

LABEXIA 1600 LXP

Glassware Washer / Dryer

LANCER



Construction and Design



The **1600 LXP Washer-Dryer** provides professional features and is constructed of stainless steel for maximum durability.

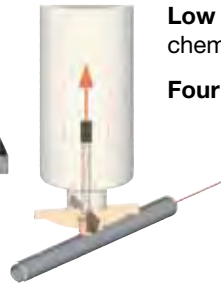
Thorough cleaning is obtained with water circulated in the chamber via spray arms as well as through injectors directly inside of glassware.

Chamber and door: AISI-316L stainless steel
Exterior panels: AISI-304L 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.

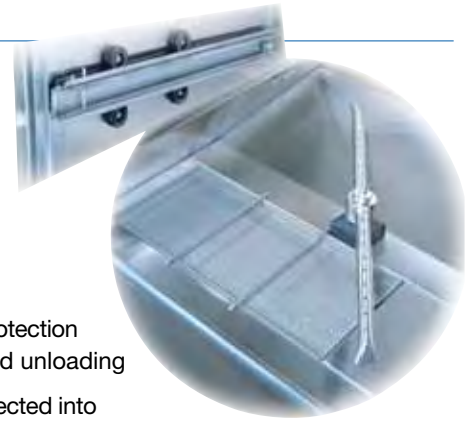
Acid Neutralizer delivery system: liquid acid neutralizer automatically injected into wash chamber via peristaltic pump according to programmable parameters.



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

Four independent wash levels:

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



Microprocessor Control

Easy selection of 40 standard washing programs for numerous applications including:

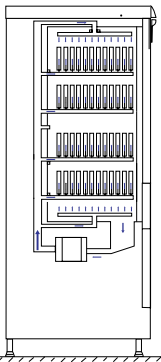
- Chemistry glassware
- Bacteriology / virology (high temperature)
- Stubborn stains (agar)
- Volumetric glassware (low-temp)
- Custom Applications

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 securely in place ensuring positive rack connection and efficient flow of wash / rinse solution

Top and bottom spray arms ensure thorough 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)



Technical Data and Utilities

Overall Dimensions	71.46 H x 34.09 W x 34.72 D (in) 1815 H x 866 W x 882 D (mm)	Total Electric Power	21 kW
Chamber Dimensions	33.66 H x 25.79 W x 25.98 D (in) 855 H x 655 W x 660 D (mm)	Drainage	Drain pipe diameter 1.5 inches, 31 to 35 inches from floor
Wash Levels	1 to 4 with upper level height adjustable (5 positions)	Voltage	208 V-3 Ph, 230 V-3 Ph, 480 V-3 Ph
Water Consumption	7.9-9.2 gallons (30-35 L)	Net Weight	474 lbs
Recirculation Pump (flow rate)	198 gal/min (750 L/min)	Heat Loss	5,950 Btu/hr (1500 Kcal/hr)
Heating	18 kW	Noise Level	<69 dBa
Drying	4.2 kW	Water Supply (Cold, Hot, DI) Connection	¾ inch hose thread
		Flow	20 L/min (5 ¼ gal/min)
		Pressure	29-87 psig (200 to 600 KPa)



Multiple Loading Configurations



Four Independent Wash Levels with five loading positions allow for flexibility of multiple types of glassware in a single load to fit your specific application. The images to the left are just two possible examples of load configurations.

Adjustable height on upper level (3 positions) accommodates for taller glassware on the middle levels.

Features and Options

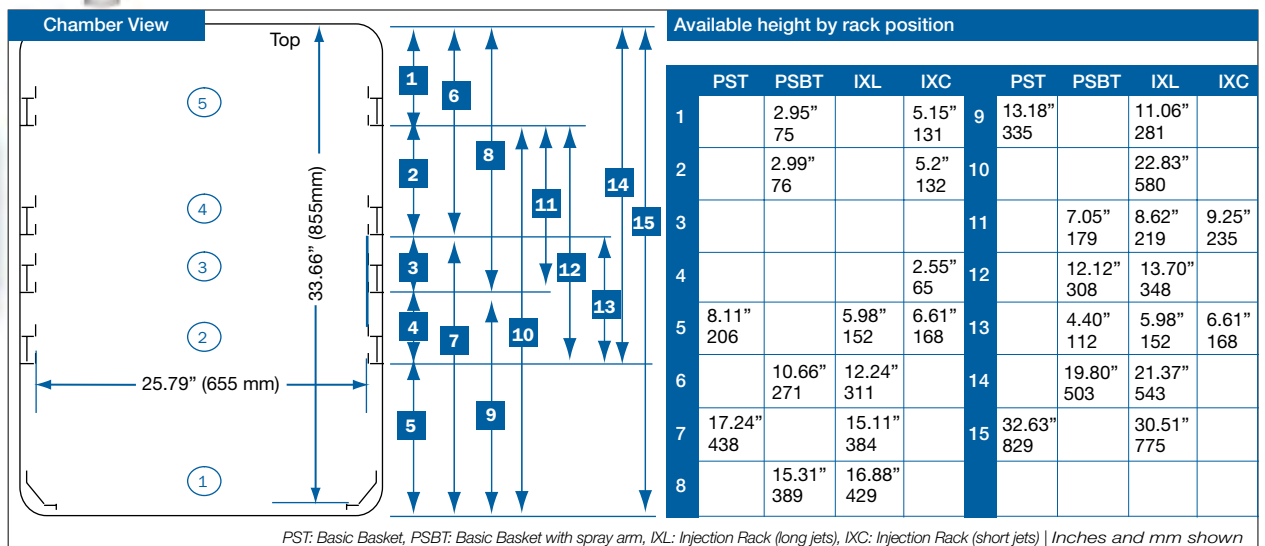
HEPA Filtered Injector Drying System: Complete and rapid drying of glassware with HEPA filtered forced air inside the washer chamber and directed into the glassware via rack injectors. Temperature is adjustable in 1°C increments up to 110°C.

On board chemical storage is provided via ergonomic front loading chemical drawer.

Other available options include: Drain discharge cool down, low pressure valve, emergency stop button, printer, dosing pumps (up to 3), steam condenser, steam heating, pH neutralization, height extension, gravity drain and IQ/OQ protocol. Contact Lancer for further details on these and other accessories and options.

Accessories

Wide range of accessories: If your lab needs higher throughput, the Labexia 1600 LXP will easily adapt to your needs, as a myriad of accessories will enable you to wash—on 4 independent levels—pipettes, volumetric flasks, etc. Lancer has the optimal accessory for your application. (See rack catalog for further accessory options.)



LANCER

LANCER 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

Description:

The 1600 LXP fully automatic washer/dryer has an electronic programmable microprocessor capable of storing up to 40 programs (4 pre-programmed, 36 user definable, password protected) for pre-wash, wash, rinse, acid rinse, purified/DI rinse, HEPA filtered drying and cooling. These units are capable of injection cleaning on 1 to 4 levels with 5 possible rack locations providing maximum capacity through multiple chamber configurations. Each level has telescopic, load bearing arms, eliminating the need to handle loaded racks. Chamber drying and direct injection drying is standard. Drop down door provides loading platform and eliminates the need for a loading trolley /cart. Washer has on-board chemical storage with liquid level sensors.

Contact LANCER:

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Toll Free: (800)332-1855

Phone: (407)327-8488

Fax: (407)327-1229

sales@lancer.com - www.lancer.com

Specifications:

Dimensions:

External: 71.46" H x 34.09" W x 34.72" D

Internal: 33.66" H x 25.79" W x 25.98" D

Wash chamber load area: 4 Wash Levels
- 671 square inches per level, 2,684 square inches total 4 levels

Loading Height: 26.83" (681mm)

Water Consumption: 7.9 to 9.2 gal per fill (30 L - 35 L per fill)

Heat Loss: 5,950 Btu/hr (1,500 Kcal/h)

Sound Level: <69 dBA

Cycles: 4 pre-programmed, 36 user-defined

Injection Cleaning: 1 to 4 levels with 5 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 316L stainless steel
- Easily disassembled for cleaning and maintenance

System Wash Levels

- 1 to 4 levels with 5 possible locations
- Manifold automatically actuated 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
- User programmable in 1° C increments
- 4.2 kW heating elements and blowers provide drying up to 110° C

Main Recirculation Pump

- 3 HP with capacity of 198 gal/min (750 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

- 18 kw electric heating elements provide heating up to 95° C

Electronic Thermostat

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

Microprocessor Control System

- User programmable with 40 storable programs and 55 user definable functions
- Individually selected user programs stored in memory

Systems Control Panel

- 4-½ 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 dosing time. 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), temperature of water (up to 95° C) and 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 in 1° C increments for up to 90 min and up to 110° C
- **Cooling** - User selects length of cooling (up to 30 minutes)

Safety Features:

Drop Down Door

- Eliminates the need for a loading trolley
- 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

- 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

Integral or External Printer

- For documentation of cleaning process with detailed cycle 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 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 3 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

Door lock

- Prevents interference with wash cycle once it is in operation

Stainless Steel Pump and Hydraulics

- Constructed of AISI 304L stainless steel

Conductivity Meter

- For final rinse verification

High Purity Water Kit

- Includes Pneumatic stop valves, gravity drain and pump case drain
- Ensures highest sanitary level

Main Power On/Off Switch

- Electrical disconnect box allows for power to be turned off for entire unit before it is serviced

Emergency Stop Button

- Shuts off all power to the washer

Construction:

Wash chamber and door

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

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:

Manual Transfer Carts

- Stainless steel transfer carts 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, strainer and flexible steam hose for connection to washer's 1/2 inch male BSP threaded inlet
- Steam pressure between 29 to 87psig (200 to 600 kPa). Maximum consumption 265 lbs/hr, 66 lbs/cycle. Typically 1 cycle per hour is used

Steam Condensate Return (for steam option only)

- Shut off valve, steam trap 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)
- Discharge flow rate: 10 1/2 gal/min (40 l/min) and maximum temperature of 203°F (95°C)
- AS AN OPTION unit can be configured for floor draining with optional floor drain kit

Overflow Safety Discharge

- Provide a floor drain or fixed discharge tube with an outside diameter of 1 1/4 inches (32 mm). Maximum height above finished floor level 23 inches (600 mm)
- Discharge flow rate: 5 1/4 gal/min (20 l/min) and maximum temperature of 203°F (95°C)

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, 3-Phase, 21 kW, 59 A
- 230 V, 60 Hz, 3-Phase, 21 kW, 53 A
- 480 V, 60 Hz, 3-Phase, 21 kW, 26 A

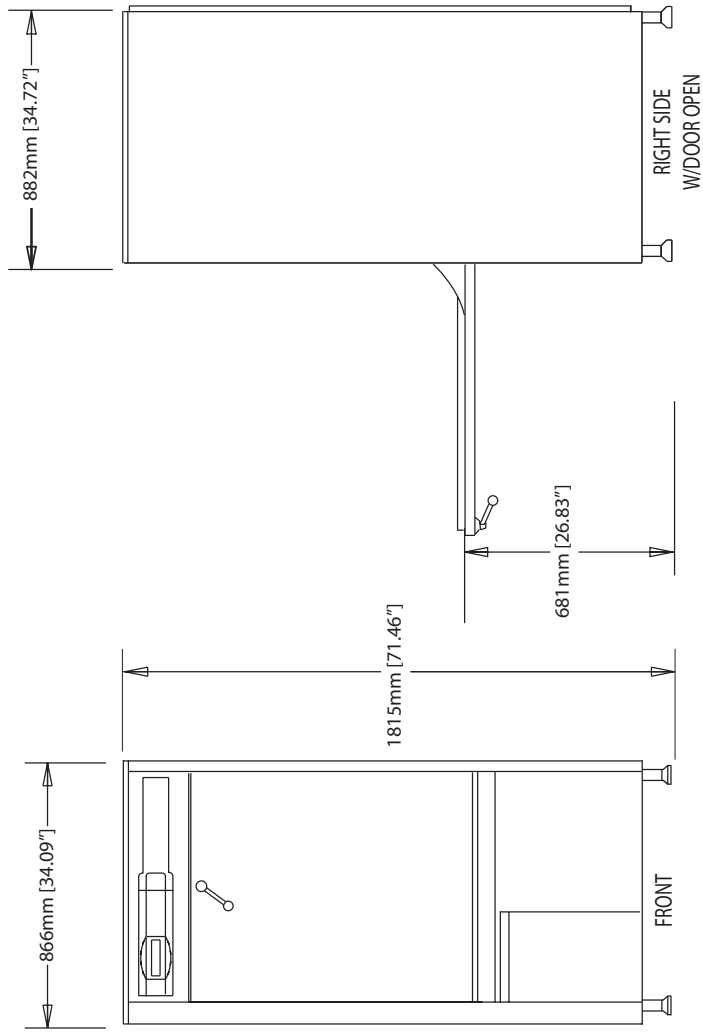
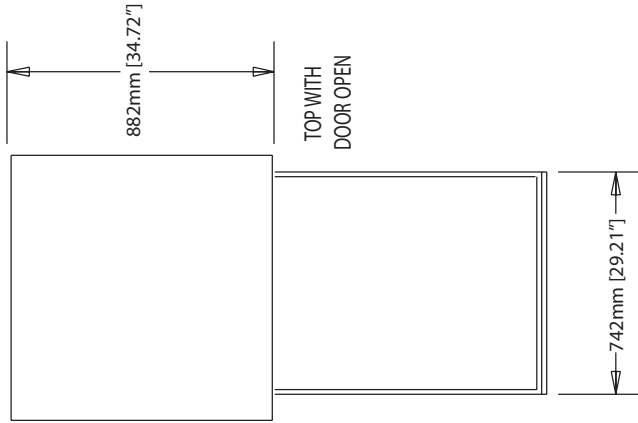
Electricity (steam heated models)

- 208 V, 60 Hz, 3-Phase, 4.2 kW, 20A
- 230 V, 60 Hz, 3-Phase, 4.2 kW, 20A
- 480 V, 60 Hz, 3-Phase, 4.2 kW, 9A

Contact LANCER for Additional info on:

- Customization
- Maintenance Contracts
- Validation Services
- Cleaning Chemicals

NOTE: DIMENSIONS IN BRACKETS ARE IN INCHES



1600 LXP	
TOLERANCE: ±.20"	
EXTERNAL DIMENSIONS	CHAMBER DIMENSIONS
Height: 71.46" Width: 34.09" Depth: 34.72"	Height: 33.66" Width: 25.79" Depth: 25.98"

Required Utilities:

Hot Water/Cold Water/Purified Water (each requires) - shut off valve with (¾ inch male hose thread nozzle) / flow rate of 5 ¼ gal/min (20 l/min), pressure between 29 and 87 psig (200 to 600 kPa)

Steam Feed (for steam option only) - shut off valve, strainer and flexible steam hose (connected to washers ½ 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, steam trap and flexible steam hose (connected to washers ½ inch male BSP threaded outlet)

Drain Connection - fixed standpipe and plumbing trap (min. inside diam. 1 ½ inches - 40 mm) / height above finished floor 31-35 inches (800 - 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

Overflow Safety Discharge - Provide a floor drain or fixed discharge tube with an outside diameter of 1 ¼ inches (32 mm). Maximum height above finished floor level 23 inches (600 mm)

Compressed Air (for gravity drop drain only) - shut off valve with ¾ 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, 3-Phase, 21 kW, 59 A
230 V, 60 Hz, 3-Phase, 21 kW, 53 A
480 V, 60 Hz, 3-Phase, 21 kW, 26 A

Electricity (steam heated models)

208 V, 60 Hz, 3-Phase, 4.2 kW, 20 A
230 V, 60 Hz, 3-Phase, 4.2 kW, 20 A
480 V, 60 Hz, 3-Phase, 4.2 kW, 9 A

LANCER

REV.	DATE	MODIFICATIONS
8/6/10		
Drawing # 1600LXP		
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Title:		
- GENERAL DRAWING OF THE WASHER -		
LANCER		1600 LXP
Drawn by: MB	Checked by:	Scale: N.T.S. Sheet: 1/1

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

Lancer Washers

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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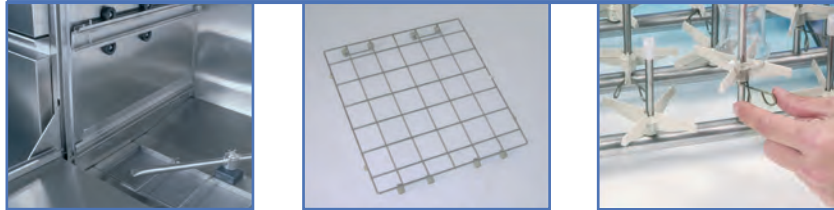
Washing Accessories (810 LX/815 LX/820 LX /910 LX /1300 LX /1800 LXA)	4
Washing Accessories (1400 LXP)	6
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Lancer offers the widest range of washers and accessories. If you have any questions or for further details please contact a Lancer Sales Representative at (800)332-1855 or visit our website at www.lancer.com.

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

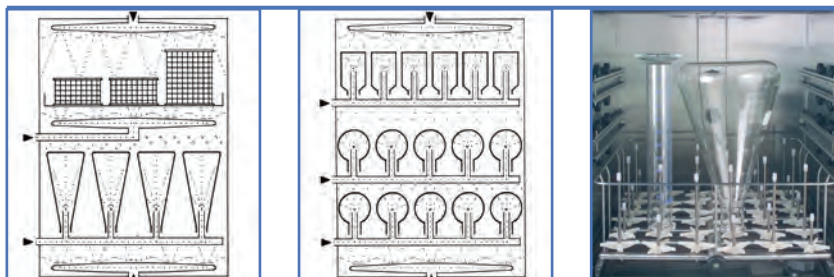
- ▣ Utilizing the independent water connections at each level allows for baskets to be interchanged among levels, reducing the number of required accessories.
- ▣ The 910 LX, 1300 LX, 1400 LXP, 1600 LXP and 1800 LXA washers are equipped with an additional water connection, allowing for placement of accessories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





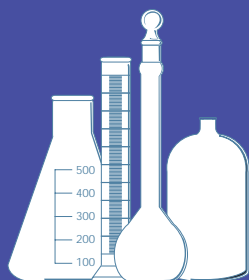
820 LX

1300 LX

1800 LX

910 LX

810 LX/815 LX



Injector Racks:

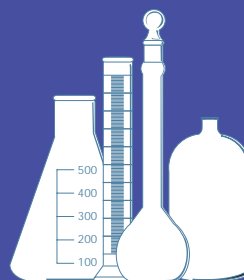
2 mm diam short jets

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



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

IXA Rack



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

IXLC Rack



IXL Rack



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

GCI Cover



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

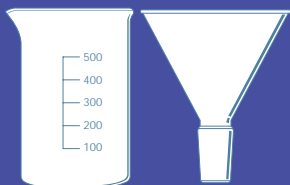
8 mm diam long jets

Items Washed:

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

Available Accessories:

- 20 IXL - 20 jets



PST Basket



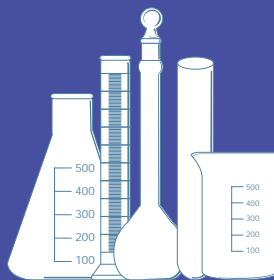
Basic Baskets:

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



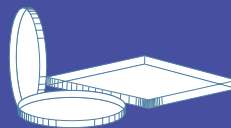
Small Mesh Baskets:

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



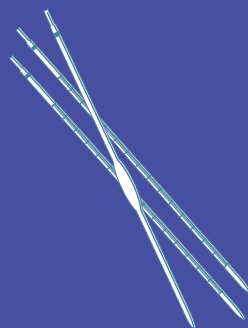
Other Applications :

Items Washed:

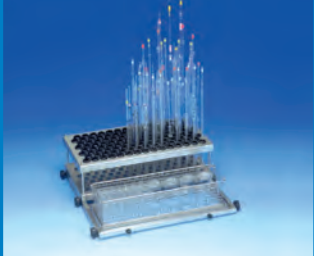
- thin plates
- culture dishes
- watch glasses

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.

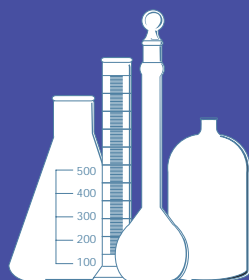
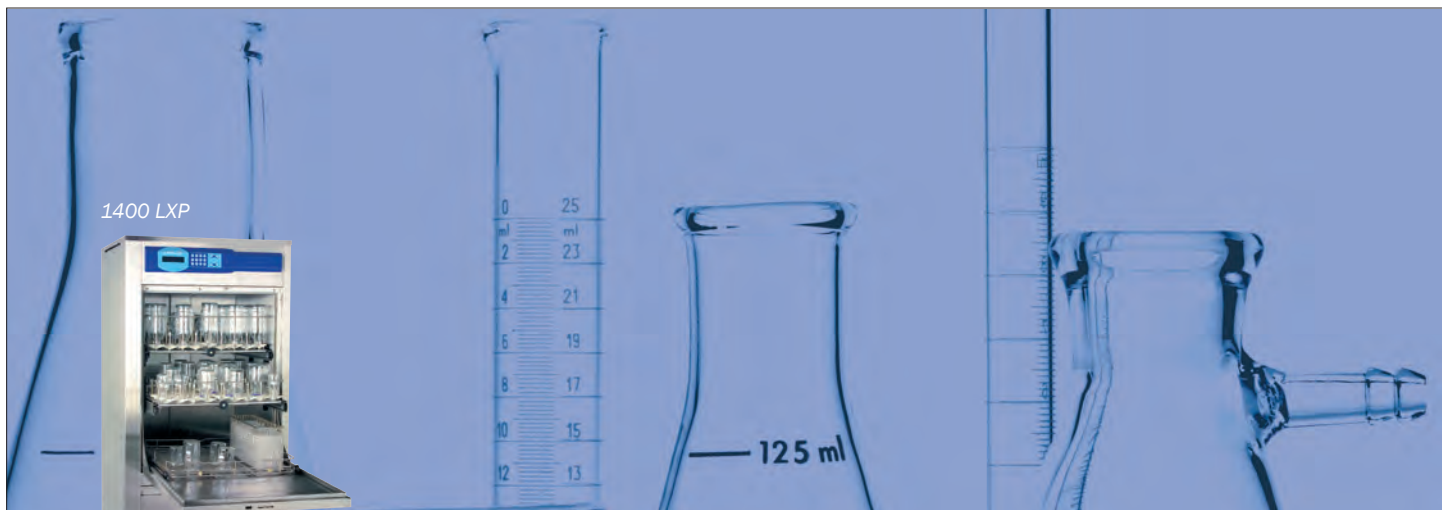
- RP** - Stand to hold 5 racks
- TN 910 LX** - Door plus upper level trolley
- TN 13 LX** - Door plus two upper levels trolley
- TN 18 LXA** - Door plus three upper levels trolley

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

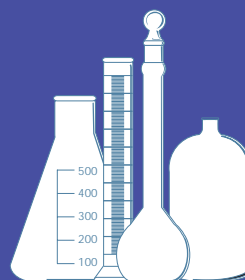
6 mm diam short jets

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

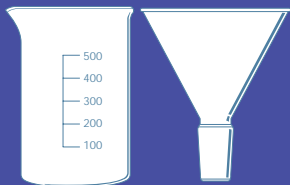
8 mm diam long jets

Items Washed:

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

Available Accessories:

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



PSBT Basket



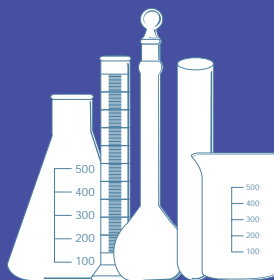
Basic Baskets:

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



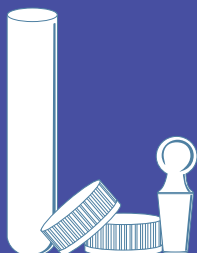
Multipurpose Racks :

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

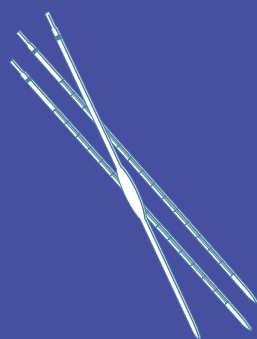
Pipette Racks:

Items Washed:

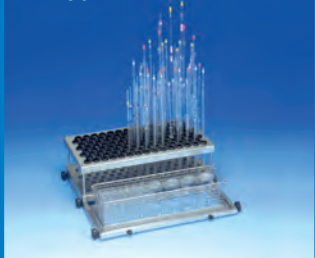
- pipettes

Available Accessories:

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



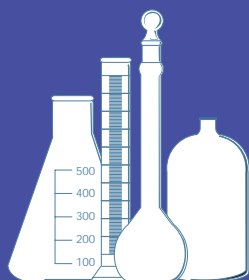
PIP Rack



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

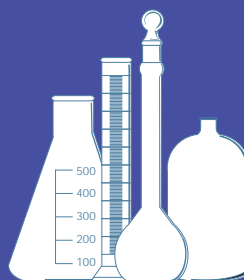
6 mm diam short jets

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

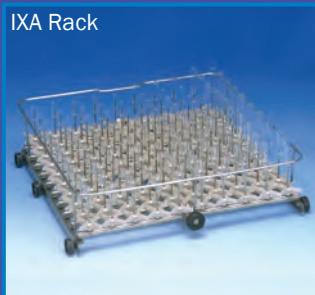
Items Washed:

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

Available Accessories:

- 36 IXL 16 - 36 jets

IXA Rack



IXL Rack

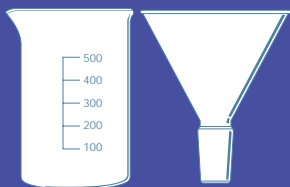


IXLC Rack



GCI Cover





Basic Baskets:

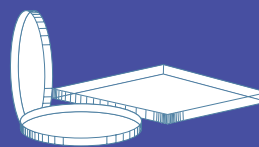
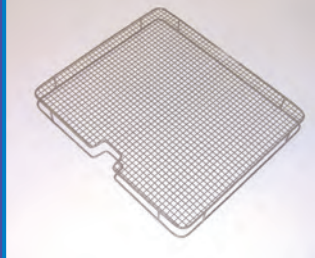
Items Washed:

- 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:

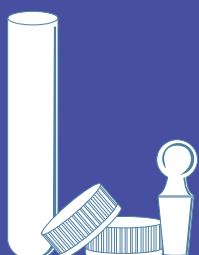
Items Washed:

- 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

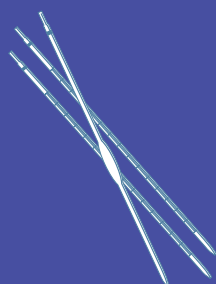
Pipette Racks:

Items Washed:

- pipettes

Available Accessories:

- 105/210 PIP 16** - grommet style



PIP Rack



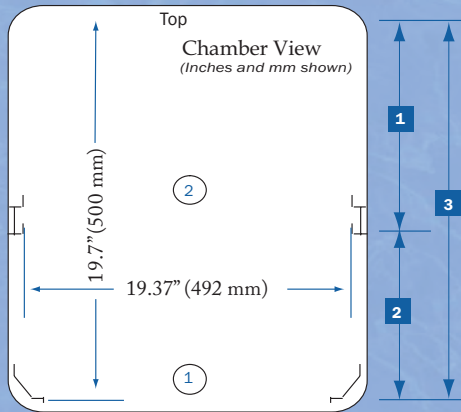
Rack Position Guide



Available Basket Heights

810 LX/815 LX/820 LX

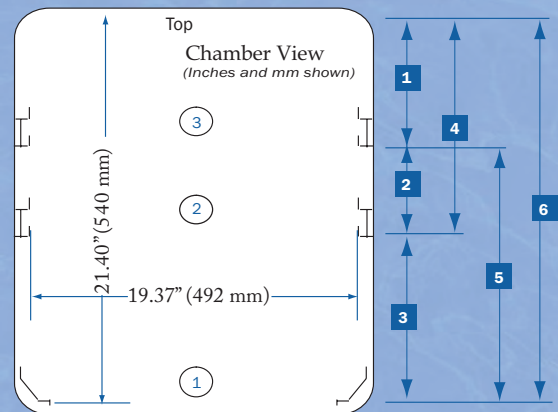
	PST	PSBT	IXL	IXC
1		6.7" 170	7.5" 190	7.7" 195
2	9" 230		6.9" 175	7.1" 181
3	18.9" 480		16.7" 425	



Available Basket Heights

910 LX

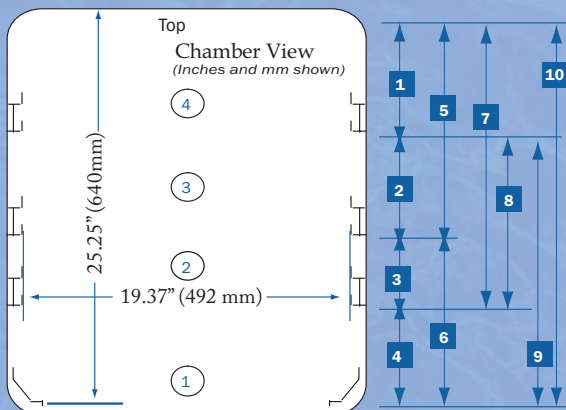
	PST	PSBT	IXL	IXC		PST	PSBT	IXL	IXC
1		3" 75		5" 126	4		7.7" 195	9" 230	
2					5	13" 330		10.6" 270	
3	8.3" 210		5.9" 150	6.5" 166	6	20.5" 520		18.1" 460	



Available Basket Heights

1300 LX

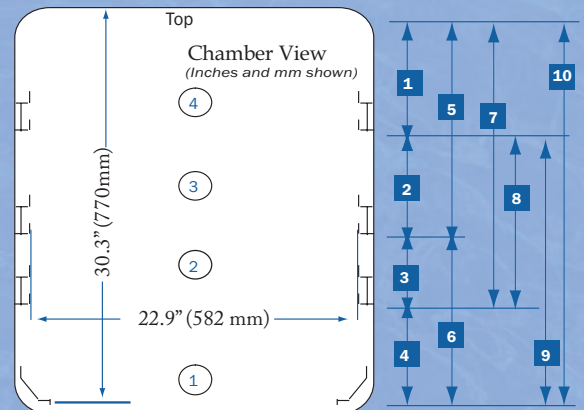
	PST	PSBT	IXL	IXC		PST	PSBT	IXL	IXC
1		5.7" 145	7" 180	7.7" 196	6	9.4" 240		7" 180	
2					7		13.1" 335	14.5" 370	
3					8		2.9" 75		4.9" 126
4	6.6" 170			4.9" 126	9	14.1" 360		11.8" 300	
5	10.4" 265	11.8" 300			10	24.4" 620		22" 560	



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

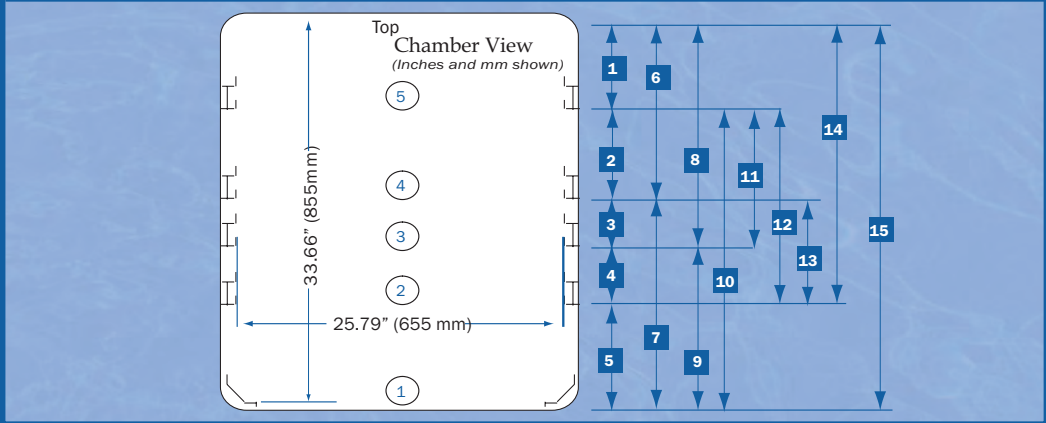
L = length of injectors

- 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.)



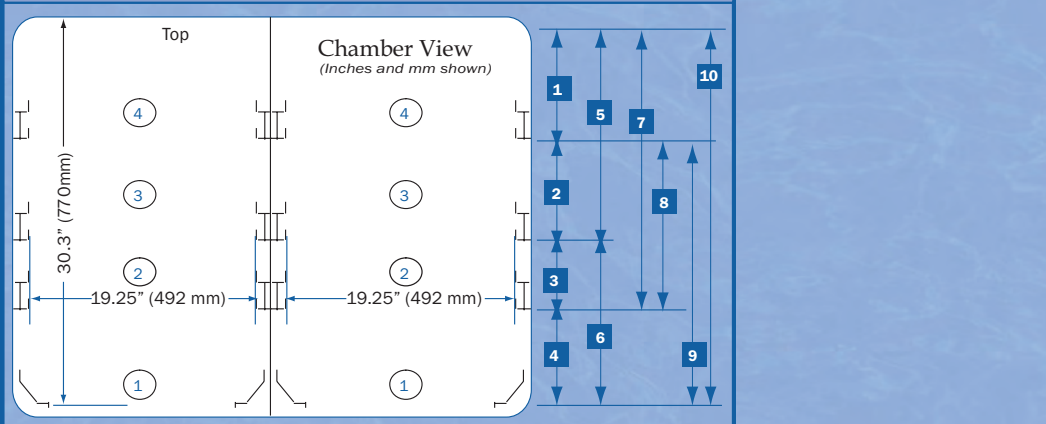
1600 LXP

Available Basket Heights											
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	



1800 LXA

Available Basket Heights								
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

LANCER

Lancer 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