Steelco

Laboratory glassware washing systems

Small and Medium Capacity

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, 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.

Steelco

Miele Group Member

Small & Medium-Size Scientific Laboratories

Whether you are just wishing to replace a single small machine or require assistance in designing and equipping your scientific or research laboratory, Steelco and its factory-trained dealers are here to help you make the best decision possible that works for you and then support you every step of the way.

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

LAB 500
171 lt / 6.04 ft³

LAB 600
200 lt / 7.06 ft³

LAB 610
250 lt / 8.83 ft³

Key Advantages
a winning combination

This selection of laboratory glassware washers and dryers provides flexible solutions to meet the specific need of small and medium-size scientific laboratories.

Our compact washers and dryers with minimum footprint are suitable for situations where space is at a premium while sharing the washing and drying technology of higher throughput devices, providing excellent washing results and drying efficacy.

Tailor-made customization, combined with a wide selection of racks and accessories, meets the most diverse treatment needs.

Steelco Laboratory glassware washers comply with the current European directives and standards as follow: 2006/42/EC, 2014/35/EU, 2014/30/EU and 2011/65/EU Directives, EN 61010-1, EN 61010-2-040, EN 61326-1, EN ISO 15883-1 current standards.

Optimized Process Speed

Detailed engineering of the chamber, sump and hydraulic system reduces water consumption and assures high performance in terms of cleaning, drying, and consumption.

Process Quality Focus

High-quality stainless steel AISI 316 L washing chamber and washing arms for optimal performance, with washing and drying injection system integrated into the same circuit. Low friction bearings ease chamber and cart washing arms rotation for improved efficiency in water and air distribution.

Loading Configuration Flexibility

A comprehensive choice of racks and accessories to meet different capacity and cleaning demands, allowing to maximize the numbers of different utensils and glassware that can be washed, preventing movement and damage, and ensuring complete coverage of the loads.

Washing Carts Customizable

The final pages of the catalog are dedicated to choosing the most appropriate optimal accessories for convenient loading and to the selection of injection nozzles to set up configurable wash carts.

LAB 500 Series

Compact underbench glassware washers

LAB 500 SC/SCL

2X 600mm wide underbench washer with washing system on two independent levels. **Chamber drying by electrical heating elements**.

LAB 500 SC available in stainless steel door only with LED display.

LAB 500 SCL available in stainless steel door with LCD display or full glass door version with soft touch control panel.

LAB 500 CL

2X 600mm wide underbench washer with washing system and **forced hot air drying system** on 2 independent levels.

Available in stainless steel door with LCD display or full glass door version with soft touch control panel.

LAB 500 DRS

2X **900mm wide underbench washer** with washing system and **forced hot air drying system** on 2 independent levels.

It includes 300mm lateral cabinet for chemical storage, direct access to drying filtering system and direct access to chemical dosing system.

Available in stainless steel door with LCD display or full glass door version with soft touch control panel.

LAB 500 next-generation laboratory washers share the washing technology of higher-throughput devices, providing unmatched flexibility, excellent cleaning, and drying efficacy.

Key Features:

+ **Optimal cleaning**
  Injection washing on up to two independent levels.
+ **Chemical dosing**
  Two standard peristaltic pumps. Additional dosing pump available upon request.
+ **Steam condenser** as standard, integrated steam condenser to prevent vapors in the chamber.
+ **Traceability**
  RS 232 port for printer or PC connection; USB port for cycle data storage and program updating.

Dimensions

Overall WxDxH:
600* x 630 x 850 mm
23 5/8" x 24 13/16" x 33 7/16"

*DRS version 900mm/ 35 7/16 wide

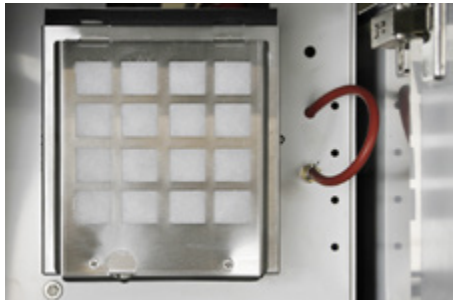
Chamber Volume
~171 lt / 6.04 cu ft

Basket Volume
~151 lt / 5.33 cu ft

Hygienic Design

The washing chamber and spray arms, as well as tank filters are made of high quality AISI 316 L stainless steel (DIN 1.4404). The washing chamber has rounded edges in order to avoid any dirt traps, minimizing the risk of microbial growth.

Water filtering system on three levels captures residue preventing re-circulation and extending the pump life.



Excellent Drying Results

Our series of glassware washers and dryers features a built-in HEPA 14 filtered forced air drying system ensuring the complete internal and external drying of all the glassware.

It allows for adjustable time and temperature settings, optimizing cycle duration and energy consumption.

Stands and Side Cabinets

Different models of 300mm wide side cabinets allow holding:

- Boiler for DI water preheating.
- Purification system for DI water supply.
- Up to four 5 lt. (1.32 Gal US) chemical containers.

Stands improve ergonomics when the machine is not installed under the counter. See page 13 to find your right configuration.

LAB Dryer

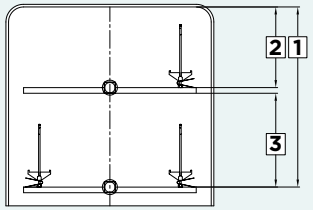
The LAB Dryer is an under-counter glassware dryer suitable for a wide range of laboratory glassware, specially designed to work in conjunction with the LAB 500 series. Stainless steel door version with LED display as standard. The Hepa 14 filtered forced hot air drying system with upper and lower connections helps achieve comprehensive drying of your glassware.

Wide Range of Racks, Inserts, Trays, and Accessories

Loading Configuration Flexibility

A comprehensive choice of racks and accessories to meet different capacity and cleaning demands, allowing to maximize the numbers of different utensils and glassware that can be washed, preventing movement and damage, and ensuring complete coverage of the loads.

Levels position



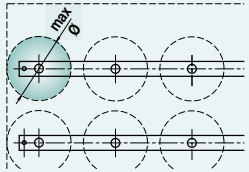
1	480 mm / 18 $^{7}/_{8}$”
2	210 mm / 8 $^{1}/_{8}$”
3	250 mm / 9 $^{13}/_{16}$”

The use of an upper level washing cart provided with spray arm reduces the useful height of the level placed below by 40mm/1 $^{9}/_{16}$” but allows a gain of 15mm/$^{9}/_{16}$” on top.

In the next page you can find examples of washing carts configured and reference tables of the maximum glassware diameter and number of injection positions.

Washing carts configurations

The table shows the maximum glassware diameter in the washing cart frame and position options of LAB 500 Series.



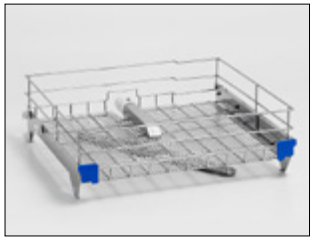
Upper level empty racks

empty rack **code**	**max Ø** mm/in.	nr. of injection **positions**		notes
C1342E	30 / 1 3/16	210	❶	only for mm 2,5/1/8" Ø nozzles
C1235E	25 / 1	156	❶	only for mm 2,5/1/8" Ø nozzles
C1132E	40 / 1 9/16	110	❶	only for mm 2,5/1/8" Ø nozzles
C809E	50 / 2	64	❶	only for mm 2,5/1/8" Ø nozzles
C815E	57 / 2 1/4	56	❶	only for mm 2,5-4/1/8-3/16" Ø
C711E	74 / 2 15/16	36	❶	
C712E	90 / 3 9/16	25	❶	
C953E	105 / 4 1/8	18	❶	
C723E	70 / 2 3/4	18+121	❸	see C1086, C1061, C1105 accessories

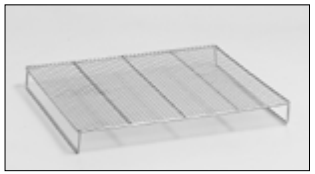
Lower level empty racks

empty rack **code**	**max Ø** mm/in.	nr. of injection **positions**		notes
C1341E	30 / 1 3/16	210	❶	only for mm 2,5/1/8" Ø nozzles
C1133E	40 / 9/16	110	❶	only for mm 2,5-4/1/8-3/16" Ø nozzles
C810E	50 / 2	64	❶	only for mm 2,5-4/1/8-3/16" Ø nozzles
C816E	56 / 2 3/16	56	❶	only for mm 2,5-4/1/8-3/16" Ø
C990E	70 / 2 3/4	39	❶	
C716E	89 / 3 1/2	25	❶	
C954E	105 / 4 1/8	18	❶	
C1079E	110 / 4 5/16	16	❶	
C901E	150 / 5 15/16	9	❶	
C1197E	62 / 2 7/16	18	❷	mm 250x490 / 9 13/16"x19 5/16" space
C717E	70 / 2 3/4	12	❷	mm 290x490 / 11 7/16"x19 5/16" space
C718E	89 / 3 1/2	10	❷	mm 265x490 / 10 7/16"x19 5/16 space
C804E	89 / 3 1/2	10+121	❸	see C1086, C1061, C1105 accessories

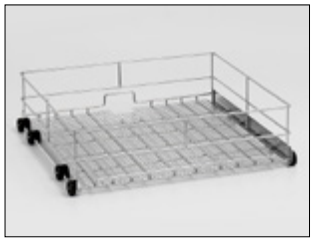
Full loading space



C721 Upper washing cart with spray arm, loading space 485x450mm (19 1/16"x17 3/4")



C788 Support grid ensuring a flat surface on a C721, usable height reduced by 50mm (2")



C52L Lower washing cart, loading space 490x470mm (19 5/16"x18 1/2")

With injection nozzles for glassware

Upper level
suggested configuration

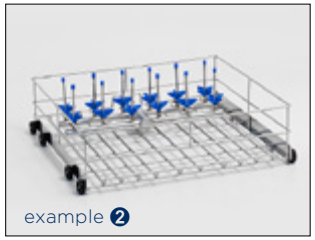
A **36 positions**
max glassware:
ø 74mm/2 15/16"
h 160mm/6 5/16"
C711E frame
+ 36 nozzles C054924

Lower level
suggested configuration

A **39 positions**
max glassware:
ø 70mm/2 3/4"
h 200mm/7 7/8"
C990E frame
+ 39 nozzles C054904

B **39 positions**
mixed nozzles
average glassware:
ø 70mm/2 3/4"
h 200/300mm
C990E frame
+ 10 nozzles C054551
+ 29 nozzles C054904

With half space + injection nozzles for glassware

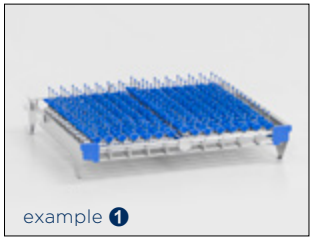


Lower level
suggested configurations

A **18 positions**,
mixed nozzles,
max glassware:
ø 62mm/2 7/16"
h 200/300mm
loading space:
250x490mm
(9 13/16"x19 5/16")
C1197E frame
+ 9 nozzles C054551
+ 9 nozzles C054904

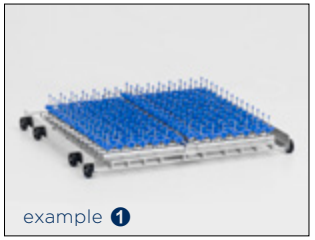
B **12 positions**
mixed nozzles
with supports,
max glassware:
ø 70mm/2 3/4"
h 180/280mm
loading space
290x490mm
(11 7/16"x19 5/16")
C717E frame
+ 6 nozzles C054560
+ 6 nozzles C054559

With injection nozzles for vials



Upper level
suggested configuration

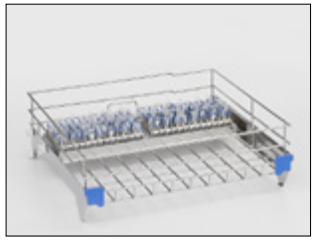
A **210 positions**
max glassware:
ø 30mm/1 3/16"
h 35/65mm
C1342E frame
+ 210 nozzles C054953



Lower level
suggested configuration

A **210 positions**
max glassware:
ø 30mm/1 3/16"
h 35/65mm
C1341E frame
+ 210 nozzles C054953

With half space + injection nozzles for vials



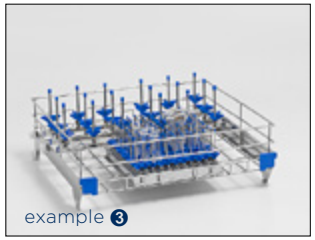
Upper level
suggested configuration

C858
224 positions, useful ø 12mm/1/2", equipped with 19mm/3/4" height nozzles + loading space 250x490mm (9 13/16"x19 5/16")

Lower level
suggested configuration

C859
224 positions, max ø 12mm/1/2", equipped with 19mm/3/4" height nozzles + loading space 270x500mm (10 5/8"x19 11/16")

With injection nozzles + nozzles for vials



Upper level
suggested configuration

A **18 positions**
max glassware:
ø 70mm/2 3/4"
h 160mm/6 5/16"

121 positions
max glassware:
ø 20mm/13/16"
h 160mm/6 5/16"

C723E frame
+ 18 nozzles C054924
+ 121 nozzles C054544

Lower level
suggested configuration

B **10 positions**
max glassware:
ø 89mm/3 1/2"
h 160mm/6 5/16"

121 positions
max glassware:
ø 20mm/13/16"
h 160mm/6 5/16"

C804E frame
+ 121 nozzles C054544
+ 10 nozzles C054551

note: see also C1061, C1086 and C1105 accessories

Multipurpose with injection nozzles + pipettes

C1511 lower level,
5 positions for pipettes

Min pipette length 250mm/9 13/16"

Max pipette length 535 mm/21 1/16"

2 nozzles h 220mm/8 11/16" and ø max 130mm/5 1/8"

4 nozzles h 220mm/8 11/16" and ø max 98mm/3 7/8"

3 nozzles (C054550) h 175mm/6 7/8" and ø max 60mm/2 3/8" + additional loading space 260x230mm (10 1/4"x9 1/16")

Injection washing for pipettes

C759 lower level,
max **48 positions**

Minimum pipette length 250mm/9 13/16" and 300mm/11 13/16"
Maximum pipette length 535mm/21 1/16

C719 lower level,
max **121 positions**.

Min. pipette length 135mm/5 5/16"

Max. pipette length 470mm/18 1/2"

Immersion washing for pipettes

C720 lower level,
with 2 **pipette cassettes**

Maximum pipette length 290mm/11 7/16".

Pipettes must be fully covered by water and fully immersed within the cassette.

Washing Carts Customizable

LAB 600 and LAB 610

Freestading glassware washer

LAB 600 Series

650mm wide washers capable injection washing and drying on up to **3 independent levels** with 2 possible rack locations

Overall Dimensions WxDxH:
650 x 660 x 1685 mm
25 $^{9}/_{16}$" x 26" x 66 $^{5}/_{16}$"
Chamber Volume
~200 lt / 7.06 cu ft
Basket Volume
~170 lt / 6.03 cu ft

LAB 610 Series

650mm wide washers with injection washing and drying on up to **4 independent levels** with 3 possible rack locations

Overall Dimensions WxDxH:
650 x 687 x 1840 mm
25 $^{9}/_{16}$" x 27 $^{1}/_{16}$" x 72 $^{7}/_{16}$"
Chamber Volume
~250 lt / 8.83 cu ft
Basket Volume
~220 lt / 7.77 cu ft

Electrical or steam heated, these washers are capable of injection washing and drying on different levels (3 or 4), providing maximum flexibility through multiple chamber configurations, depending on the loaded items' height.

The hinged full glass manual drop-down door serves as a loading platform at convenient height for the bottom level.

The upper levels can be removed depending on the height of the loaded glassware.

Key Features:

+ **Chemical dosing**
  Two standard peristaltic pumps. Additional dosing pump available upon request.
+ **Flow meter and conductivity sensor**
  For accurate volumetric dosing of chemicals and for measuring the conductivity value during the final rinse phase.
+ **Drying efficacy**
  Powerful built-in HEPA filtered forced hot air drying system. Adjustable time and temperature settings for the optimization of cycle duration and energy consumption.
+ **Intuitive control system**
  Soft touch control panel, LCD display, 40 programs.
+ **Traceability**
  USB port for the monitoring data download. On board integrated thermal printer for validating washing phases.

Hygienic Design

The washing chamber and spray arms, as well as tank filters, are made of high quality AISI 316 L stainless steel (DIN 1.4404). The washing chamber has rounded edges in order to avoid any dirt traps, minimizing the risk of microbial growth.

Easy and safe loading/unloading

Ergonomic design of the door level height allows a convenient loading/unloading job to the user, with the additional support of a manual loading/unloading trolley upon request. Telescopic bearing rails enable easy and safe loading/ unloading of the glassware.

Smart Filtering System

Our Lab Series of glassware washers is equipped with a triple water filtering system. Ergonomically accessible from the washing chamber, it captures residues preventing their re-circulation, thus extending pump life.

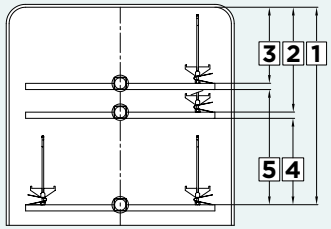
Easy maintenance and access to chemicals

The machine is developed considering technicians' access to the maintenance and service area – easy access to all components and electrical cabinet. Frontal sliding drawer for storage of up to three 5-liter / 1.32 Gal US chemical containers.

Wide Range of Racks, Inserts, Trays, and Accessories

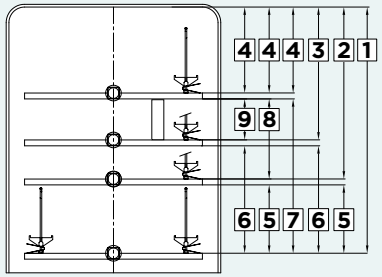
Loading Configuration Flexibility

LAB 600 level positions



1	480 mm / 18 $^{7}/_{8}$"
2	250 mm / 8 $^{1}/_{8}$"
3	180 mm / 9 $^{13}/_{16}$"
4	210 mm / 8 $^{1}/_{4}$"
5	280 mm / 11"

LAB 610 level positions



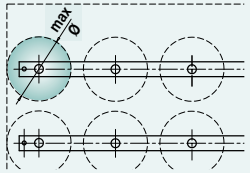
1	630 mm / 24 $^{13}/_{16}$''
2	440 mm / 17 $^{5}/_{16}$''
3	340 mm / 13 $^{3}/_{8}$'
4	220 mm / 8 $^{11}/_{16}$'
5	170 mm / 6 $^{11}/_{16}$''
6	270 mm / 10 $^{5}/_{8}$''
7	390 mm / 15 $^{3}/_{8}$''
8	200 mm / 7 $^{7}/_{8}$''
9	100 mm / 3 $^{15}/_{16}$''

The use of an upper level washing cart provided with spray arm reduces the useful height of the level placed below by 40mm/1 $^{9}/_{16}$" but allows a gain of 15mm/$^{9}/_{16}$" on top.

In the next page you can find examples of washing carts configured and reference tables of the maximum glassware diameter and number of injection positions.

Washing carts configurations

The table shows the maximum glassware diameter in the washing cart frame and position options of LAB 600 and LAB 610 Series.



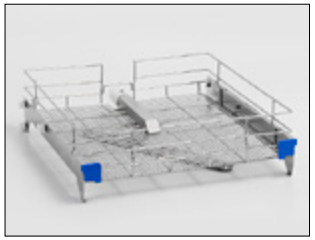
Upper level empty racks

empty rack **code**	**max Ø** mm/in.	nr. of injection **positions**		notes
C1092E	32 / 1 1/4	156	❶	only for mm 2,5/1/8" Ø nozzles
C1192E	40 / 1 9/16	110	❶	only for mm 2,5/1/8" Ø nozzles
C837E	35 / 1 3/8	84	❶	only for mm 2,5/1/8" Ø nozzles
C724E	70 / 2 3/4	42	❶	
C1603E	80 / 3 1/8	36	❶	
C725E	100 / 3 15/16	20	❶	
C838E	110 / 4 5/16	16	❶	
C1443E	75 / 2 15/16	27	❶	
C991E	20 / 13/16	121	❷	mm 200x490 / 7 7/8"x19 5/16" space
C746E	75 / 2 15/16	24+121	❸	see C1086, C1061, C1105 accessories
C1148E	25 / 1	121	❹	only for mm 2,5/1/8" Ø nozzles

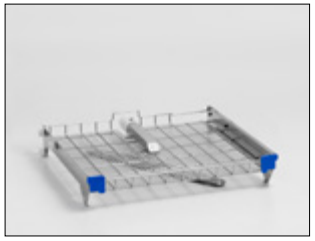
Lower level empty racks

empty rack **code**	**max Ø** mm/in.	nr. of injection **positions**		notes
C1093E	40 / 1 9/16	110	❶	only for mm 2,5/1/8" Ø nozzles
C1570E	52 / 2 1/16	70	❶	only for mm 2,5-4/1/8-3/16" Ø nozzles
C1127E	60 / 2 3/8	56	❶	only for mm 2,5-4/1/8-3/16" Ø nozzles
C729E	70 / 2 3/4	42	❶	
C1604E	80 / 3 1/8	36	❶	
C730E	100 / 3 15/16	20	❶	
C839E	110 / 4 5/16	16	❶	
C1442E	75 / 2 15/16	27	❶	
C885E	130 / 5 1/8	12	❶	
C1571E	160 / 6 5/16	9	❶	
C731E	70 / 2 3/4	24	❷	mm 230x490 / 9 1/16"x19 5/16" space
C732E	100 / 3 15/16	12	❷	mm 220x490 / 8 11/16"x19 5/16" space
C836E	75 / 2 15/16	24+121	❸	see C1086, C1061, C1105 accessories
C1149E	25 / 1	121	❹	only for mm 2,5/1/8" Ø nozzles

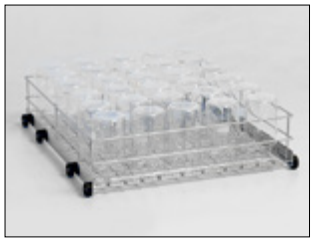
Full loading space



C728 Upper washing cart with washing arm, loading space 485x525mm (19 1/16"x 20 11/16")



C1512 Upper level wash cart with washing arms



C736 Lower washing cart, loading space 470x540mm (18 1/2"x21 1/4")

With injection nozzles for mid size glassware

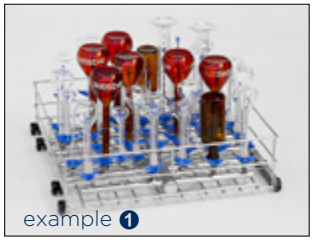
Upper level
Suggested configurations

A **42 positions**
max glassware:
ø 70mm/2 3/4"
h 160mm/6 5/16"
C724E frame
+ 42 nozzles C054924

B **20 positions**
max glassware:
ø 100mm/3 15/16"
h 230mm/9 1/16"
C725E frame
+ 20 nozzles C054550

C **42 positions**
mixed nozzles average glassware:
ø 70mm/2 3/4"
h 200/300mm
C724E frame
+ 10 nozzles C054550
+ 32 nozzles C054924

With injection nozzles for mid size glassware



Lower level
Suggested configurations

A **42 positions**
max glassware:
ø 70mm/2 3/4"
h 230mm/9 1/16"
C729E frame
+ 42 nozzles C054904

B **20 positions**
max glassware:
ø 100mm/3 5/16"
h 300mm/11 13/16"
C730E frame
+ 20 nozzles C054551

C **42 positions**
mixed nozzles average glassware:
ø 70mm/2 3/4"
h 200/300mm
C729E frame
+ 10 nozzles C054550
+ 32 nozzles C054924

D **42 positions**
mixed nozzles with supports average glassware:
ø 70mm/2 3/4"
h 180/280mm
C729E frame
+ 12 nozzles C054560
+ 30 nozzles C054947

With half space + injection nozzles for glassware

Lower level
Suggested configurations

A **24 positions**
mixed nozzles,
max glassware:
ø 70mm/2 3/4"
h 200/300mm
loading space 30x490mm
(9 1/16"x19 5/16")
C731E frame
+ 12 nozzles C054551
+ 12 nozzles C054904

B **12 positions**
mixed nozzles with supports,
max glassware
ø 100mm/3 15/16"
h 180/280mm
loading space 220x490mm
(8 11/16"x19 9 5/16")
C732E frame
+ 6 nozzles C054560
+ 6 nozzles C054947

Multipurpose with injection nozzles + pipettes

C1328 lower level
(for LAB 600 only)

5 positions for pipettes

min pipette length
250mm/9 13/16”

max pipette length
535 mm/21 1/16”

2 nozzles h 220mm/8 11/16” and ø max 130mm/5 1/8”

4 nozzles h 220mm/8 11/16” and ø max 98mm/3 7/8”

3 nozzles (C054550)
h 175mm/6 7/8” and ø max 60mm/2 3/8”

+ additional loading space
260x230mm
(10 1/4”x9 1/16”)

With injection nozzles for large size glassware

Lower level

C1039 up to 4 items Ø max 240mm/9 7/16”, up to 5 items Ø max 190mm/9 1/2”

C1040 up to 2 items Ø max 280mm/11”

C1121 for 50 lt carboy, for LAB 610 model only

C1255 up to 16 positions for graduated cylinders: max ø 85mm/3 1/3”, base ø 150mm/5 14/16”, max height 550mm/21 2/3”,
for LAB 610 only

With injection nozzles for vials

example ❹

Upper level
suggested configurations

A **121 positions**
max glassware:
ø 25mm/1”
h 90mm/3 9/16”
C1148E frame
+ 121 nozzles C054953

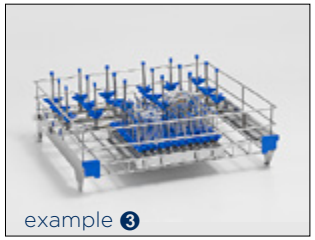
note: see also C1150 accessory

Lower level
suggested configurations

B **121 positions**
max glassware:
ø 25mm/1”
h 140mm/5 1/2”
C1149E frame
+ 121 nozzles C054953

note: see also C1150 accessory

With injection nozzles + nozzles for vials



example ❸

Upper level
suggested configurations

A **121 positions**
max glassware:
ø 20mm/13/16”
h 160mm/6 5/16”
24 positions
max glassware
ø 75mm/2 5/16”
h 160mm/6 5/16”
C746E frame
+ 121 nozzles C054544
+ 24 nozzles C054924

note: see also C1061, C1086 and C1105 accessories

Lower level
suggested configurations

B **121 positions**
max glassware:
ø 20mm/13/16”
h 160mm/6 5/16”
24 positions
max glassware:
ø 75mm/2 5/16”
h 300mm/11 13/16”
C836E frame
+ 121 nozzles C054544
+ 24 nozzles C054551

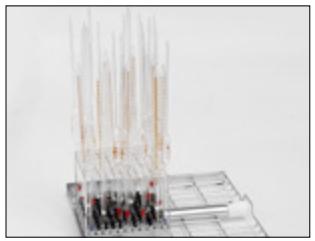
note: see also C1061, C1086 and C1105 accessories

Injection washing for pipettes

C989 lower level,
max 56 positions

Min. pipette length
250mm/9 13/16” and
300mm/11 13/16”.

Max. pipette length:
535mm/21 1/16” on LAB 600,
760mm/29 15/16” on LAB 610.



C733
lower level, max **121 positions**.
Min. pipette length
135mm/5 5/16”.

Max. pipette length:
470mm/18 1/2” on LAB 600,
620mm/24 7/16” on LAB 610.

Immersion washing for pipettes

C734 lower level, with 2 pipettes cassettes,
for LAB 610 only.
Max. pipette length
520mm / 20 1/2”

C735 lower level, with 3 pipettes cassettes,
for LAB 610 only.
Max. pipette length
290mm / 11 7/16”

C1141 lower level, with 2 pipettes cassettes,
for LAB 600 only.
Max. pipette length
290mm/ 11 7/16”

Pipettes must be fully covered by water and fully immersed within the cassette.

Washing Carts Customizable

Technical Data

	LAB 500					LAB 600	LAB 610
Device configuration	**SC**	**SCL**	**CL**	**DRS**	**Dryer**		
Stainless steel door	•	•	•	•	–	–	–
Full glass door	–	o [1]	o [1]	o [1]	–	•	•
Light inside the chamber	–	o	o	o	–	o	o
Nr. of independent levels of the washing and/or drying system	2	2	2	2	2	3	4
Nr. of levels that can be used simultaneously	2	2	2	2	2	2	3
Triple stage water filtering system	•	•	•	•	–	•	•
Built-in water softener	o	o	o	o	–	o	o
Preheating boiler for DI water	o [2]	o [2]	o [2]	o	–	o [3]	o [3]
Preheating tank DI water	–	–	–	–	–	–	–
Adjustable water temperature (up to 93°C)	•	•	•	•	–	•	•
Double PT 1000 probe for temperature check	•	•	•	•	•	•	•
Chemicals							
Std equipment of chemical dosing pumps: nr.	2	2	2	2	–	2	2
Additional chemical dosing pumps: up to nr.	3	3	3	4	–	4	4
Storage of chemical tanks of 5lt/1.32 gal US capacity (depending on option configured in the washer)	–	–	–	2	–	3	3
Drying system							
Forced hot air drying system	–	–	•	•	•	•	•
Pre filter 98%	–	–	•	•	•	•	•
Hepa H14 air filter	–	–	o	o	o	o	o
Steam condenser	•	•	•	•	–	•	•
Control system and traceability							
LED display control panel, 10 programs	•	•	–	–	•	–	–
LCD display control panel, 40 programs (20 pre-programmed, 20 user defined)	–	o	•	•	–	-	-
LCD display soft touch control panel, 40 programs	–	o [4]	o [4]	o [4]	–	•	•
RS232	o	o	•	•	o	•	•
USB port	–	• [5]	•	•	–	o	o
Ethernet connection	–	–	–	–	–	o	o
External printer	o	o	o	o	o	o	o
Integrated printer	–	–	–	o	–	o	o
Complements							
Integrated lateral compartment (300mm width)	o	o	o	•	–	–	–
Stands (600 mm height)	o	o	o	o	–	–	–
Utilities							
Electrical feeding	•	•	•	•	•	•	•
Steam feeding	–	–	–	–	–	o	o
Standard electrical connection others available on request	230V 1-50Hz	400V 3-+N 50Hz	400V 3-+N 50Hz	400V 3-+N 50Hz	230V 1-50Hz	400V 3-+N 50Hz	400V 3-+N 50Hz
Total power W	3050	5600	5600	5600	2000	8250	8250

Notes:

1) With LCD Soft Touch only;
2) Into side cabinet;
3) Not compatible with the storage of chemicals;
4) With glass door version only;
5) When configured with LCD or LCD soft touch control panel;

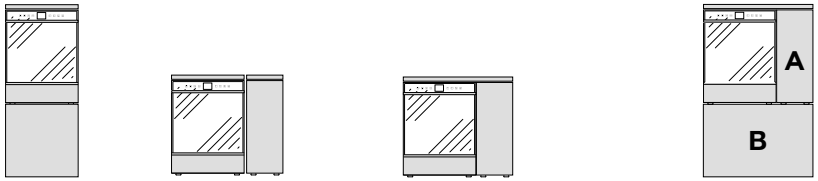
• = Standard
o = Optional
– = Not available

LAB 500 Series | Capacity and dimensions

Device	Overall dimensions WxD*xH mm/inches			Volume lt/ft³	Basket volume lt/ft³	Chamber dimensions WxDxH mm/inches		
LAB 500 SC/SCL/CL	600	630	850	171	151	555	500	670
	23 5/8	24 13/16	33 7/16	6.04	5.33	21 7/8	19 11/16	26 3/8
LAB 500 DRS	900	630	850	171	151	555	500	670
	35 7/16	24 13/16	33 7/16	6.04	5.33	21 7/8	19 11/16	26 3/8

*External with door opened +560mm/22 1/16"

Choosing the right configuration and options



Configuration	stand		cabinet left or right side		900mm machine cabinet on right side only			stand + 900mm machine cabinet on right side only	
Combination	comb. 1	comb. 2	comb. 3	comb. 4	comb. 5	comb. 6	comb. 7	comb. 8	comb. 9
pre-heating tank	•	–	–	–	•	–	–	•A	•B
chemical storage	•	•	•	–	–	•	–	•B	•B
purification system	–	–	–	•	–	–	•	–	•A
4th dosing pump	–	–	–	–	–	•	–	–	•A
integrated printer	–	–	–	–	•	•	•	•A	•A
conductivity meter	–	–	–	–	•	•	–	•A	–
pressure booster pump for DI water	–	–	–	–	•	•	•	•A	•A

• = compatible function
– = not compatible

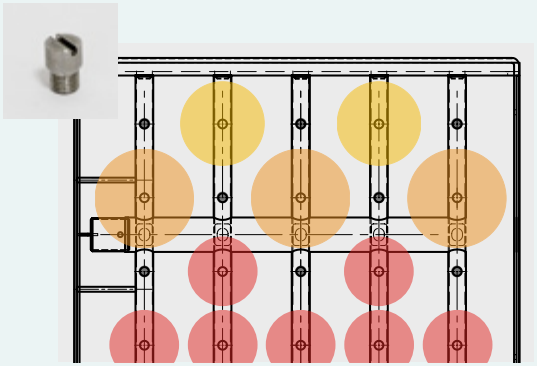
LAB 600 - LAB 610 | Capacity and dimensions

Device	Overall dimensions WxDxH mm/inches			Volume lt/ft³	Basket volume lt/ft³	Chamber dimensions WxDxH mm/inches		
LAB 600	650	660*	1685	200	170	555	585	600
	25 9/16	26*	66 5/16	7.06	6.04	21 7/8	23	23 5/8
LAB 610	650	687**	1840	250	220	555	585	900
	25 9/16	27**	72 7/16	8.83	7.77	21 7/8	23	35 7/16

*External with door opened +570mm/22 7/16"
**External with door opened +715mm/28 1/8"

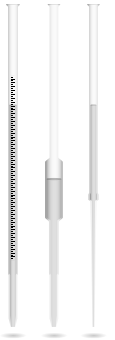
How to configure your washing cart?

Example of configuration of a washing cart for simultaneous washing of ø 70mm/2 3/4", ø 85mm/3 3/8", and ø 100mm/3 15/16" glassware by the use of C057002 cap screws for closing injection nozzle seats.



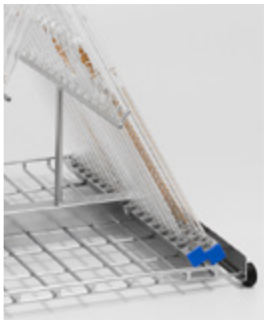
Supports configuration

Example of preconfigured supports



Bulb, graduated, Pasteur pipettes

Injection washing



Immersion and flushing washing

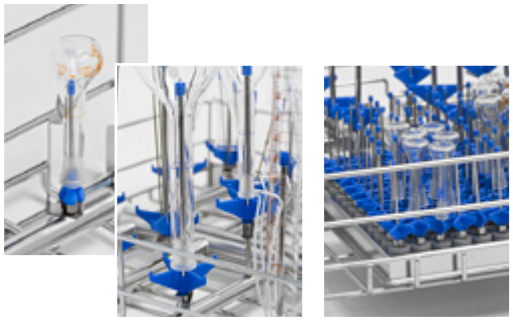
Beakers Jugs Mugs Buckets Jars Weighing bottles Funnels Powder funnels Imhoff cones

Test tubes

Evaporating dishes Weighing dishes Petri dishes Basins Trays

Erlenmeyer flasks Bottles Beakers Weighing bottles

Example of configurable supports



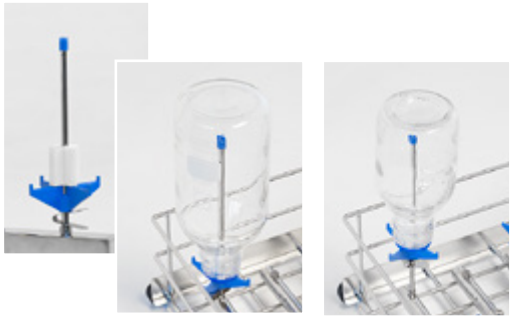
Test tubes and vials

Low capacity volumetric flasks

Centrifuge tubes

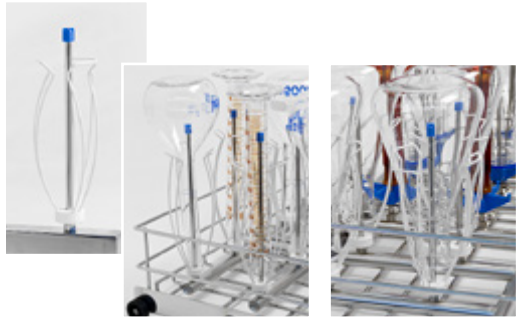
Volumetric flasks narrow neck

Graduated cylinders



Wide neck bottles

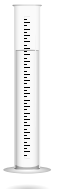
Erlenmeyer flasks wide neck



Erlenmeyer flasks narrow neck

Flat or round bottom flask narrow neck

Funnels



Graduated cylinders

Erlenmeyer flasks wide neck

Wide or narrow neck bottles

Weighing bottles

Graduated cylinders

Imhoff cones

Washing carts selection, injection nozzles, accessories and components

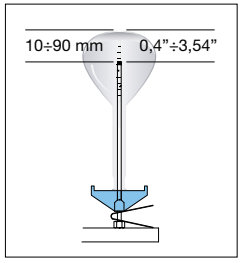
Each customer is given the possibility to fully customize the cart frame by using different nozzles and/or accessories.

Nozzles are available in different height sizes

According to the glassware shape and dimension, nozzles should be chosen in order to have 10/90 mm clearance from the nozzle final tip and the glassware bottom.

Some kind of nozzles are endowed with adjustable spring retainer.

Spring retainers allow to place glassware of different heights on the same nozzle.



Nozzle dimensions

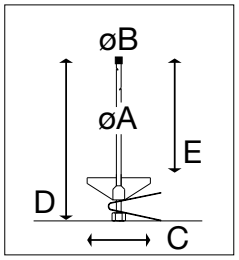
The "critical" dimensions to be considered in choosing the suitable nozzle are the following:

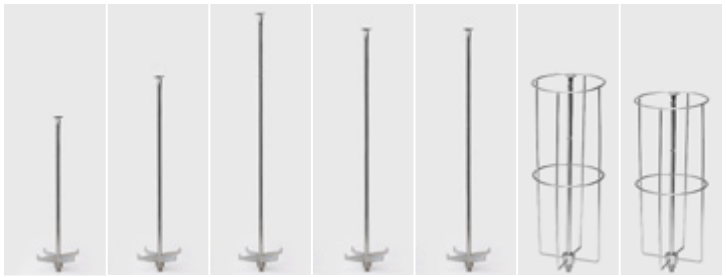
E dimension:

for the correct coupling nozzle/glassware and the check of the distance nozzle/glassware.

D dimension + clearance:

for the compatibility check washing machine/ positioning level.

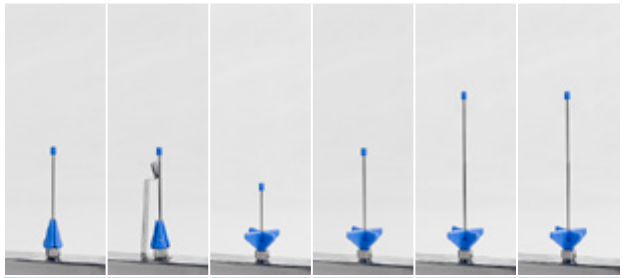




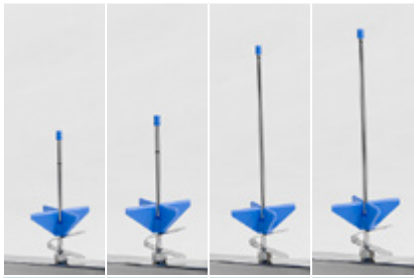
		C057911	C057912	C057914	C057915	C057917*	C057913	C054946
A	mm	8	8	8	8	8	8	8
	in.	5/16	5/16	5/16	5/16	5/16	5/16	5/16
B	mm	17	17	17	17	17	17	17
	in.	11/16	11/16	11/16	11/16	11/16	11/16	11/16
C	mm	87	87	105	105	105	105	105
	in.	3 7/16	3 7/16	4 1/8	4 1/8	4 1/8	4 1/8	4 1/8
D	mm	255	320	445	420	420	320	300
	in.	10 1/16	12 5/8	17 1/2	16 9/16	16 9/16	12 5/8	12 5/8
E	mm	235	300	425	400	400	300	280
	in.	9 1/4	11 13/16	16 3/4	15 3/4	15 3/4	11 13/16	11 1/32

* Radial holes on the total height nozzle

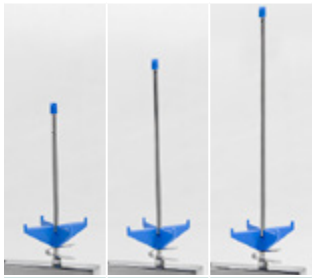
Injection nozzles types



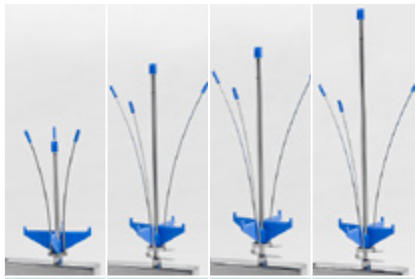
		C054542	C054543	C054953	C054544	C054546	C054943
A	mm in.	2,5 1/8	2,5 1/8	2,5 1/8	2,5 1/8	2,5 1/8	2,5 1/8
B	mm in.	4 3/16	4 3/16	4 3/16	4 3/16	4 3/16	4 3/16
C	mm in.	15 9/16	15 9/16	32 1 1/4	32 1 1/4	32 1 1/4	32 1 1/4
D	mm in.	85 3 3/8	85 3 3/8	50 2	85 3 3/8	105 4 1/8	155 6 1/8
E	mm in.	80 3 1/8	80 3 1/8	30 1 3/16	65 3 1/8	85 3 3/8	135 5 5/16



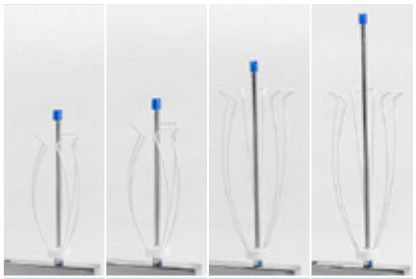
		C054924	C054548	C054549	C054904
A	mm in.	4 3/16	4 3/16	4 3/16	4 3/16
B	mm in.	5 3/16	5 3/16	5 3/16	5 3/16
C	mm in.	54 2 1/8	54 2 1/8	54 2 1/8	54 2 1/8
D	mm in.	110 4 5/16	135 5 5/16	155 6 1/8	175 6 7/8
E	mm in.	80* 3 1/8*	105* 4 1/8*	110* 4 3/8*	130* 5 1/8*



		C054550	C054551	C054552
A	mm in.	6 1/4	6 1/4	6 1/4
B	mm in.	10 3/8	10 3/8	10 3/8
C	mm in.	75 2 15/16	75 2 15/16	75 2 15/16
D	mm in.	195 7 11/16	220 8 11/16	275 10 3/4
E	mm in.	150* 5 7/8*	180* 7 1/16*	235* 9 1/4*

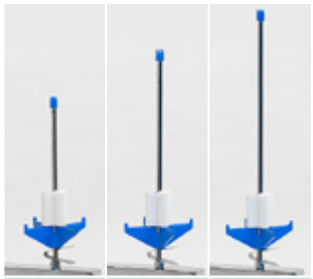


		C054908	C054553	C054554	C054555
A	mm in.	6 1/4	6 1/4	6 1/4	6 1/4
B	mm in.	10 3/8	10 3/8	10 3/8	10 3/8
C	mm in.	75 2 15/16	75 2 15/16	75 2 15/16	75 2 15/16
D	mm in.	135 5 5/16	195 7 3/4	220 8 11/16	275 10 13/16
E	mm in.	105 4 1/8	165 6 1/2	180* 7 1/16*	235* 9 1/4*



		C054947	C054559	C054560	C054561
A	mm in.	6 1/4	6 1/4	6 1/4	6 1/4
B	mm in.	10 3/8	10 3/8	10 3/8	10 3/8
C	mm in.	flex	flex	flex	flex
D	mm in.	175 6 7/8	195 7 11/16	220 8 11/16	275 10 13/16
E	mm in.	-	-	-	-

Bottle support ø 28mm (1 1/8 in.) code C054037



		C054556	C054557	C054558
A	mm in.	6 1/4	6 1/4	6 1/4
B	mm in.	10 3/8	10 3/8	10 3/8
C	mm in.	75 2 15/16	75 2 15/16	75 2 15/16
D	mm in.	195 7 11/16	220 8 11/16	275 10 13/16
E	mm in.	150* 5 7/8*	180* 7 1/16*	235* 9 1/4*

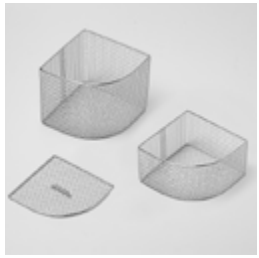
***** indicates the maximum dimension for the height regulation of nozzles with spring.

Accessories, inserts and components

C61 Insert with 28 spring hooks for laboratory glassware

C63 Net basket mm 120x120x120 4 3/4"x4 3/4"x4 3/4" C64 cover for C63

C1150 Adjustable height net cover for 121 positions test tubes washing carts (i.e. C1148, C1149) dim. 365x365x255 h mm 14 3/8"x14 3/8"x10 1/16" h



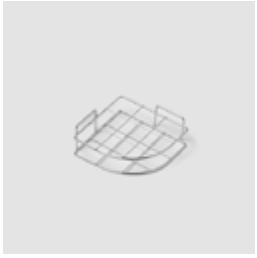
C68 mm 100h/3 15/16" h
C69 mm 130h/5 1/8" h
C70 mm 200h/7 7/8" h

C77 Cover for C68, C69 and C70

C97 26 positions insert for Petri dishes

Net cover for 121 positions test tubes wash carts (i.e. C421, C441, C723, C804.....)

C1061 248x248x250 h mm / 9 3/4"x9 3/4"x9 13/16" h
C1086 248x248x175 h mm / 9 3/4"x9 3/4"x6 7/8" h
C1105 248x248x45 h mm / 9 3/4"x9 3/4"x1 3/4" h
(C1105 to be laid directly on top of the test tubes)
Usable height reduced by 40mm (1 9/16")



C86 net separator for 1/4 net basket

C788 Support grid ensuring a flat surface on a C736, usable height reduced by 50mm (2")

Complete your laboratory with Steelco Sterilizers

VS L Series

Efficient, versatile, and intuitive, Steelco laboratory autoclaves are developed to sterilize glassware, liquids, and tools, ensuring maximum performance and energy efficiency.

Up to 22 standard chamber sizes with a volume from 110 litres (4 cu ft) to 9,070 litres (320 cu ft) are available with pressure vessel and relief valves that are PED and/or ASME marked or according to the directives of the country of destination.

VS L sterilizers are engineered to offer best-in-class solutions to reduce energy and water consumption to give users the lowest operating costs per load. ECO water-saving options provide unrivaled efficiency levels, reducing water consumption to nearly zero depending on the chosen model and options.

Our experienced layout design team is always available to support you in planning new facilities or upgrading existing laboratories. Our process engineering team can develop cycles specifically to meet your needs at best.

Steelco

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Customization.
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