Steelco

LAB 610 G2

High capacity/small footprint efficient glassware washer for mid-size laboratories

Miele Group Member

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, optimise 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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LAB 610 G2
Laboratory Glassware Washer

LAB 610 G2

Up to **3 baskets** (on telescopic runners)
at **4 different levels**
Chamber volume **270 litres**
Load volume **241 litres**

The LAB 610 G2 is a large-capacity front loading glassware washer to meet the needs of medium-size facilities.
This unit is capable of injection washing and drying up to 3 baskets at 4 different levels, providing maximum flexibility through multiple chamber configurations depending on the height of loaded items.

Thanks to an intelligent use of space with the SmartLoad system, capacity has been increased by more than 50% when compared to the previous model.

With a variable-speed pump, circulation pressure and water consumption is optimized to individual loads.
Steelco laboratory washers offer versatility, safety, high performance, and process traceability with low total life costs.

Capacity up to 192 pieces of 100 ml bottles!

Key Advantages
a winning combination

Eco Friendly Efficiency

Process efficiency
Steelco laboratory washers are engineered to offer best-in-class solutions for reducing energy and water consumption, giving users the lowest operating costs per load.

Optimized Process Speed

Speed is important
Our focus is to provide customers with the fastest possible washing processes depending on the amount and type of soil.
Check LAB 610 G2 options for time and energy saving (see table on page 19).

Flexibility, Control & Connectivity

Process under control
The high-quality colour touch display, in combination with Wi-Fi and Ethernet connection, ensures intuitive operator interaction and excellent control over the entire process. In addition, SteelcoData Live allows remote visualisation of both real-time and historic device performance data.

Easy Plug & Play Installation

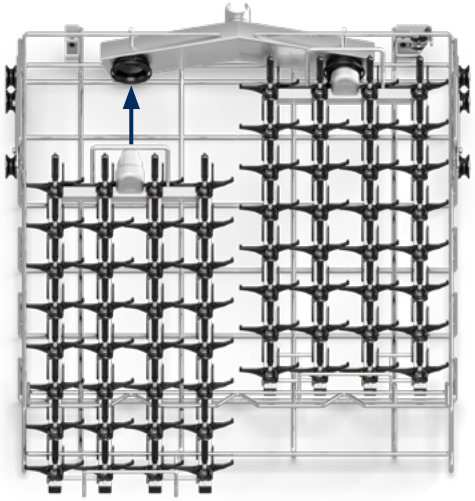
Plug and Play

Despite its large capacity, the LAB 610 G2 is a compact and "plug and play" device needing just an electrical supply, water inlets, and a drain connection.

It is designed to overcome architectural limitations such as door passages or lifts with a plinth on rollers for easy transfer and positioning.

Loading Configuration Flexibility

Maximum flexibility is combined with intuitive use. The improved SmartLoad Plus system allows more flexibility with the availability of up to three loading levels simultaneously. In addition, loading is made fast and easy with a wide range of standard and configurable loading options.



Washing Carts Customizable

Whether you need to wash small or large glassware, or a combination of both, loading racks can be configured to meet your specific needs with modules ranging from 8 to 32 injector nozzles.

Efficiency & Sustainability
coming together

Eco Friendly Efficiency

Adaptive Speed Washing

Unrivalled levels of efficiency

Reduction of energy and water consumption with the lowest operating costs per load.

The variable speed pump adjusts circulation pressure (maximum performance when needed) and water consumption (water conservation when possible). Washing performance is therefore always optimal and can be accurately monitored via a pressure transducer.

MAIN WASH

maximum washing performance with thorough and fast cleaning

RINSE PHASE

safe rinse performance with reduced water consumption

Top quality materials, devices made to last

Chamber, spray arms, and sump filters are made from high-grade, electro-polished stainless steel AISI 316 L; a guarantee for cleanliness, long-term reliability, and easy recycling of the product at the end of its life.
The structural frame of the LAB 610 G2 is made of high quality stainless steel to ensure longer life.

Summary of Efficiency & Sustainability options

- Preheating Tank 1
- Two-way drain for water recycling system
- Dynamic drying
- Steam condenser

Design & Performance
coming together

Optimized Process Speed

Speeding up the cycle while saving time and energy

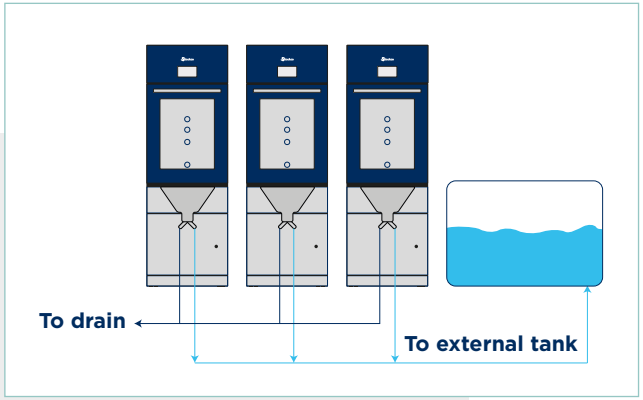
Thanks to the availability of the Fast Cycle option's preheated tank, it is possible to save time and to have reprocessed items available sooner without diminishing process quality. The heating-up time of the final rinse phase can be reduced by 80% in average use conditions.

Forced, filtered air drying

Forced and hot air drying allows for perfectly dry goods. A HEPA H14 filter unit ensures contamination-free results. The optional humidity sensor ensures that goods are dried efficiently with the minimum time and energy necessary.

Efficient water recycling

As natural resources are becoming increasingly valuable, Steelco helps reduce water consumption by an additional 30%. The "two-way drain" option allows for recycling the final rinse water into an external tank for subsequent reuse by the same or other devices. Alternatively water can be collected for treated by dedicated purification plants.



Flexibility & Control coming together

Flexibility, Control & Connectivity

User-friendly interface

The large 7" touch screen control panel facilitates device control with bright, easy-to-read information even from a distance. Operators are supported at every step with clear and intuitive commands.

User access levels

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

Common design for all devices

The user-friendly designed touch screen is consistent throughout the portfolio of Steelco devices, supporting intuitive error free operation and reliable processes.

Technical service mode

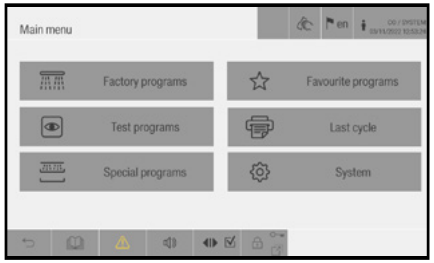
Designed for streamlined maintenance, an easy-to-read synoptic panel provides an in-depth overview of device and component status speeding up service interventions.

Washing performance

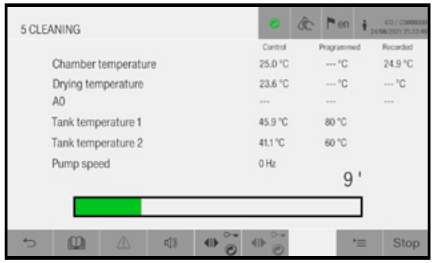
The HMI displays washing pressure and water conductivity parameters during relevant process phases including final rinse quality check.

Cycle data storage

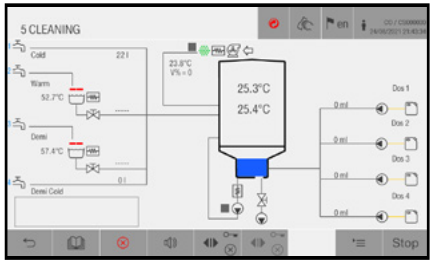
Cycle data is stored and available from the integrated printer. Data is sent to a centralized traceability system if the device is connected to the network.



Clear and easy to understand main menu



Highly visible cycle status and alarm messages



Easy-to-read synoptic panel

Network connectivity

Wi-Fi and Ethernet connections are standard for machine performance and cycle data collection via SteelcoData Live software. In addition, a USB port allows the download of raw cycle data, washing programs, parameters, and machine software updates.

The LAB 610 G2 is natively ready to connect with a cloud environment.

SteelcoData Live

A web-based software enables to view in real-time machine performance, cycle data, and alarms with historical records.

Software features:

- Stores utility consumption when available from devices
- Device cycle and alarm monitoring and data management with different authorisation levels
- Respects HL7 standard
- Reliable information and data entirety
- Traceability and backward traceability of user activities and material handling
- Real-time analysis
- Efficiency improvement tools
- Workstations can display only activities in the specific user's area of competence
- Effective information sharing with customers
- Can be integrated with other client software systems

I'm ready!

Device status and availability are clearly shown by the change of colour of the chamber light.
White: cycle in progress - Green: process completed OK - Red: alarm active

Small footprint & Easy installation coming together

Easy Plug & Play Installation

With a small footprint, the LAB 610 G2's high capacity does not affect a department's space. The simplified "plug and play" installation just needs flexible connections to the electrical main, water inlet and drain.

Flexibility in configuration

Depending on the utilities available, Steelco LAB 610 G2 can be configured for:

- electrical heating
- indirect external steam heating reducing overall electrical power supply need
- mixed heating allowing switching from steam to electrical heating as a backup solution

An optional built-in water softener can be added in case of poor incoming water quality or busy laboratories.

The washer is suitable for vented or not vented installation with steam condensing options.

Flexibility in after sale options

Steelco offers retrofit kits to this range of devices to adapt to customer needs:

- Analog pressure transducer to record water circuit pressure
- Conductivity sensor for monitoring final rinse water
- Drain pump to match with high or remote drains
- Drying phase controlled by humidity sensor
- ...and much more

Minimized service requirements

Device's maintenance is highly simplified and cost-effective. Access for service is fully frontal via the hinged door which opens completely. This grants access to all the components and streamline maintenance. LAB 610 G2 is equipped with wheels for fast and easy positioning.

High capacity & Flexibility coming together

Loading Configuration Flexibility

Make the most of your laboratory capacity.
The new LAB 610 G2 optimise handling and the use of chamber space.

SmartLoadPlus 3 racks 4 levels

SmartLoad Plus system allows the use of up to three baskets on telescopic runners which can be flexibly positioned and connected to the water circuit at four different levels. This allows various loading combinations to accommodate a variety of different goods.

All baskets can be used on any level. The differentiation between baskets which run on the open door and ones on telescopic runners now no longer applies.
Telescopic racks on all levels guarantee greater loading flexibility.
Vertical clearances depend on which baskets are used, their position and height of the load (see table on page 18).

C1832 with spray arm, for optimum loading of inserts. For use on levels 2 to 4.
Loading surface: W 507 mm, D 545 mm

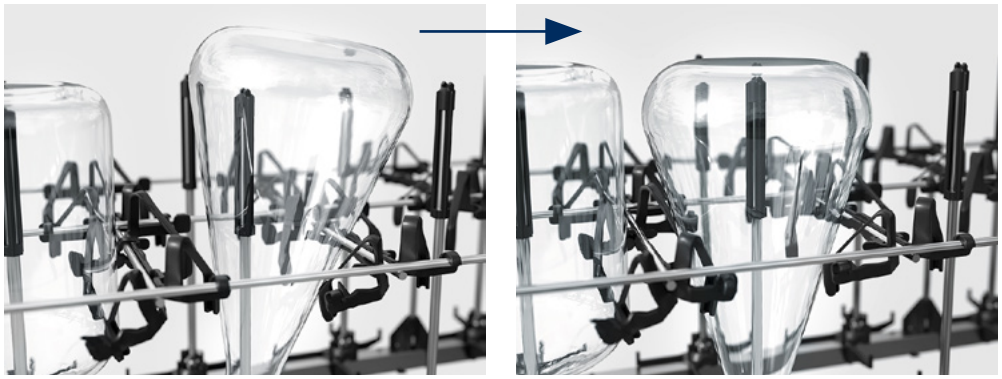
C1833 without spray arm, for optimum loading of inserts. For use on level 1 only.
Loading surface: W 507 mm, D 545 mm

C1834 with two docking connections for up to 2 injector modules or inserts. Automatic closing of the connections when not in use. For use on all levels.
Loading surface: W 507 mm, D 520 mm

Simple Load System

Glassware loading has never been so simple.

Glassware loading is flexible and intuitive thanks to new injection nozzles, new plastic supports, injection modules and support grid, increasing the laboratory washer's load capacity.



Glassware positioning is easy, quick, and self centring.

During the wash cycle, the supports ensure the best cleanliness avoiding alterations to the glassware, such as scratches.

Support for nozzles that help you to maximize the load height, increasing your available space inside the chamber.

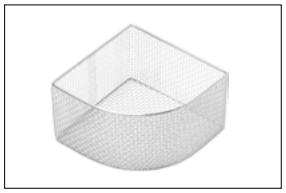
Washing baskets configurations

All baskets used on the laboratory washer LAB 610 G2 can be fitted with the following inserts:

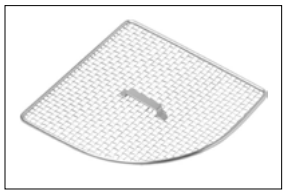
C1832 For use on levels 2 to 4

C1833 For use on level 1

Inserts and other components for C1832 and C1833

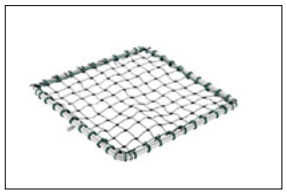


C68 insert for optimum loading of test tubes, height 200 mm. For use with C77 lid

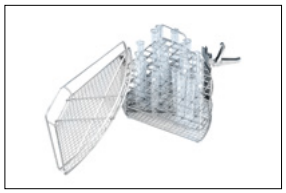


C77 lid for C68, C69 and C70 inserts

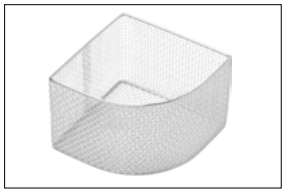
C97 insert for optimum loading of 26 half petri dishes. Spacing between the holders 24 mm



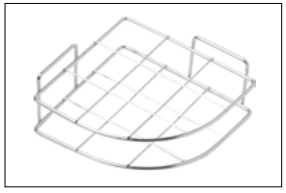
A 3 cover net 1/4, plastic coated metal frame with plastic netting



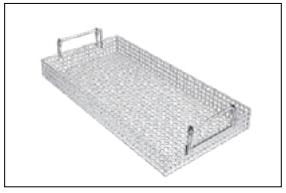
E 149 insert 1/4, for 80 test tubes up to 16 x 105 mm, 80 compartments. Mesh width on the base 8 x 8 mm



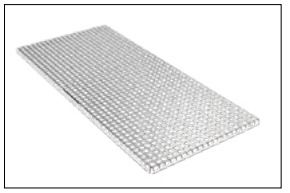
C69 insert for optimum loading of test tubes, height 130 mm. For use with C77 lid



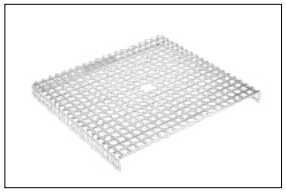
C86 insert partition mesh for dividing the base area in C68, C69 and C70



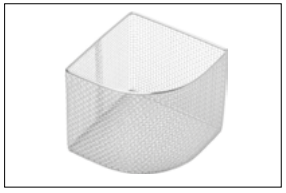
AK 12/1 insert 1/2 suitable for beakers, funnels, breast milk pumps, for example. With flexible handles



A 320 insert for the gentle cleaning of delicate load items by interrupting the water jet. Perforations 7 x 7 mm

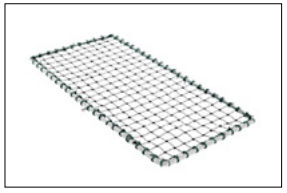


A 14/1 lid for fixing delicate wash items. Stainless steel, 7 x 7 mm perforations, 3 mm slat

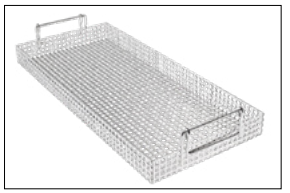


C70 insert for optimum loading of test tubes, height 130 mm. For use with C77 lid

C61 insert for the optimum loading of wide-necked Erlenmeyer flasks and measuring cylinders. Equipped with 14 spring hooks, 175 mm & 14 105 mm height

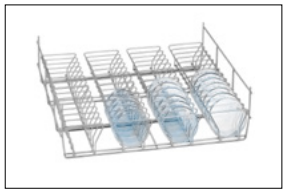


A 2 cover net 1/2, for fixing delicate wash items. Plastic coated metal frame with plastic netting

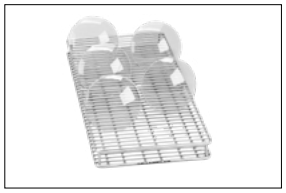


A 321 insert suitable for beakers, funnels, breast milk pumps, for example. With flexible handles

E 402 insert 1/2 for optimum loading of up to 44 watch glasses Ø 80 - 125 mm. Equipped with 23 bars spaced 15 mm apart

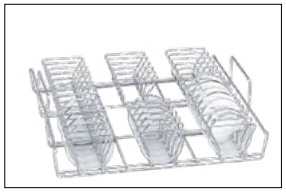


E 136 insert 1/1 for optimum loading of 56 half petri dishes with Ø 100 mm. Equipped with 56 holders, height 70 mm, distance apart approx. 26 mm



E 403 insert 1/2 for optimum loading of up to 105 watch glasses Ø 50 - 60 mm. Equipped with 36 bars spaced 9 mm apart

E 137 insert 1/1 for E 136 for optimum loading of 56 half petri dishes with Ø 100 mm. Equipped with 56 holders, height 70 mm, distance apart approx. 26 mm

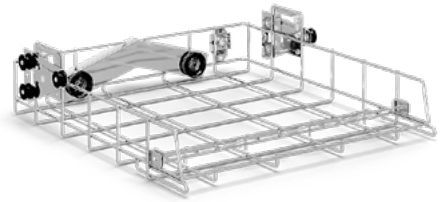


E 118 insert 1/1 for the optimum loading of 38 half petri dishes with Ø 100 mm. Equipped with 38 holders, height 70 mm, distance approx. 26 mm

E 494 insert 1/2 for the gentle holding of 5 microtiter plates

Washing baskets configurations

C1834 basket used on the laboratory washer LAB 610 G2 can be fitted with the following modules.



C1834 For use on levels 1 to 4

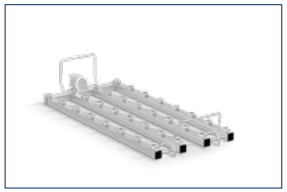
Modules and other components for C1834

A 300/2 module 2x4
(w/o nozzles)

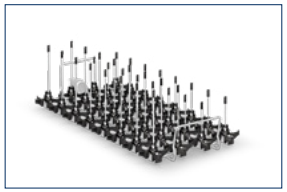
A 300/3 module 2x4
For Erlenmeyer flasks, round flasks, laboratory bottles, measuring flasks and measuring cylinders (250 - 1000 ml)
4 x A 840 injector nozzles
4 x A 841 injector nozzles

A 860 holder frame 2x4

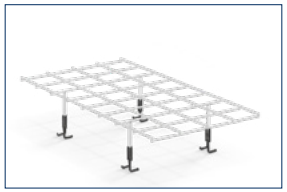
A 301/4 module 3x6
(w/o nozzles)



A 302/2 module 4x8
(w/o nozzles)



A 302/3 module 4x8
For Erlenmeyer flasks, round flasks, laboratory bottles, measuring flasks, and measuring cylinders (25 - 100 ml)
16 x A 844 injector nozzles
16 x A 845 injector nozzles

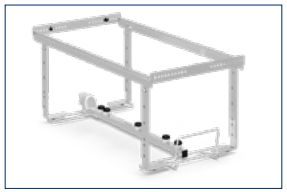


A 862
holder frame 4x8

C1846 ideal for large-volume glassware, bottles up to 50 l.

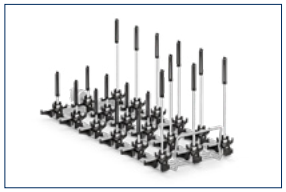
A 303 suitable for 98 measuring and full pipettes

A 304 for 98 tubes, e.g. centrifuge tubes, phials, tests



A 313 for reprocessing bulky laboratory glassware items using A 846, A 847 and A 848 injector nozzles:
- Laboratory bottles
- Round flasks
- Erlenmeyer flasks
- Measuring cylinders

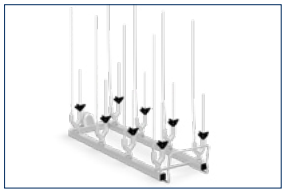
A 846 for laboratory bottles, max. 10 l, and round flasks, max. 6 l
Nozzle length: 127 mm.
Total length with support: 158 mm, Ø 10 mm



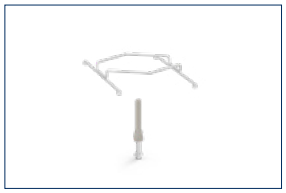
A 301/5 module 3x6
For Erlenmeyer flasks, round flasks, laboratory bottles, measuring flasks, and measuring cylinders (50 - 250 ml)
9 x A 842 injector nozzles
9 x A 843 injector nozzles

A 861 holder frame 3x6

A 306/1 for laboratory glassware, in particular large measuring cylinders
Capacity: four 1-2 l tall measuring cylinders.
Suitable for two 1-2 l short measuring cylinders, and 2 tall measuring cylinders



A 312 for reprocessing up to 8 viscometers
With 8 x A 867 special nozzles.
Nozzle spacing 118 mm across width, 118 mm across depth

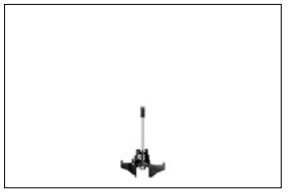


A 847 for Erlenmeyer flasks, max. 5 l
Nozzle length: 127 mm, Ø 10 mm, Ø of hexagonal support: 142 mm

A 848 for laboratory bottles, max. 10 l, and round flasks, max. 6 l
Nozzle length: 350 mm.
Total length with support: 158 mm, Ø 10 mm

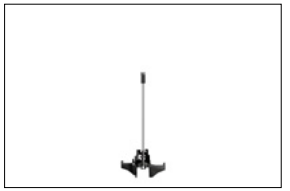
Injector nozzles

SD-B for butyrometers
length 240 mm



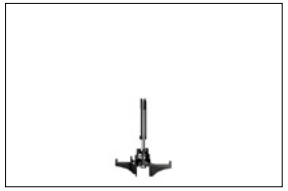
A 844 Ø 2.5,
length 80 mm

A 840 Ø 6,
length 130 mm



A 845 Ø 2.5,
length 125 mm

A 841 Ø 6,
length 210 mm



A 842 Ø 4,
length 90 mm

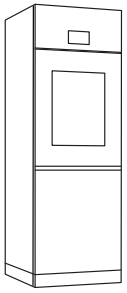
E 336
irrigation sleeve

A 843 Ø 4,
length 185 mm

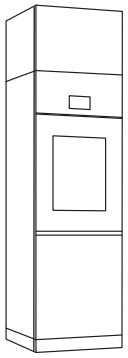
E 362
blanking screw

Capacity and Dimensions

Layouts and configurations



Without top extension



With top extension

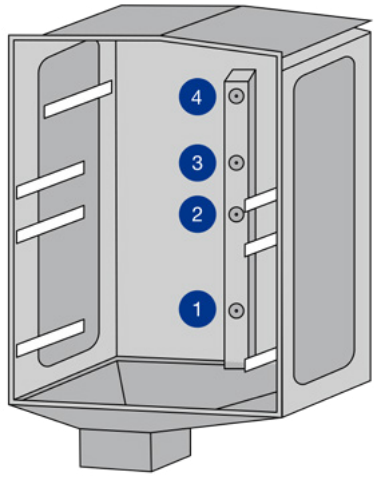
Model	Chamber (WxDxH) - mm			Litres	Overall (WxDxH) - mm		
Single door							
LAB 610 G2	570	609	728	253	650	700	1940/2395 (*)

(*) The overall height of the device depends on the presence of steam condenser, its type and its combination with other options.
Loading height: 850 mm above finished floor.

Configurable positions

	Reprocessing with spray arm (3 levels)		Reprocessing with spray arms (2 levels)		Blended reprocessing with spray arm and injector nozzles (3 levels)	
	Basket	Load height [mm]	Basket	Load height [mm]	Basket	Load height [mm]
Level 4	C1832	158 ± 30	-	278 ± 30	C1832	158 ± 30
Level 3	-	178 ± 30	C1832		-	244 ± 30
Level 2	C1832		-	354 ± 30	C1834	
Level 1	C1833	234	C1833		C1834	210

	Reprocessing with injector nozzles (3 levels)		Reprocessing with injector nozzles (2 levels)		Reprocessing with spray arm or injector nozzles (1 level)	
	Basket	Load height [mm]	Basket	Load height [mm]	Basket	Load height [mm]
Level 4	C1834	224	-	344	-	-
Level 3	-	220	C1834		-	
Level 2	C1834		-	330	-	
Level 1	C1834	210	C1834		C1833 C1834	690



Technical Data

Components and optional features

Chamber and door	
N° of doors	1
Door opening	Hinged
Door operation	Manual
Load concept	
Rack system with max 3 levels and 4 different positions	•
Water heating system	
Electrical	•
Steam or Mixed	○
Chemical dosing	
2x maintenance free liquid chemical dosing pumps controlled by flow meters (up to 2 additional dosing pumps)	•
Drying	
HEPA H14 filtered electrically heated hot air drying	○
Control system and traceability	
Colour touch screen HMI	7”
Automatic detection of the n° of wash cart	•
Integrated printer	•
Wi-Fi and Ethernet port for digital traceability (via SteelcoData Live software)	•
Chamber light	○
Multi-colour chamber light	○
Sustainability & Performance	
Single water preheating tank (Fast Cycle configuration)	○
Steam condenser	○
Drying phase duration controlled by humidity sensor	○
2 way drain for water/energy recycling	○
Process quality	
Washing circuit pressure monitoring (analog transducer)	○
Final rinse water quality monitoring (conductivity meter, data recorded)	○
Machine connections and technical area	
Inlet water connections	3
Built-in water softener	○
Drain pump	○
Full frontal access for service	•

• = Standard ○ = Option ▪ = Not available

Steelco

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CE

Products offered for sale may differ from those described or illustrated in this brochure due to later production changes or/and optional configurations.
The products and technical specifications are subjected to change without prior notice. Please consult your Steelco dealer for the latest information.

DC-PD-01-LAB 610 G2 EN Rev.00