



Getinge Lancer Ultima labware washing systems

Undercounter series

This document is intended to provide information to an international audience outside of the US.

GETINGE 



High performance

– compact footprint

Getinge Lancer Ultima series washers offer the best labware cleaning solutions in the industry. From quality control to general laboratory research, Getinge Lancer Ultima series washers deliver high performance in a compact footprint.

High density loading demands fewer cycles. Efficient use of water, detergents and rinsing agents minimizes the environmental impact. Energy saving construction lowers total cost of ownership.

The exclusive Prolux programmable microprocessor controller commands a full range of prewash, wash, rinse and drying functions through simple touchscreen menus on all Ultima series washers. The convenience of five preset programs for light to heavy loads simplifies operation, while more complex programs can be customized whenever needed to meet specific applications.



Getinge Lancer Ultima model 810 LX undercounter labware washer, shown with accessory loading racks, sold separately.



Quiet operation
Noise reduction design minimizes sound for quiet operation.



Cool surface
High-performance insulation contains heat and limits energy consumption.



Prolux programmable microprocessor controller with intuitive touchscreen graphic user interface, alarm and monitoring, data capture and communications document cycle performance.

Stainless steel top and bottom spray arms and two levels of injection washing ensure thorough spray coverage.

High efficiency powerful fluid circulation with direct fluid path and rear manifold connections deliver optimal pressure and flow rates.

Chamber walls made in durable AISI 316L stainless steel material.

The high performance, high temperature cleaning process is managed with preset or user defined programmable cycles.

Injector jet performance provides inside out wash and rinse functions.

Two integrated automatic chemical dosing pumps are standard on all models.



View-In-Process Window

An optional View-In-Process (VIP) window includes an interior LED light for visual verification of the interior load during the cycle.

Getinge Lancer Ultima model 820 LX undercounter labware washer, shown with accessory loading rack, sold separately.

Less noise, less surface heat and less space required

Getinge Lancer Ultima series washers offer an ideal combination of precision engineering, efficient loading design and comprehensive controls required to process and document labware washing cycles. Getinge Lancer Ultima

series models are ideal for installation under casework or freestanding placement. The compact footprint minimizes floor space and maximizes valuable research space.



810 LX features

5 preset cycles

Programmable cycles

No drying

Additive level sensors



815 LX features

5 preset cycles

Programmable cycles

Forced-air drying

Additive level sensors



820 LX features

5 preset cycles

Programmable cycles

Forced-air injector drying; HEPA filtered

Additive level sensors, with on board chemical storage

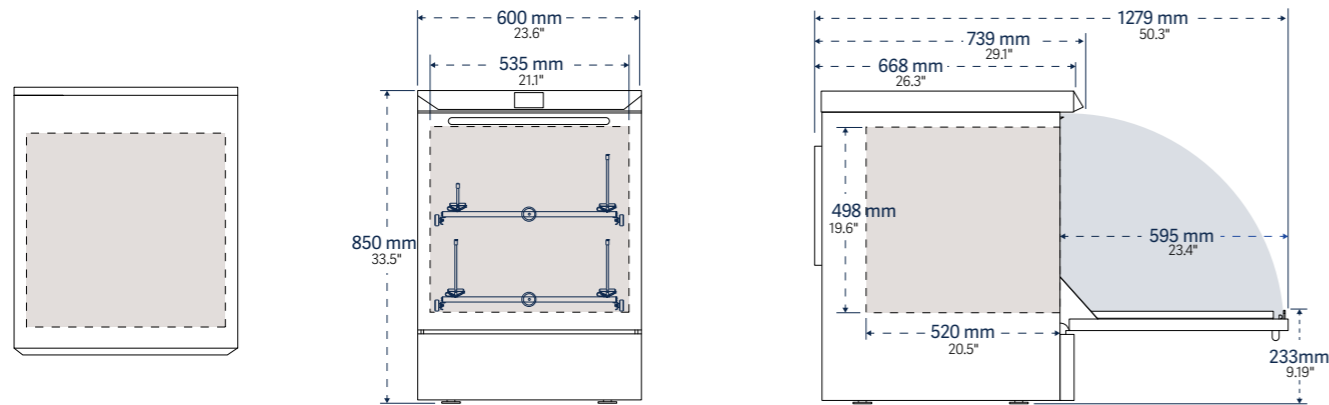
Models shown with optional View-In-Process (VIP) window.

Three options, compact footprint

810 LX / 815 LX / 820 LX

810 LX / 815 LX

Drawings display top, front and side of unit, with door swing allowance.



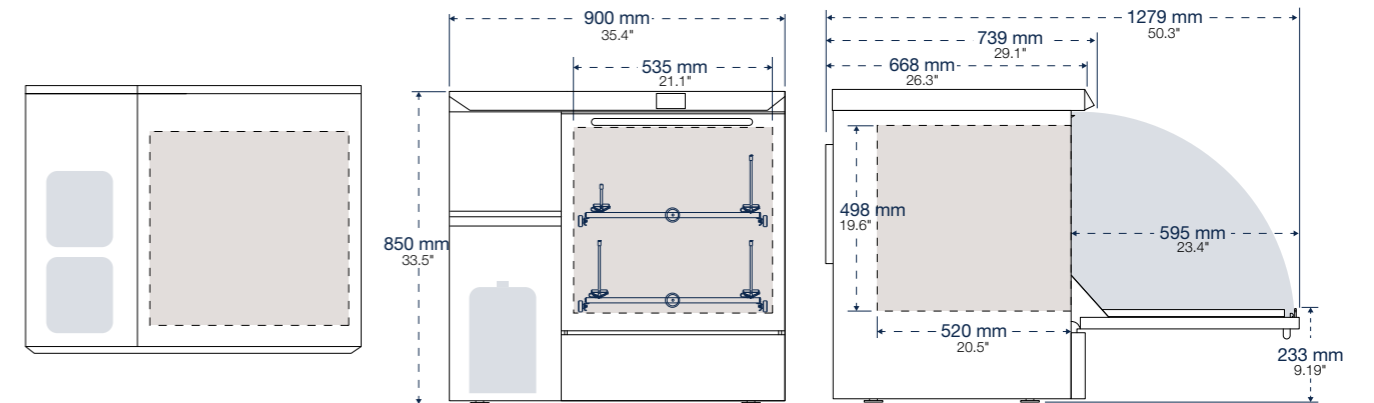
Model	Interior dimensions W x H x D	Exterior dimensions W x H x D	Water per fill* L (gal)	Programs	
				presets	custom
810 LX	535 x 498 x 520 mm 21.1" x 19.6" x 20.5"	600 x 850 x 739 mm 23.6" x 33.5" x 29.1"	12 (3.1)	5	35
815 LX	535 x 498 x 520 mm 21.1" x 19.6" x 20.5"	600 x 850 x 739 mm 23.6" x 33.5" x 29.1"	12 (3.1)	5	35
820 LX	535 x 498 x 520 mm 21.1" x 19.6" x 20.5"	900 x 850 x 739 mm 35.4" x 33.5" x 29.1"	12 (3.1)	5	35

* Total water consumption per fill based on reservoir sump and all fluid path fill volumes, care should be taken when evaluating comparative water consumption claims.

Site preparation	810 LX / 815 LX / 820 LX
Water supply (hot, cold and DI)	G 3/4" hose thread connection, recommended min. flow 20 L/min (5.25 gpm); lower flow rates may extend cycle times; 200 to 600 kPa (29-87 psi) water pressure
Drain requirement, vertical standpipe	40 mm (1 1/2") diameter, 500 to 700 mm (20" to 27") above floor

820 LX

Drawings display top, front and side of unit, with door swing allowance.



Model	Cycle function				Chemical dosing				Net weight Empty kg (lb)
	Wash Temp. max. °C	Rinse purified water	Rinse acid	Drying	Automatic pumps	On-Board chemical storage	Level sensors	Water softener	
810 LX	95°C	■	■	-	■	-	■	-	85 (187)
815 LX	95°C	■	■	Forced-air chamber	■	-	■	-	85 (187)
820 LX	95°C	■	■	Forced-air chamber and injectors; HEPA filtered	■	■	■	□	115 (254)

■ / □ Standard / optional features

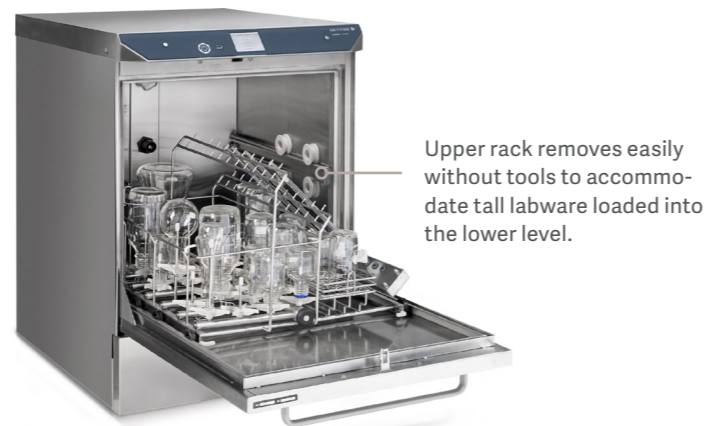
Certifications
2006/42/EC

World class engineering

– robust construction for safety and efficiency

Ergonomic loading configurations

- Telescoping load-bearing rails permit extension of racks for easy loading. All racks are interchangeable between top and bottom wash levels, and among Getinge Lancer Ultima series freestanding models 910 LX, 1300 LX and 1800 LX. This minimizes the need for additional accessories.
- The fold-down door creates a platform for proper rack positioning and more comfortable loading and unloading.

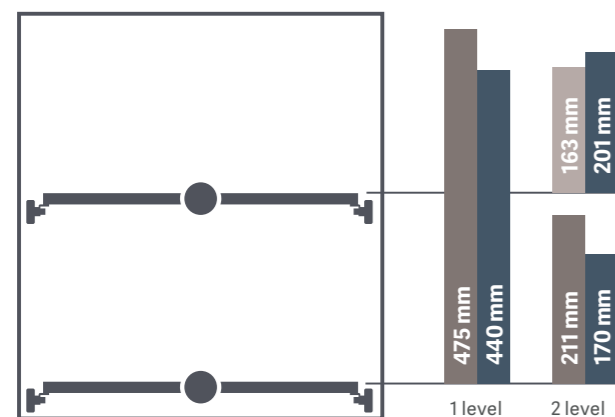


Cleaning performance and safety

Operating systems are designed for performance, efficiency and high throughput.

- An automatic door lock prevents door opening during active cycles; protects the user from heat and chemical exposure.
- Top and bottom stainless steel spray arms are pressurized to provide exterior coverage to the labware.
- Injector rack manifold connections are located at the rear for proper alignment and the most efficient pressure and flow.
- Washing temperature can be set to a maximum of 95°C (203°F) if required for more difficult soils.
- Automatic Peristaltic pumps are self-contained for accurate and repeatable dosing of detergents or acids required by each cycle.
- Multiple DI rinses can be programmed to eliminate interior and exterior spotting.

Wash load configurations



- PST Basic basket
- PSBT Basic basket with spray arm
- IXC / IXL injection racks (long / short jets)

Alarms and monitoring

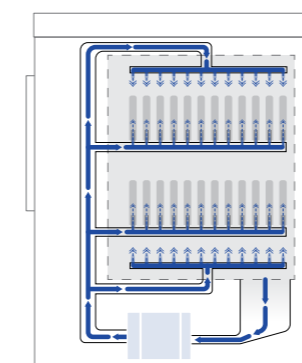
- The 3.5" high resolution touchscreen color display is easy to read from a distance and saves steps when monitoring.
- The intuitive graphic user interface creates a series of visual performance indicators such as active program, time remaining, warning, alarm and cycle completed functions. Five preset programs permit one touch operation. Additional cycles are programmed from the graphic user interface.
- An integrated USB port allows easy front panel access for process tracking and data logging. Process record printouts available through RS 232 or Ethernet port are managed by the Prolux controller.

Construction

The sump, spray arms, interior chamber walls and door are fabricated from 316L stainless steel to resist aggressive chemicals and residues.

- Exterior 304L stainless steel panels resist corrosion, simplify cleaning and protect electrical and plumbing components.

Hydraulic design



The combination of a high performance recirculation pump, straight-line fluid path and center-mounted rack interface assures maximum water flow through spray arms and injectors. The design provides excellent cleaning performance on all wash levels.

Washer pump is protected from debris by a stainless steel sump screen. The screen lifts out without tools for easy cleaning.

- Cabinet fits in 610 mm wide (24") casework opening for new and replacement installation (810 LX and 815 LX models only).
- A steam condenser minimizes water vapor during heated cycles to protect casework from moisture damage. Standard on models 815 LX and 820 LX; optional on model 810 LX.
- Precut utility panels on sides and rear simplify installation.
- Double-wall insulated assembly confines heat loss and minimizes noise.
- Easy access stainless steel chamber filters extend washer life by protecting pumps and interior plumbing from debris.
- A compact liquid sump and direct fluid path minimizes water volume per fill, lowers overall consumption per cycle and improves sustainability throughout the useful life.

View-In-Process



An optional 348 mm (13.7") H x 173 mm (6.8") W dual pane View-In-Process (VIP) window includes an interior LED light for visual verification of the interior load during the cycle. The light is activated by the On/Off switch through the Prolux controller. Tempered safety glass provides excellent sound and heat abatement and enhances operator safety. Factory installed, specify when ordering.

One touch simplicity, limitless flexibility.

Prolux controller

The Prolux controller is based on a high-performance PLC microprocessor designed for simplicity, one-touch start, real-time status indicators and intuitive programming options that permit customization over the range of washer operations.

Prolux integrates a suite of menu screens that support digital functions from cycle selection, process monitoring, warning advisories, audible and visual alarms, system communications and data capture.

Operation

- Screen menus and a graphic user interface are designed to simplify setup and operations including active program, remaining time, warnings, alarms and complete cycle notifications.
- Five preset programs are factory loaded for one-touch control of most routine applications.
- When additional cycle programs are desired, parameters can be changed through secure access to the administration screen where an intuitive graphic user interface displays all options..

Communication and connectivity

- A front-panel USB port simplifies direct connection to peripheral devices for cycle tracking and data capture. The port is covered by a protective hood.
- A real-time process record is printed if optional printer is installed.
- Multiple data ports include Ethernet and RS422 connectors.
- Impact or network printers options document cycle performance, warnings and alarms.



810 LX / 815 LX / 820 LX

- 3.5" color touchscreen interface
- 320 x 240 pixel resolution display
- Five presets
- Additional custom program options



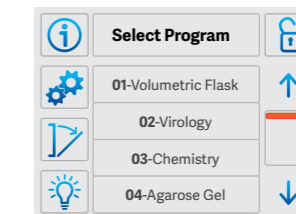
The Prolux PLC Controller includes a touchscreen interface with a common icon directory that permits scrolling access to primary screens from the same menu. A set of sub-menu screens display additional icon directories specific to the screen functions.

Programming

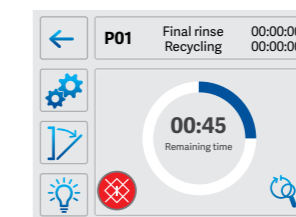
Programmable cycle parameter selections include:

- Prewash. Up to 3 prewashes, 0 to 30 minutes each, temperatures up to 95°C (203°F), chemical dosing as desired.
- Wash. 0 to 30 minutes, temperatures up to 95°C (203°F), chemical dosing as desired.
- Acid rinse. 0 to 30 minutes chemical dosing, temperatures up to 95°C (203°F).
- Running water rinses. One or more short rinse sequences after the wash or rinse cycle purge the hydraulic circuit of residual detergent and rinsing agents.
- Rinse, DI. Up to 4 rinses, 0 to 30 minutes each. Ambient to 95°C (203°F).
- Final rinse, DI. 0 to 30 minutes, temperatures up to 95°C (203°F).
- Drying. Model 810 LX, fixed. Model 815 LX, temperature 110°C (230°F) and time fixed. Model 820 LX, adjustable temperature ambient to 110°C (230°F), time adjustable.
- Cooling. Model 810 LX, fixed. Models 815 LX and 820 LX, time adjustable.

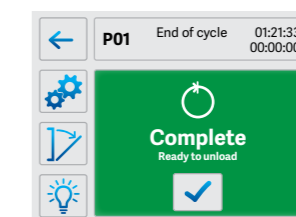
Display screens



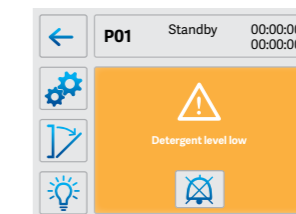
Program Selection. The Program Selection screen lists the five factory presets, as well as additional presets added through administrator access.



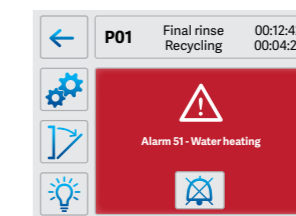
Cycle in Process. A real-time status screen displays time remaining until cycle completion and links to cycle detail screens with the touch of a button.



Cycle Completed. The green Cycle Completed screen confirms completion of the cycle and indicates the washer is safe to unload.



Warning Message. The amber Warning Message screen provides a status report to prompt refill of detergent and rinse agents.



Alarm Message. The red Alarm Message screen confirms the reason for a system shutdown and prompts corrective action needed in advance of a restart.

Comprehensive collection

– a perfect fit for any lab

Superior efficiency – for small and large needs.

Getinge Lancer Ultima offers an expanded line of higher volume labware washers to improve throughput. Freestanding washers offer a range of performance features designed to deliver clean labware faster than other industrial washers. Freestanding washers are available in five configurations and five sizes to meet the demand for higher turnover of larger loads.

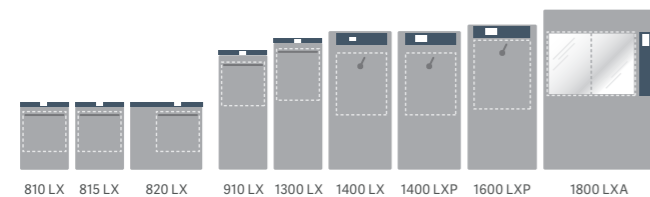
Getinge Lancer Ultima means superior quality

All models are produced to withstand harsh laboratory conditions, minimize water consumption and save energy. The complete line of Getinge Lancer Ultima labware washers address applications at any capacity for high-density processing of multiple labware types.

All models feature the Prolux PLC microprocessor controller with color enhanced graphic user interface for intuitive one-touch cycle selection and start. The Prolux control functionality permits easy scale-up from smaller to larger models.

For more information on freestanding models please refer to the Getinge Lancer Ultima series freestanding brochure.

Getinge Lancer Ultima series labware washers



Getinge Lancer Ultima model 1400 LXP freestanding labware washer.



Bioreactor preparation solution

– consistent processes deliver repeatable results

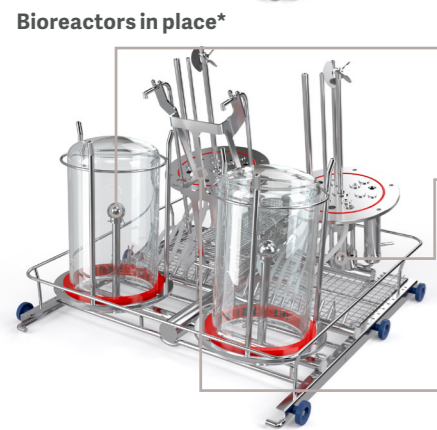
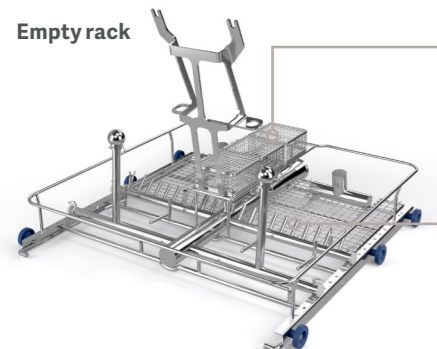
The expertise of Getinge and Applikon research and development has established a synergistic process for bioreactor preparation.

A solution to prevent cross-contamination, minimize any research downtime and ensure validated outcome through optimal processes and procedures. Getinge offers a specially designed bioreactor wash rack for Getinge Lancer Ultima laboratory washers.

This dedicated wash rack, for the multi-use bioreactors, establishes a highly reproducible system with significant benefits such as:

- Free-up resources to increase laboratory throughput and minimize downtime
- Decreasing operational labor costs compared to manual cleaning processes
- Improving staff safety by removing potential repetitive motions and exposure of harmful substances related to manual procedures.

The relationship between the bioreactor design and laboratory washer assures predictable outcomes. The defined connection points on the wash rack and bioreactor head plate ensures a clean bioreactor prepared for sterilization.



Baskets

Small bioreactor assembly parts are placed in the baskets to ensure that these are in place throughout the cleaning cycle.

Multiple injector tubes

Reassure best possible cleaning performance for each entry connection on the bioreactor head plate.

Spray headers

High flow of process water through the spray headers clean the inside of the bioreactor vessel.

Head plate fixation

The head plate is fixed in the wash rack. The spray wings within the washer will clean the outside of the head plate.

Angled head plate

Minimum water retention on the head plate surface will speed up the drying phase which shorten the overall process cycle.

*Multi-use, volume 1-3 liter



Getinge Lancer Ultima model 815 LX undercounter labware washer.

Enhancements for your unique application

Consumables

For best results, Getinge Lancer offers a selection of detergents and rinsing agents that have been tested and validated to maximize the performance of the Getinge Lancer Ultima washer while minimizing water consumption.

- Getinge Lancer LLL Detergent produces analytically clean results. It is phosphate free, fully biodegradable and will not harm aluminum, plastic or rubber.

A typical dose is from 6 to 10 ml per liter for water with hardness values between 200 and 400 ppm. Available in 10 liter container.

- Getinge Lancer NLL Neutralizing agent is an acetic-acid based formulation ideal for the final rinse. The dose is typically 5 ml per liter. Available in 10 liter container.

Options

Features		810 LX	815 LX	820 LX
Discharge water cooling	Reduces effluent temperature to less than 60°C for code compliant transfer to utility drain.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pH programming	Neutralizes effluent before transfer to utility drain.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low pressure kit	Boosts DI water supply input pressure to assure optimum performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liquid level sensor	Indicates low volume in detergent and acid additive reservoirs.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
External printer, externally mounted	Installs by direct connection to washer port. Generates 57 mm (2.25") thermal strip record of washer function.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Base cabinet	Stainless steel cabinet sized to accommodate models 810 LX and 815 LX, or model 820 LX. Elevates washer loading platform by 508 mm (20") to improve ergonomic access when undercounter installation is not desired.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IQ/OQ validation	Includes documentation verification, review of accessories/options, review of equipment installation, verification of utility supplies, review of access levels, review of configuration settings, I/O testing, functional testing, alarm testing, and a complete cycle test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conductivity verification	Conductivity verification of final rinse quality.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
View-In-Process window	Includes interior light, permitting visual verification during wash cycles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

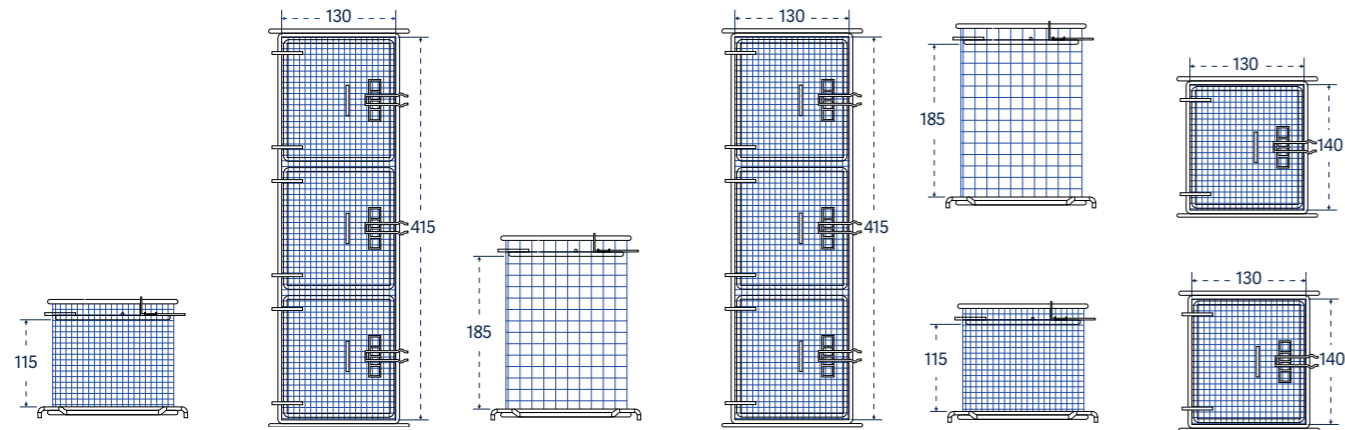
See product specifications for details and additional options to select.

/ Standard / optional features

Common accessories

Choose from up to 60 different injector racks, pipette racks and baskets. All racks are interchangeable between the washer lower and upper levels.

- A wide variety of standard inventory baskets and injector racks are available to meet most needs.
- Custom racks and baskets can be fabricated to meet specific needs or special applications.



Small mesh basket with cover, long:
Catalog No. STCXL



Small mesh basket, tall with cover, long:
Catalog No. LTCXL

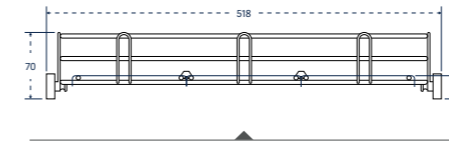


Small mesh baskets, tall and short:
Catalog No. LTC and STC

Small mesh baskets	810 LX / 815 LX / 820 LX	Part number
For bottle caps, ferrules, plugs, stoppers and test tubes. Interior dimensions.		
Mesh basket, short, with cover, 122 x 134 x 93 mm	STC	02010037
Mesh basket, short, with cover, 122 x 409 x 93 mm	STCXL	02010038
Mesh basket, tall, with cover, 122 x 134 x 163 mm	LTC	02010029
Mesh basket, tall, with cover, 122 x 409 x 163 mm	LTCXL	02010030

Accessories

810 LX / 815 LX / 820 LX



Basic basket with reversible tray lid:
Catalog No. PST and GC



Basic basket with spray arm:
Catalog No. PSBT



Basket for culture dishes: Catalog No. BP

Baskets	810 LX / 815 LX / 820 LX	Part number
Useful for beakers, trays, dishes, dissolution vessels, funnels, instruments and jars.		
Basic basket	PST	02600011
Basic basket with spray arm	PSBT	02600010
Basket, half with spray arm	PSBT 1/2	02600009
Basket for culture dishes	BP	02600042

Basket covers	810 LX / 815 LX / 820 LX	Part number
Accessory basket covers are available to secure small or lightweight labware during the wash cycle.		
Reversible tray lid for PST/PSBT	GC	01030569
Reversible tray lid, half size for PST/PSBT	GC1/2 PS	01030570
Reversible tray lid, one-third size for PST/PSBT	GC1/3 PS	01030571
Reversible tray lid for injector rack	GC	01030585
Reversible tray lid, half size for injector rack	GC1/2 PS	01030586
Reversible tray lid, one-third size for injector rack	GC1/3 PS	01030587

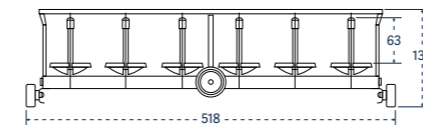
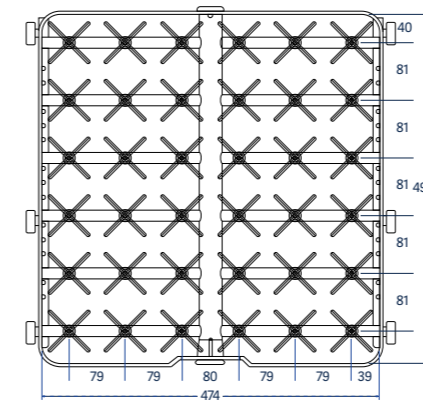
Short injectors, 76 mm (3") tall

For inside out cleaning of narrow neck glassware, bottles, cylinders, boiling flasks, Erlenmeyer flasks and volumetric flasks.

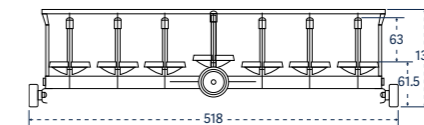
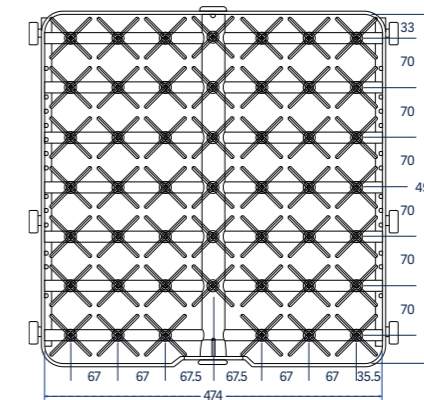
810 LX / 815 LX / 820 LX

Part number

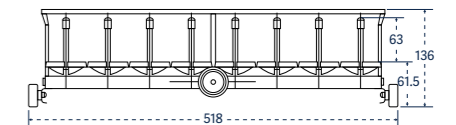
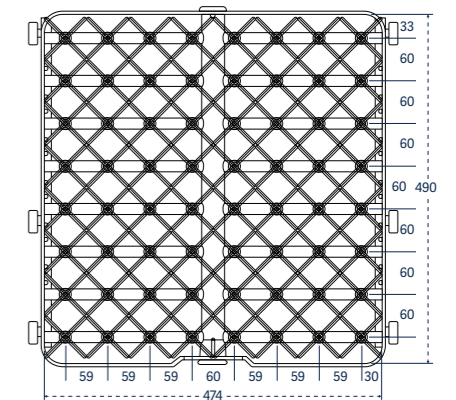
Half rack, 27 short jets, 6 mm diameter	27 IXC 1/2	02600022
36 short jets, 6 mm diameter	36 IXC	02600023
41 short jets, 6 mm BOD rack	41 IXC	02600003
48 short jets, 2 mm diameter	48 IXA	02600026
48 short jets, 6 mm diameter	48 IXC	02600027
64 short jets, 2 mm diameter	64 IXA	02600030
64 short jets, 6 mm diameter	64 IXC	02600032
64 short jets, mixed 2 mm and 6 mm diameter	64 IXA/2	02600031
100 short jets, 2 mm diameter	100 IXA	02600016
100 short jets, 6 mm diameter	100 IXC	02600018
100 short jets, mixed 2 mm and 6 mm diameter	100 IXA/2	02600017



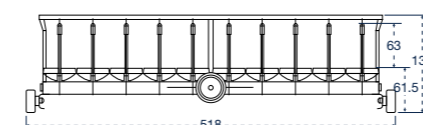
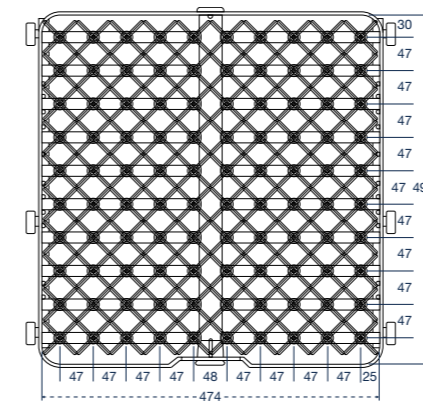
Catalog No. 36 IXC



Catalog No. 48 IXC; IXA



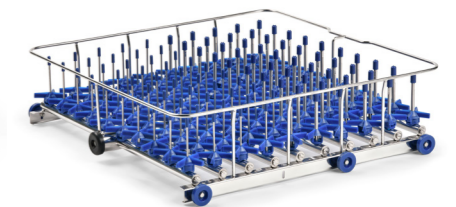
Catalog No. 64 IXA; IXC; IXA/2



Catalog No. 100 IXA; IXC; IXA/2

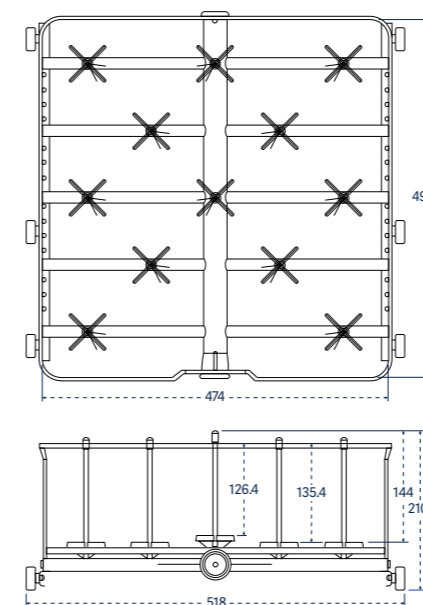


IXC: Injector rack, short injectors, 76 mm (3") tall, jets 6 mm diameter

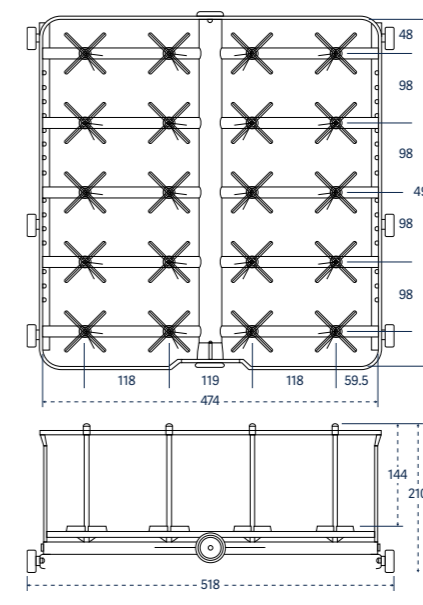


IXA: Injector rack, short injectors, 76 mm (3") tall, jets 2 mm diameter

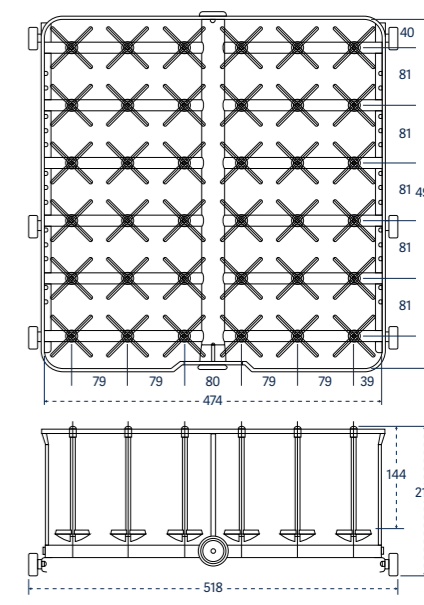
Long injectors		
For inside out cleaning of large narrow neck glassware, bottles, cylinders, boiling flasks, Erlenmeyer flasks and volumetric flasks.	810 LX / 815 LX / 820 LX	Part number
5 long jets, 12.7 mm diameter, with spray ball	5 IXL	02600007
9 long jets, 12 mm diameter	9 IXL	AA02250223
12 long jets, 8 mm diameter	12 IXL	AA02250224
20 long jets, 8 mm diameter	20 IXL	02600021
36 long jets, 6 mm diameter	36 IXL	02600024
48 long jets, 6 mm diameter	48 IXL	02600028
64 long jets, 6 mm diameter	64 IXL	02600033
100 long jets, 6 mm diameter	100 IXL	02600019



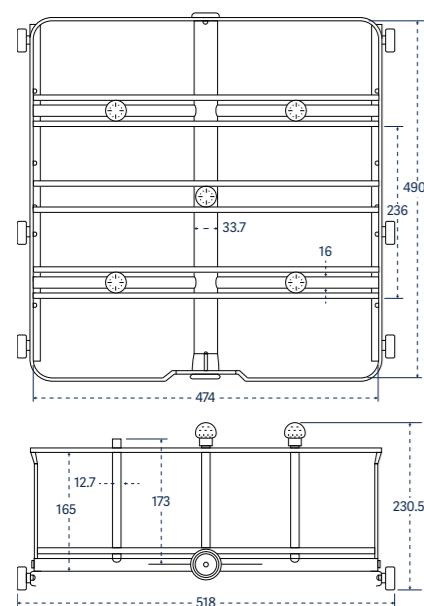
Catalog No. 12 IXL



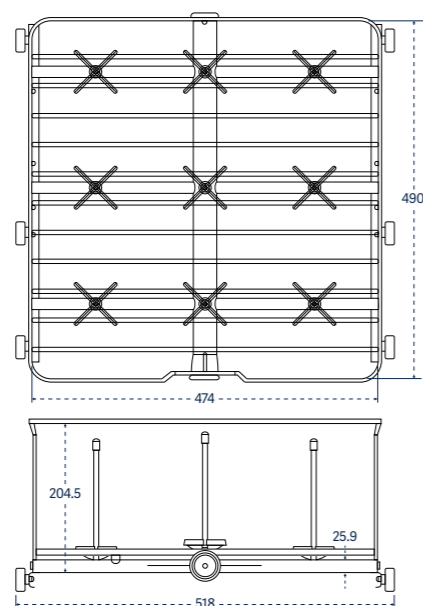
Catalog No. 20 IXL



Catalog No. 36 IXL



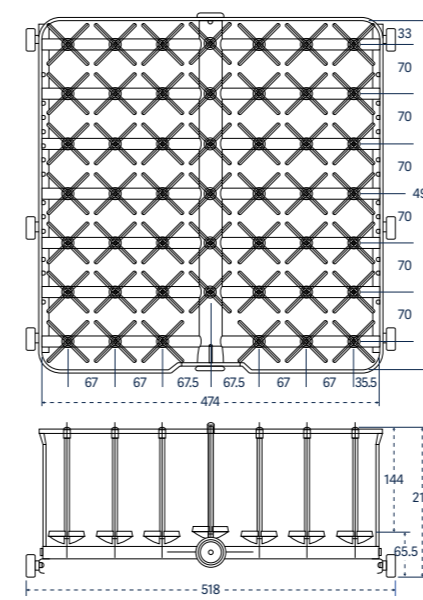
Catalog No. 5 IXL



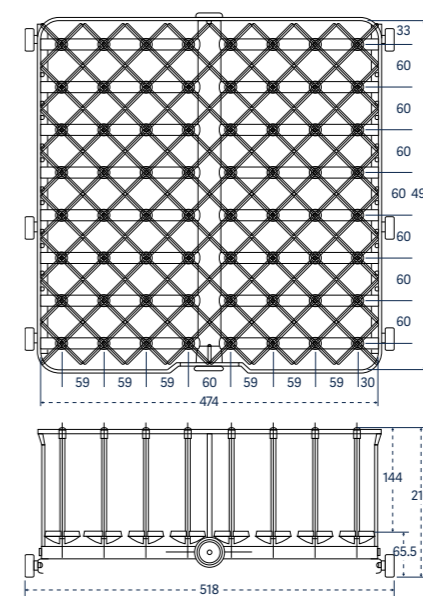
Catalog No. 9 IXL



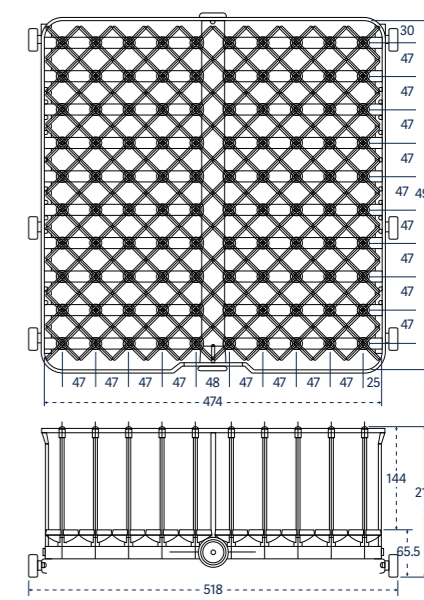
Adjustable clip positions labware on injector for optimal cleaning performance.



Catalog No. 48 IXL



Catalog No. 64 IXL



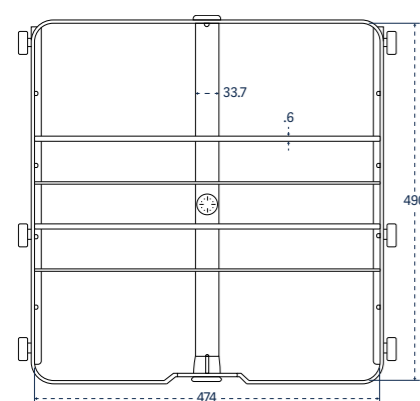
Catalog No. 100 IXL

Extra long injectors
For inside out cleaning of narrow neck glassware, bottles, cylinders, boiling flasks, Erlenmeyer flasks and large volumetric flasks.

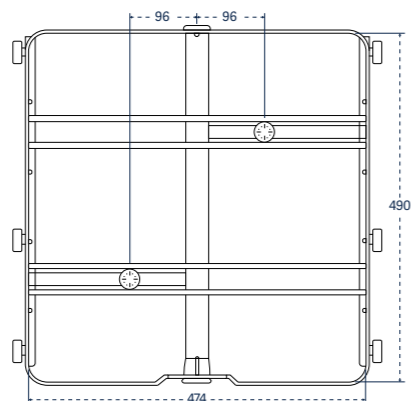
	810 LX / 815 LX / 820 LX	Part number
1 long jet, 12.7 mm diameter, with spray ball	1 IXL	02600001
2 long jets, 12.7 mm diameter, with spray ball	2 IXL	02600014
4 long jets, 12.7 mm diameter, with spray ball	4 IXL	02600005

Combination short/long injectors
For inside out cleaning of mixed loads of narrow neck glassware, bottles, cylinders, boiling flasks, Erlenmeyer flasks and volumetric flasks.

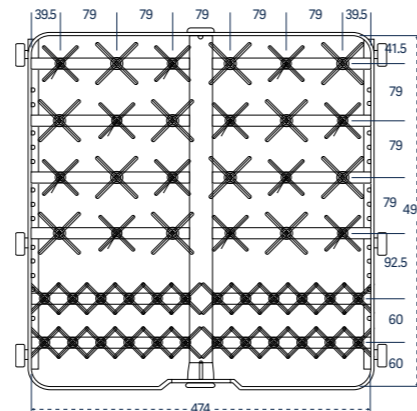
	810 LX / 815 LX / 820 LX	Part number
36 short and long jets, 6 mm diameter	36 IXLC	02600025
48 short and long jets, 6 mm diameter	48 IXLC	02600029
48 short and long jets, 6 mm diameter, 2 rows 2 mm diameter	48 IXLCA	02600006
64 short and long jets, 6 mm diameter	64 IXLC	02600034
100 short and long jets, 6 mm diameter	100 IXLC	02600020



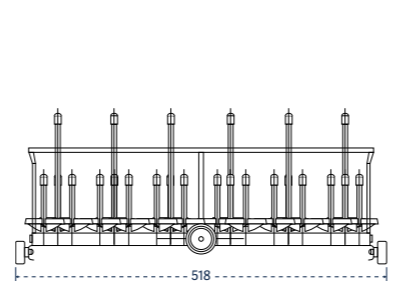
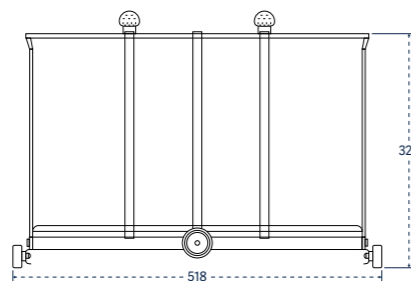
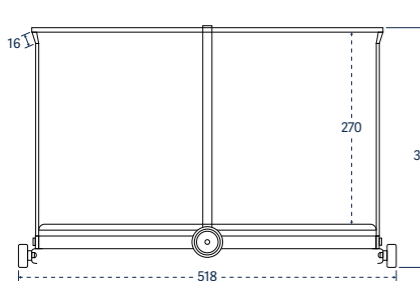
Catalog No. 1 IXL



Catalog No. 2 IXL



Catalog No. 48 IXLC; IXCLA



Multipurpose racks
For a combination of labware and pipettes.

	810 LX / 815 LX / 820 LX	Part number
Basic basket plus 27 short and long jets	PS/27 IXLC	02600039
25 pipettes, angled plus 24 short and long jets	25 PIP/24 IXLC	02600004
25 pipettes plus 30 short and long jets	25 PIP/30 IXLC	02600035
PST plus 14 short jets plus 4 long injectors, angled and perforated	4 EP/14 IXC/PS	02600041
28 short and long jets plus 4 long injectors, angled and perforated	4 EP/28 IXLC	02600036
50 pipettes plus 34 short and long jets	50 PIP/34 IXLC	02600037
One third PS plus 21 short and long jets, plus 25 pipettes	PS/21 IXLC/25 PIP	02600038

Pipette racks
Accessory pipette racks are configured to accommodate reusable pipettes.

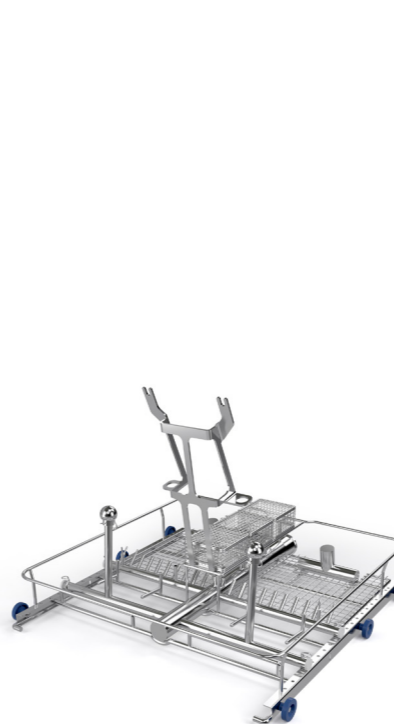
	810 LX / 815 LX / 820 LX	Part number
Grommet style, individually loaded, 100 position	100 PIP	02600040

Bioreactor rack
Rack for 1-3 L Bioreactors

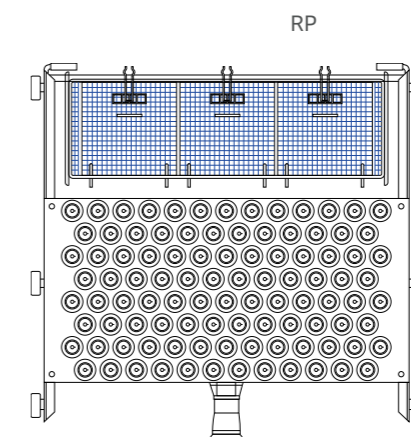
	810 LX / 815 LX / 820 LX	Part number
Rack for 1-3 L Bioreactors	BRWR	AA02600113

Storage stand
An accessory storage stand offers a convenient place to store accessory racks and baskets when not in use.

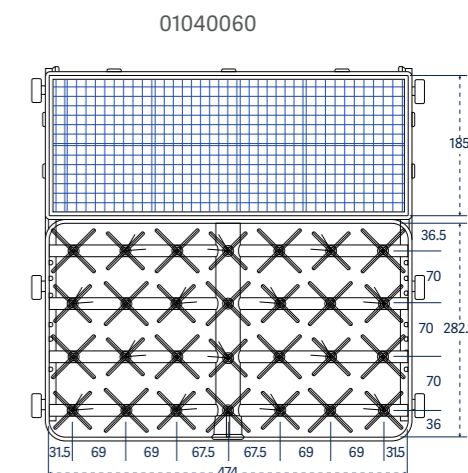
	810 LX / 815 LX / 820 LX	Part number
Holds up to 5 racks	RP	01040060



Catalog No. BRWR



Catalog No. 100 PIP



Catalog No. PS/27/IXLC



Getinge is a global provider of innovative solutions for Life Science companies and institutions, operating rooms, intensive care units and sterilization departments. Based on our firsthand experience and close partnerships with Life Science companies, clinical experts, healthcare professionals and medtech specialists, we are improving everyday life for people – today and tomorrow.

This document is intended to provide information to an international audience outside of the US.

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