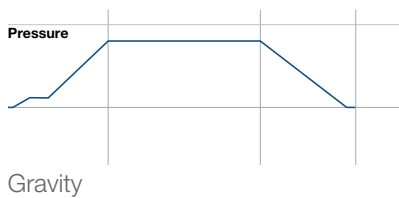• 2014/30/EU (EMC Directive)
• 2014/68/UE (PED)

Additional technical norms and standards (according to country of destination and customer requirements):

• IEC 61010-2-040
• EN ISO 12100
• EN 61326
• EN 13445
• EN ISO 9712

• EN ISO 9606-1
• EN ISO 15614-1
• ASME code Sec.VIII div. 1 & div. 2
• UL compliant
• EN 285 (available upon request)

- **ECO water saving options,** unrivalled levels of efficiency.
- Single and double door pass through options.
- Manual hinged or automatic sliding door
- Technical service access either on the left or right loading side.

Cycle configuration to match your process needs

The following cycles are factory programmed and included as standard.

Pressure

Gravity

Pressure

Liquid 121°C/249.8°F

Pressure

Pre vacuum - Post vacuum 121°C/249.8°F

Pressure

Pre vacuum - Post vacuum 134°C/273.2°F

Pressure

DART (Bowie & Dick)

Pressure

Leak test

Jacket cooling, air over pressure with jacket cooling, effluent decontamination, low temperature cycle and F_0 function are available **as option**.

Steelco can develop and provide specific cycles to meet individual customers needs.

Steelco VS L Small & Medium Range

Chamber volume
from 110 litres ($3\ ^8/_9$ ft^3)
to 920 litres ($32\ ^1/_2$ ft^3)

Steelco has developed a wide range of small and medium sized autoclaves. **Up to 8 standard chamber sizes** with a volume from 110 to 920 litres.

Steelco VS L range

Bulk laboratory steam sterilizers

Key features

- AISI 316L stainless steel chamber with high efficiency heat transfer **full jacket system** for even heat distribution
- Doors internally made of **stainless steel AISI 316L** with no welding
- **Heat insulation** with durable reusable **cover** for fast service maintenance at a lower cost
- **Load control probe** included as standard
- Colour touch screen HMI with multi level user access system
- Built-in printer for process recording
- Non proprietary widely available durable spare parts
- **ECO cool down water saving system** included as standard

User friendly colour touch screen.

Integrated printer and ethernet port.
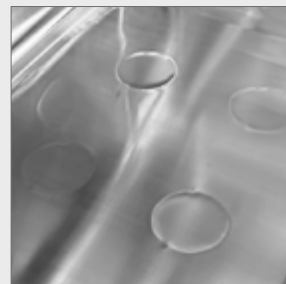
Full high efficiency heat transfer jacket system.

Piping made of AISI 316L stainless steel, available as option.

Flexible configuration
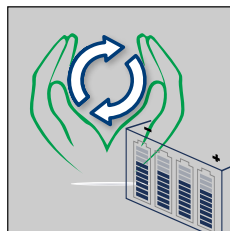
horizontal sliding
left or right

hinged door
left or right

- *Single or double doors for pass through installation**
- *Sliding or hinged, automatic or manual doors**
- *Technical area either on the left or right side**

** Limitation may apply based on country destination
and sterilizer model/configuration*

Safe Seal

Air-differential seals
available as options

UPS option for up to 5
minutes of continuous
operation in the event of a
power failure.
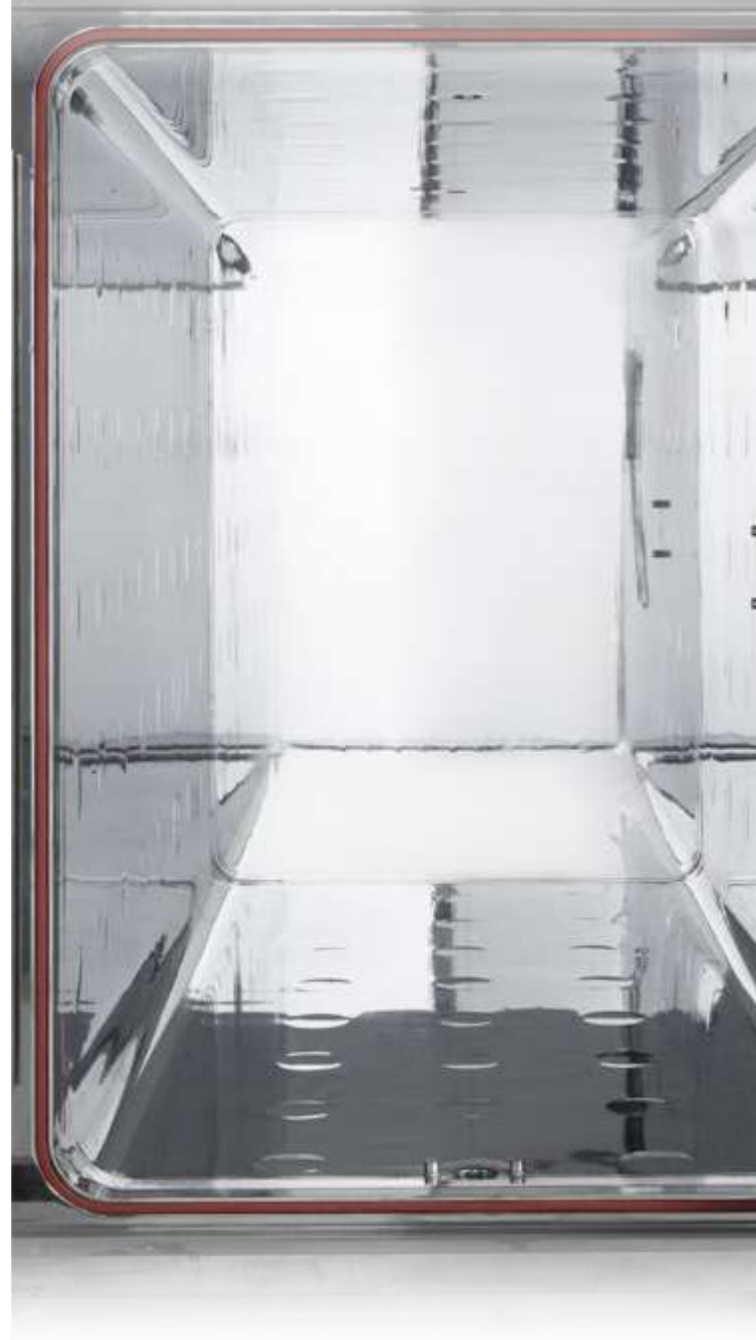
Door internally made of stainless
steel AISI 316L with no welding.
Safe, hermetically sealing for
durability and reliability.

Heat insulation with durable
fabric covering for improved
service maintenance.

RTD (Resistance Temperature
Detectors) temperature probes.

High efficiency water ring
vacuum pump.

ECO water saving options
Unrivalled levels of efficiency

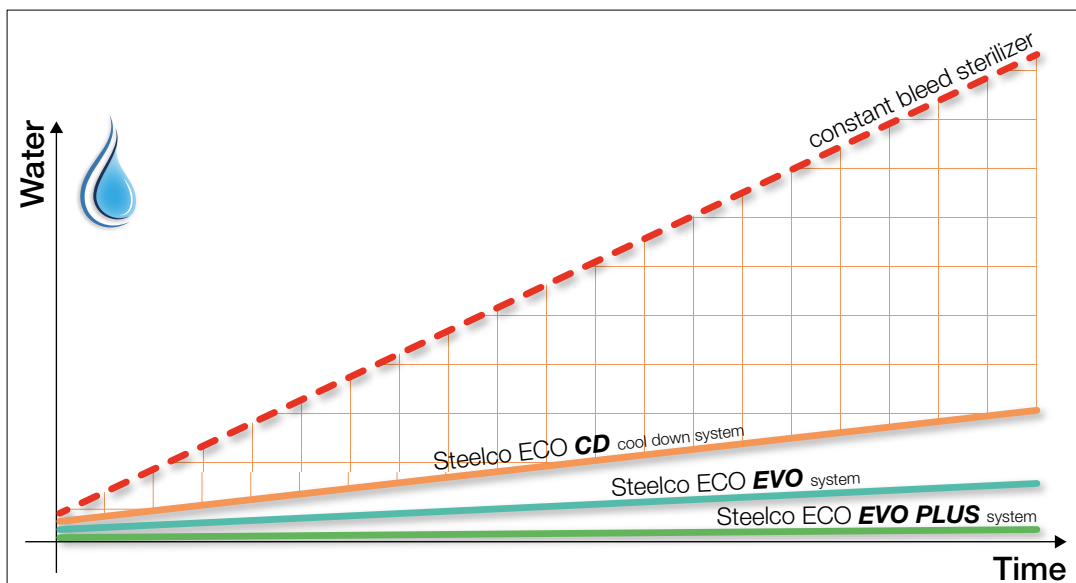Steelco's sterilisers set new standards in utilities reduction.

Water saving options can reduce water consumption to nearly zero depending on chosen model and water saving configuration.

As part of its environmental water saving policy, Steelco equips **all sterilizers as standard** with its **ECO CD cool down system** water saving package.

Every drop counts!

ECO configurations

CD *cool down system*
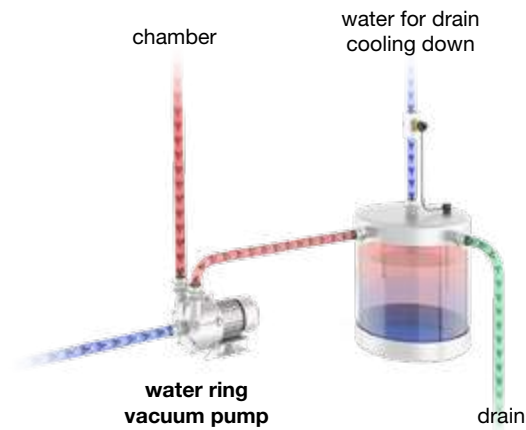
The system consists of a tank that collects both chamber and condensate drains.

EVO *system*
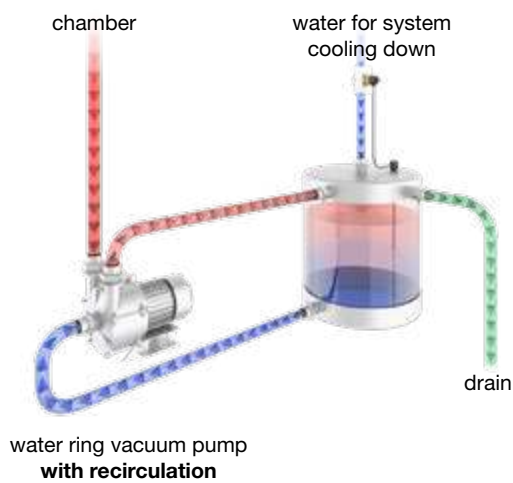
The system consists of a tank that collects both chamber and condensate drains. Collected water is re-circulated to feed vacuum systems.

EVO PLUS *system*
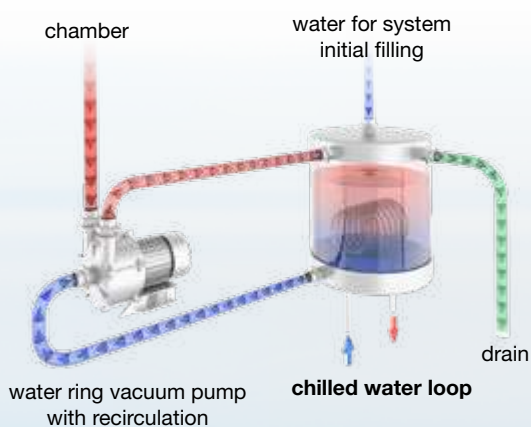
The system consists of a water tank that collects both chamber and condensate drains. Collected water is re-circulated to feed vacuum systems. The system exchanges heat with a chilled water loop from building.

Machine configuration

Standard features

- Chamber made of AISI 316L stainless steel
- Piping and valves in copper-brass
- Single door
- HMI - Hakko 7" touch screen display operating panel with PLC Saia, positioned on side of the chamber.
- On board thermal printer
- Vacumm Pump
- CD Cool Down
- Steam from building
- Pneumatic valves
- Load Control Probe
- Gravity Cycle
- Liquid Cycle
- Pre-Post Vacuum cycles
- Leak Test
- DART (Daily Air Removal Test) cycle
- Hinged front cabinet panel
- Chamber rails or chamber tracks located on the floor of the sterilizer chamber
- EN 285 (applicable requirements).
- ASME vessel and safety valves
- Loading accessories (not included)

Options

Structural machine configuration

- Second Door
- Chamber and doors polish finishing
- Chamber in 316TI stainless steel
- Air differential seal
- Side and top panels
- Floating switch for vessel
- Seismic Tie-Down Kit
- Seismic Calculations

Hydraulic configuration

- 316L Stainless steel process-steam wetted piping
- 316L Stainless steel valves and components
- Steam Filter for direct steam feeding
- On board 316L stainless steel Electric boiler
- On board 316L Stainless steel Steam to Steam boiler for clean steam application
- Combined functioning: building Steam/Electrical boiler made of 316L Stainless steel or Carbon steel
- EVO cool down
- EVO PLUS cool down
- On board Air Compressor for valves and gasket only

Process cycle

- Jacket cooling with cold water
- Jacket cooling with water recirculation system
- Air Over Pressure with Jacket cooling
- Thermocouple fitting
- Pipework for testing clean steam quality - in compliance with EN 285
- Automatic air detector system - allowing also manual operation - in compliance with EN 285

- Manual air detector system - manual operation with check valves - in compliance with EN 285.
- Degassing system for feeding boiler water
- Effluent Decontamination feature
- Additional filter for effluent decontamination feature
- Incinerator for effluent decontamination feature
- F0 function
- Low Temperature Cycle
- Water shower + counter pressure
- H2O2 port

Control options

- HMI full capability on unload side
- Control panel on loading side SIEMENS IPC377E Family 15" TOUCH with PLC and developed with WinCC Advanced
- Audit Trail / User Management / Electronic Signature according 21 CFR 11
- SteelcoData View - cycle traceability software
- Connection for remote monitoring (tele-service)
- UPS - Uninterruptible power supply
- Volt free contact
- USB port

Further options

- Knocked down delivery

Accessories

- Fixed height loading carriage + loading car with 3 perforated shelves
- Load cart for floor loading
- Additional loading car with perforated shelves
- Additional fixed height loading carriage for unload side

Documentation & Validation

- FAT Steelco standard Laboratory protocol and execution
- IQ-OQ protocols
- SAT Steelco standard Laboratory protocol
- Calibration certificates at factory's site
- 100% test I/O PLC at factory's site
- Temperature mapping test at factory's site

Car and carriage

Fixed height loading carriage and loading car with 3 height adjustment shelves. Shelves can hold 100 Kg (220 lbs) evenly distributed on the shelf. Load cart for floor loading: Upon request is possible to order a load cart for floor loading installation made of 316 stainless steel.

Capacity and dimensions

VS L - Bulk capacity range

All models are available in **single or double** door version.
Overall dimension depends on sterilizer model/configuration. Custom sizes also available.

Model	Door opening	Door	Capacity (Liters/ft³)	Chamber dimensions (mm/inch)			Overall dimensions (mm/inch)		
				Width	Height	Depth	Width	Height	Depth
VS 264151 L	Sliding Horizontal	Single	905 32	670 26 $1/2$	1050 41 $1/4$	1286 50 $3/4$	1860 73 $1/4$	1900 74 $3/4$	1592 62 $3/4$
		Double	922 32 $1/2$	670 26 $1/2$	1050 41 $1/4$	1310 52 $1/2$	1860 73 $1/4$	1900 74 $3/4$	1592 62 $3/4$
VS 264175 L	Sliding Horizontal	Single	1330 47	670 26 $1/2$	1050 41 $1/4$	1886 74 $1/4$	1860 73 $1/4$	1900 74 $3/4$	2192 86 $1/4$
		Double	1344 47 $1/2$	670 26 $1/2$	1050 41 $1/4$	1910 75 $1/4$	1860 73 $1/4$	1900 74 $3/4$	2192 86 $1/4$
VS 364872 L	Sliding Horizontal /Hinged	Single or Double	2040 72	914 36	1219 48	1829 72	1795 70 $3/4$	2012 79 $1/4$	2192 86 $1/4$
VS 355764 L	Sliding Horizontal	Single or Double	2130 75 $1/4$	900 35 $1/2$	1450 57	1630 64 $1/4$	2585 101 $3/4$	1946 76 $1/2$	2088 86 $1/4$
VS 415798 L	Sliding Horizontal	Single or Double	3800 134 $1/4$	1050 41 $1/4$	1450 57	2500 98 $1/2$	2910 114 $1/2$	1950 76 $3/4$	2964 116 $3/4$
VS 398787 L	Sliding Horizontal	Single or Double	4840 171	1000 39 $1/4$	2200 86 $1/2$	2200 86 $1/2$	2693 106	2712 106 $3/4$	2664 105
VS 3583106 L	Sliding Horizontal	Single or Double	5100 180	900 35 $1/2$	2100 82 $3/4$	2700 106 $1/4$	2543 100	2600 102 $1/4$	3164 124 $1/2$
VS 498686 L	Sliding Horizontal	Single or Double	5940 209 $3/4$	1245 49	2184 86	2184 86	3213 126 $1/2$	2768 109	2664 105
VS 4987103 L	Sliding Horizontal	Single or Double	7170 253 $1/4$	1250 49 $1/4$	2200 86 $1/2$	2607 102 $3/4$	3243 127 $3/4$	2700 106 $1/4$	3073 121
VS 4383130 L	Sliding Horizontal	Single or Double	7625 269 $1/5$	1100 43 $1/4$	2100 82 $3/4$	3300 130	2943 115 $3/4$	2600 102 $1/4$	3764 148 $1/4$
VS 5186126 L	Sliding Horizontal	Single or Double	9070 320 $1/4$	1300 51 $1/4$	2180 85 $3/4$	3200 126	3363 132 $1/2$	2930 115 $1/4$	3700 145 $3/4$

steelco

Miele Group Member

ARES - flexible endoscope automated reprocessing system

Steam sterilizing autoclaves

Laboratory glassware washer disinfectors

Washer disinfectors for central of sterilization departments

Dental washer disinfectors

Flusher disinfectors

Washing and sterilizing systems for lifescience and pharmaceutical applications

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CE