

ULTIMA series **undercounter**  
labware washing systems

**LANCER**  
GETINGE GROUP



Effective. Sustainable. Space efficient.



# Clean one time, every time.

## Offering the best labware cleaning solutions in the industry.

ULTIMA series washers offer the best labware cleaning solutions in the industry. From quality control to general laboratory research, 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 four preset programs for light to heavy loads simplifies operation, while more complex programs can be customized whenever needed to meet specific applications.

### Washer Function and Flexibility



4 Factory Preset Programs  
light, moderate, normal, heavy  
and dozens more as desired



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



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.

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.

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

# Less noise, less surface heat and less space required. **Because, less is more.**

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



**Quiet Operation.**  
Noise reduction design minimizes sound for quiet operation.



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



### 810 LX Features

- 4 Preset Cycles
- Programmable Cycles
- No Drying
- Additive Level Sensor (optional)



### 815 LX Features

- 4 Preset Cycles
- Programmable Cycles
- Forced-air Drying
- Additive Level Sensor (optional)



### 820 LX Features

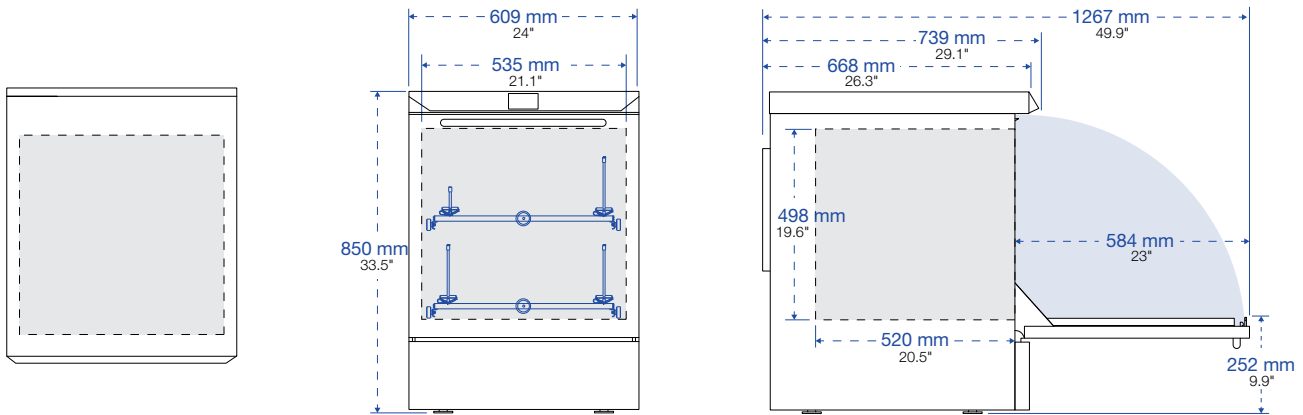
- 4 Preset Cycles
- Programmable Cycles
- Forced-air Drying, Injectors, HEPA Filtered
- On Board Chemical Storage
- Additive Level Sensor

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

# Three options, **compact** footprints.

## 810 LX / 815 LX

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



Model	Specifications				
	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"	609 x 850 x 739 mm 24" x 33.5" x 29.1"	12 (3.1)	4	36
815 LX	535 x 498 x 520 mm 21.1" x 19.6" x 20.5"	609 x 850 x 739 mm 24" x 33.5" x 29.1"	12 (3.1)	4	36
820 LX	535 x 498 x 520 mm 21.1" x 19.6" x 20.5"	909 x 850 x 739 mm 35.8" x 33.5" x 29.1"	12 (3.1)	4	36

\* Because Lancer calculates 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

Water Supply (hot, cold and DI)

### 810 LX / 815 LX / 820 LX

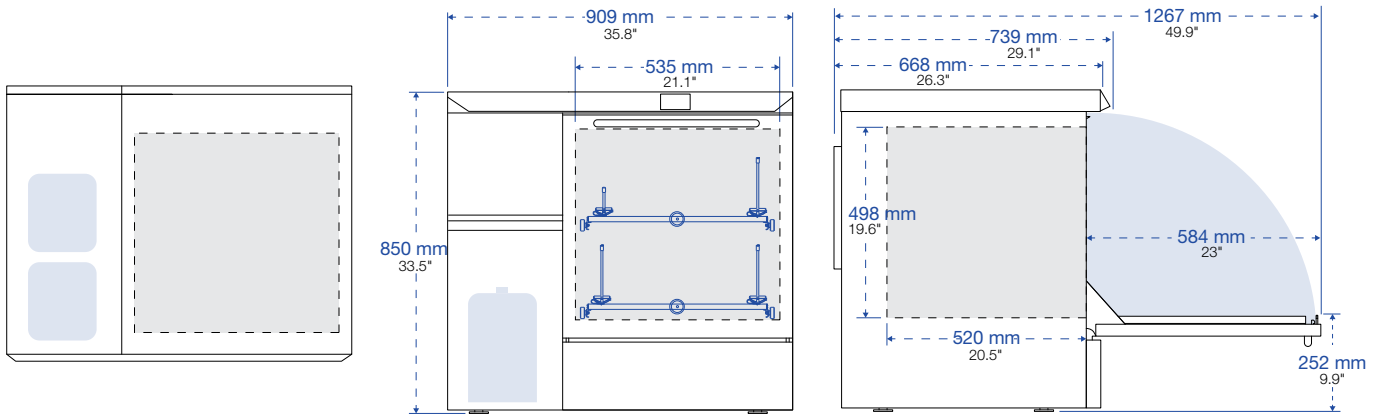
G ¾" hose thread connection, recommended min. flow 20 L/min (5.25 gpm); lower flow rates may extend cycle times; 200 to 600 kPa (29-87 psi) water pressure

Drain Requirement, Vertical Standpipe

40 mm (1 ½") 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
	Wash Temp. max. °C	Rinse purified water	Rinse acid	Drying	Automatic	On-Board chemical storage	Level Sensors	Water Softener	Empty kg (lb)
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.

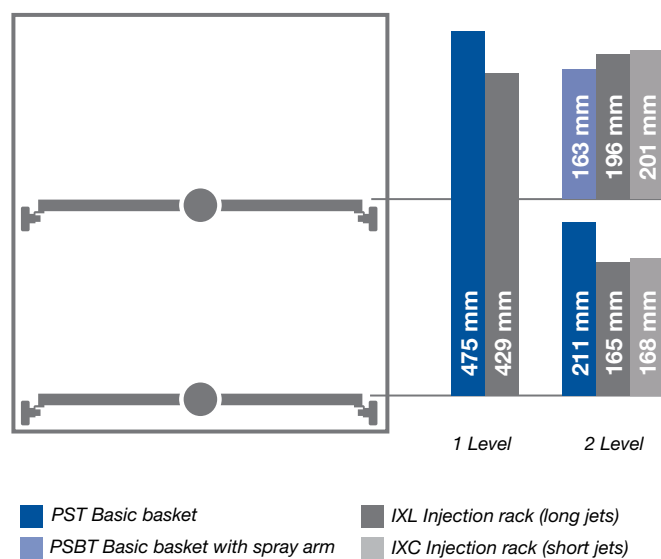
## Ergonomic Loading Configurations.

- Telescoping load-bearing rails permit extension of racks for easy loading.
- All racks are interchangeable between top and bottom wash levels, and among 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.



Upper rack removes easily without tools to accommodate tall labware loaded into the lower level.

## Wash Load Configurations



**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 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.

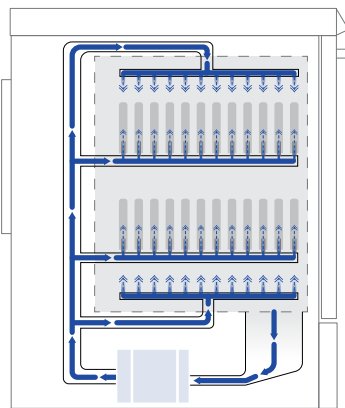
### Alarms and Monitoring.

- 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. Four 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. Optional process record printouts available through USB or Ethernet ports are managed by the Prolux controller.

**Construction.** The sump, spray arms, interior chamber and door are fabricated from 304L and 316L stainless steel to resist aggressive chemicals and residues.

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

### Hydraulic Design



The Lancer hydraulic design optimizes pressure and flow for efficient performance at all wash levels.

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.

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

### 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.

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# One-touch simplicity, limitless flexibility.

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**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.
- Four 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 complies with international IP21 standards for ingress protection from condensation.
- A real-time process record is printed if optional printer is installed.
- Multiple data ports include Ethernet and RS422/485 connectors.
- Impact or network printers options document cycle performance, warnings and alarms.



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## 810 LX / 815 LX / 820 LX



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

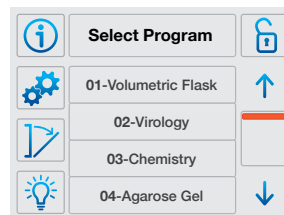


The Prolux PLC Controller includes a touchscreen interface with a common icon directory that permits scrolling access to primary screens from the same menu. A set of sub-menu screens display additional icon directories specific to the screen functions.

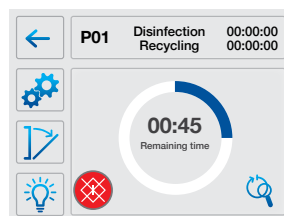
### Programming.

Programmable cycle parameter selections include:

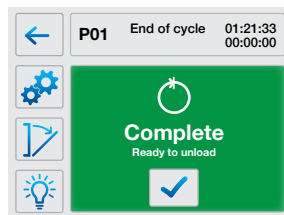
- **Prewash.** Up to 3 prewashes, 0 to 30 minutes each, temperatures up to 95°C, chemical dosing as desired.
- **Wash.** 0 to 30 minutes, temperatures up to 95°C, chemical dosing as desired.
- **Acid rinse.** 0 to 30 minutes chemical dosing, temperatures up to 95°C.
- **Running Water Rinses.** One or 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.
- **Final Rinse, DI.** 0 to 30 minutes, temperatures up to 95°C.
- **Drying.** Model 810 LX, fixed. Model 815 LX, temperature 110°C and time fixed. Model 820 LX, adjustable temperature ambient to 110°C, time adjustable.
- **Cooling.** Model 810 LX, fixed. Models 815 LX and 820 LX, time adjustable.



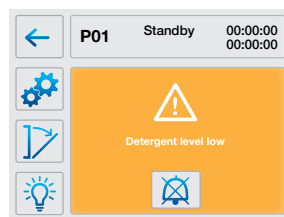
→ **Program Selection.** The Program Selection screen lists the four factory presets, as well as additional presets added through administrator access.



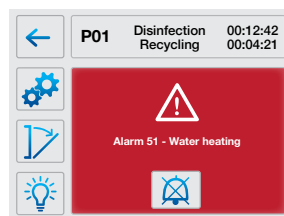
→ **Cycle in Process.** A real-time status screen displays time remaining until cycle completion and links to cycle detail screens with the touch of a button.



→ **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.

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# Comprehensive collection, a perfect fit for any lab.

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## Superior efficiency for needs small and large.

Lancer 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 six configurations and five sizes to meet the demand for higher turnover of larger loads.

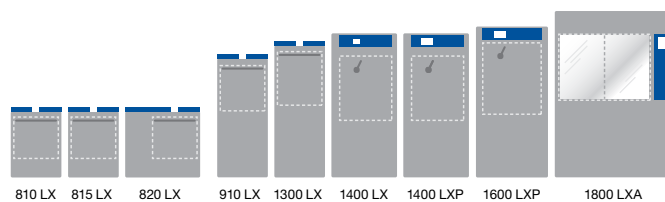
**Lancer Means Superior Quality.** All models are produced to withstand harsh laboratory conditions, minimize water consumption and save energy. The complete line of Lancer labware washers address applications at any capacity for high density processing of multiple labware types.

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 Ultima series freestanding brochure.

### ULTIMA series labware washers

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Lancer model 1400 LXP freestanding labware washer.





# Enhancements for your unique application.

## Consumables


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

- 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 hardness values between 200 and 400 ppm. Available in 10 liter container.

- The 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

		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 type="checkbox"/>	<input 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"/>

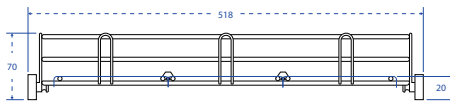
/  Standard / Optional Features

See product specifications for details and additional options to select.

## 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.



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

Useful for beakers, trays, dishes, dissolution vessels, funnels, instruments and jars.

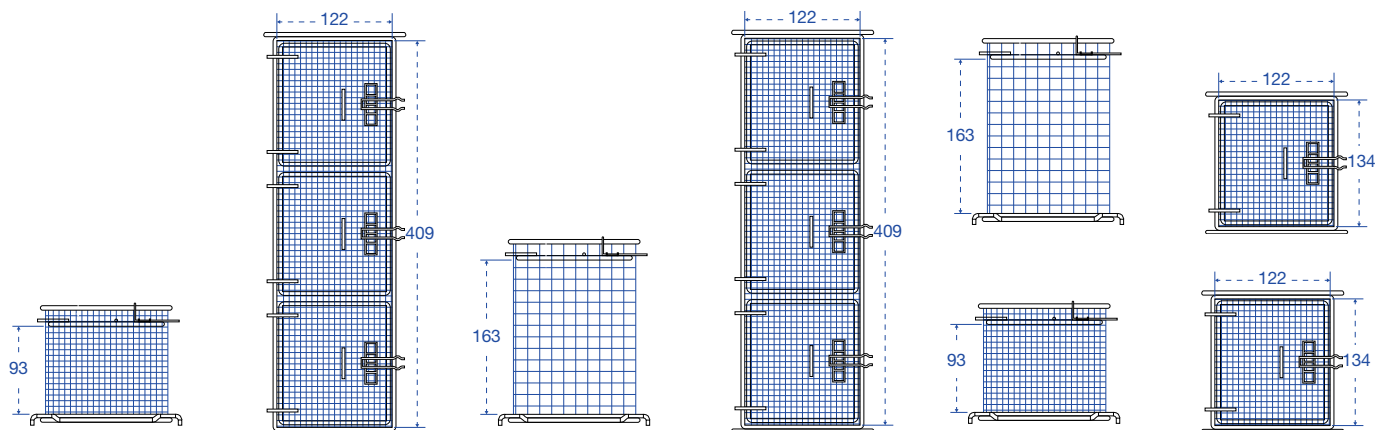
	<b>810 LX / 815 LX / 820 LX</b>
Basic basket	PST
Basic basket with spray arm	PSBT
Basket, half with spray arm	PSBT 1/2
Basket, for culture dishes	BP

### Basket Covers

Accessory basket covers are available to secure small or lightweight labware during the wash cycle.

	<b>810 LX / 815 LX / 820 LX</b>
Reversible tray lid for PST/PSBT	GC
Reversible tray lid, half size, for PST/PSBT	GC 1/2
Reversible tray lid, one-third size for PST/PSBT	GC 1/3





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

For bottle caps, ferrules, plugs, stoppers  
and test tubes.

	<b>810 LX / 815 LX / 820 LX</b>
Mesh basket, short, with cover, 122 x 134 x 93 mm	STC
Mesh basket, short, with cover, 122 x 409 x 93 mm	STCXL
Mesh basket, tall, with cover, 122 x 134 x 163 mm	LTC
Mesh basket, tall, with cover, 122 x 409 x 163 mm	LTCXL

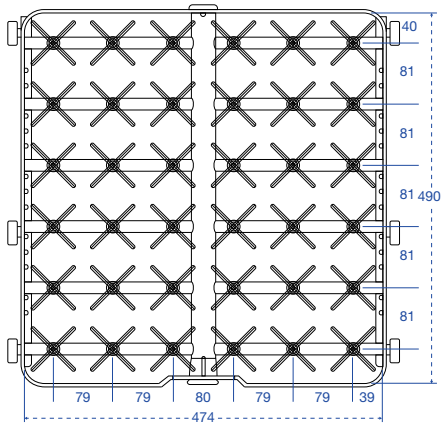


### Short Injectors, 76 mm (3") tall

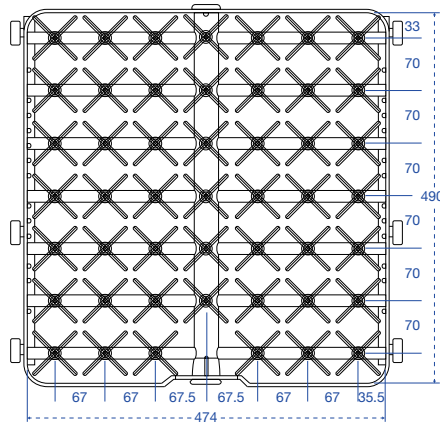
For inside out cleaning of narrow neck glassware, bottles, cylinders, boiling flasks, Erlenmeyer flasks and volumetric flasks.

	<b>810 LX / 815 LX / 820 LX</b>
Half rack, 27 short jets, 6 mm diameter	27 IXC 1/2
36 short jets, 6 mm diameter	36 IXC
48 short jets, 2 mm diameter	48 IXA
48 short jets, 6 mm diameter	48 IXC
64 short jets, 2 mm diameter	64 IXA
64 short jets, 6 mm diameter	64 IXC
64 short jets, mixed 2 mm and 6 mm diameter	64 IXA/2
100 short jets, 2 mm diameter	100 IXA
100 short jets, 6 mm diameter	100 IXC
100 short jets, mixed 2 mm and 6 mm diameter	100 IXA/2

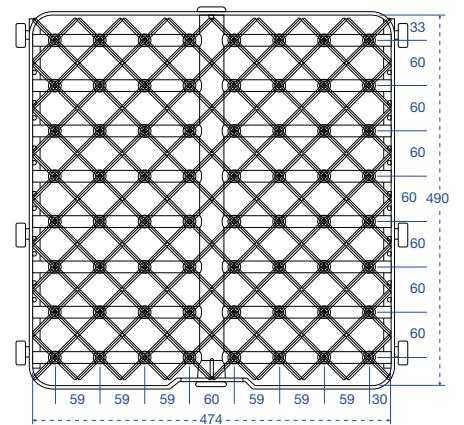




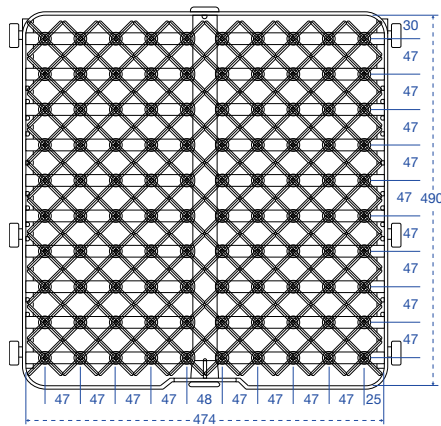
Catalog No. 36 IXC



Catalog No. 48 IXC; IXA



Catalog No. 64 IXA; IXC; IXA/2



Catalog No. 100 IXA; IXC; IXA/2



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



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

### Long Injectors, 152 mm (6" mm) tall

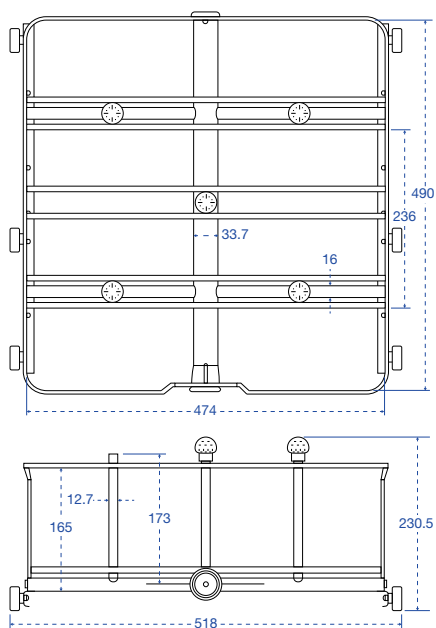
For inside out cleaning of large narrow neck glassware, bottles, cylinders, boiling flasks, Erlenmeyer flasks and volumetric flasks.

	<b>810 LX / 815 LX / 820 LX</b>
5 long jets, 12.7 mm diameter, with spray ball	5 IXL
9 long jets, 12.7 mm diameter	9 IXL
12 long jets, 6 mm diameter	12 IXL
20 long jets, 8 mm diameter	20 IXL
36 long jets, 6 mm diameter	36 IXL
48 long jets, 6 mm diameter	48 IXL
64 long jets, 6 mm diameter	64 IXL
100 long jets, 6 mm diameter	100 IXL

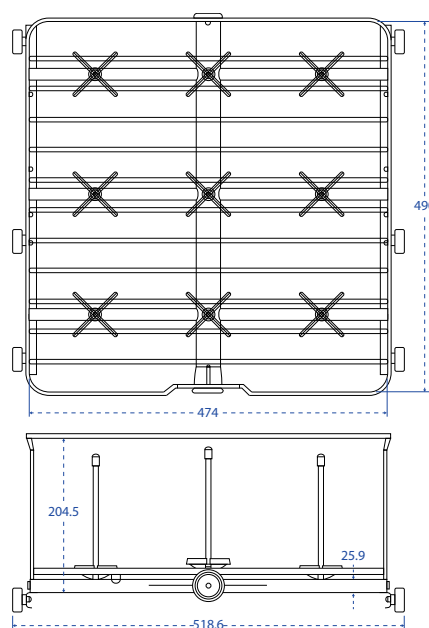
### Injector Rack Covers

Injector rack covers are available to secure small or lightweight labware during the wash cycle.

	<b>810 LX / 815 LX / 820 LX</b>
Full-size	GCI
Half-size	GCI1/2
Third-size	GCI1/3



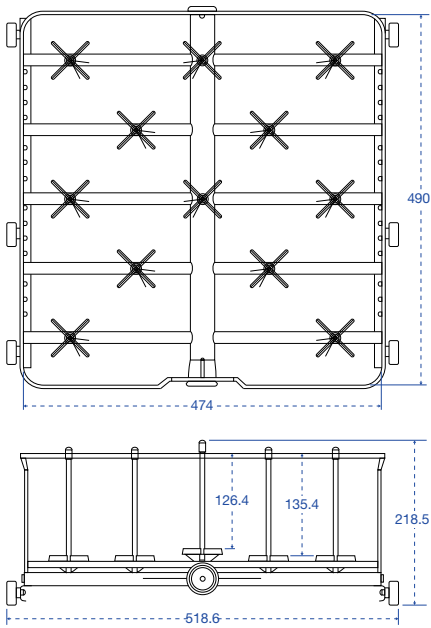
Catalog No. 5 IXL



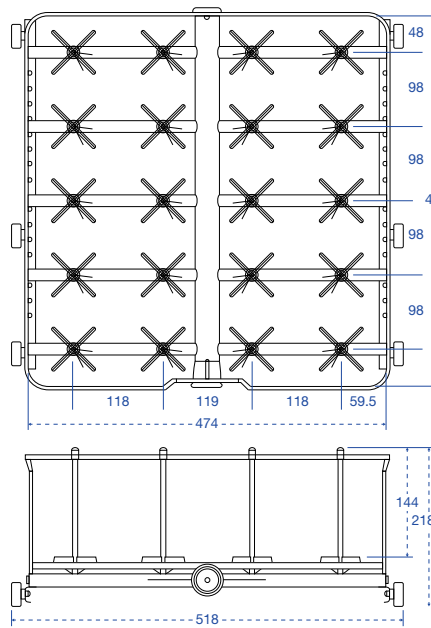
Catalog No. 9 IXL



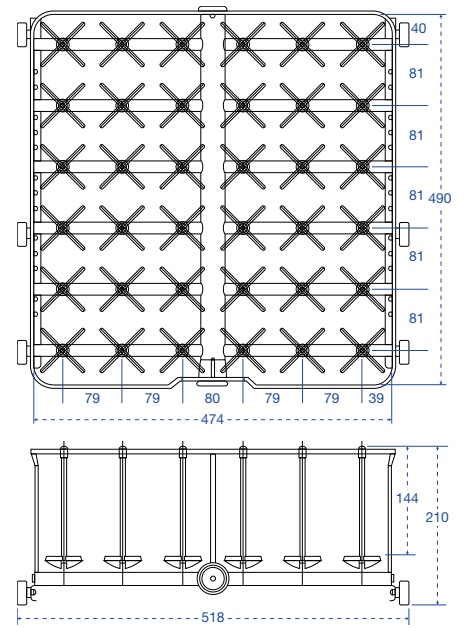
Adjustable clip positions labware on injector to protect labware from breakage.



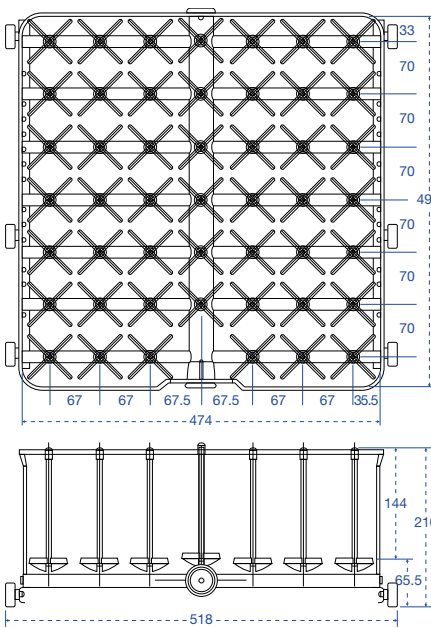
Catalog No. 12 IXL



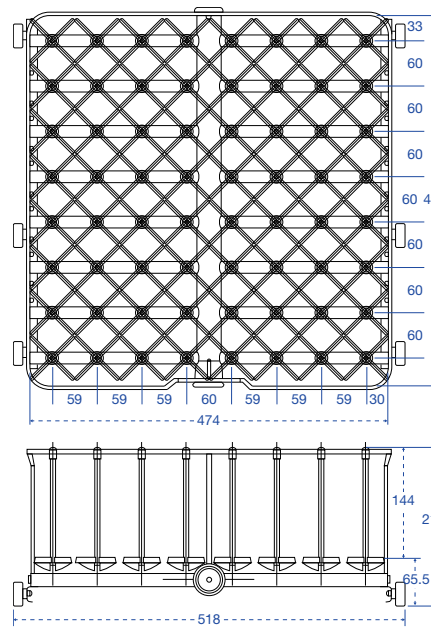
Catalog No. 20 IXL



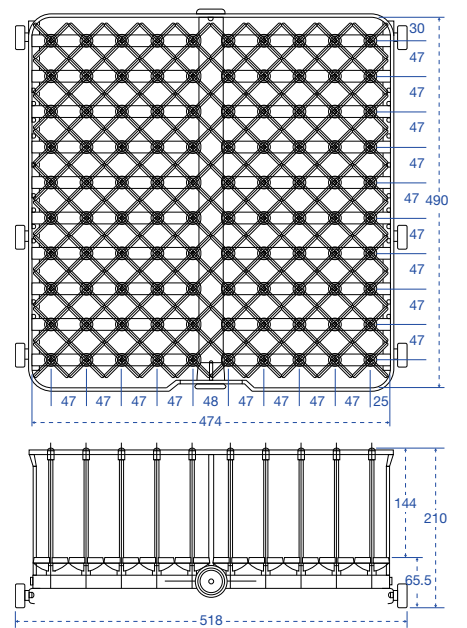
Catalog No. 36 IXL



Catalog No. 48 IXL



Catalog No. 64 IXL



Catalog No. 100 IXL

**Extra Long Injectors, 305 mm (12") tall**

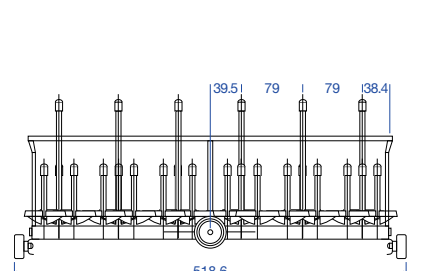
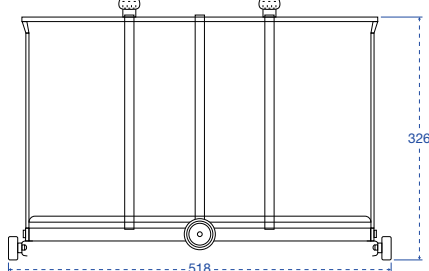
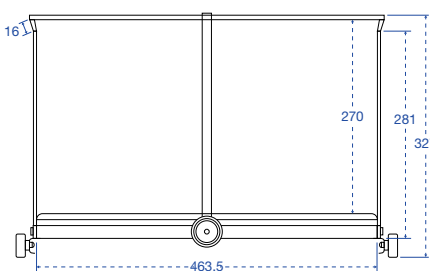
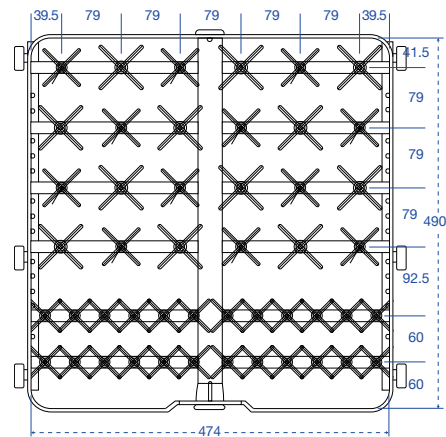
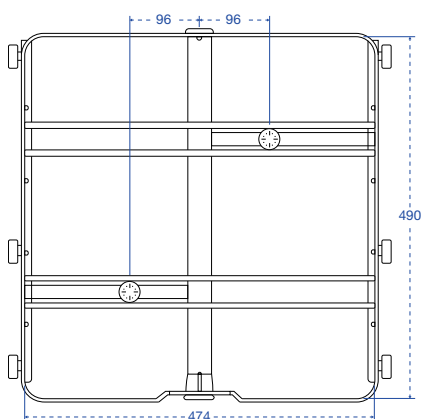
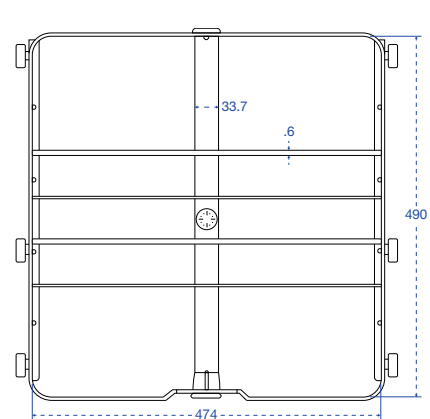
For inside out cleaning of narrow neck glassware, bottles, cylinders, boiling flasks, Erlenmeyer flasks and large volumetric flasks.

	<b>810 LX / 815 LX / 820 LX</b>
1 long jet, 12.7 mm diameter, with spray ball	1 IXL
2 long jets, 12.7 mm diameter, with spray ball	2 IXL
4 long jets, 12.7 mm diameter, with spray ball	4 IXL

**Combination Short/Long Injectors**

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

	<b>810 LX / 815 LX / 820 LX</b>
36 short and long jets, 6 mm diameter	36 IXLC
48 short and long jets, 6 mm diameter	48 IXLC
48 short and long jets, 6 mm diameter, 2 rows 2 mm diameter	48 IXLCA
64 short and long jets, 6 mm diameter	64 IXLC
100 short and long jets, 6 mm diameter	100 IXLC



Catalog No. 1 IXL

Catalog No. 2 IXL

Catalog No. 48 IXLCA

### Multipurpose Racks

For a combination of labware and pipettes.

	<b>810 LX / 815 LX / 820 LX</b>
Basic basket plus 27 short and long jets	PS/27 IXLC
25 pipettes, angled plus 24 short and long jets	25 PIP/24 IXLC
PST plus 14 short jets plus 4 long injectors, angled and perforated	4 EP/14 IXC/PS
28 short and long jets plus 4 long injectors, angled and perforated	4 EP/28 IXLC
50 pipettes plus 34 short and long jets	50PIP/34 IXLC
One third PS plus 21 short and long jets, plus 25 pipettes	PS/21 IXLC/25PIP

### Pipette Racks

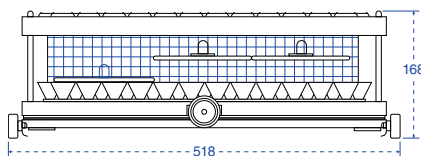
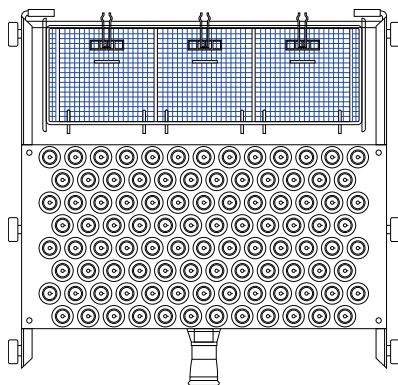
Accessory pipette racks are configured to accommodate reusable pipettes.

	<b>810 LX / 815 LX / 820 LX</b>
Grommet style, individually loaded, 100 position	100 PIP

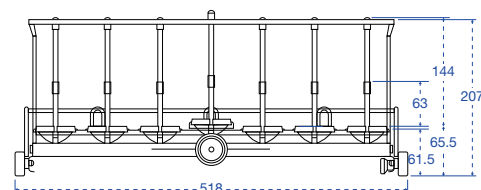
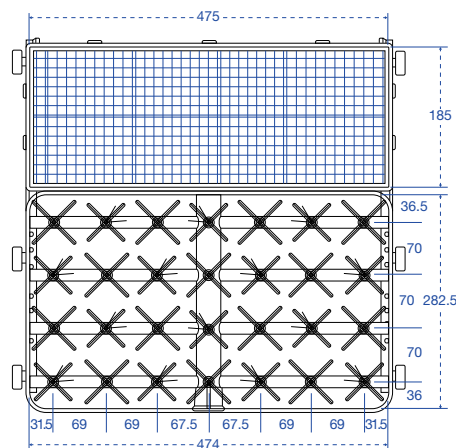
### Storage Stand

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

	<b>810 LX / 815 LX / 820 LX</b>
Holds up to 5 racks	RP



Catalog No. 100 PIP



Catalog No. PS/27/IXLC



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**Use the above details to contact us if this literature doesn't answer all your questions.**

**Pricing on any accessories shown can be found by keying the part number into the search box on our website.**

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

