

# Washer disinfectors

Small - Medium range



**Steelco**  
devoted to hygiene



“For the Environmentally conscious”



# Washer disinfectors

## Small - Medium range

Steelco continues to grow and enhance its international reputation in **healthcare** through its strategy of investment in product development.

This **small-medium range of washer disinfectors** is at the forefront of the latest research and technology, resulting in consistently tested and efficient washing performance. Our approved products are designed to satisfy all customer expectations thus ensuring a strong platform to promote further business opportunities.



- > DS 50
- > DS 50 DRS  
hot air drying
- > DS 50 H DRS  
hot air drying
- > DS 50/2 DRS  
hot air drying pass-through

- > DS 500 SC
  - > DS 500 CL  
hot air drying
- 8 DIN 1/1 trays  
washer disinfectors

- > DS 500
  - > DS 500 DRS  
hot air drying
- 8 DIN 1/1 trays  
washer disinfectors

### Standard compliant

Steelco Washer-Disinfectors are designed and constructed to comply with the latest European and UK guidelines on decontamination. EN ISO 15883-1/2, CEN ISO/TS 15883-5 and HTM 2030  
Steelco Washer-Disinfectors are classified CE Medical Device (Community rule 93/42/CEE) code nr. 0051.





“For the Environmentally conscious”

Constant improvements and innovations lead **Steelco** products to run economically and reach a higher level of environment compatibility.

### Machines baskets, inserts and accessories

*“the range offers to customers a large choice of machines, baskets and inserts all specifically designed to meet different end user needs”*



- > DS 600/1
- > DS 600/2

8 DIN 1/1 trays  
washer disinfectors

- > DS 610/1
- > DS 610/2

Fast Cycle version



10 DIN 1/1 trays  
washer disinfectors

- > DS 610/1
- > DS 610/2

Fast Cycle version



10 DIN 1/1 trays  
washer disinfectors

- > ID 300  
Instrument drying cabinet
- > AD 400  
Instrument, anaesthesia bags and  
hanging hoses mixed drying cabinet
- > BD 500  
Warming cabinet for blankets

Other medical range Steelco products:

ARES  
Endoscope Reprocessing System



Washer disinfectors  
CSSD range, systems and automations

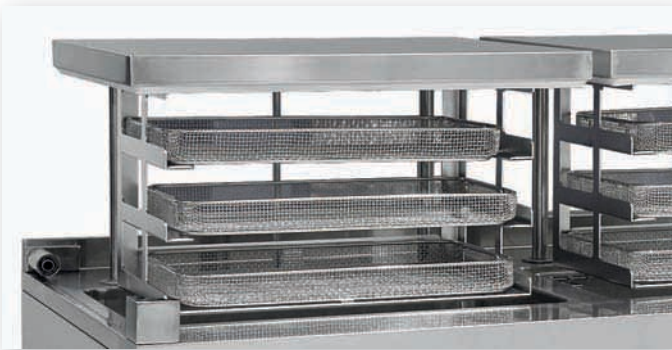




## Cleaning effectiveness

The **Mechanical** action is one of the main element for the cleaning effectiveness of the washing process, Steelco has studied different washing pumps, following each model washing circuit, that ensure high flow rate combined with effective spray pressure.

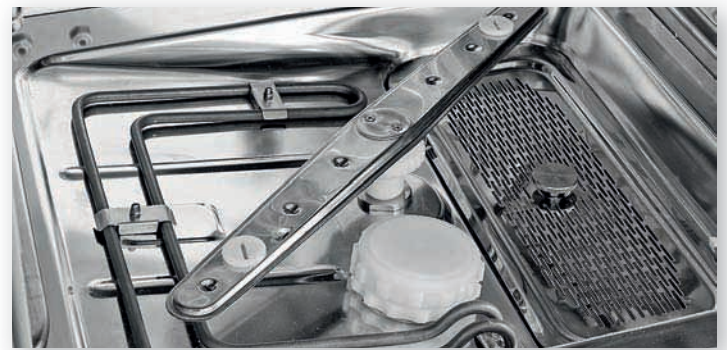
According to internal procedures an ultrasonic cleaning unit can be used as an alternative support to the manual cleaning to remove biological debris in the most intricate shapes and cavities before the washing disinfection process.



Ultrasonic cleaning system washing tanks are made of stainless steel AISI 316L, the external body in AISI 304.

Pneumatic lift of the baskets with security device.

Basket support provided with 6 luer lock connections.



Inner cabinet, washing arms and tank filters made of high quality AISI 316 L stainless steel (DIN 1.4404).

External cabinet made of AISI 304 stainless steel (DIN 1.4301).

Construction system with total removal of angles.

Self cleaning tank with rounded edges.

Water filtering system in three levels.



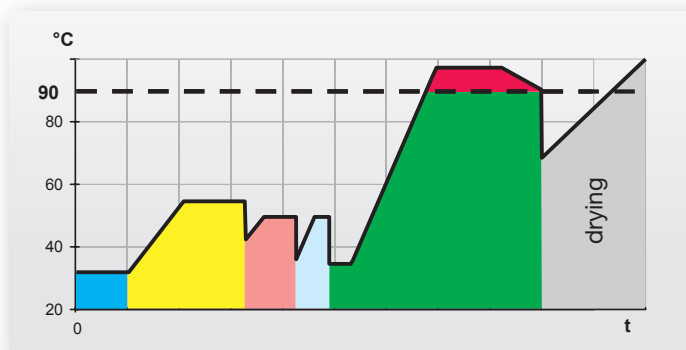
## Ultrasonic cleaning

Ultrasonic cleaning acts on immersed surfaces thousands times a second to insure perfect cleanliness even on the most intricate shapes. Ultrasonic cleaning is safe for the most delicate and highly finished objects since there are no abrasives or harsh chemicals used and does not create scratches which would create cleaning problems later.

Steelco ultrasonic cleaners are available in several versions, all featuring automatic tank filling and water control level with water recirculation through luer lock connections for hollow instruments during the cycle.

## Thermodisinfection and drying capabilities

Thermodisinfection is the recommended and most efficient method for the disinfection of reusable medical devices. European guidelines strongly recommend thermodisinfection to be applied whenever it is possible. To grant the best results, Steelco washer disinfectors are also equipped with efficient hot air drying systems that facilitates the total elimination of remaining water both inside and outside the instruments.



Thermodisinfection by gaining the temperature up to 93°C and with its holding for a programmable and various time, for each single cycle, in order to satisfy all enquiries of laws regarding thermodisinfection in the different countries.

Temperature check by means of 2 PT1000 independent probes.

Every detail of washing and drying circuits has been optimised for the best performances. Process valves, piping and blower are designed for the less possible resistance in the system and for higher water and air flow into the chamber and through the carts.

## Washers key features

- Up to four liquid dispensing systems for detergent dosing.
- Three water connections are available, cold, warm and DI water. Between each cleaning and disinfection phase water is drained and fresh water is introduced for the next phase. Boiler or tanks for pre-heating of DI water option are available. Triple water filtering system grants to capture residue so that it is not recirculated and saves the pump life.
- Double wall construction and thorough insulation reduce electricity consumption and heat loss.
- Large capacity of water softener for a continuous supply of softened water available.
- Water purification system for a continuous supply of DI water available.



## Control system

Steelcotronic Control System, with its auto-diagnostic checking constantly monitors and displays current cycle status and alarms. It allows the user to optimise the washing process and to personalize on board programmes in the machine.



The easy to use touch control system, with graphic colour LCD display, simplifies the end user job when operating the machine. The glass panel guarantees the operator a better protection against contamination when selecting the cycle type.



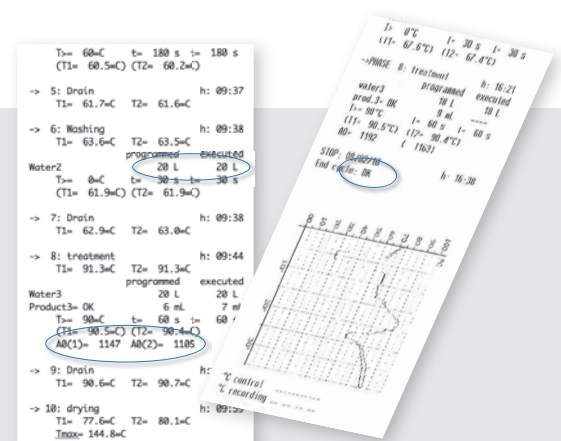
A USB port is available for historical cycle data download and easy software upgrades.

## Print reports and historical cycle data

During every washing cycle the machine software generates a report that can be printed, stored on a USB memory key or transferred to a PC connected via Ethernet or RS232 port.

All critical parameters are registered, in particular:

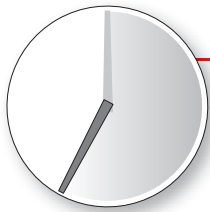
- machine model and number, operator identity
- cycle starting/ending date and time, status at the end of the washing cycle
- executed A0 values
- programmed and executed water and chemical consumption
- temperatures measured by nr. 2 independent monitoring probes during each cycle phase



## The Fast Cycle concept

Steelco follow the more and more growing Customer demand for washer disinfectors which can combine high standard cleaning and drying results with working efficiency and very short cycle time. (DS 610 and DS 610 SL machines)

### Save time and save energy



**35 Min. Cycle Time**

#### Fast Cycle concept

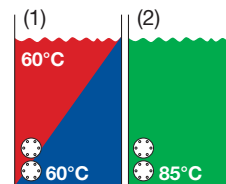
*"to combine the energy saving concept with a high standard cleaning and drying performance in a very short cycle time"*

Thanks to the experience we have made with the manufacturing of our DS 1000 3S and DS 800 3S CSSD models for which a standard cleaning, disinfecting and drying cycle time has been reduced up to 30 minutes, Steelco has now developed new fast cycle machines for the middle size washer disinfectors range.

DS 610 SL (sliding down door) and DS 610 (hinged door) machines have been developed in Fast Cycle configuration to achieve effective washing and drying results in a 35 minutes cycle time.

Focused on the environmentally consciousness theme Steelco has greatly improved working efficiency with the reduction of energy consumption due to cycle time reduction and thermal insulation.

### 2S standard fast cycle



Pre heated tanks

■ washing water

■ demineralized water

■ rinsing water

The pre heated 60 °C hot water washing tank (1) allows to reduce washing process time and consequently total cycle time. Saving heating time in the washing chamber avoids washing chamber to cool down thus reducing energy loss. While the machine is performing the washing phase the washing tank (1) is filled with rinsing water and pre heated to 60 °C.

The pre heated 85 °C demineralized water tank (2) allows to radically reduce thermodisinfection process time and consequently total cycle time.

A further step in energy and time saving can be achieved by an optional highly efficient heat exchanger that recovers washing and rinsing drain hot water energy to pre heat DI water.

Steelco offers a complete accessories range: transport trolleys, wash carts, inserts, trays, complements





## DS 610/1 SL - DS 610/2 SL - Sliding down door washer disinfectors

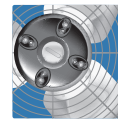
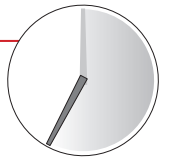


A fully automatic washer disinfectant with **motorized vertical sliding down door** available in **single or double door pass-through** version, **standard or fast cycle concept** version.

The large capacity of this model assures consistently tested and efficient washing-disinfecting performances and can meet at the same time high reprocessing needs of a TSSU/CSSD solution.

### Fast Cycle concept - 35 min. cycle time

*"to combine the energy saving concept with a high standard cleaning and drying performance in a very short cycle time"*



Filtered forced hot air drying system ensures perfect drying of all instruments and tubes after disinfection thanks to an efficient distribution of air on all chamber parts and wash cart levels.



All loading and unloading operations can be done by using manual transfer trolleys or automatic single loading/unloading conveyors.

### Washing chamber



Chamber volume ~250 lt / 66.04 Gal US  
Basket volume ~220 lt / 58.12 Gal US



### Sliding down door

Sliding down door allows reduced machine encumbrance and is ideal in every reprocessing area also when the space is very limited.

The full HST glass motorized door guarantees the end user a complete visual inspection during washing cycle.



# DS 610/1 SL - DS 610/2 SL - Key features

- High safety and easy to use soft touch control system on glass panel with LCD colour display to visualize cycle status.
- 20 standard pre-programmed cycles available and 20 additional cycles available for customization
- RS 232 port for printer connection to monitor and validate washing phases.
- Motorized sliding down glass door made of double HST temperate glass.
- Ergonomic design of the door level height allows convenient loading and unloading operations.
- An efficient filtered forced air drying system with adjustable time and temperature setting, helps to ensure the complete inside and outside drying of all the surgical instruments and tubes.
- Washing and DI disinfection temperature are fully adjustable up to 93°C. Temperature is monitored by two independent sensors.
- Machine can be equipped with a steam condenser to prevent vapours from entering into the washing area.
- Heavy washing pump ensure high flow rate combined with effective spray pressure.
- Washing/drying injection system on the same circuit.
- Inner cabinet, washing arms and tank filters entirely made of high quality AISI 316L stainless steel. Frame and body of machine made of AISI 304 stainless steel.
- Triple water filtering system ensures to capture residue preventing re-circulation of contaminated material.
- Two standard automatic liquid dispensers provided with level control.
- Large storage on bottom basement to allocate up to four 5 lt (1.32 Gal US) chemical containers.

## Optional

- 3<sup>rd</sup> and 4<sup>th</sup> Chemical dosing pump
- Light inside chamber
- Analogic sensor on washing circuit for pressure check (registered data)
- Steam condenser (total machine height 2390mm/94.09")
- HEPA H14 air filter
- Sump steam heating
- Drain water heat exchanger (fast cycle version only)
- Water softner (not for Fast Cycle version)
- Basket recognition system
- 2S Fast Cycle version
- Additional chemical dosing monitoring (flow meters)
- Integrated printer ST2
- USB port
- Ethernet connection
- Conductivity sensor

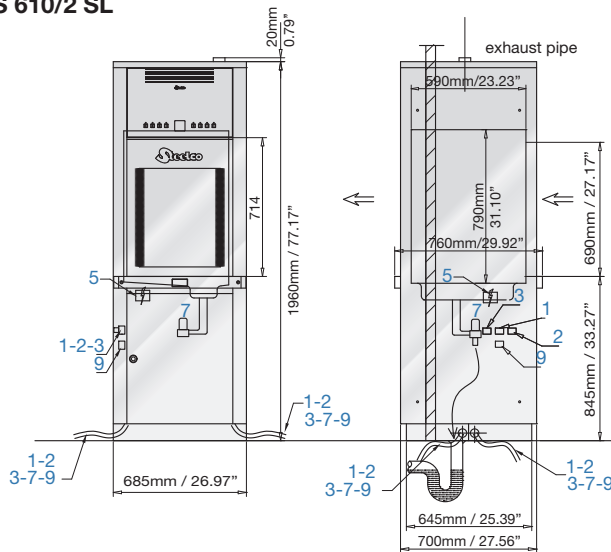
## Dimensions and connections

	DS 610 SL	DS 610 SL Fast Cycle version
Standard electrical connection (International)	400V/3~+N/50Hz	400V/3~+N/50Hz
Optional electrical connection (North America)*	208V/3~+N/60Hz or 480V/3~+N/60Hz	208V/3~+N/60Hz or 480V/3~+N/60Hz
Power**	12750 W	17000 W
Pump power	750 W	750 W
Noise	61.6 dB(A)	61.6 dB(A)
Permitted room temperature	+5°C/41°F - +40°C/104°F	+5°C/41°F - +40°C/104°F
Dryer blower	up to 250 m³/h - 8828 ft³/h	up to 250 m³/h - 8828 ft³/h
Dryer heating	4000 W	4000 W

\* other electrical connections also available as optional

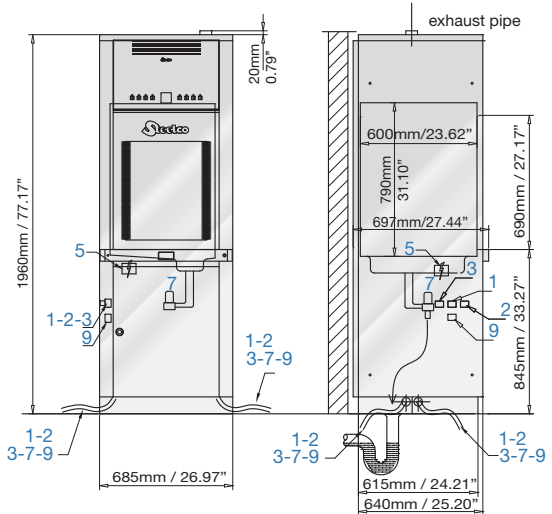
\*\* with electrical heating elements - washing chamber steam heating configuration available as option

## DS 610/2 SL



1 Warm water connection	¾" male	DN 20 mm
2 Cold water connection	¾" male	DN 20 mm
3 Demineralized water connection	¾" male	DN 20 mm
4 Chamber breather pipe	Ø 60 mm/2.36"	

## DS 610/1 SL



5 Electrical connection		
7 Machine drain		Ø 40 mm/1.57"
9 Compressed air		¼" male



# DS 610/1 - DS 610/2 - Washer disinfectors

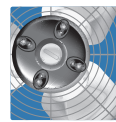
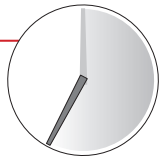


DS 610 is a high capacity model, **frontal loading or pass-through washer disinfectant** available in **standard or fast cycle concept version**.

All loading-unloading operations can be carried out by using manual transfer trolleys.

### Fast Cycle concept - 35 min. cycle time

*"to combine the energy saving concept with a high standard cleaning and drying performance in a very short cycle time"*



Filtered forced hot air drying system ensures perfect drying of all instruments and tubes after disinfection thanks to an efficient distribution of air on all chamber parts and wash cart levels.



### Washing chamber

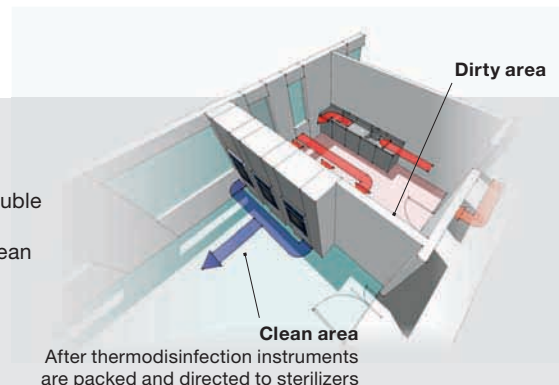


Chamber volume ~250 lt / 66.04 Gal US  
Basket volume ~220 lt / 58.12 Gal US

### Pass-through application

Steelco DS 610 SL, DS 610 and DS 600 in double door version are suitable for reducing cross contamination with separation of dirty and clean washing areas.

With DS 610 machines a higher productivity can be achieved with the optional Fast Cycle configuration.



After thermosinfection instruments are packed and directed to sterilizers

# DS 610/1 - DS 610/2 - Key features

- High safety and easy to use soft touch control system on full glass panel with LCD colour display to visualize cycle status.
- 20 standard pre-programmed cycles available and 20 additional cycles available for customization.
- RS 232 port for printer connection to monitor and validate washing phases.
- Ergonomic design of the door level height allows the user a convenient loading/unloading job with the support of a manual loading/unloading trolley.
- High visibility full glass door.
- Filtered forced air drying system with

- adjustable time and temperature settings, helps to ensure the complete inside and outside drying of all the surgical instruments and tubes.
- Washing and DI disinfection temperature are fully adjustable up to 93°C. Temperature is monitored by two independent sensors
- Standard steam condenser prevents vapours from entering into the washing area. Optional on Fast Cycle configuration.
- Heavy washing pump ensures high flow rate combined with effective spray pressure.

- Washing/drying injection system on the same circuit.
- Inner cabinet, washing arms and tank filters entirely made of high quality AISI 316L stainless steel. Frame and body of machine made of AISI 304 stainless steel.
- Triple water filtering system ensure to capture residue preventing re-circulation of contaminated material.
- Two standard automatic liquid dispensers provided with level control.
- Large storage on bottom basement to allocate up to three 5 lt (1.32 Gal US) chemical containers.

## Optional

- 3<sup>rd</sup> and 4<sup>th</sup> Chemical dosing pump
- HEPA H14 air filter
- Light inside chamber
- Sump steam heating
- Analogic sensor on washing circuit for pressure check (registered data)
- Boiler to pre-heat DI water (4,5 Kw power)
- Drain water heat exchanger (Fast Cycle version only)
- 2S Fast Cycle version (tot machine height 1960 mm / 77.16")
- Water softener (not for Fast Cycle version)
- Integrated printer ST2
- Basket recognition system
- USB port
- Additional chemical dosing monitoring
- Ethernet connection
- Conductivity sensor
- Conductivity sensor
- Steam condenser (Fast Cycle version only, total machine height 2390mm/94.09")

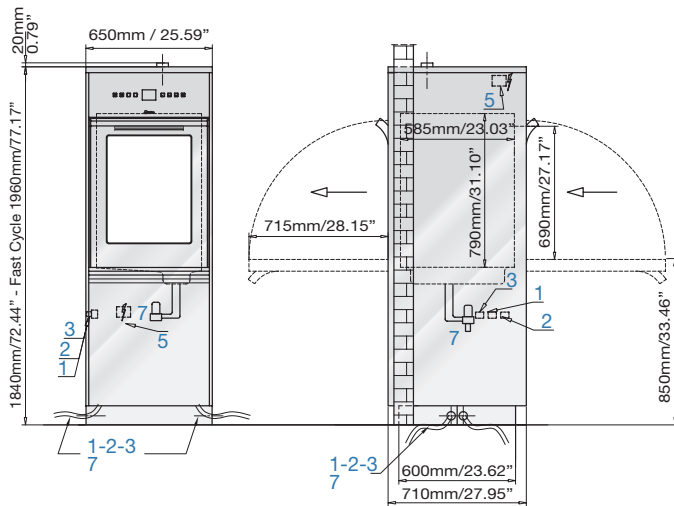
## Dimensions and connections

	DS 610	DS 610 Fast Cycle version
Standard electrical connection (International)	400V/3~+N/50Hz	400V/3~+N/50Hz
Optional electrical connection (North America)*	208V/3~+N/60Hz or 480V/3~+N/60Hz	208V/3~+N/60Hz or 480V/3~+N/60Hz
Power**	12750 W	17000 W
Pump power	750 W	750 W
Noise	61.6 dB(A)	61.6 dB(A)
Permitted room temperature	+5°C/41°F - +40°C/104°F	+5°C/41°F - +40°C/104°F
Dryer blower	up to 250 m³/h - 8828 ft³/h	up to 250 m³/h - 8828 ft³/h
Dryer heating	4000 W	4000 W

\* other electrical connections also available as optional

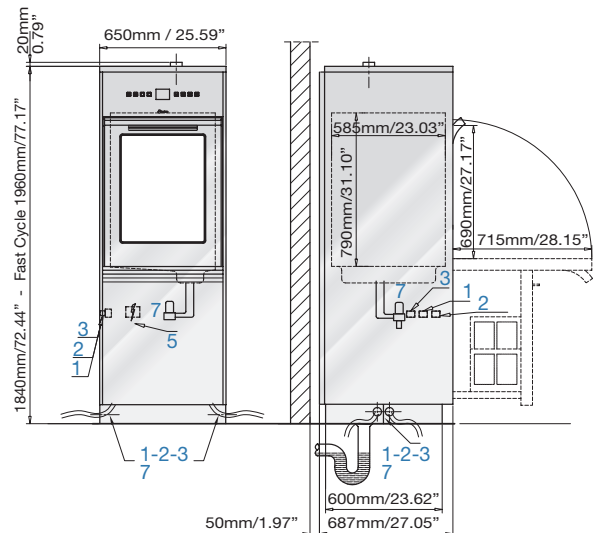
\*\* with electrical heating elements - washing chamber steam heating configuration available as option

## DS 610/2



1 Warm water connection	¾" male	DN 20 mm
2 Cold water connection	¾" male	DN 20 mm
3 Demineralized water connection	¾" male	DN 20 mm

## DS 610/1



4 Chamber breather pipe	Ø 60 mm/2.36"
5 Electrical connection	
7 Machine drain	Ø 40 mm/1.57"

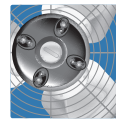


## DS 600/1 - DS 600/2 - Washer disinfectors



DS 600 **frontal loading or pass-through washer disinfectant** is the evolution of a flexible integrated system for the washing, disinfection, air drying and validation of instruments used in surgeries and sterilization centres.

All loading-unloading operations can be carried out by using manual transfer trolleys.



Filtered forced hot air drying system ensures perfect drying of all instruments and tubes after disinfection thanks to an efficient distribution of air on all chamber parts and wash cart levels.



### Washing chamber



Chamber volume ~200 lt / 58.12 Gal US  
Basket volume ~170 lt / 44.90 Gal US

### Carts availability

The following applications are performed using dedicated wash carts and accessories:

Surgical instruments, MIS instruments, Anaesthesia instruments, Ophthalmology instruments, OP rubber shoes, Containers, Baby bottles.



# DS 600/1 - DS 600/2 - Key features

- High safety and easy to use soft touch control system on glass panel with LCD colour display to visualize cycle status.
- 20 standard pre-programmed cycles available and 20 additional cycles available for customization.
- RS 232 port for printer connection to monitor and validate washing phases.
- Ergonomic design of the door level height allows to the user a convenient loading/unloading job with the support of a manual loading/unloading trolley.
- High visibility full glass door.
- Filtered forced air drying system with adjustable time and temperature settings, helps to ensure the complete inside and outside drying of all the surgical instruments and tubes.
- The built-in water softener provides optimal cleaning effectiveness.
- Washing and DI disinfection temperature are fully adjustable up to 93°C. Temperature is monitored by two independent sensors.
- Standard steam condenser eliminates vapours from entering into the washing area.
- Heavy washing pump ensures high flow rate combined with effective spray pressure.
- Washing/drying injection system.
- Inner cabinet, washing arms and tank filters entirely made of high quality AISI 316L stainless steel. Frame and body of machine made of AISI 304 stainless steel.
- Triple water filtering system ensure to capture residue preventing re-circulation of contaminated material.
- Two standard automatic liquid dispensers provided with level control. Two more dispensers are available as optional.
- Large storage on bottom basement to allocate up to three 5 lt (1.32 Gal US) chemical containers.

## Optional

- 3<sup>rd</sup> and 4<sup>th</sup> Chemical dosing pump
- HEPA H14 air filter
- Water softener
- Integrated printer ST2
- Light inside chamber
- Sump steam heating
- Additional chemical dosing monitoring
- Ethernet connection
- Analogic sensor on washing circuit for pressure check (registered data)
- Conductivity sensor
- USB port
- Boiler to pre-heat DI water (4,5 Kw power)

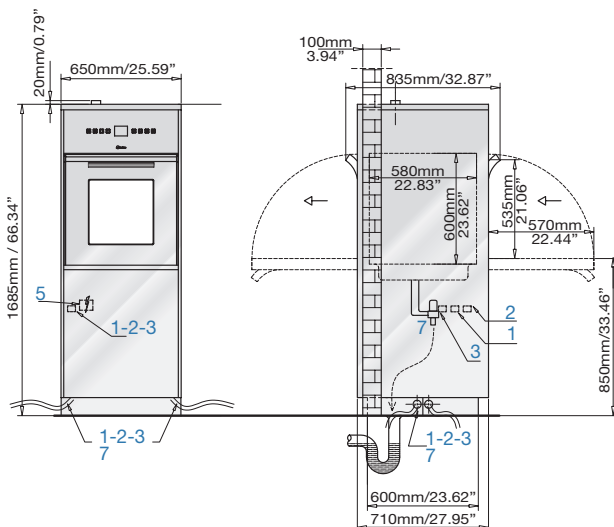
## Dimensions and connections

Standard electrical connection (International)	400V/3~+N/50Hz
Optional electrical connection (North America)*	208V/3~+N/60Hz or 480V/3~+N/60Hz
Power**	8250 W
Pump power	750 W
Noise	56 dB(A)
Permitted room temperature	+5°C/41°F - +40°C/104°F
Dryer blower	up to 150 m³/h - 5298 ft³/h
Dryer heating	4000 W

\*other electrical connections also available as optional

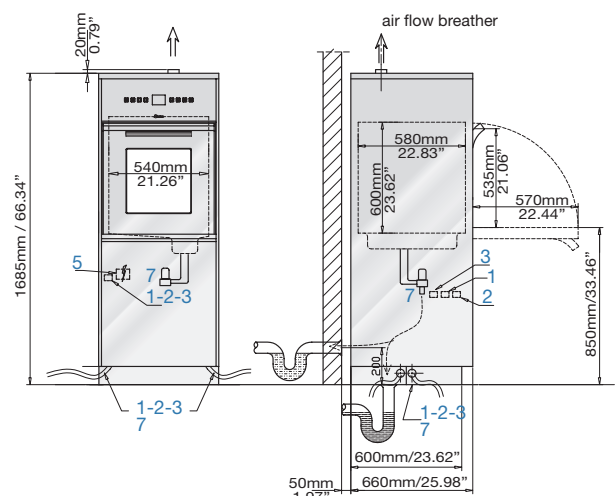
\*\* with electrical heating elements - washing chamber steam heating configuration available as option

### DS 600/2



1	Warm water connection	¾" male	DN 20 mm
2	Cold water connection	¾" male	DN 20 mm
3	Demineralized water connection	¾" male	DN 20 mm

### DS 600/1



4	Chamber breather pipe		Ø 60 mm/2.36"
5	Electrical connection		
7	Machine drain		Ø 40 mm/1.57"



## DS 500 CL

### Underbench washer disinfector with forced hot air drying

Specially designed for installations with limited space, this model features **washing and air drying on two levels**, normally seen on large machines.

This new generation of compact washer disinfectors share the same technology of our high capacity CSSD equipment for significant improvements in terms of cleaning quality, thermal disinfection and drying performances.

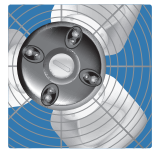


#### Washing chamber

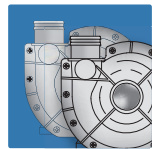


Chamber volume ~200 lt / 58.12 Gal US  
Basket volume ~170 lt / 44.90 Gal US

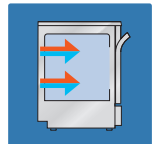
Filtered forced air drying system with adjustable time and temperature setting, helps to ensure completely dry, inside and outside, of all the surgical instruments and tubes.



Two washing pumps each of them dedicated to separate washing circuits ensure high flow rate combined with effective spray pressure



Washing injection system and hot air drying on two levels



#### Stainless steel door version



#### Control panel

- LCD display control panel with 40 washing and thermal disinfection programs for surgical instruments: 20 standard pre-programmed cycles and 20 additional available for customization.

#### Connections

- RS 232 port dedicated for printer or PC connection to monitor and validate washing cycles and/or data storage.

#### Full glass door version



#### Control panel

- Soft touch full glass control panel with graphic colour LCD display.
- 40 washing and thermal disinfection programs for surgical instruments: 20 standard pre-programmed cycles and 20 additional available for customization.

#### Connections

- USB port on the front panel for washing cycles data storage and/or software upgrades.
- RS 232 port dedicated for printer or PC connection to monitor and validate washing cycles and/or data storage.



## DS 500 CL *the new generation* - Key features

- Two washing pumps each of them dedicated to separate washing circuits ensure high flow rate combined with effective spray pressure
- Filtered forced air drying system with adjustable time and temperature setting, helps to ensure completely dry, inside and outside, of all the surgical instruments and tubes.
- Washing and DI disinfection temperature are fully adjustable up to 93°C. Temperature is monitored by two independent sensors
- Standard steam condenser prevents vapours from entering into the washing area.
- Inner cabinet, washing arms and tank filters made of high quality AISI 316 L stainless steel.
- Two automatic liquid dispensers.
- Triple water filtering system captures residue preventing re-circulation and extending the pump life.

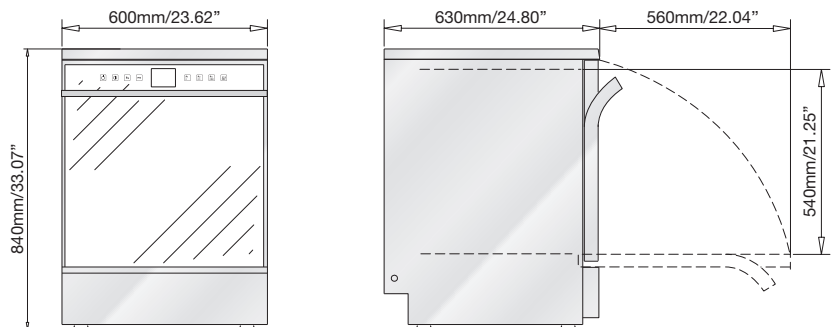
### Optional

- **Full glass door version**
- 3<sup>rd</sup> Chemical dosing pump
- Extra power 8 KW to reduce cycle time
- HEPA H14 air filter
- External printer ST1
- Ethernet connection (full glass door version only)
- Boiler to pre-heat DI water (stand required)
- Built in water softner

### Dimensions and connections

Standard electrical connection (International)	400V/3~+N/50Hz
Optional electrical connection (North America)*	208V/3~+N/60Hz - 220V/~ /60Hz
Power	5550 W
Pump power	2 x 250 W
Noise	56 dB(A)
Permitted room temperature	+5°C/41°F - +40°C/104°F
Dryer blower	up to 150 m³/h - 5298 ft³/h
Dryer heating	2000 W

\*other electrical connections also available as optional



### Stands and side cabinets

- Different models of 300mm/11.81" wide side cabinets allow to hold:
- Boiler for DI water pre-heating (cabinet and washer disinfectant are manufactured as a single 900 mm wide unit)
  - Purification system for DI water supply
  - Up to four 5 lt. 1.32 Gal US chemical containers.

Stands improve ergonomics when machine is not installed under counter. The 600mm/23.62" height stands are equipped with doors for easy storage access to chemicals and accessories.

Stand is recommended in case the machine is equipped with the option of boiler to pre heat DI water and the needed booster pump.



## DS 500 SC - Underbench washer disinfector

Specially designed for installations with limited space, this model features **washing injection system on two levels**.

This new generation of compact washer disinfectors share the same technology of our high capacity CSSD equipment for significant improvements in terms of cleaning quality, thermal disinfection and drying performances.

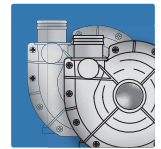


### Washing chamber

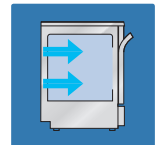


Chamber volume ~200 lt / 58.12 Gal US  
Basket volume ~170 lt / 44.90 Gal US

Two washing pumps each of them dedicated to separate washing circuits ensure high flow rate combined with effective spray pressure



Washing injection system on two levels



#### Stainless steel door version DS 500 SC



#### Control panel

- LED display control panel with 10 washing and thermal disinfection programs for surgical instruments: 5 standard pre-programmed cycles and 5 additional available for customization.

#### Connections

- RS 232 port dedicated for printer or PC connection to monitor and validate washing cycles and/or data storage.

#### Stainless steel door version DS 500 SCL



#### Control panel

- LCD display control panel with 40 washing and thermal disinfection programs for surgical instruments: 20 standard pre-programmed cycles and 20 additional available for customization.

#### Connections

- RS 232 port dedicated for printer or PC connection to monitor and validate washing cycles and/or data storage.

#### Full glass door version DS 500 SCL soft touch



#### Control panel

- Soft touch full glass control panel with graphic colour LCD display.
- 40 washing and thermal disinfection programs for surgical instruments: 20 standard pre-programmed cycles and 20 additional available for customization.

#### Connections

- USB port on the front panel for washing cycles data storage and/or software upgrades.
- RS 232 port dedicated for printer or PC connection to monitor and validate washing cycles and/or data storage.





# DS 500 SC *the new generation* - Key features

- Two washing pumps each of them dedicated to separate washing circuits ensure high flow rate combined with effective spray pressure
- Washing and DI disinfection temperature are fully adjustable up to 93°C. Temperature is monitored by two independent sensors
- Standard steam condenser prevents vapours from entering into the washing area.
- Inner cabinet, washing arms and tank filters made of high quality AISI 316 L stainless steel.
- Two automatic liquid dispensers.
- Triple water filtering system captures residue preventing re-circulation and extending the pump life.

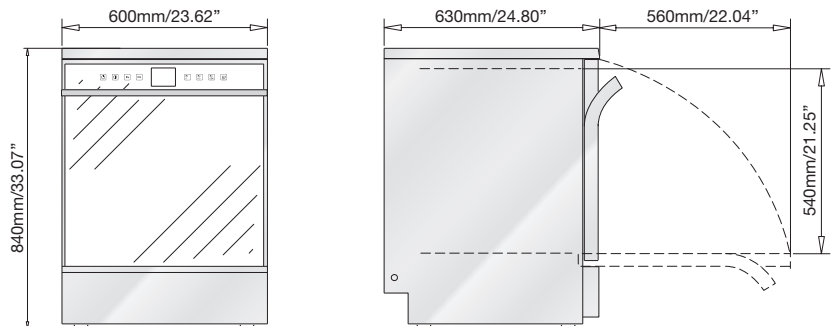
## Optional

- **Full glass door version DS 500 SCL soft touch**
- 3<sup>rd</sup> Chemical dosing pump
- Extra power 8 KW to reduce cycle time
- External printer ST1
- Ethernet connection (full glass door version only)
- Boiler to pre-heat DI water (stand required)
- Built in water softener

## Dimensions and connections

Standard electrical connection (International)	400V/3~+N/50Hz
Optional electrical connection (North America)*	208V/3~+N/60Hz - 220V/~ /60Hz
Power	5550 W
Pump power	2 x 250 W
Noise	56 dB(A)
Permitted room temperature	+5°C/41°F - +40°C/104°F

\*other electrical connections also available as optional



## how to combine optionals choosing the right configuration

• = allowed function	stand		cabinet left or right sided		900mm machine right side only cabinet			stand + 900mm machine right side only cabinet	
	comb. 1	comb. 2	comb. 3	comb. 4	comb. 5	comb. 6	comb. 7	comb. 8	comb. 9
<b>pre-heating boiler</b>	•	-	-	-	•	-	-	•A	•B
<b>chemical storage</b>	•	•	•	-	-	•	-	•B	•B
<b>purification system</b>	-	-	-	•	-	-	•	-	•A
<b>4<sup>th</sup> dosing pump</b>	-	-	-	-	-	•	-	-	•B
<b>integrated printer</b>	-	-	-	-	•	•	•	•A	•A



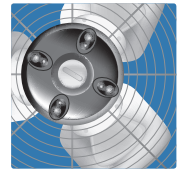
## DS 500 DRS

Underbench washer disinfector with forced hot air drying

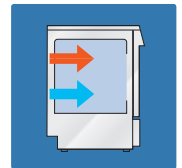


**An under counter washer disinfector with powerful built-in HEPA filtered forced air drying.** Washing injection system, hot air drying and liquid detergent container built into the machine are the main features of this model.

Filtered forced air drying system with adjustable time and temperature setting, helps to ensure completely dry, inside and outside, of all the surgical instruments and tubes.



Separate washing injection system and hot air drying



### Washing chamber



Chamber volume ~171 lt / 45.17 Gal Us  
Basket volume ~151 lt / 39.89 Gal US

### HEPA Filter

The lateral compartment allows easy operator and maintenance access to the HEPA filtered drying system and to the chemical dosing system.

It can also store up to four 5 lt / 1.32 Gal US chemical containers.



machine configured with stand and glass window door

### Complements

Stands improve ergonomics when machine is not installed under counter. The 600mm/23.62" height stands are equipped with doors for easy storage access to chemicals and accessories.

Stand is recommended in case the machine is equipped with the option of boiler to pre heat DI water and the needed booster pump. The 300mm/11.81" height stand is just a support and can't be used as a container.

#### Stand for DS 500 DRS

**9991015** mm. 900x560x600h/35.43"x22.05"x23.62"h

**9991146** mm. 900x560x300h/35.43"x22.05"x11.81"h

# DS 500 DRS - Key features

- Filtered forced air drying system with adjustable time and temperature setting, helps to ensure completely dry, inside and outside, of all the surgical instruments and tubes.
- RS 232 port is provided with printer connection for monitoring and validating washing phases.
- LCD display with 40 programs for surgical instruments.
- The built-in water softener, optional, provides optimal cleaning effectiveness.
- Washing and DI disinfection temperature are fully adjustable up to 93°C. Temperature is monitored by two independent sensors
- Standard steam condenser prevents vapours from entering into the washing area.
- Heavy washing pump ensures high flow rate combined with effective spray pressure.
- Inner cabinet, washing arms and tank filters made of high quality AISI 316L stainless steel.
- Two standard automatic liquid dispensers.
- Triple water filtering system captures residue preventing re-circulation and extending the pump life.

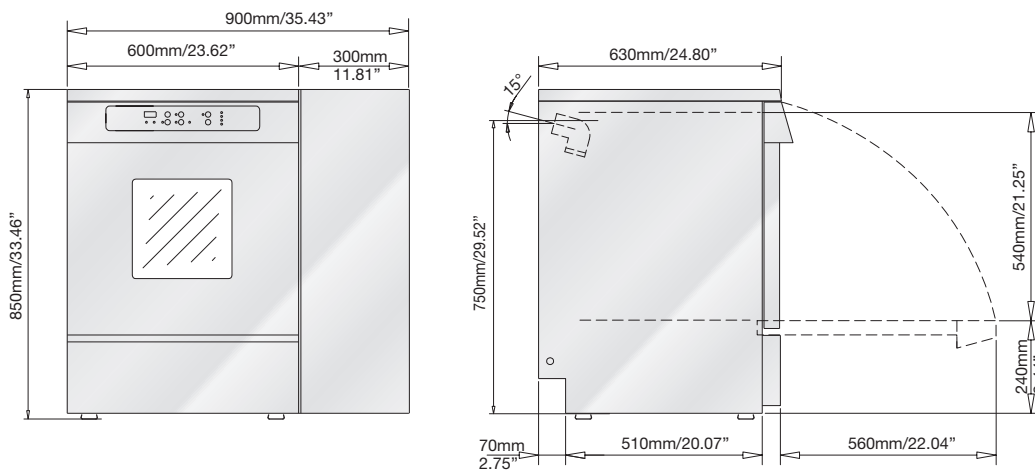
## Optional

- 3<sup>rd</sup> and 4<sup>th</sup> Chemical dosing pumps
- HEPA H14 air filter
- Stand
- Boiler to pre-heat DI water (stand required)
- Extra power 8 KW to reduce cycle time
- Front panel integrated printer ST2
- Glass window door
- Built in water softener

## Dimensions and connections

Standard electrical connection (International)	400V/3~+N/50Hz
Optional electrical connection (North America)*	208V/3~+N/60Hz - 220V/-/60Hz
Power	5600 W
Pump power	550 W
Noise	56 dB(A)
Permitted room temperature	+5°C/41°F - +40°C/104°F
Dryer blower	up to 150 m³/h
Dryer heating	2000 W

\*other electrical connections also available as optional



1 Warm water connection	¾" male	DN 20 mm	6 Steam condenser drain	Ø 25 mm / 0.98"
2 Cold water connection	¾" male	DN 20 mm	7 Machine drain	Ø 25 mm / 0.98"
3 Demineralized water connection	¾" male	DN 20 mm	Steam condenser cold water connection	Ø 25 mm / 0.98"
4 Chamber breather pipe	Ø 50 mm / 1.96"		Printer connection	
5 Electrical connection				



## DS 500 LED

### Underbench washer disinfectant

A cleaning and disinfection under counter washers designed to handle a large range of different shaped instruments, granting their fast and effective treatment.

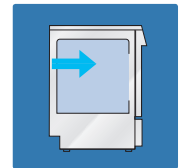
A **large range of wash carts with injection system** is available for this washer disinfectant for different applications such as MIS, ophthalmology, baby bottles...



LED display control panel with 5 standard washing and thermal disinfection programs for surgical instruments and 5 additional available for customization.



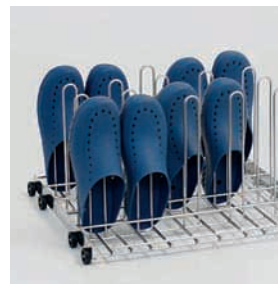
Single washing injection system.



### Washing chamber



Chamber volume ~171 lt / 45.17 Gal US  
Basket volume ~151 lt / 39.89 Gal US



### Water purification system

DI water rinsing helps to ensure the removal of detergent residues and grants effective cleaning results.

- Stainless steel water purificator container with 10 lt/2.64 Gal US resin plastic cartridge. Equipped with priming and pressure relief valve and conductivity system pressure proof up to 10 bar.  
mm 300x630x840h / 11.18"x24.80"x33.07"h



### Detergent cabinet

Two levels wide detergent compartment to store up to four 5 lt. 1.32 Gal US chemical containers.



### Complements

Machine configured with stand and glass door.

Stands improve ergonomics when machine is not installed under counter. The 600mm/23.62" height stands are equipped with doors for easy storage access to chemicals and accessories.

Stand is recommended in case the machine is equipped with the option of boiler to pre heat DI water and the needed booster pump. The 300mm/11.81" height stand is just a support and can't be used as a container.

### Stand for

**DS 500 LED/ DS 500 CL / DS 500 SCL**

**9991016** mm. 600x560x600h/23.62"x22.05"x23.62"h

**9991072** mm. 600x560x300h/23.62"x22.05"x11.81"h

# DS 500 LED - Key features

- RS 232 port is provided with printer connection for monitoring and validating washing phases.
- The optical built-in water softener provides optimal cleaning effectiveness and prevents scale.
- Standard steam condenser prevents vapours from entering into the washing area.
- Heavy washing pump ensures high flow rate combined with effective spray pressure.
- Inner cabinet, washing arms and tank filters made of high quality AISI 316 L stainless steel.
- Triple water filtering system captures residue preventing re-circulation and extending the pump life.
- Two automatic liquid dispensers are standard. One more dispenser available.

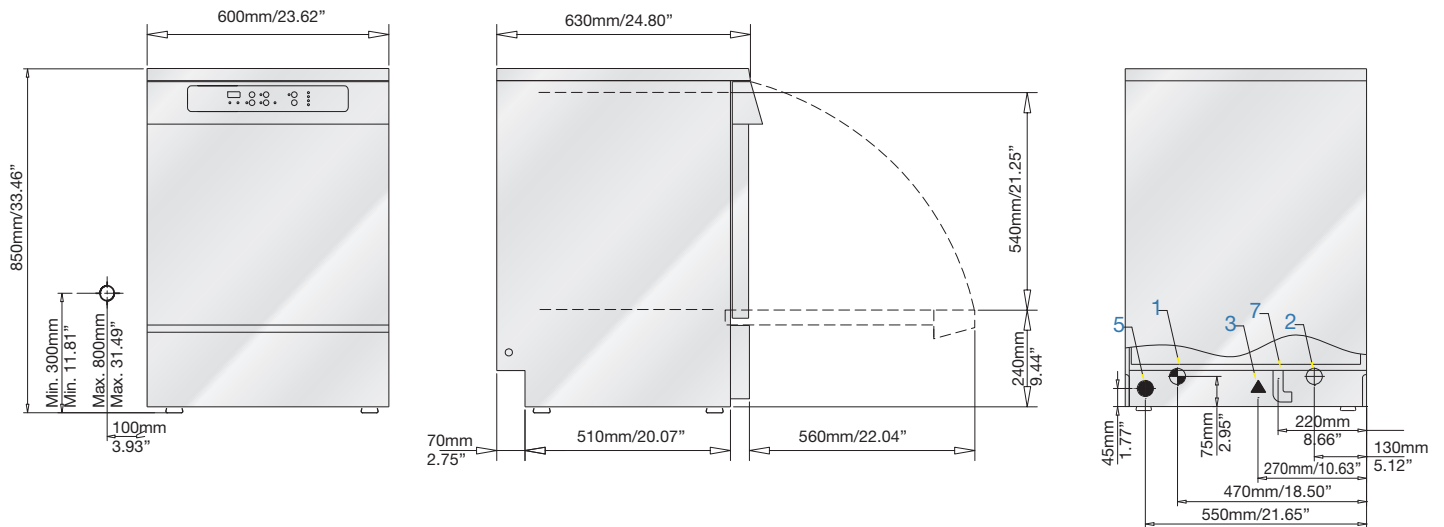
## Optional

- 3<sup>rd</sup> Chemical dosing pump
- Built in water softener
- Stand
- Boiler to pre-heat DI water (stand required)
- Glass window door
- External printer ST1
- Glass window door

## Dimensions and connections

Standard electrical connection (International)	230V/~ /50Hz
Optional electrical connection (North America)*	208V/3~+N/60Hz or 220V/~ /60Hz
Power	3050 W
Pump power	550 W
Noise	52 dB(A)
Permitted room temperature	+5°C/41°F - +40°C/104°F

\*other electrical connections also available as optional



1	Warm water connection	3/4" male	DN 20 mm
2	Cold water connection	3/4" male	DN 20 mm
3	Demineralized water connection	3/4" male	DN 20 mm
5	Electrical connection		
7	Machine drain		Ø 25 mm / 0.98"

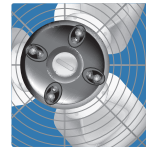


## DS 50 H DRS

Underbench washer disinfector with forced hot air drying

Steelco DS 50 H DRS is an efficient aid for the cleaning, thermal disinfection and forced hot air drying of all types of surgical and dental instruments. Designed for stand alone installations this machine can be easily built as under bench into existing furniture. It provides also a practical and safe solution for chemical storage.

### Forced hot air drying



Filtered forced air drying system with adjustable time and temperature setting, helps to ensure completely dry, inside and outside, of all the surgical instruments and tubes.

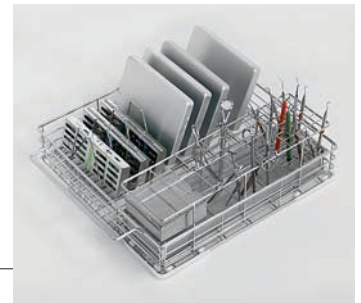
Steelco DS 50 H DRS washer disinfector is designed to comply with the European EN ISO 15883, UK HTM 2030 guidelines on decontamination. It is a classified CE medical device (Community Rule 93/42/CEE).



### Washing chamber

Chamber volume ~60 lt / 15.85 Gal US  
Basket volume ~50 lt / 13.20 Gal US

A complete range of wash baskets is available for dental, MIS, ophthalmology and other applications



### Integrated USB port

A USB port integrated on the front panel is a standard feature on this model allowing the operator easy historical cycle data transfer from the machine to PC.

Ethernet connection is available as option.

### Chemical storage

The large storage on bottom basement allows to allocate up to two 5 lt (1.32 Gal US) chemical containers.

HEPA filter easy maintenance from the front of the chemical compartment.



# DS 50 H DRS - Key features

- High safety and easy to use soft touch control system on glass panel with LCD colour display to visualize cycle status.
- 20 standard pre-programmed cycles available and 20 additional cycles available for customization.
- USB port for historical cycle data download and software upgrades.
- RS 232 port for printer connection to monitor and validate washing phases.
- Ergonomic design of the door level height allows to the user a convenient loading/unloading job.
- High visibility full glass door.
- Filtered forced air drying system with adjustable time and temperature settings, helps to ensure the complete inside and outside drying of all the surgical instruments and tubes.
- The built-in water softener, optional, provides optimal cleaning effectiveness
- Washing and Disinfection temperatures are fully adjustable up to 93°C. Temperature is monitored by two independent sensors.
- Standard steam condenser prevents vapours from entering into the washing area.
- Heavy washing pump ensures high flow rate combined with effective spray pressure. Triple water filtering system captures residue preventing re-circulation and extending the pump life.
- Inner cabinet, washing arms and tank filters made of high quality 316 stainless steel.
- A built-in automatic liquid dispenser is standard. One more built-in dispenser is available as option.
- Storage on bottom basement to allocate up to two 5 lt (1.32 Gal US) chemical containers.

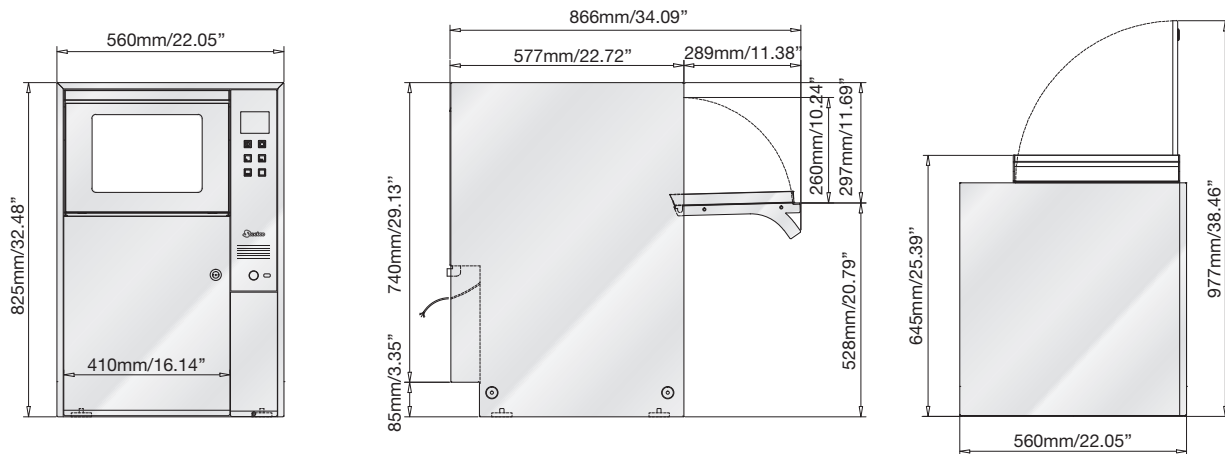
## Dimensions and connections

Standard electrical connection (International)	230V/~ /50Hz
Optional electrical connection (North America)*	220V/~ /60Hz
Power	2750 W
Pump power	150 W
Noise	52 dB(A)
Permitted room temperature	+5°C/41°F - +40°C/104°F
Dryer blower	up to 100 m³/h - 3531 ft³/h
Dryer heating	750 W

\*other electrical connections also available as optional

## Optional

- DI water connection
- 2<sup>nd</sup> Chemical dosing pump
- HEPA H14 air filter
- Water softener
- External printer ST1



1 RS232 Serial connection	4 Electrical connection
2 Cold water connection 3/4" male DN 20 mm	5 Drain pipe Ø 25 mm / 0.98"
3 Demineralized water connection 3/4" male DN 20 mm	



## Tabletop washer disinfectors

Steelco DS 50 DRS range is an efficient aid for the cleaning, thermal disinfection and **forced hot air drying** of all types of dental and surgical instruments. Manufactured to allow an easy installation onto a bench top, it grants a fast and effective treatment of surgical instruments and utensils excluding the professional risk due to handling infected instruments.

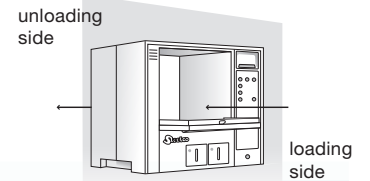
When using these washer disinfectors, the operator has only to care about the loading of the material and the selection of the washing cycle. At the end of the cycle all the instruments are ready for sterilization without any further handling.

### DS 50 DRS



### DS 50/2 DRS

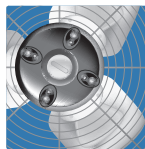
The DS 50/2 DRS double door model is suitable for barrier installation reducing cross contamination by separating dirty and clean areas.



### Washing chamber

Chamber volume ~60 lt / 15.85 Gal US  
Basket volume ~50 lt / 13.20 Gal US

### Forced hot air drying



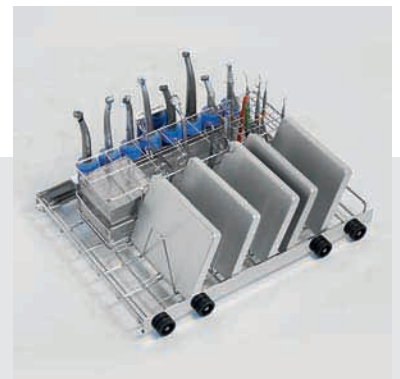
Filtered forced air drying system with adjustable time and temperature setting, helps to ensure completely dry, inside and outside, of all the surgical instruments and tubes.



### Integrated USB port

A USB port integrated on the front panel is a standard feature on this model allowing the operator easy historical cycle data transfer from the machine to PC.

Ethernet connection is available as option.





# DS 50 DRS - DS 50/2 DRS - Key features

- High safety and easy to use soft touch control system on glass panel with LCD colour display to visualize cycle status.
- 20 standard pre-programmed cycles available and 20 additional cycles available for customization.
- USB port for historical cycle data download and software upgrades.
- RS 232 port for printer connection to monitor and validate washing phases.
- High visibility full glass door.
- Filtered forced air drying system with

adjustable time and temperature settings, helps to ensure the complete inside and outside drying of all the surgical instruments and tubes.

- The built-in water softener, optional, provides optimal cleaning effectiveness
- Washing and Disinfection temperatures are fully adjustable up to 93°C. Temperature is monitored by two independent sensors.
- Standard steam condenser eliminates vapours from entering the washing area.

- Heavy washing pump ensures high flow rate combined with effective spray pressure. Triple water filtering system captures residue preventing re-circulation and extending the pump life.
- Inner cabinet, washing arms and tank filters made of high quality 316 stainless steel.
- A built-in automatic liquid dispenser is standard. One more built-in dispenser is available as option.

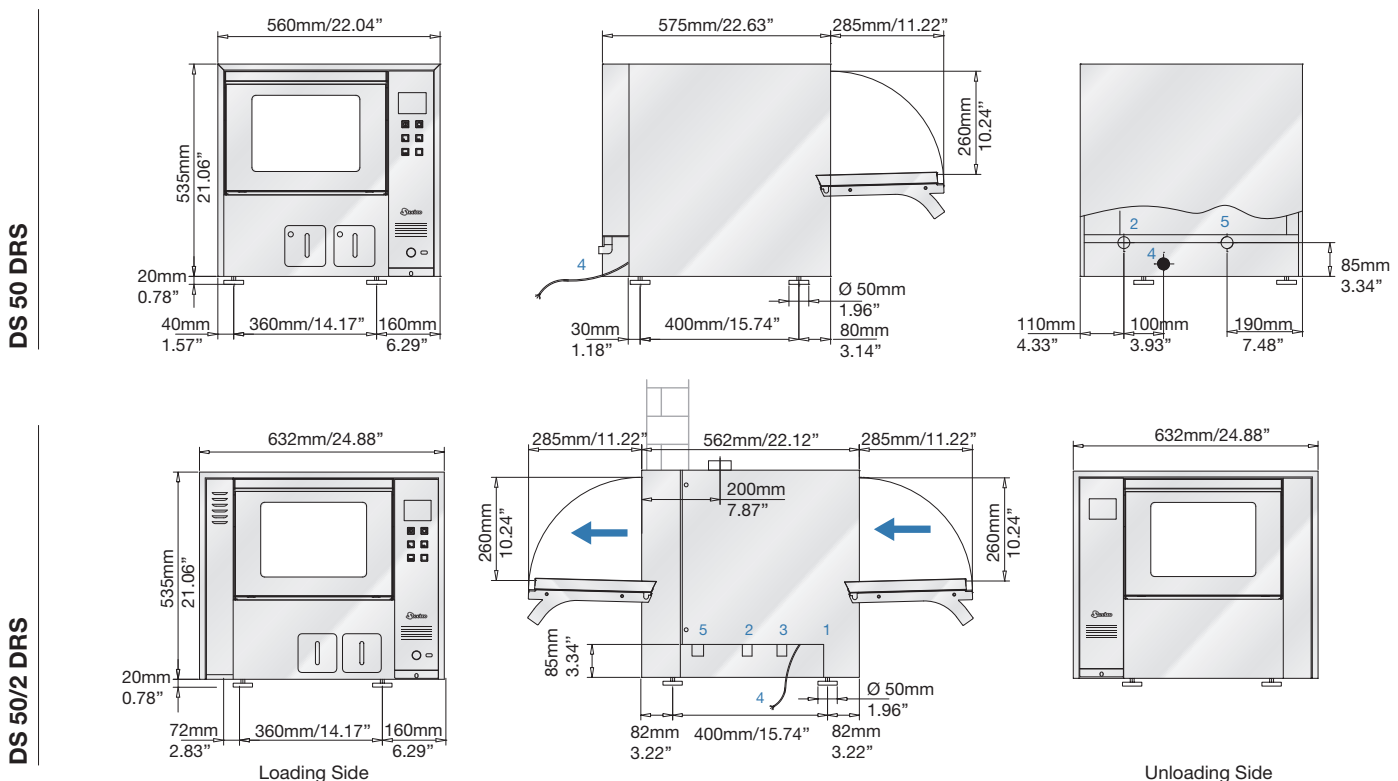
## Dimensions and connections

	DS 50 DRS	DS 50/2 DRS
Standard electrical connection (International)	230V/~ /50Hz	230V/~ /50Hz
Optional electrical connection (North America)*	220V/~ /60Hz	220V/~ /60Hz
Power	2750 W	2750 W
Pump power	150 W	150 W
Noise	52 dB(A)	52 dB(A)
Permitted room temperature	+5°C/41°F - +40°C/104°F	+5°C/41°F - +40°C/104°F
Dryer blower	up to 100 m³/h - 3531 ft³/h	up to 100 m³/h - 3531 ft³/h
Dryer heating	750 W	750 W

\*other electrical connections also available as optional

## Optional

- DI water connection
- 2<sup>nd</sup> Chemical dosing pump and liquid container
- HEPA H14 air filter
- Water softener
- External printer ST1



1	RS232 Serial connection			4	Electrical connection	
2	Cold water connection	3/4" male	DN 20 mm	5	Drain pipe	Ø 25 mm / 0.98"
3	Demineralized water connection	3/4" male	DN 20 mm			

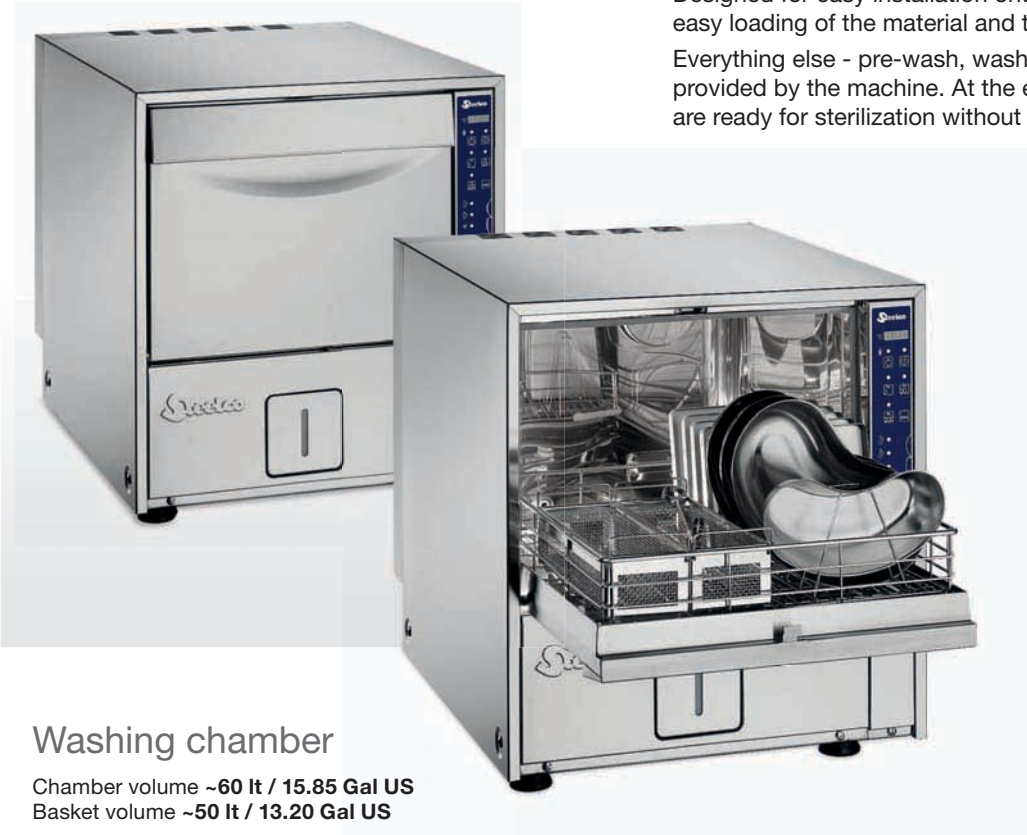


## DS 50 - Tabletop washer disinfecter

Steelco DS 50 is an efficient aid for the cleaning and thermal disinfection of all types of dental and surgical instruments.

Designed for easy installation onto a bench top, allows the operator easy loading of the material and the selection of the cycle.

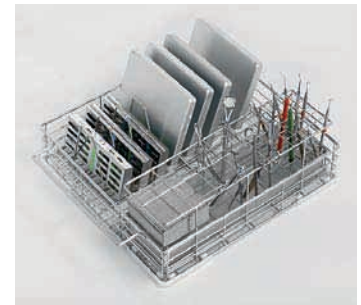
Everything else - pre-wash, wash and thermal disinfection - is provided by the machine. At the end of the cycle all the instruments are ready for sterilization without any further handling.



### Washing chamber

Chamber volume ~60 lt / 15.85 Gal US  
Basket volume ~50 lt / 13.20 Gal US

A complete accessories range: baskets, inserts, trays



Steelco DS 50 washer disinfecter is designed and constructed to comply with the European EN ISO 15883 guidelines on contamination. It is a classified CE medical device (Community Rule 93/42/CEE).

### Integrated automatic liquid dispenser

The machine is configured with a built-in automatic liquid dispenser for detergent. A second automatic liquid dispenser normally used for rinse aid chemical is available as option. Liquid chemical levels are controlled by a pressure switch.



# DS 50 - Key features

- Steelcronic control system with LED display, 3 pre-setted washing programs for dental and surgical instruments.
- RS 232 port for printer connection to monitor and validate washing phases.
- The built-in water softener, optional, provides optimal cleaning effectiveness
- Washing and Disinfection temperatures are fully adjustable up to 93°C. Temperature is monitored by two independent sensors.
- Standard steam condenser eliminates vapours from
- Heavy washing pump ensures high flow rate combined with effective spray pressure.
- Inner cabinet, washing arms and tank filters made of high quality 316 stainless steel.
- Triple water filtering system captures residue preventing re-circulation and extending the pump life.
- A built-in automatic liquid dispenser is standard. One more built-in dispenser is available as option.

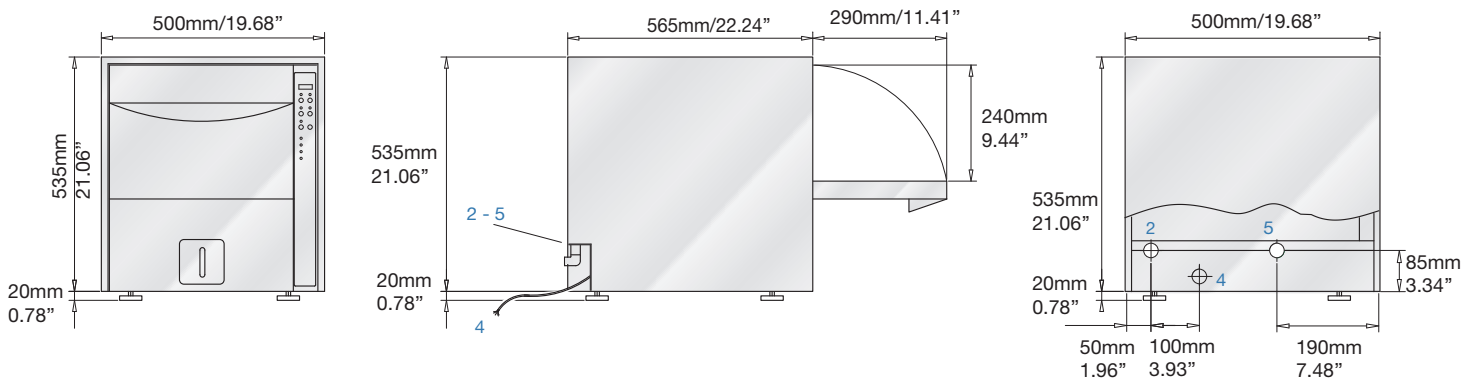
## Dimensions and connections

Standard electrical connection (International)	230V~/50Hz
Optional electrical connection (North America)*	220V~/60Hz
Power	2750 W
Pump power	150 W
Noise	52 dB(A)
Permitted room temperature	+5°C/41°F - +40°C/104°F

\*other electrical connections also available as optional

## Optional

- DI water connection
- 2<sup>nd</sup> Chemical dosing pump
- External printer ST1
- Water softner



1	RS232 Serial connection			4	Electrical connection	
2	Cold water connection	3/4" male	DN 20 mm	5	Drain pipe	Ø 25 mm / 0.98"
3	Demineralized water connection	3/4" male	DN 20 mm			



## Drying cabinets

Steelco drying cabinets are **available in several configurations** from full width shelves dedicated to instruments, equipment and general items to mixed solutions for anaesthesia items and instruments.

Blanket warming version available as well.

Cabinets are available in single door or double door pass through versions with glass doors for a rapid visual inspection of the stored items.

**Separate drying** of anaesthetic and instrument accessories increases the throughput capacity of a washer disinfector of a third. Drying cabinets can accept a load volume of more than 2 units of washer disinfectors.



### ID 300

Instrument drying cabinet



- capacity up to nr. 18 DIN 1/1 trays on 9 removable shelves, supplied with nr. 8 shelves.



### AD 400

Instrument, anaesthesia bags and hanging hoses mixed drying cabinet

Composition

- up to nr. 3 AN cassettes for a total capacity of 36 anaesthesia hoses
- up to nr. 9 DIN 1/1 trays capacity on 9 removable shelves
- or
- up to nr. 18 anaesthesia bags capacity
- up to nr. 9 DIN 1/1 trays capacity on 9 removable shelves

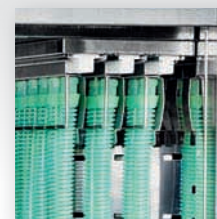
Supplied with nr. 8 shelves and nr. 3 AN cassettes.



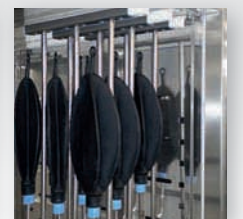
### BD 500

Blankets warming cabinet

- 4 removable shelves for blankets (standard). Shelves can be added and adjusted for different sizes of load.



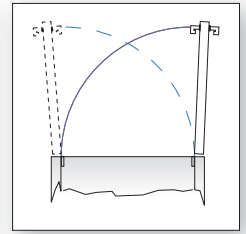
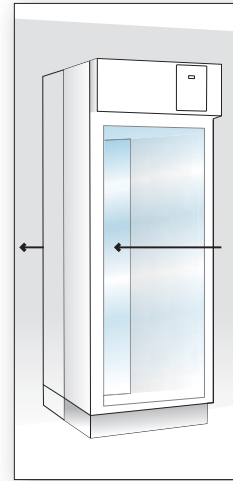
standard



option

# General key features

- Insulated double walled AISI 304 stainless steel construction that grants the exterior surface temperature does not exceed 49°C (120°F). Temperature of tempered glass door does not exceed 49°C (120°F).
- Visual “open door” indicator. Lockable door.
- LED display, programmable for °C and °F, provides control and heater-on information for easy serviceability, temperature and time settings are control password protected to prevent unauthorized changes.
- Drying temperature settable from ambient to 80°C (176°F). Temperature alarms is disabled when door is open and for the time required to re-equilibrate temperatures in cabinet after door is closed. Temperature setting from 1 up to 999 min or continuous. Once the selected temperature is attained, it will be controlled throughout within 5.5°C (10°F) of the selected temperature. Overheat protection will shut the heater off with audible alarm for operator
- Indirect UV air treatment during the whole cycle. Optional.
- Drying circuit with double fan combined with fast connectors (optional).
- Flashing air flow visual alarm indicators if either drying circuit fails.
- Air flow alarm with re-settable audible alarm, (flashing alarm indication remains until the air flow is restored).
- HEPA filtration on drying circuit. Monitoring for HEPA filter and indicator on panel advising when replacement is required.
- Control components positioned in top front position for convenient service access. Easy removal of fans, heater elements and control boards.



Lockable doors are reversible and configurable right or left opening also during installation.  
Double door pass through version available.

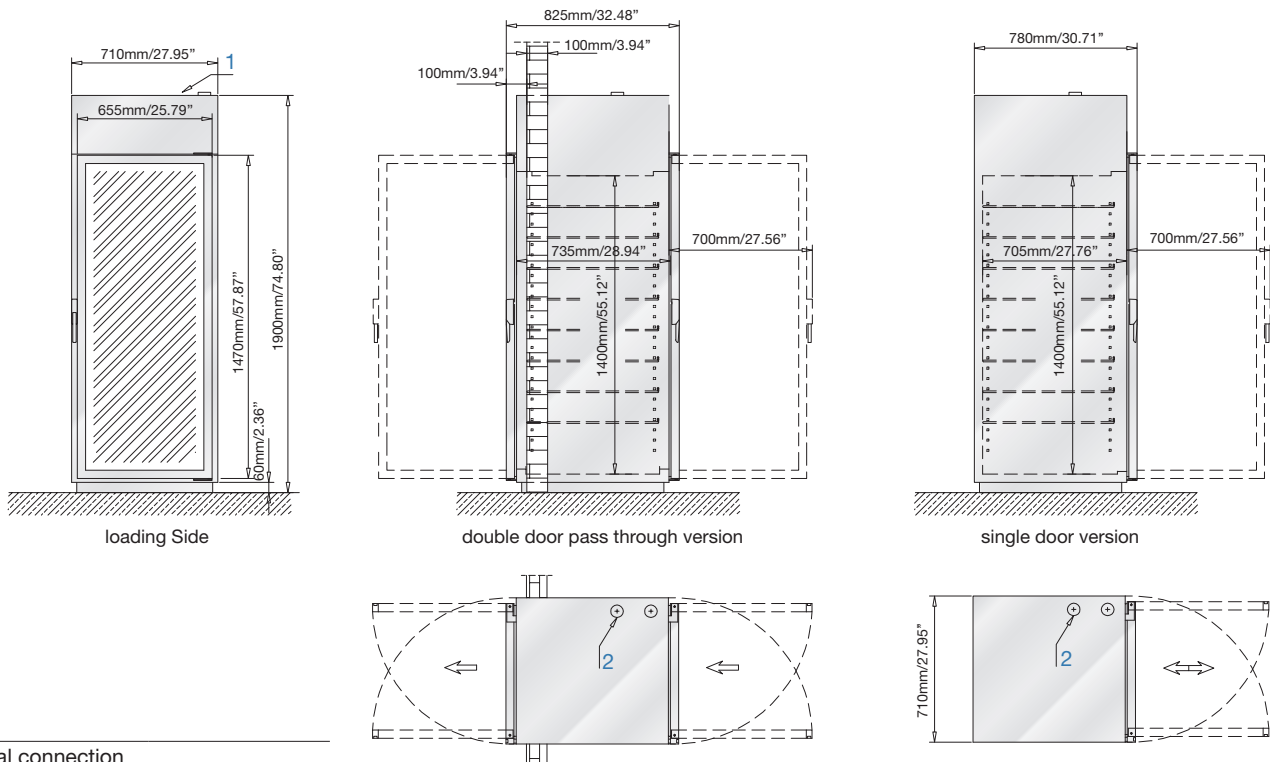
## Optional

- nr. 8 or 9 air fast connections
- extra shelves with rails
- UV air treatment
- Humidity sensor
- ST2 printer

## Dimensions and connections

Standard electrical connection (International)	230V/~ /50Hz
Optional electrical connection (North America)*	220V/~ /60Hz
Power ID 300 - BD 500	1700 W
Power AD 400	1750 W

\*other electrical connections also available as optional



- 1 Electrical connection
- 2 Breather pipe  $\varnothing$  40 mm /1.57"



## US 100 - US 200 - Ultrasonic cleaning system

This Ultrasonic Cleaning System is focused on the treatment of reusable medical devices and rigid endoscopes.

It combines a stainless steel cleaning tank with industrial style transducers and a powerful ultrasonic generator to provide the strongest tabletop cleaning available. **It gives the speed and effectiveness of ultrasonic cleaning power with the convenience of plug-in-anywhere operation.**

A DIN tray basket support and cover are included in the base unit. It meets CSA and UL requirements.

Critical process parameters such as temperature, ultrasonic power and time are monitored granting the compliance to the international standards and can be recorded.

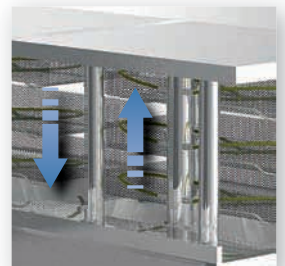


**US 200/2**  
automatic module with  
2 ultrasonic tanks

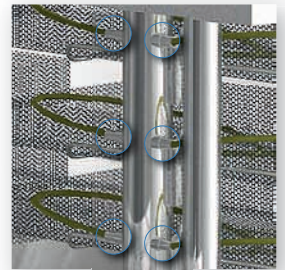
**US 200/3**  
automatic module with 1  
ultrasonic and 1 rinsing tank

Pneumatic lift of the baskets provided with security device.

The baskets automatically sink by pressing cycle start and are automatically lifted at the end of the cycle (no physical operation is required). A optional manual operation version is also available.



Water recirculation through luer lock connections during the cycle - nr. 2 luer lock connections for each level



Under bench storage for chemical canisters



Tank dimensions  
600x350x345h mm  
23.62"x13.78"x13.58"

Basket capacity  
nr. 3 DIN 1/1 net baskets

Luer lock connections  
nr. 6 each tank



**US 100**

automatic module  
with 1 ultrasonic tank

**US 200/1**

automatic module  
with 1 ultrasonic tank



# US 100 - US 200 - Key features

- Washing tank made of stainless steel AISI 316L.
- External body made of stainless steel AISI 304.
- LED display and timer for cycle control
- Automatic tank filling and water control level.
- Pump for automatic chemical dosing.
- Automatic minimum level of chemical control with alarm.
- Ultrasonic power 1200W with filter for radio frequency interference and power control from 0 to 100 % included.
- Operation frequency modulation to avoid neutralization areas of the ultrasound effect.
- Standard Ultrasonic frequency 38 kHz, other frequencies on request.
- US 200/3 rinsing tank is provided with water spray nozzles and Luer Lock connections water circulation

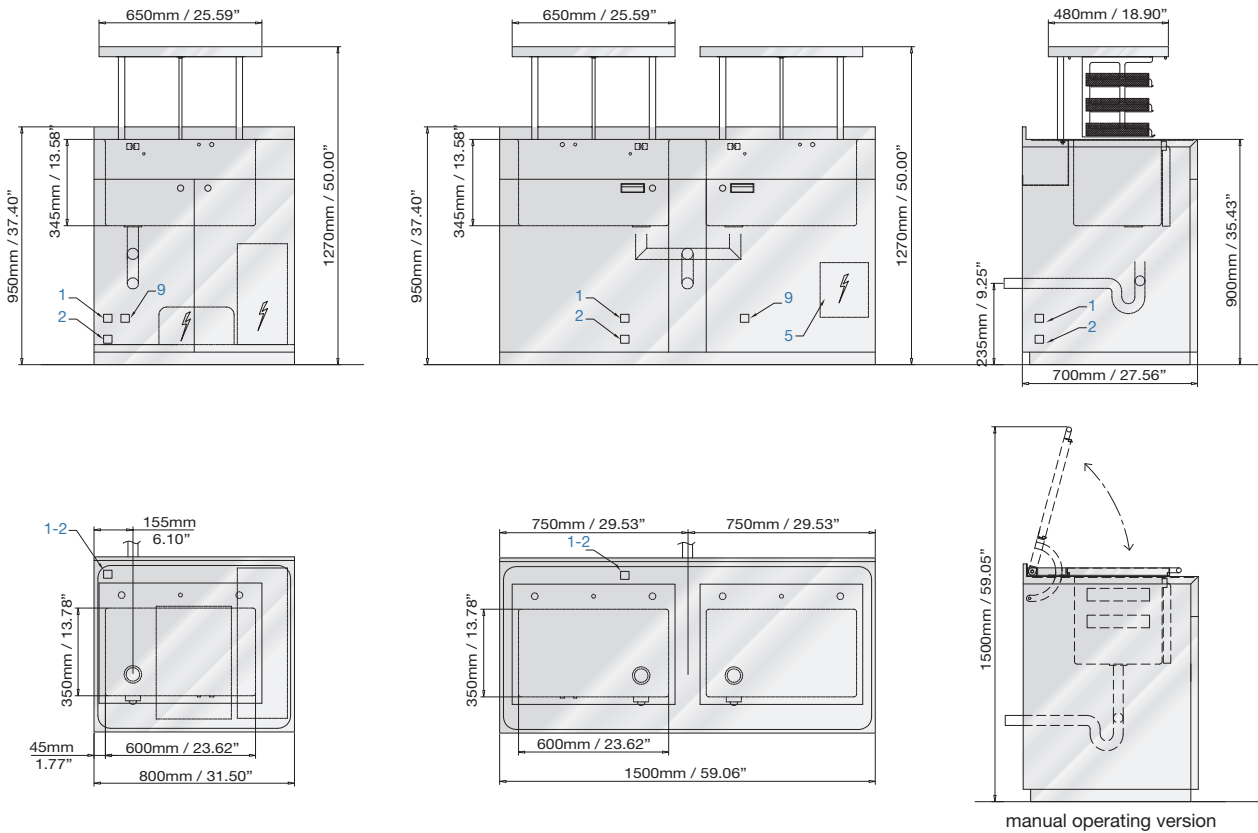
## Dimensions and connections

Standard electrical connection (International)	230V/~/50Hz
Optional electrical connection (North America)*	110V/~/60Hz
Total power	1800 W or 3000 W
Ultrasonic power	1200 W (each tank)
Tank power	300 W (each tank)
Permitted room temperature	+5°C/41°F - +40°C/104°F

\*other electrical connections also available as optional

## Optional

- Hinged covers for manual operating version



1 Warm water connection	3/4" male	DN 20 mm	9 Compressed air	1/4" male	DN 20 mm
2 Cold water connection	3/4" male	DN 20 mm	10 Machine drain	Ø 40 mm/1.57"	
5 Electrical connection					



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DC-PD-02-WD-EN Rev.14