



## Ultrasonic Cleaning System

for complex microsurgical instruments  
and general surgery sets

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# Customization. Innovation. Excellence.

## Driven by customer needs

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

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

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



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# Ultrasonic instrument cleaners

With this innovative range of ultrasonic cleaning systems, a selection of flexible solutions for the pre-treatment, cleaning, and thermo-disinfection of complex hollow lumens and microsurgical instruments, Steelco is at the forefront in responding to the increasingly sophisticated needs of contemporary CSSD, following the rise in minimally invasive surgery and robotic surgical procedure.



**US 80**

**Up to 12 hollow instruments per cycle**

Benchtop Pre-Treatment Device for  
Complex Instruments



**US 300**

**Up to 40 hollow instruments per cycle**

Ultrasonic Cleaning and Thermo-  
Disinfection for Complex Instruments



**US 100 / US 100XL / US 200**

**Up to 3 standard baskets per cycle**

For the treatment of common medical instruments contained in  
standard baskets



# Key Advantages

## a winning combination



Steelco's exclusive technology combines ultrasonic action with powerful flushing, to reach the highest level of cleanliness even in the most intricate shapes.



The Steelco control system constantly monitors that all critical parameters such as temperature, detergent dosing, water level and equipment function are correct.



Steelco Ultrasonic washers are designed and constructed to comply with the latest European guidelines



# Design & Performance coming together

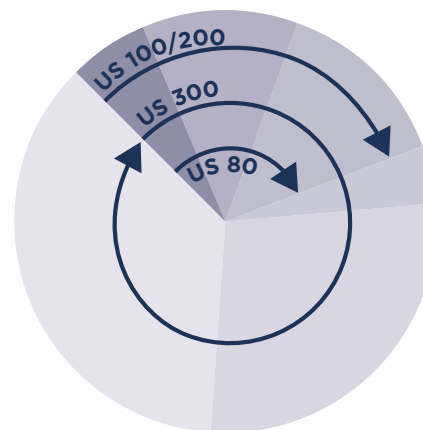


**Optimized  
Process  
Speed**

## Our ultrasonic technology

Steelco has developed an innovative range of different ultrasonic units to meet different applications and capacities so that CSSD staff can reprocess instruments including complex microsurgery tools according to a manufacturer's instructions when these stipulate the use of an ultrasonic unit.

- 1 Cold prewash
- 2 Water and detergent dosed with control of parameters
- 3 Steelco Active Flushing
- 4 Rinse
- 5 Thermal disinfection
- 6 Forced hot air drying system



## US 1000 Automation of ultrasonic treatment in CSSD

Steelco US 1000 has been designed to be integrated into high capacity automated washer systems, between a prewashing unit and automatically loaded washers to reduce total cycle time. 18 x Din basket capacity per cycle



# US 80

## Benchtop Pre-Treatment Device for Complex Instruments

US 80 is a small footprint benchtop ultrasonic cleaning system. Specially focused on treating hollow reusable medical devices such as rigid endoscopes, the device offers a washing basket capacity for up to 12 instruments. Thanks to Steelco's Active Flush technology, which combines the decrusting action of ultrasonic effect with powerful flushing, the unit achieves excellent cleaning results.

Ported instruments are directly connected through standard luer lock connectors, while the connection of non-portable instruments is made by the use of injection sleeves with silicone seals.

### Safe and validated process

A soft touch glass control panel with graphic colour LCD display is intuitive to use and enables the selection of 20 preset programs or an additional 20 user defined programs.



### Washing basket

The injection-washing basket can be easily removed from the ultrasonic unit, allowing loading and connection of instruments on a separate workbench.



### Complete Washing Traceability

SteelcoData Live software is designed to collect and record data from Steelco devices. Information collected in real-time is traced and efficiently visualized for device monitoring and data management.





# US 300

## Ultrasonic Cleaning and Thermo-Disinfection for Complex Instruments



US 300 is an ultrasonic washing and thermal disinfection device for the treatment of complex microsurgical instruments. Offering an effective and comprehensive reprocessing solution, the unit is designed to reprocess over 40 hollow instruments in a single process. Steelco's Active Flush technology, which combines the decrusting action of ultrasonic effect with powerful flushing, achieves excellent cleaning results. The standard program's automatic execution includes the following phases: pre-washing, ultrasound washing, and active flushing rinse and thermal disinfection.

US 300 is equipped as standard with a removable washing basket, allowing loading and connecting instruments on a separate workbench.

### Robotic Instruments' Reprocessing

Designed for the optimal treatment of robotic surgery instruments of different brands. Dedicated connection kit for the validated reprocessing (washing and thermal disinfection) of "da Vinci®" robotic surgery instruments. The connection kits allow the standard loading basket set up with housings for the robotic surgical instruments.



### Optimal Performance with Steelco Chemicals

For best results use Steelco chemistries that have been validated on ultrasonic units. Detergents are internally stored and together with water are automatically dosed to the correct level with a lowlevel detergent alarm fitted.



### Complete Washing Traceability

SteelcoData Live software is designed to collect and record data from Steelco devices. Information collected in real-time is traced and efficiently visualized for device monitoring and data management.



# US 100 - US 100 XL - US 200

## Ultrasonic Treatment Solution

The US 100/200 series of independent and automatic ultrasonic cleaning systems for the treatment of reusable medical devices and rigid endoscopes. Ideal for the most demanding departments' needs, easily installed in and pre-treatment areas, the units are capable of reprocessing up to 3 DIN 1/1 baskets with 12 luer lock connections. Steelco's Powerful Cleaning Action guarantees outstanding cleaning results.

The series includes AISI 316L grade stainless steel wash tanks fitted with industrial style transducers combined with a powerful ultrasonic generator to provide high-performance cleaning in a low maintenance durable unit. Critical process parameters such as temperature, ultrasonic power, and time are monitored, granting compliance to the international standards. The ultrasonic cleaning of US 100/200 acts on immersed surfaces thousands of times a second to ensure perfect cleanliness.



### US 100 XL

Oversized version for non-standard baskets





## Powerful Cleaning Action

Outstanding cleaning results are achieved due to ultrasonic power of 2000W per tank with filter for radio frequency control and 0% to 100% power control. Frequency modulation technology ensures an even cavitation effect distribution. Supplied as standard with 38KHz ultrasonic frequency with other frequencies available on request. 4 Luer lock connections per tray level.



## Integrated Chemical Dispenser

Automatic chemical dosing pump and flow meter for chemical validation. Minimum chemical level control with alarm.

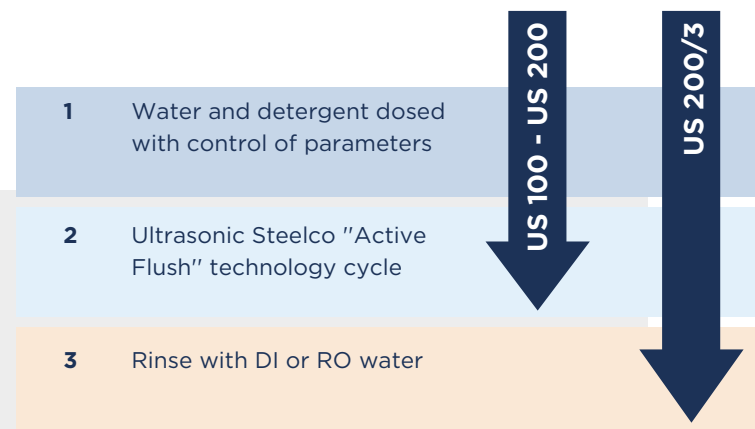


## Tank configuration



## Steps

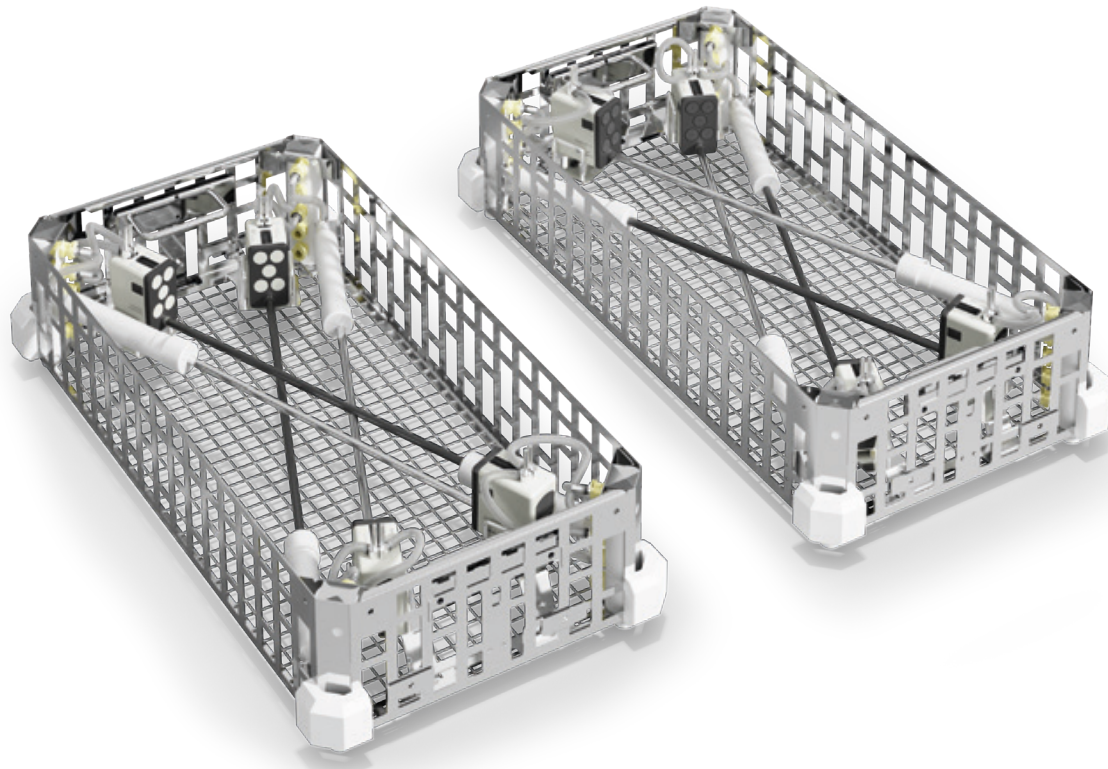
Frequency of automatic renewal of washing solution selected according to user requirements.



# Robotic Instruments' Reprocessing



Steelco provides reprocessing solution for other brand robotic surgical instruments as well with dedicated or modular wash carts. Ask Steelco for the most up-to-date validated reprocessing solutions



## Chemistries to complement ultrasonic cleaning

For best results use Steelco chemistries that have been validated on ultrasonic units. Detergents are internally stored and together with water are automatically dosed to the correct level with a lowlevel detergent alarm fitted.





	US 80	US 300	US 100 US 200/1	US 100 XL	US 200/2	US 200/3
<b>Capacity</b>						
number of ultrasonic tanks	1	1	1	1	2	1
total capacity of ultrasonic tanks - lt	43	78	72,5	114,75	2x72,5	72,5
water capacity at full fill level - lt	24	49	60	98,7	2x60	58
maximum number of cannulated instruments	12	40	12	12	2x12	12
number of connections	6	20	12	12	2x12	12
<b>Process</b>						
Active Flushing technology	•	•	•	•	•	•
pressure control of washing circuits	◦	◦	-	-	-	-
drain water cooling system	-	◦	-	-	-	-
forced hot air drying system	-	◦	-	-	-	-
<b>Construction</b>						
external surfaces AISI 304	•	•	•	•	•	•
washing chamber AISI 316L	•	•	•	•	•	•
<b>Door operation</b>						
manual	•	-	◦	◦	◦	◦
automatic - pneumatically actuated	-	-	•	•	•	•
automatic - electrically actuated	-	-	◦	◦	◦	◦
automatic - foot pedal operated	-	-	◦	◦	◦	◦
automatic - infrared sensor operated	-	•	◦	◦	◦	◦
automatic door locking	-	•	•	•	•	•
<b>Control panel</b>						
soft touch, 4,3" graphic LCD display	•	•	◦	◦	◦	◦
touch button, LED display	-	-	•	•	•	•
standard programs	20	20	2	2	2	2
custom programs	20	20	1	1	1	1
USB port	•	•	-	-	-	-
RS232 serial port	•	•	◦	◦	◦	◦
integrated printer	◦	◦	◦	◦	◦	◦
ethernet port for paperless traceability	•	•	◦	◦	◦	◦
<b>Connections</b>						
standard electrical connection	230V 50Hz	400V 3~+N 50Hz	230V 50Hz	230V 50Hz	230V 50Hz	230V 50Hz
others available on request						
total power W	1100	10000	3000	2900	6000	3000
ultrasonic power for tank W	1000	2000	2000	2300	2000x2	2000
<b>Detergent dosing system</b>						
standard dosing pump	1	1	1	1	2x1	1
additional dosing pump	◦	◦	◦	◦	◦	◦
internal detergent storage (5 l containers)	-	2	2	2	2	2
compatibility with central dosing system	•	•	•	•	•	•

• = Standard    ◦ = Option    - = Not available



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