

# Steam sterilizing autoclaves

for hospitals, CSSD and medical centers



**Steelco**  
*your partner in infection control*



“For the Environmentally conscious”

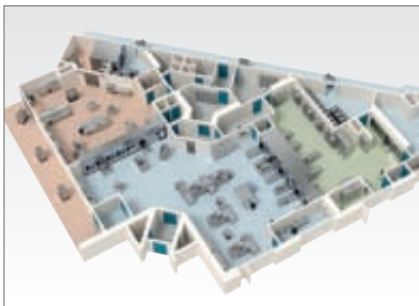


## Driven by customer needs

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, optimize processes and minimize costs. Our focus on innovation has led us to become leaders in areas such as automation.

Whether you are just wishing to replace a single small machine or assistance in designing and equipping a large central CSSD, 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.

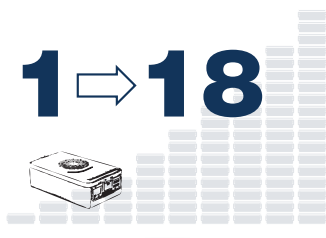


*Steelco ATS  
Automatic Transfer System*



## Leading in high efficiency innovation

Steelco has developed a full range of high capacity steam sterilizers for the perfect solution from the smallest facility to the largest central sterilization supply department.



Steelco sterilizers offer: **versatility, safety, high performance,** with **low cost of ownership** and **traceability**.

From the processing of **a single STU up to 18 STU per cycle**, each model in our range of steam sterilizers combines high productivity with cost efficiency: an effective tool to improve CSSD running costs.



Steelco steam sterilizers can perform standard 134°C instrument cycles in as little as 22 minutes and even larger 18 STU models are capable of 2 cycles per hour.



Steelco 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 options:** Steelco's range of high end solutions to save water and energy.

## Supporting you every step of the way

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 sterilizers.





## Steelco VS Series

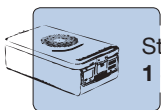
### A full range for any size of facility

With innovative high performance sterilizing technology, Steelco's autoclave chamber is made of AISI 316L stainless steel and entirely covered by a high efficiency jacket to ensure fast heating and reduced cycle times. This ensures even heat distribution and reduced utilities consumption for heating and cooling.

This new chamber design minimizes dead space for optimal loading and throughput.

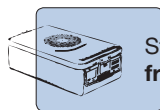


**VS 1 TT**  
**Tabletop autoclave**  
*Horizontal sliding door*



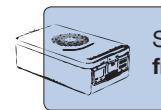
Sterilization chamber  
1 STU

**VS Series**  
**Small capacity**  
*Vertical sliding door*



Sterilization chamber  
from 1 to 3 STU

**VS Series**  
**Medium capacity**  
*Vertical sliding door*



Sterilization chamber  
from 4 to 12 STU

## Standard compliant

Steelco steam sterilizers VS Series are designed and constructed to comply with the latest guidelines: 93/42/EEC and its revised version, 97/23/EC, SELO Certification, EN 285, EN ISO 14971, EN ISO 17665-1, IEC EN 61010-1, IEC EN 61010-2-040, IEC EN 60601-1-6, EN 61326-1.



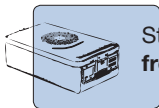




- Single and double door pass through options
- Technical service access either on the left or right loading side



**VS H Series**  
**Large capacity**  
*Horizontal sliding door*



Sterilization chamber  
**from 12 to 18 STU**



**VS 36 L**  
**Steam disinfection unit**  
*Horizontal sliding door*

*for reprocessing of mattresses, pillows and quilts*  
**Capacity 3800 litres / 1,005.53 gal**



Steelco is unique in offering fully automated loading and unloading options for both vertical and horizontal door sterilizers. Steelco can provide a full system planning service based on 3D architectural modelling to support CSSD team managers in customizing lay-out configurations for new or refurbishment projects.





## ECO - water and energy saving options unrivalled levels of efficiency

Steelco's sterilizers are already efficient compared to equivalent competitor models.

To assist our customers conserve water even further, Steelco has introduced ECO water and energy saving packages that can reduce overall water consumption up to 90% depending on chosen options with a 13% reduction in energy. This means that a 1 DIN standard STU container can be reprocessed using as little as 1.5L of water.

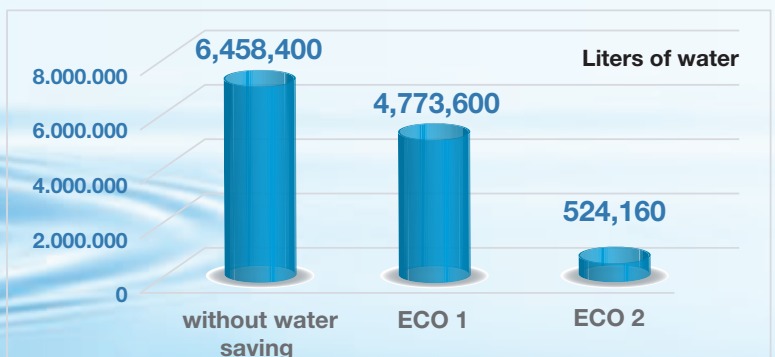
As part of its environmental water saving policy, Steelco equips all sterilizers as standard with its ECO 1 water saving package.



With headquarters overlooking the Alps, a core value of Steelco is to minimize our carbon footprint by manufacturing in modern premises in as efficient a manner as possible, reducing energy and water consumption of our equipment whilst improving performance.

## Every drop counts!

Example of the **annual water consumption in liters** of a CSSD of a typical university hospital with 4 units of 18 STU sterilizer with house steam: 15 cycles per day, 6 days a week, 52 weeks a year.





### ECO 1

This option, included as standard, helps to achieve a **reduction in water consumption on average of 35%** with less water needed to cool down the drain prior to discharge.

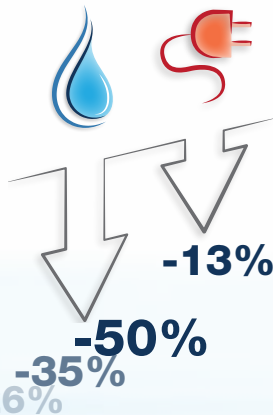
- Saves water
- Cools drain water



### ECO 2

This option involves the use of chilled water from a chilled water system. It consists of a set of high efficiency heat exchangers enabling a substantial saving in water consumption by the vacuum pump and **over 90% reduction of total water usage**. Drain water is also cooled, so that separate tap water does not need to be used to lower the temperature prior to discharge.

- Saves water
- Cools drain water



### ECO 3

This hybrid system helps to achieve a **reduction in water consumption on average of 35%** with less water needed to cool down the drain prior to discharge.

This configuration features an energy recovery system supplying the steam generator with preheated water. The system provides **an energy saving of up to 13% in the production of process steam** with the further benefit of having a water supply "buffer", enabling the successful completion of a sterilization cycle in the event of a disruption in water supply

- Saves water
- Saves energy
- Cools drain water
- Creates a water buffer

Steelco quotes savings in water and electrical consumption compared to its standard machines, not against worst performing machines from other companies. Only actual consumption figures for specific cycles with and without utility saving packages provide a realistic comparison.



## Process cycles

20 programmes, 12 factory pre-defined, 8 custom.

### Working programs

Process cycles according to EN 285 are factory programmed and available for the operator to select via the touch screen control panel.

Standard programme cycles include: 121°C/ 249,8°F and 134°C/273,2°F, for textiles, instruments, rubber.

Additional programs are available such as a Prion cycle or can be programmed and validated according to customer specifications.

Temperature inside the chamber is uniformly distributed with a temperature deviation of less than 0.5°C.

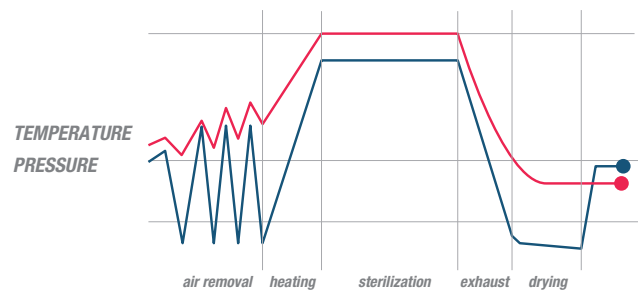
The touch screen displays cycle status and alarms with cycle data stored on the PLC and available from the integrated printer.

### Test/service programs

*Vacuum Leak Test:* this cycle is used to verify the vacuum integrity of the sterilizer

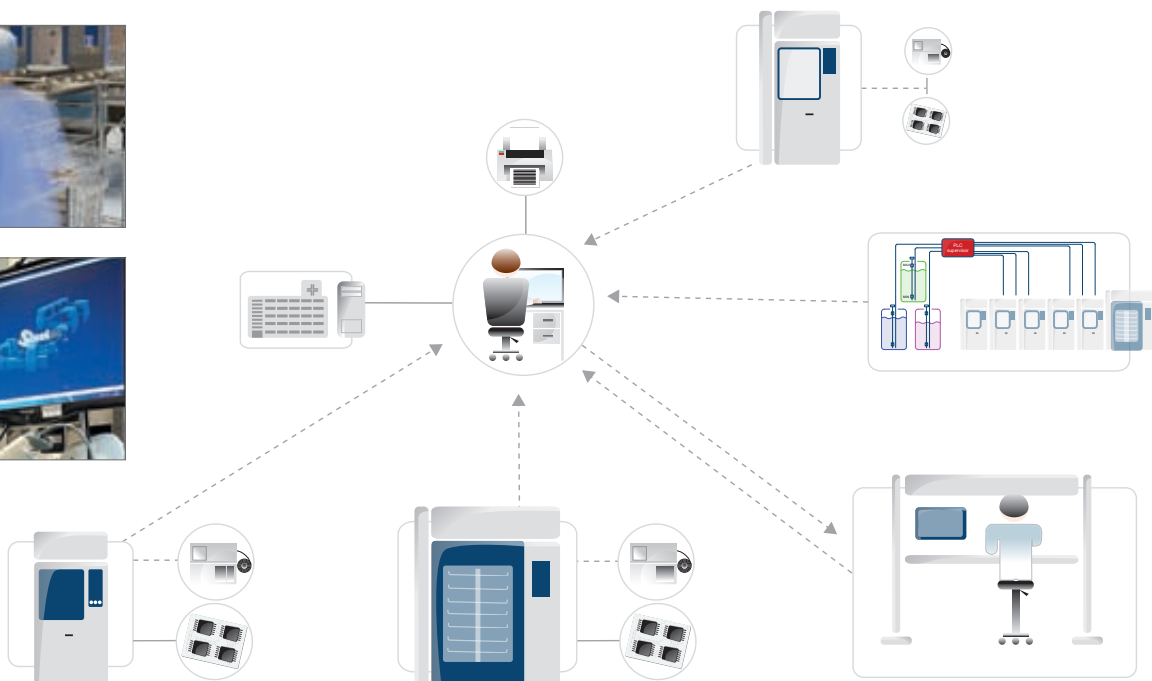
*Bowie-Dick Test:* this cycle is used to verify the effectiveness of steam penetration and air removal

*Helix Test:* the purpose of this test is to check steam penetration down a long lumen, replicating the processing of hollow instruments.



## Total process control

The SteelcoData control system can be linked to most Steelco equipment to provide a comprehensive traceability system as well as remote monitoring of devices.



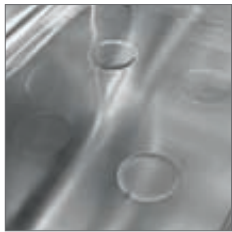




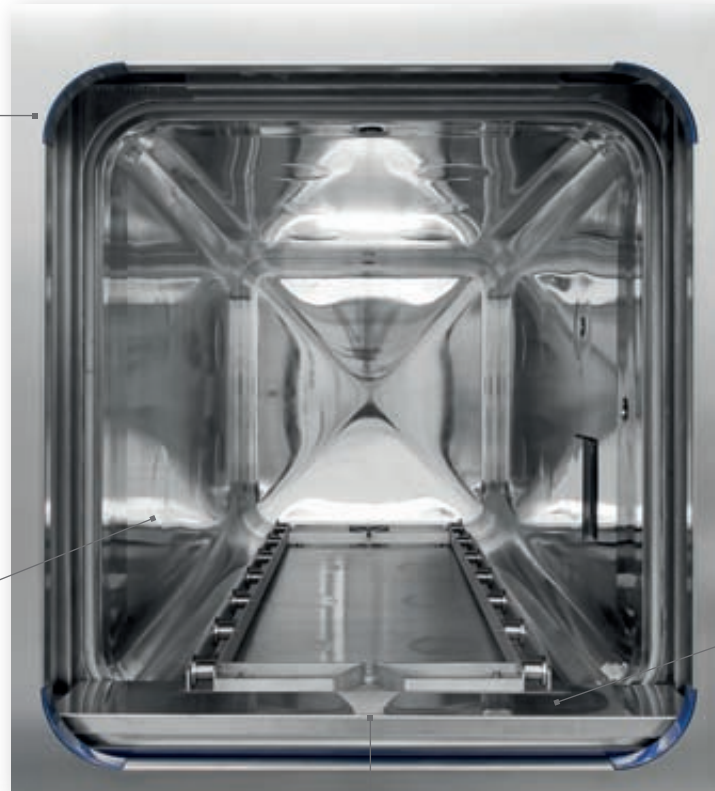
Friendly control panel with multi level user access system.



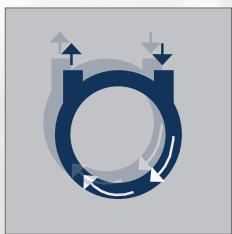
Heat insulation with durable fabric covering for improved service maintenance



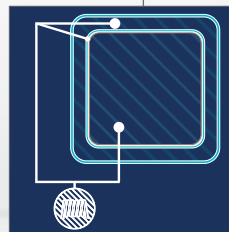
Full high efficiency heat transfer jacket system



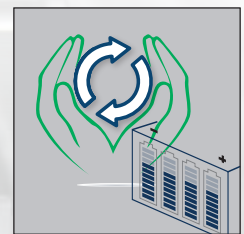
Safety, design and strength



Two stage liquid ring vacuum pump for faster processes



Separate direct injection of steam into the jacket and chamber for better steam quality



Up to 5 minutes of continuous operation in the event of a power failure.

## Clean steam supply system

Steelco steam sterilizers can be powered from several sources\*:

- external clean steam supply (**type V**)
- built-in electrically heated steam generator (**type E**)
- built-in industrial steam heated steam generator (**type I**)
- built-in mixed electrical/industrial steam generator (type **E/I**)
- combining steam generators and external steam sources on request (type **E/V, I/V...**)

\* The steam supply of VS 1 TT is type E only.



## Technical data

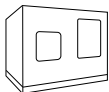
STEAM AUTOCLAVES	VS 1 TT	VS 1 → 1,5	VS 2 → 3	VS 4 → 12	VS 12H→18H
<b>Compliance with standards</b>					
EN 285	•	•	•	•	•
European machine directive 2006/42/EC and medical device directive 93/42/EEC	•	•	•	•	•
PED marking	•	•	•	•	•
<b>Chamber</b>					
type/section (round, rectangular)	○	○	□	□	□
sliding door opening (horizontal, vertical)	→	↓	↓	↓	↔
AISI 316 L	•	•	•	•	•
AISI 316 Ti	-	○	○	○	○
mirror polishing	○	○	○	○	○
<b>Technical area</b>					
configuration (Left or Right)	R	L/R	L/R	L/R	L/R
front access for service	•	•	•	•	•
820mm height stand cabinet	○	-	-	-	-
<b>Load capacity</b>					
number of STU	1	1/1,5	2/3	4/6/8/10/12	12/15/18
number of levels	1	1	2	2	3
loading trolley	-	○	○	○	○
loading/unloading automation	-	-	-	○*	○
ATS automatic transfer system	-	-	-	○*	○
<b>Control system and traceability</b>					
touch screen graphic LCD display	7"	5,7" - 7"	5,7" - 7"	5,7" - 7"	5,7" - 7"
barcode reader for cycle parameter recognition	○	○	○	○	○
integrated printer	•	•	•	•	•
ethernet port	•	•	•	•	•
SteelcoData supervisor software for traceability and equipment monitoring	○	○	○	○	○
5 minutes power save	○	○	○	○	○
<b>Process cycles</b>					
working programs: 121°C/ 249,8°F and 134°C/273,2°F, for textiles, instruments, rubber	•	•	•	•	•
test/service programs					
heating	•	•	•	•	•
vacuum	•	•	•	•	•
Bowie Dick	•	•	•	•	•
Helix	•	•	•	•	•
custom programs	•	•	•	•	•
Prion cycle (according to local requirements)	○	○	○	○	○
auto start function	○	○	○	○	○
<b>ECO options</b>					
ECO 1 - Water saving, drain cooling	-	•	•	•	•
ECO 2 - Water saving, energy saving, drain cooling, save the cycle water feeding	-	○	○	○	○
ECO 3 - Water saving with chiller system	-	○	○	○	○

• = Standard    ○ = Optional    - = Not available

\*) from 6 STU capacity

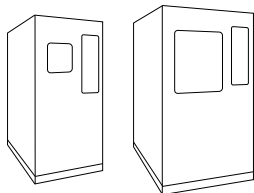
## Capacity and dimensions

### VS 1 TT tabletop autoclave 1 STU



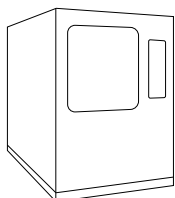
model	chamber (Ø - WxHxD) - mm/inch				litres/gal	overall (WxHxD) - mm/inch		
Single door								
VS 1 TT/1	420/16.53	310/12.20	310/12.20	682/26.85	94,44/24.95	1050/41.34	900/35.43	800/31.50

### VS Series small capacity 1 - 1,5 - 2 - 3 STU



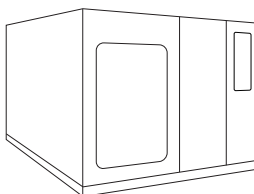
model	chamber (Ø - WxHxD) - mm/inch				litres/gal	overall (WxHxD) - mm/inch		
Single door								
VS 1/1	420/16.53	310/12.20	310/12.20	782/30.79	108/28.53	800/31.50	1700/66.93	1000/39.37
VS 1,5/1	420/16.53	310/12.20	310/12.20	1082/42.60	150/39.63	800/31.50	1700/66.93	1300/51.18
VS 2/1	-	440/17.32	700/27.56	645/25.39	200/52.83	1000/39.37	1900/74.80	992/39.05
VS 3/1	-	440/17.32	700/27.56	945/37.20	290/76.61	1000/39.37	1900/74.80	1292/50.87
Double door								
VS 1/2	420/16.53	310/12.20	310/12.20	718/28.27	100/26.42	800/31.50	1700/66.93	1000/39.37
VS 1,5/2	420/16.53	310/12.20	310/12.20	1018/40.08	141/37.25	800/31.50	1700/66.93	1300/51.18
VS 2/2	-	440/17.32	700/27.56	670/26.38	205/54.15	1000/39.37	1900/74.80	992/39.05
VS 3/2	-	440/17.32	700/27.56	970/38.19	300/79.25	1000/39.37	1900/74.80	1292/50.87

### VS Series medium capacity 4 - 6 - 8 - 10 - 12 STU



model	chamber (WxHxD) - mm/inch			litres/gal	overall (WxHxD) - mm/inch		
Single door							
VS 4/1	670/26.38	700/27.56	686/27.01	322/85.06	1250/49.21	1900/74.80	992/39.06
VS 6/1	670/26.38	700/27.56	986/38.82	462/122.05	1100/43.31	1900/74.80	1292/50.87
VS 8/1	670/26.38	700/27.56	1286/50.63	603/159.30	1100/43.31	1900/74.80	1592/62.68
VS 10/1	670/26.38	700/27.56	1586/60.87	744/196.54	1100/43.31	1900/74.80	1892/74.49
VS 12/1	670/26.38	700/27.56	1940/76.39	910/240.40	1100/43.31	1900/74.80	2222/87.48
Double door							
VS 4/2	670/26.38	700/27.56	710/27.95	333/87.97	1250/49.21	1900/74.80	992/39.06
VS 6/2	670/26.38	700/27.56	1010/39.76	474/125.22	1100/43.31	1900/74.80	1292/50.87
VS 8/2	670/26.38	700/27.56	1310/51.57	614/162.20	1100/43.31	1900/74.80	1592/62.68
VS 10/2	670/26.38	700/27.56	1610/63.39	755/199.45	1100/43.31	1900/74.80	1892/74.49
VS 12/2	670/26.38	700/27.56	1940/76.39	910/240.40	1100/43.31	1900/74.80	2222/87.48

### VS H Series large capacity 12 - 15 - 18 STU



model	chamber (WxHxD) - mm/inch			litres/gal	overall (WxHxD) - mm/inch		
Single door							
VS 12 H/1	670/26.38	1050/41.34	1286/50.63	905/239.08	1860/73.23	1900/74.80	1592/62.68
VS 15 H/1	670/26.38	1050/41.34	1586/62.44	1116/294.82	1860/73.23	1900/74.80	1892/74.49
VS 18 H/1	670/26.38	1050/41.34	1886/74.25	1327/350.56	1860/73.23	1900/74.80	2192/86.30
Double door							
VS 12 H/2	670/26.38	1050/41.34	1310/51.57	922/243.57	1860/73.23	1900/74.80	1592/62.68
VS 15 H/2	670/26.38	1050/41.34	1610/63.39	1133/299.31	1860/73.23	1900/74.80	1892/74.49
VS 18 H/2	670/26.38	1050/41.34	1910/75.20	1344/355.05	1860/73.23	1900/74.80	2192/86.30



## Water quality

### water softener and reverse osmosis water purification systems

Effective steam sterilization requires correct water quality. This also helps to prevent the deposition of any contaminants such as limescale. Steelco offers a wide range of water treatment options for different sized facilities.

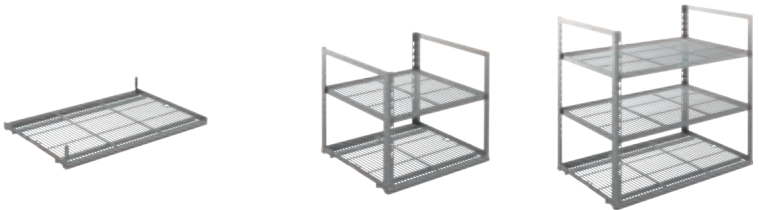
- Water softeners
- RO and DI water systems
- Water chillers

## Accessories

### Loading racks, shelves and transport trolleys

Steelco components range includes useful accessories to improve the efficiency of the CSSD, such as transfer and storage tables as well as motorized transfer trolleys with adjustable height, conveyors and pass-through hatches.

**Shelves and loading racks**, with height adjustment.



**Transport trolley**  
from 1 up to 6 STU as well as dedicated capacity



fixed height



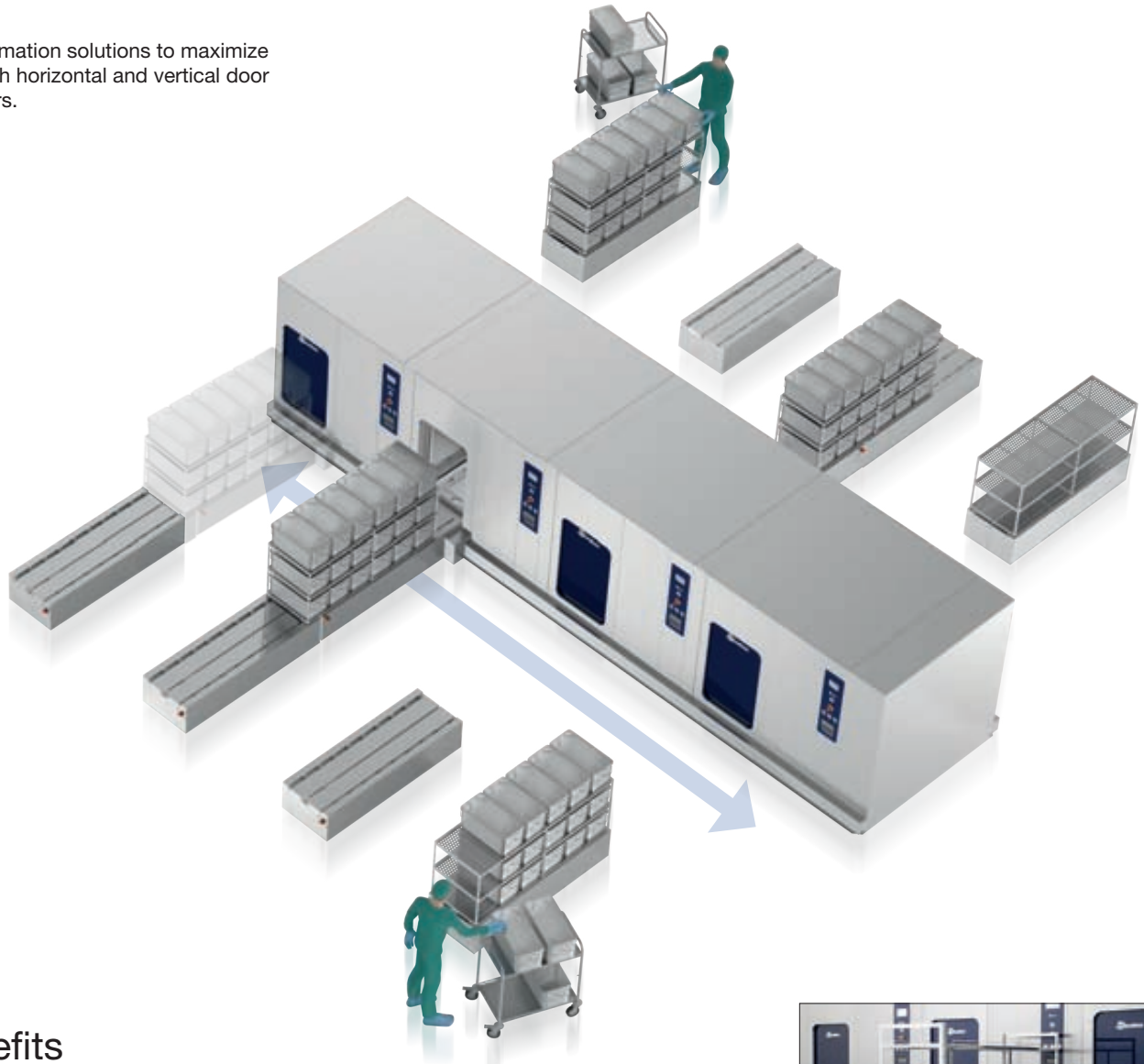
powered adjustable height



## Systems and automation

### automation solutions for different capacities

Tailor made automation solutions to maximize efficiency for both horizontal and vertical door opening sterilizers.



## ATS benefits

- Reduction of the risk of injuries related to manual loading and unloading of heavy loads.
- Automatic selection of right cycle for type of goods via barcode system.
- Optimized running efficiency of sterilizers with equal workload distribution to assist with maintenance planning.
- Enables sterilizers to be located in narrow areas that are not normally accessible with manual loading.
- Easy cleaning of the area below the ATS system.







## VS 36 L

steam disinfection unit

### Professional reprocessing of bedding materials

Reducing the risk of cross infection from any goods that can come into direct contact with humans such as mattresses, pillows, bed linen etc... is of primary importance. The automated steam disinfection of such items is the most effective, reliable and economic way to protect both personnel and patients of a health care facility.



With proven and reliable high performance steam disinfection technology, this Steelco autoclave's chamber is made of AISI 316L stainless steel with a **full jacket system for even steam/heat distribution.**

- +** Disinfection programs covering the A, B and C range of effectiveness according to the RKI requirements
- +** Fast process and high capacity:
  - up to 7 BA (according to DIN 58949)
  - up to 10 mattresses 120mm h
  - up to 12 mattresses 100mm h
- +** Dedicated loading trolleys for mattresses, pillows and quilts
- +** Cycle traceability through integrated printer or network connection



**Models:**

VS 36/1 L single door

VS 36/2 L double door

**Capacity:** litres/gal 3.806/1,005.53

**Chamber (WxHxD):**

1.050 x 1.450 x 2.500 mm

41.34 x 57.09 x 98.43 inches

**Overall (WxHxD):**

2.800 x 2.150 x 3.000 mm

110.24 x 84.65 x 118.11 inches

### Main features

- Chamber and process piping made of stainless steel AISI 316L
- Horizontal sliding door made of stainless steel AISI 316L for durability and ease of cleaning
- Sensitive anti-finger trapping safety device
- Cladding made of stainless steel AISI 304
- Suitable for floor level installation
- Direct and indirect steam to steam feed versions
- Easy service with frontal access
- 7” touch screen panel HMI
- Integrated thermal paper printer

### Main optional features

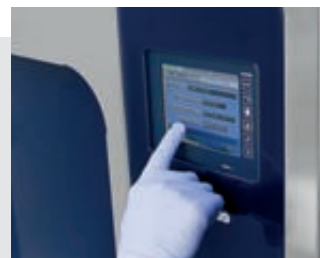
- Condensate disinfection
- Water saving package
- SteelcoData supervisor software
- Drain cooling system
- Loading trolley
- 5 minute UPS
- Remote vacuum pump

## Programs according to the RKI requirement

Cycles from 75°C to 105°C with disinfection times between 5 and 20 minutes according to the range of effectiveness needed as per RKI recommended protocol.

Disinfection of condensate available as an option.

Possibility to program up to 8 additional cycles following customer needs.



User friendly 7” touch screen control panel



Headquarters

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