

# LABEXIA 1300 LX

Glassware Washer-Dryer

# LANCER



## Construction and Design



The **1300 LX Washer-Dryer** stands upright and has professional features and stainless steel construction for durability.

Complete cleaning is obtained with water circulated in the chamber via spray arms as well as through injectors directly inside of glassware.

**Chamber and door:** AISI - 316 L stainless steel

**Exterior panels:** AISI - 304 L stainless steel

- Double wall insulation: provides thermal and sound protection
- Telescopic rails are load bearing for easy loading and unloading

**Detergent delivery system:** liquid detergent automatically injected into wash chamber via peristaltic pump according to programmable parameters.

**Acid Neutralizer delivery system:** liquid acid neutralizer automatically injected into wash chamber via peristaltic pump according to programmable parameters.

**Low level chemical alarms** (visual and audible alerts) indicate when chemical levels are low.

**Three independent wash levels:**

- Provide automatic connection of loading accessories (basic basket, injector racks)
- Racks interchangeable among levels
- Glassware determines rack placement and position



## Microprocessor Control

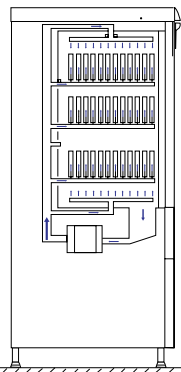
**Easy selection of 42 standard washing programs** for numerous applications including:

- Chemistry glassware
- Bacteriology/virology (high temperature)
- Stubborn stains (agar)
- Volumetric glassware (low-temp)
- Many others

Easily **adjustable parameters** (password-protected access) including: program phases, temperature and time of each phase and cleaning chemical dosing.

**Self-diagnostic program**, with visual and audible alarms, alerts the user in the event of a malfunction enabling quick troubleshooting and maintenance.

## Mechanical Washing System



**Washing system** provides uniform wash/rinse solution on all levels.

**Superior hydraulic design:**

- Racks connect to hydraulic circuit via automatic, low profile valves
- Rear rack connections allow for maximum use of chamber volume
- Door holds racks in place ensuring positive rack connection and efficient flow of wash/rinse solution

**Top and bottom spray arms** ensure complete washing and rinsing of glassware exterior, interior of large mouthed glassware and wash chamber. Programmable water rinses for **hot, cold and hot/cold DI water**.

## Cleaning Chemicals

Available exclusively from Lancer, our premixed detergents and acid neutralizers are specifically made for use in all high pressure washers.

**LANCERCLEAN Detergent:** 3 Formulas (Potassium Hydroxide Based, Sodium Hydroxide Based, pH Neutral)

**LANCERACID Rinse:** 3 Formulas (Acetic Acid Based, Citric Acid Based, Phosphoric Acid Based)





# LANCER

LANCER USA Inc.  
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**Description:**

The 1300 LX fully automatic freestanding washer has an electronic programmable microprocessor capable of storing up to 42 programs (4 pre-programmed, 50 user definable functions, password protected) for pre-wash, wash, acid rinse, final rinse HEPA Filtered drying and cooling. These units are capable of injection cleaning on 1 to 3 levels with 4 possible rack locations, providing maximum capacity through multiple chamber configurations. Each level has telescopic, load bearing runners to house the racks, eliminating the need to handle loaded racks. Chamber drying and direct injector drying is standard. Drop down door provides loading platform. Washer has on-board chemical storage with liquid level sensors.

**Contact LANCER:**

**LANCER Sales USA Inc**  
 3543 State Rd 419 - Winter Springs, FL 32708  
**Toll Free:** (800)332-1855  
**Phone:** (407)327-8488  
**Fax:** (407)327-1229  
**sales@lancer.com - www.lancer.com**

**Specifications:**

**Dimensions:**  
**External:** 64.08" H x 23.78" W x 28.97" D  
**Internal:** 25.35" H x 21" W x 20" D  
**Wash chamber load area:** 3 Wash Levels - 360 square inches per level, 1,080 square inches total 3 levels  
**Loading Height:** 33.84" (860 mm)  
**Water Consumption:** 3.96 gallons per fill (15 L per fill)  
**Heat Loss:** 3,410 Btu / 860 Kcal/h  
**Sound Level:** <63 dBa  
**Cycles:** 4 pre-programmed, 38 user-defined  
**Injection Cleaning:** 1 to 3 levels with 4 possible rack positions  
**Dosing:** Automatic detergent and acid dosing via peristaltic pump  
**Chemical Storage:** Front access drawer  
**Drying:** HEPA filtered chamber and injector drying

**Standards:**

Manufactured under ISO 9001 accreditation.



**Standard Features:**

**Drop Down Door**

- Counterbalanced for ease of operation
- Ensures proper rack placement and connection to manifold
- Manufactured of solid 316L stainless steel
- Fully insulated to reduce heat loss and noise
- Provides loading platform eliminating need for loading cart

**Fully Extendable, Load Bearing Arms**

- Support jet racks for loading and unloading of glassware
- Eliminate need for loading cart

**Spray System**

- Includes one rotary spray arm in top of chamber / one rotary spray arm in bottom of chamber
- Spray arms made of #4 sanitary high-grade 304L stainless steel
- Easily disassembled for cleaning and maintenance

**System Wash Levels**

- 1 to 3 levels
- Rack actuated via 4 automatic manifold connections when door is closed
- Rack accessories independent and easily removable for use on all levels

**Super Drying System**

- HEPA filtered chamber and direct injection drying
- 1.8 kW heating elements and blower provide drying up to 110° C

**Main Recirculation Pump**

- 3/4 HP with capacity of 111 gal/min (420 l/min)

**Filter System**

- Two stainless steel filters protect recirculation and drain pumps from debris
- Filters easily removed for cleaning
- Filters on all incoming water lines

**Peristaltic Detergent and Acid Pumps**

- Provides precise addition of chemical agents

**Wash Solution Heating System**

- 9 kW electric heating elements provides heating up to 95° C

**Electronic Thermostat**

- Independent selection of temperature for pre-wash, wash and final rinse between ambient and 95° C

**Microprocessor Control System**

- User programmable with 42 storable programs and 50 user definable functions

**Systems Control Panel**

- 2-½ inch LCD display window with 2-line x 16 characters and program naming capability
- Touch pad is waterproof and glove friendly

**System Monitoring**

- Audible and visual alarms provide quality control for each wash cycle

**Water Level Sensors**

- Two independent sensors control chamber water level and prevent overflow

**Liquid Level Sensors**

- Determine when cleaning chemical levels are low

**Programming and Cycle Operation:**

- **Pre-Wash** - Select number of Pre-Washes (0 to 3), length of Pre-Wash (up to 30 minutes), temperature of water (up to 95° C) and detergent. User can select hot, cold or purified water.
- **Wash** - Select length of Wash (up to 30 minutes), detergent dosing time and temperature of water (up to 95° C). User can select hot, cold or purified water.
- **Running Water Rinse 1** - Select number of rinses (0 to 9). Unit fills with cold water rinses for 30 seconds and drains. User can select hot, cold or purified water.
- **Acid Rinse** - Select length of Acid Rinse (up to 30 minutes), amount of acid. User can select hot, cold or purified water.
- **Running Water Rinse 2** - Select number of rinses (0 to 9). Unit fills with cold water rinses for 30 seconds and drains. User can select hot, cold or purified water.
- **Pure Water Rinse COLD** - (DI Rinse) - Select number of rinses (0 to 4). Select length of Pure Water Rinse (up to 30 minutes)
- **Pure Water Rinse HOT** - (DI Rinse) - Select length of Hot Pure Water Rinse (Up to 30 minutes) and temperature of water (up to 95° C)
- **Drying** - Programmable for up to 90 min and up to 110° C
- **Cooling** - User selects length of cooling (up to 30 minutes)

**Safety Features:**

**Door Interlock**

- Prevents interference with wash cycle once it is in operation

**Drop Down Door**

- Eliminates the safety hazard associated with guillotine type doors
- Counterbalanced for safe operation

## Optional Features:

### **Steam Heating**

- Stainless steel exchanger provides rapid heating of water in washer sump

### **Drain Discharge Cool Down**

- Wastewater cooled to <60° C
- Cold water added to effluent during drain phase

### **Water Softener**

- Softens incoming hot and cold water
- Automatic regeneration after each wash cycle with low salt alarm

### **RS 232 Port Kit**

- Provides RS 232 output for wash cycle process

### **pH Special Programming**

- Automatically adds base or acid solution to lower or raise pH level of effluent before discharge to building drain system

### **Customized Programming Options**

- Available for special requirements and wash applications

### **Seismic Tie Down Kit**

- Bracket allows for seismic anchoring

### **External Printer**

- For documenting evidence of cleaning process with detailed information

### **Gravity Drop Drain**

- Pneumatic valve to discharge wastewater to floor level drain

### **Low Pressure Valve Kit**

- Provides proper water pressure for purified water supply

### **Steam Condenser**

- Removes steam vapor when chamber temperature exceeds 50° C
- Directs all condensate to drain

### **HAB Kit**

- Stainless steel flanges allow for recessed installation of washer

### **Chemical Dosing Pump**

- For dosing of other types of chemicals to fit specific wash requirements
- Up to 1 additional

### **Third party testing**

- Field labeling by independent "NRTL" (Nationally Recognized Testing Laboratory) for product safety certification
- Verify compliance with the UL Standard 61010-1

### **Emergency Stop Button**

- Shuts off all power to the washer

## Construction:

### **Wash chamber and door**

- Constructed of #4 sanitary AISI 316L stainless steel
- High-grade finish electronically welded under Argon protection

### **Exterior**

- AISI 304L stainless steel with #4 high-grade finish

### **Components**

- Constructed of stainless steel or other materials impervious to the effects of detergents, additives and general laboratory chemical residues

### **Insulation**

- Synthetic, rubber based closed cell foam
- Guards against heat loss and reduces noise level

## Accessories:

### **Basic Starter Kit**

- PS/27 IXLC basic basket/rack: cleans both large, open mouth glassware and miscellaneous lab items. Consists of 27 short and long injectors for washing inside narrow necked glassware and open basket surface

### **Starter Kit**

- PST basic basket/rack: cleans large, open mouth glassware and miscellaneous lab items
- 36 IXLC rack with short and long injectors: washes inside narrow necked glassware
- LTC mesh basket with lid: washes test tubes, stoppers, caps, other small items

### **Manual Transfer Carts**

- Of stainless steel allow for easy transfer of full racks between multiple locations

### **Basic Basket Tray and Basket Tray with Spray Arm**

- Washes glassware with large necks or openings such

as beakers

- Mesh cover available for holding items on the basket during the wash cycle

### **Injector Racks**

- Various combinations of jets (including different quantities, different diameters, short and/or long lengths)
- Allows for washing a wide variety of glassware
- Mesh hold-down screen available to prevent glassware from becoming dislodged during wash cycle

### **Stainless Steel Mesh Baskets**

- For cleaning smaller items
- Lids available

### **Combination and Specialty Racks**

- For washing specific items such as pipettes or for multiple types of items on one rack

### **Customized Accessories**

- Modification of existing standard racks or baskets
- Creation of completely customized accessories

## Preventative Maintenance:

- Annual Preventative Maintenance agreements ensure optimum washer performance and extend equipment life

## Validation Services

- Installation Qualification and Operational Qualification (IQ/OQ) testing can be executed at the customer site
- Documentation only packages available separately

## Cleaning Chemicals:

- LANCERCLEAN Detergent (3 formulas)
- LANCERACID Rinse (3 formulas)
- Specially formulated for use in high pressure washers

## Required Utilities:

### **Hot Water**

- Shut off valve with a threaded 3/4 inch male hose thread nozzle needed
- Flow rate: 5 1/4 gal/min (20 l/min) with a pressure between 29 and 87 psig (200 to 600 kPa)
- Maximum temperature: 50° C (122° F)

### **Cold Water**

- Shut off valve with a threaded 3/4 inch male hose thread nozzle
- Flow rate: 5 1/4 gal/min (20 l/min) with a pressure between 29 and 87 psig (200 to 600 kPa)

### **Purified Water**

- Shut off valve with a threaded 3/4 inch male hose thread nozzle
- Flow rate: 5 1/4 gal/min (20 l/min) with a pressure between 29 and 87 psig (200 to 600 kPa)

### **Steam Feed (for steam option only)**

- Shut off valve and flexible steam hose for connection to washer's 1/2 inch male BSP threaded inlet

### **Steam Condensate Return (for steam option only)**

- Shut off valve and flexible steam hose for connection to washers 1/2 inch male BSP threaded outlet

### **Drain Connection**

- Fixed standpipe and plumbing trap with a minimum inside diameter of 1 1/2 inches (40 mm) needed
- Height above finished floor level between 31 and 35 inches (800 to 900 mm)
- Flow rate: 10 1/2 gal/min (40 l/min)
- AS AN OPTION unit can be configured for floor draining with optional floor drain kit

### **Condensate Drain Connection (for steam condenser option only)**

- Fixed standpipe and plumbing trap with a minimum inside diameter of 1 1/2 inches (40 mm)
- Height above finished floor level between 30 and 35 inches (800 to 900 mm)
- Flow rate: 5 gal/min (20 l/min)
- AS AN OPTION unit can be configured for floor draining with optional floor drain kit

### **Exhaust Hood Preferred (unless room is well ventilated)**

- Exhaust hood 12 inches (300 mm) min, 40 inches (1000 mm) max above washer's exhaust pipes.
- Discharge flow rate: 60CFM; max temp 203°F (95°C), max relative humidity 95%

### Electricity (electric models)

- 208 V, 60 Hz, 1-Phase, 7 kW, 34 Amps
- 208 V, 60 Hz, 3-Phase, 10 kW, 28 Amps
- 230 V, 60 Hz, 1-Phase, 7 kW, 31 Amps
- 230 V, 60 Hz, 3-Phase, 10 kW, 26 Amps
- 480 V, 60 Hz, 3-Phase, 10 kW, 12 Amps

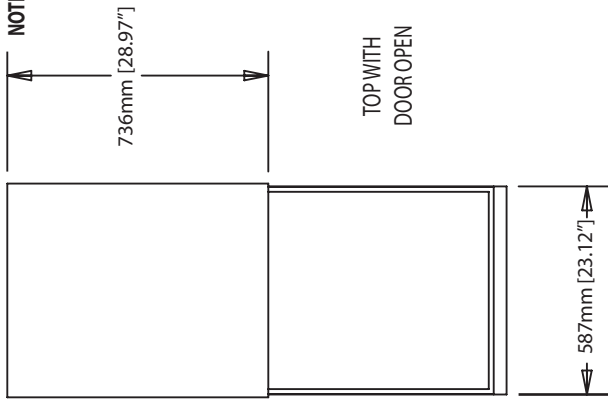
### Electricity (steam heated models)

- 208 V, 60 Hz, 1-Phase, 2 kW, 10 Amps
- 208 V, 60 Hz, 3-Phase, 2 kW, 10 Amps
- 230 V, 60 Hz, 1-Phase, 2 kW, 9 Amps
- 230 V, 60 Hz, 3-Phase, 2 kW, 9 Amps
- 480 V, 60 Hz, 3-Phase, 2 kW, 5 Amps

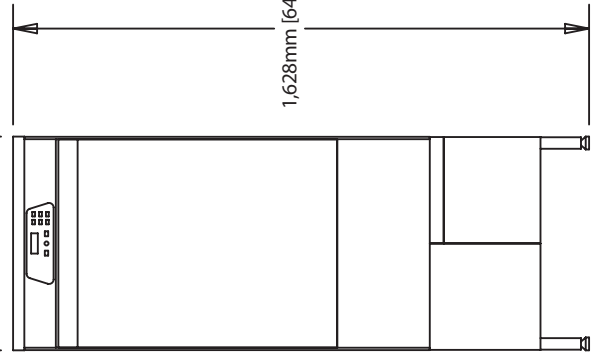
### Contact LANCER for Additional info on:

- Customization
- Maintenance Contracts
- Validation Services
- Cleaning Chemicals

NOTE: DIMENSIONS IN BRACKETS ARE IN MILLIMETERS



TOP WITH  
DOOR OPEN



FRONT

RIGHT SIDE  
W/DOOR OPEN

<b>1300 LX</b>	
TOLERANCE: ±.20"	
EXTERNAL DIMENSIONS	CHAMBER DIMENSIONS
Height: 64.08" Width: 23.78" Depth: 28.97"	Height: 25.35" Width: 21.00" Depth: 20.00"

**Required Utilities:**

**Hot Water/Cold Water/Purified Water** (each requires) - shut off valve (threaded 3/4 inch male hose thread) / flow rate of 5 1/4 gal/min (20 l/min), pressure between 29 and 87 psig (200 to 600 kPa)

**Steam Feed** (for steam option only) - shut off valve and flexible steam hose (connected to washers 1/2 inch male BSP threaded inlet) / steam pressure between 29 and 87 psig (200 to 600 kPa) / maximum consumption: 265 lbs/hr (66 lbs/cycle) - typically 1 cycle used per hour

**Steam Condensate Return** (for steam option only) - shut off valve and flexible steam hose (connected to washers 1/2 inch male BSP threaded outlet)

**Drain Connection** - fixed standpipe and plumbing trap (min. inside diam. 1 1/2 inches - 40 mm) / height above finished floor 31-35 inches (800 - 900 mm) / flow rate: 10.5 gal/min (40 l/min). / AS AN OPTION unit can be configured for floor draining with optional floor drain kit

**Compressed Air** (for gravity drop drain only) - shut off valve with 3/8 inch hose barb fitting, air pressure between 60-110 PSI (consumption is minimal)

**Exhaust Hood Preferred** (unless room is well ventilated) - min. air gap 12", max. 40" (Flow rate 60 cfm)

**Electricity (electric models)**

- 208 V, 60 Hz, 1-Phase, 7 kW, 34 Amps
- 208 V, 60 Hz, 3-Phase, 10 kW, 28 Amps
- 230 V, 60 Hz, 1-Phase, 7 kW, 31 Amps
- 230 V, 60 Hz, 3-Phase, 10 kW, 26 Amps
- 480 V, 60 Hz, 3-Phase, 10kW, 2 Amps

**Electricity (steam heated models)**

- 208 V, 60 Hz, 1-Phase, 2 kW, 10 Amps
- 208 V, 60 Hz, 3-Phase, 2 kW, 10 Amps
- 230 V, 60 Hz, 1-Phase, 4 kW, 9 Amps
- 230 V, 60 Hz, 1-Phase, 4 kW, 9 Amps
- 480 V, 60 Hz, 3-Phase, 2kW, 5 Amps

# LANCER

04	8/4/10	Update Utility Information	
0	10/06/09	Revision	
REV.	DATE	MODIFICATIONS - REVISIONS	
Drawing # 1300LX		Title:	
Tag #		- GENERAL DRAWING OF THE WASHER -	
LANCER		1300 LX	
Drawn by: MB	Checked by:	Scale: 3/64	Sheet: 1/1

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# Lancer Washing Accessories: *flexibility* is the key to efficient cleaning

## Lancer Washers

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With over 35 years of experience, Lancer is the industry leader in washing equipment. Providing glassware washers to the technological marketplace, Lancer offers a solution to suit any cleaning application. Lancer Glassware washers range from undercounters to free-standing units with varying capacities to suit any wash load.

A variety of racks and accessories are available to accommodate all types of glassware and laboratory items. This brochure provides a comprehensive listing of accessories as well as rack placement guides to provide the information you need to choose the right accessory based on your glassware loads and wash cycle needs.

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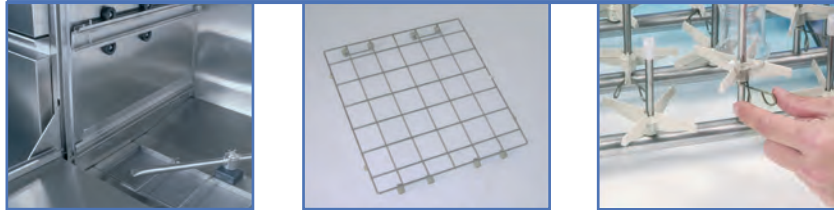
Lancer offers the widest range of washers and accessories. If you have any questions or for further details please contact a Lancer Sales Representative at (800)332-1855 or visit our website at [www.lancer.com](http://www.lancer.com).



# Lancer Washing:

## User Friendly Loading Systems

- ▣ **Telescopic Rails:** baskets are mounted on fully load bearing rails in the extended position allowing for ease of loading and unloading of glassware.
- ▣ **Glassware Height Adjustment:** adjustable star feet allow for various heights of glassware to be washed in the same load. Glassware is placed at the right position to obtain the optimum cleaning and drying results.
- ▣ **Customized Grids:** adjustable and fixed support grids are available to optimize load patterns.



## Interchangeable Accessories

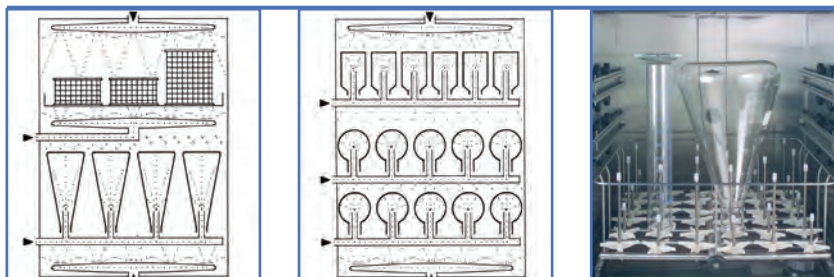
- ▣ Utilizing the independent water connections at each level allows for baskets to be interchanged among levels, reducing the number of required accessories.
- ▣ The 910 LX, 1300 LX, 1400 LXP, 1600 LXP and 1800 LXA washers are equipped with an additional water connection, allowing for placement of accessories at the required height depending on load configuration.



*Flexibility: 910 LX chamber shown with two accessories in three different loading configurations.*

## Powerful Glassware Cleaning and Drying

- ▣ Top and bottom spray arms ensure accurate cleaning of the outside surfaces of the glassware.
- ▣ Independent water connections on each level guarantee optimal water pressure for cleaning the internal surfaces of the glassware.
- ▣ **Direction Injection Drying:** hot air is directed through rack injectors and circulated throughout the washer chamber to ensure rapid drying of the glassware. *(On models equipped with injection drying.)*





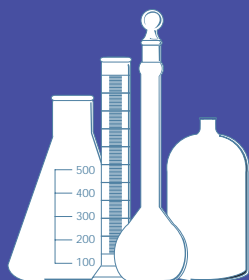
820 LX

1300 LX

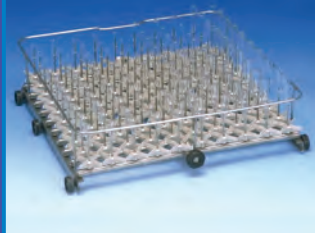
1800 LXA

910 LX

810 LX/815 LX



IXA Rack



IXL Rack



### Injector Racks:

#### 2 mm diam short jets

##### Items Washed:

- small narrow neck glassware

##### Available Accessories:

- 48 IXA - 48 jets
- 64 IXA - 64 jets
- 100 IXA - 100 jets
- GCI - Cover for injector racks
- GCI 1/2 - Half cover

#### 2 & 6 mm diam short jets

##### Items Washed:

- small narrow neck glassware
- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks

##### Available Accessories:

- 64 IXA/2 - 64 jets
- 100 IXA/2 - 100 jets

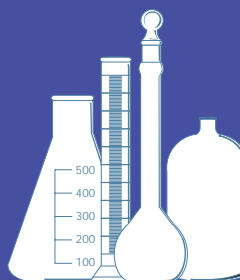
#### 6 mm diam short jets

##### Items Washed:

- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks

##### Available Accessories:

- 27 IXC 1/2 - half rack 27 jets
- 36 IXC - 36 jets
- 41 IXC - 41 jets
- 48 IXC - 48 jets
- 100 IXC - 100 jets



IXLC Rack



GCI Cover



#### 6 mm diam long and short jets

##### Items Washed:

- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks

##### Available Accessories:

- 36 IXLC - 36 jets
- 48 IXLC - 48 jets
- 64 IXLC - 64 jets
- 100 IXLC - 100 jets

#### 6 mm diam long jets

##### Items Washed:

- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks

##### Available Accessories:

- 20 IXL D6 - 20 jets
- 36 IXL - 36 jets
- 48 IXL - 48 jets
- 64 IXL - 64 jets

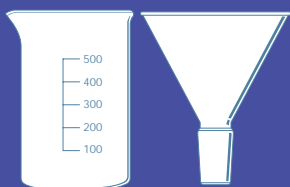
#### 8 mm diam long jets

##### Items Washed:

- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks

##### Available Accessories:

- 20 IXL - 20 jets



PST Basket



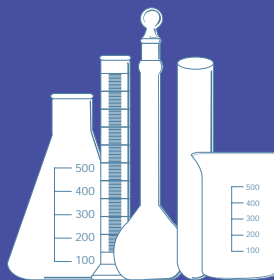
### Basic Baskets:

#### Items Washed:

- beakers
- cones
- trays
- dishes
- dissolution vessels
- reaction flasks
- funnels
- instruments
- jars

#### Available Accessories:

- PST** - Basic basket
- PSBT** - Basic basket with spray arm
- GC** - Cover for PST/PSBT
- GC 1/2** - Half cover



PS 27 IXLC Rack



### Multipurpose Racks :

#### Items Washed:

- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks
- beakers
- cones
- trays
- dishes
- dissolution vessels
- reaction flasks
- funnels
- instruments
- jars

#### Available Accessories:

- PS/27 IXLC** - 1/2 PST basket | 1/2 27 jets
- 25 PIP/30 IXLC** - 1/2 pipettes | 30 jets
- 4 EP/25 IXLC** - 4 vol flasks | 25 jets
- 50PIP/34 IXLC** - 1/2 pipette rack | 34 jets
- PS/21 IXLC/25 PIP** - PST | pipettes | 21 jets



LTC 1/3 Basket



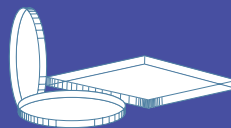
### Small Mesh Baskets:

#### Items Washed:

- bottle caps
- ferrules
- plugs
- stoppers
- test tubes

#### Available Accessories:

- STC | STC 1/3** - short basket (WITH cover)
- LTC | LTC 1/3** - tall basket (WITH cover)
- PPM** - fine mesh for small items (attached cover) - 122 mm x 134 mm x 93 mm
- PPM 80** - fine mesh for small items (attached cover) - 80 mm x 80 mm x 34 mm



BP Rack



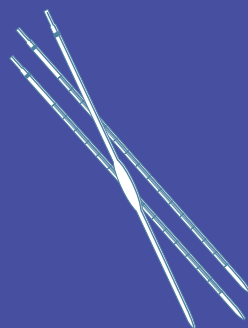
### Other Applications :

#### Items Washed:

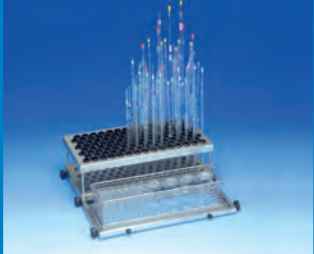
- thin plates
- culture dishes
- watch glasses

#### Available Accessories:

- 20 PL** - Basket for thin plates
- BP** - Basket for culture dishes
- SSC | SSL** - Supports
- VM 1/3** - 1/2 basket for watch glasses



PIP Rack



### Pipette Racks:

#### Items Washed:

- pipettes

#### Available Accessories:

- 100 PIP** - grommet style
- PPI 2B/4B** - canister style

TN Trolley



### Storage / Transport:

#### Storage and transport of Lancer Accessories.

- RP** - Stand to hold 5 racks
- TN 910 LX** - Door plus upper level trolley
- TN 13 LX** - Door plus two upper levels trolley
- TN 18 LXA** - Door plus three upper levels trolley

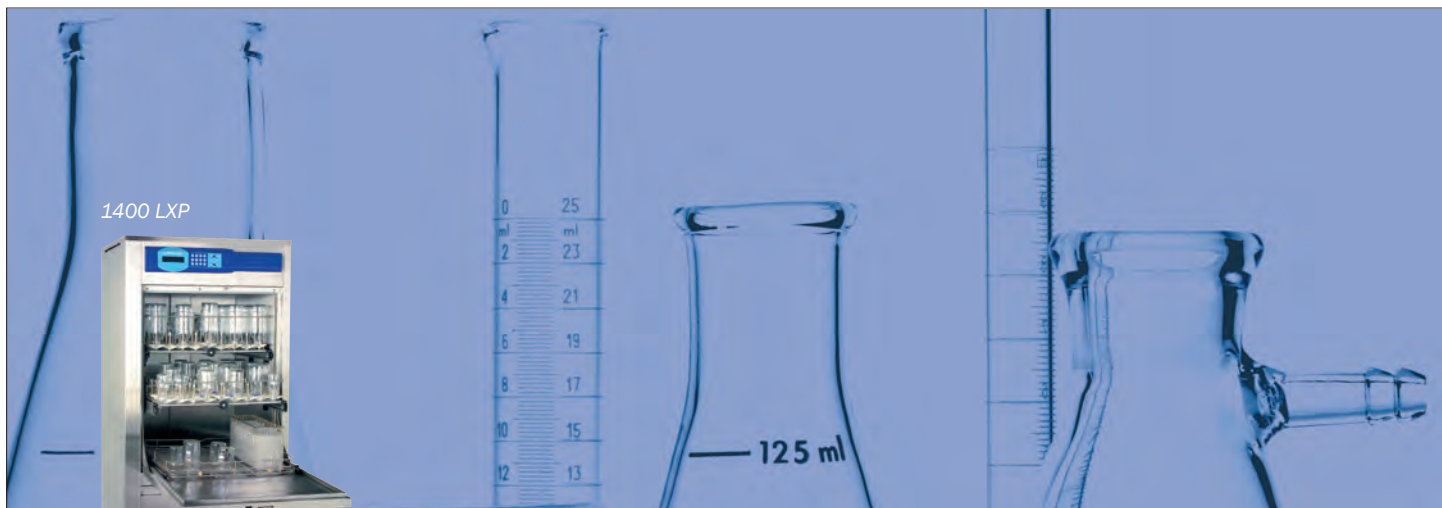
### Base Cabinets :

#### Stainless steel base cabinet for undercounter washers only.

- CAPN 81LX** - SS plinth for 810 LX and 815 LX
- CAPN 82LX** - SS plinth for 820 LX



# 1400 LXP



IXA Rack



IXC Rack



## Injector Racks:

### 2 mm diam short jets

#### Items Washed:

- small narrow neck glassware

#### Available Accessories:

- 81 IXA 14LXP - 81 jets
- 100 IXA 14LXP - 100 jets
- GCI 14LXP - Cover for injector racks
- GCI 1/2 14LXP - 1/2 Cover for injector racks

### 2 & 6 mm diam short jets

#### Items Washed:

- small narrow neck glassware
- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks

#### Available Accessories:

- 64 IXA/2 14LXP - 64 jets
- 81 IXA/2 14LXP - 81 jets
- 100 IXA/2 14LXP - 100 jets

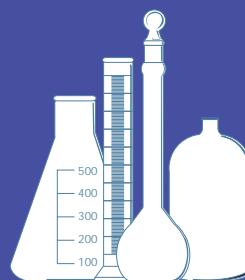
### 6 mm diam short jets

#### Items Washed:

- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks

#### Available Accessories:

- 48 IXC 14LXP - 48 jets
- 64 IXC 14LXP - 64 jets
- 81 IXC 14LXP - 81 jets
- 100 IXC 14LXP - 100 jets



IXL Rack



GCI Cover



### 6 mm diam long and short jets

#### Items Washed:

- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks

#### Available Accessories:

- 32 IXLC 1/2 14LXP - half rack 32 jets
- 36 IXLC 14LXP - 36 jets
- 48 IXLC 14LXP - 48 jets
- 64 IXLC 14LXP - 64 jets
- 81 IXLC 14LXP - 81 jets

### 6 mm diam long jets

#### Items Washed:

- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks

#### Available Accessories:

- 24 IXL 14LXP - 24 jets
- 36 IXL 14LXP - 36 jets
- 48 IXL 14LXP - 48 jets
- 64 IXL 14LXP - 64 jets

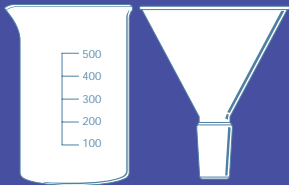
### 8 mm diam long jets

#### Items Washed:

- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks

#### Available Accessories:

- 4 IXL 14LXP - 4 jets
- 9 IXL 14LXP - 9 jets



PSBT Basket



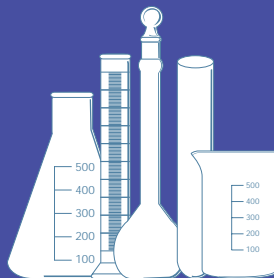
### Basic Baskets:

#### Items Washed:

- beakers
- cones
- trays
- dishes
- dissolution vessels
- reaction flasks
- funnels
- instruments
- jars

#### Available Accessories:

- PST 14LXP** - Basic basket
- PSBT 14LXP** - Basic basket with spray arm
- GC 14LXP** - Cover for PST/PSBT
- GC 1/2** - Half cover



4 EP/IXLC Rack



### Multipurpose Racks :

#### Items Washed:

- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks
- beakers
- cones
- trays
- dishes
- dissolution vessels
- reaction flasks
- funnels
- instruments
- jars

#### Available Accessories:

- 31 PIP/25 IXLC 14 LXP** - 1/2 pipette rack | 25 jets
- 4 EP/24 IXLC 14LXP** - 4 vol flasks | 24 jets
- PS/32 IXLC 14LXP** - PST | 32 jets



LTC 1/3 Basket



STC Basket



### Small Mesh Baskets:

#### Items Washed:

- bottle caps
- ferrules
- plugs
- stoppers
- test tubes

#### Available Accessories:

- STC | STC 1/3** - short basket (WITH cover)
- LTC | LTC 1/3** - tall basket (WITH cover)

RP Stand



### Storage/Transport:

#### Storage and transport of Lancer Accessories.

- RP 14LXP** - Stand to hold 5 racks
- TN 14LXP** - Door plus upper level trolley

### Pipette Racks:

#### Items Washed:

- pipettes

#### Available Accessories:

- 124 PIP 14LXP** - grommet style
- PPI 4B 14LXP** - canister style

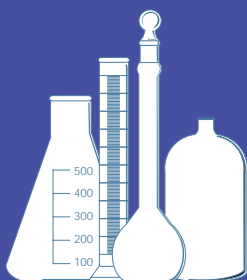
PIP Rack



# 1600 LXP



1600 LXP



## Injector Racks:

### 2 mm diam short jets

#### Items Washed:

- small narrow neck glassware

#### Available Accessories:

- 100 IXA 16 - 100 jets
- 144 IXA 16 - 144 jets
- GCI 16 - Cover for injector racks

### 2 & 6 mm diam short jets

#### Items Washed:

- small narrow neck glassware
- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks

#### Available Accessories:

- 100 IXA/2 16 - 100 jets
- 144 IXA/2 16 - 144 jets

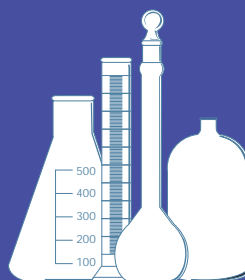
### 6 mm diam short jets

#### Items Washed:

- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks

#### Available Accessories:

- 36 IXC 16 - 36 jets
- 64 IXC 16 - 64 jets
- 80 IXC 16 - 80 jets
- 100 IXC 16 - 100 jets
- 144 IXC 16 - 144 jets



### 6 mm diam long and short jets

#### Items Washed:

- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks

#### Available Accessories:

- 36 IXLC 16 - 36 jets
- 64 IXLC 16 - 64 jets
- 80 IXLC 16 - 80 jets
- 100 IXLC 16 - 100 jets

### 6 mm diam long jets

#### Items Washed:

- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks

#### Available Accessories:

- 36 IXL 16 D6 - 36 jets
- 64 IXL 16 - 44 jets
- 80 IXL 16 - 80 jets
- 100 IXL 16 - 100 jets

### 8 mm diam long jets

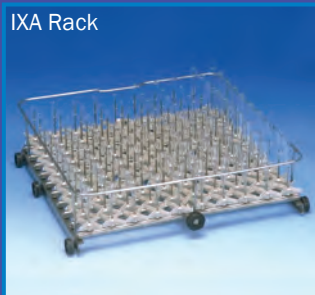
#### Items Washed:

- bottles
- cylinders
- boiling flasks
- erlenmeyer flasks
- volumetric flasks

#### Available Accessories:

- 36 IXL 16 - 36 jets

IXA Rack



IXL Rack



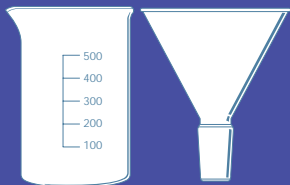
IXLC Rack



GCI Cover







### Basic Baskets:

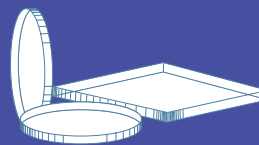
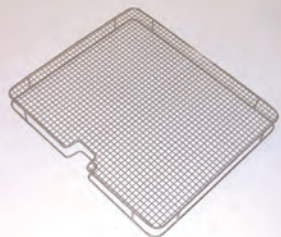
#### Items Washed:

- beakers
- cones
- trays
- dishes
- dissolution vessels
- reaction flasks
- funnels
- instruments
- jars

#### Available Accessories:

- PST 16** - Basic basket
- PSBT 16**- Basic basket with spray arm
- GC 16** - Cover for PST/PSBT

GC Cover



### Other Applications:

#### Items Washed:

- thin plates
- culture dishes
- watch glasses

#### Available Accessories:

- BP 16** - Basket for culture dishes
- SSC 16 | SSL 16** - Supports
- SSC 1/3 PS 16 | SSL 1/3 PS 16** - Supports
- VM 1/3 16** - 1/2 basket for watch glasses

BP Rack



### Small Mesh Baskets:

#### Items Washed:

- bottle caps
- ferrules
- plugs
- stoppers
- test tubes

#### Available Accessories:

- STC | STC 1/3** - short basket (WITH cover)
- LTC | LTC 1/3** - tall basket (WITH cover)

LTC Basket



TN Trolley



### Storage/Transport:

#### Storage and transport of Lancer Accessories.

- RP 16** - Stand to hold 5 racks
- TN 16** - Door plus three upper level trolley
- NB 16** - Door level trolley

### Pipette Racks:

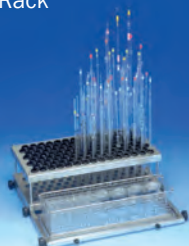
#### Items Washed:

- pipettes

#### Available Accessories:

- 105/210 PIP 16** - grommet style

PIP Rack



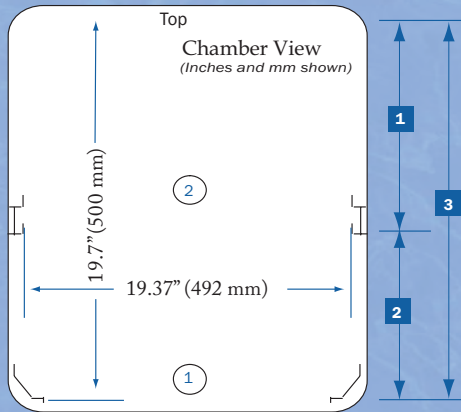
# Rack Position Guide



Available Basket Heights

810 LX/815 LX/820 LX

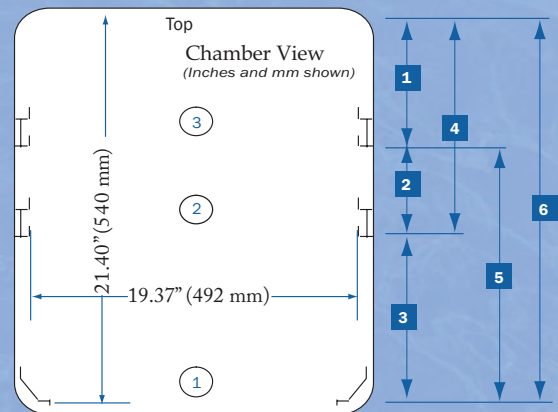
	PST	PSBT	IXL	IXC
1		6.7" 170	7.5" 190	7.7" 195
2	9" 230		6.9" 175	7.1" 181
3	18.9" 480		16.7" 425	



Available Basket Heights

910 LX

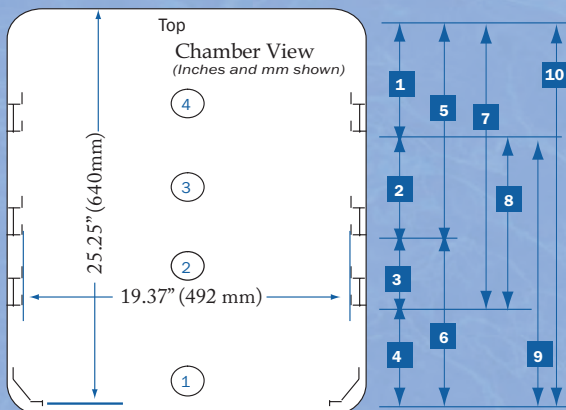
	PST	PSBT	IXL	IXC		PST	PSBT	IXL	IXC
1		3" 75		5" 126	4		7.7" 195	9" 230	
2					5	13" 330		10.6" 270	
3	8.3" 210		5.9" 150	6.5" 166	6	20.5" 520		18.1" 460	



Available Basket Heights

1300 LX

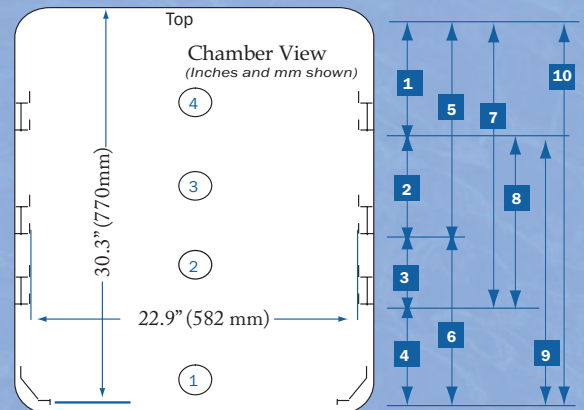
	PST	PSBT	IXL	IXC		PST	PSBT	IXL	IXC
1		5.7" 145	7" 180	7.7" 196	6	9.4" 240		7" 180	
2					7		13.1" 335	14.5" 370	
3					8		2.9" 75		4.9" 126
4	6.6" 170			4.9" 126	9	14.1" 360		11.8" 300	
5	10.4" 265	11.8" 300			10	24.4" 620		22" 560	



Available Basket Heights

1400 LXP

	PST	PSBT	IXL	IXC		PST	PSBT	IXL	IXC
1		7.09" 180	9.06" 230	9.29" 236	6	11.8" 300		9.84" 250	
2				3.35" 85	7		15.75" 400	17.72" 450	
3					8		3.94" 100		6.14" 156
4	9.06" 230			7.09" 180	9	17.72" 450		15.75" 400	
5	12.99" 330	14.96" 380			10	29.5" 750		27.56" 700	





# All Models

## Injector Racks:

**24 | IX | L | 14 LXP | D6**

24 = number of injectors

IX = rack type


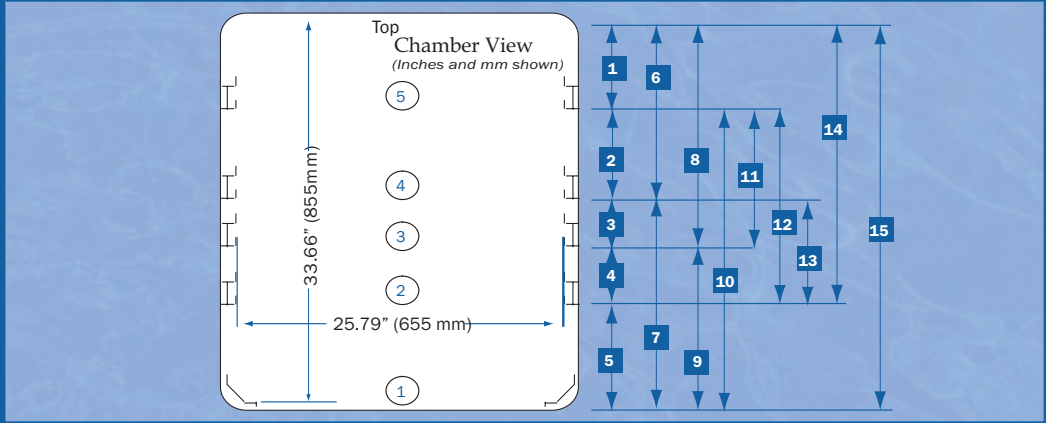
L = length of injectors

- L = long injectors
  - C = short injectors
  - LC = mix long & short injectors
  - A = 2 mm diam. injectors
  - C = short injectors
  - CM = mix of short 6 mm & 2 mm diam. injectors
  - A/2 = mix of short 6 mm & 2 mm diam. injectors
- 14 LXP = washer model**
- None = for models 810 LX, 815 LX, 820 LX, 910 LX, 1300 LX, 1800 LX
  - 14 LXP = for model 1400 LXP
  - 16 = for model 1600 LXP
- D6 = special diameter injectors**
- D6 = 6 mm (8 mm standard diam.)
  - D8 = 8 mm (6 mm standard diam.)




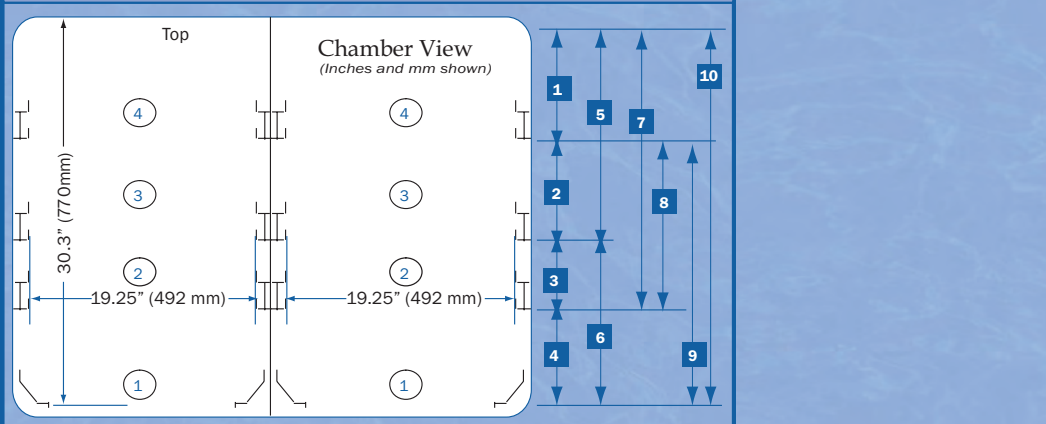
Available Basket Heights **1600 LXP**

	PST	PSBT	IXL	IXC									
1		2.95" 75		5.15" 131	6		10.66" 271	12.24" 311		11	7.05" 179	8.62" 219	9.25" 235
2		2.99" 76		5.2" 132	7	17.24" 438		15.11" 384		12	12.12" 308	13.70" 348	
3					8		15.31" 389	16.88" 429		13	4.40" 112	5.98" 152	6.61" 168
4				2.55" 65	9	13.18" 335		11.06" 281		14	19.80" 503	21.37" 543	
5	8.11" 206		5.98" 152	6.61" 168	10			22.83" 580		15	32.63" 829		30.51" 775

Available Basket Heights **1800 LXA**

	PST	PSBT	IXL	IXC		PST	PSBT	IXL	IXC
1		7.09" 180	9.06" 230	9.29" 236	6	11.8" 300		9.84" 250	
2				3.35" 85	7		15.75" 400	17.72" 450	
3					8		3.94" 100		6.14" 156
4	9.06" 230			7.09" 180	9	17.72" 450		15.75" 400	
5		12.99" 330	14.96" 380		10	29.5" 750		27.56" 700	

## Basic Basket:

**PST | 16**

PST = basket type

- PST = basic basket for bottom level
  - PSBT = basic basket with spray arm for upper levels
- 16 = washer model**
- None = for models 810 LX, 815 LX, 820 LX, 910 LX, 1300 LX, 1800 LXA
  - 14 LXP = for model 1400 LXP
  - 16 = for model 1600 LXP

## Mesh Baskets:

**STC | 1/3**

STC = basket height

- STC = 93 mm
  - LTC = 163 mm
- 1/3 = basket length**
- None = 134 mm
  - 1/3 = 409 mm

## Pipette Racks:

**105 | PIP | 16**

105 = number of pipette inserts

PIP = pipette basket type

16 = washer model

- None = for models 810 LX, 815 LX, 820 LX, 910 LX, 1300 LX, 1800 LXA
- 14 LXP = for model 1400 LXP
- 16 = for model 1600 LXP

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