

Description:

The 1800 LXA fully automatic washer / dryer has a programmable microprocessor capable of storing up to 40 programs (4 pre-programmed, 36 user definable, password protected) for pre-wash, wash, acid rinse, purified/DI rinse, HEPA filtered drying and cooling. These units are capable of injection cleaning on 1 to 6 levels with 8 possible rack locations providing maximum capacity through multiple chamber configurations. Vertical sliding glass door slides down into the washer frame, eliminating the need for additional ceiling height. Chamber drying and direct injection drying is standard. Washer has on-board chemical storage with liquid level sensors.

Specifications:

- Dimensions:**
- External:** 78.06" H x 55.01" W x 33.07" D
- Internal:** 30.3" H x 41.89" W x 20" D
- Wash chamber load area:** 6 Wash Levels - 360 square inches per level, 2,150 square inches total 6 levels
- Loading Height:** 37.13" (943 mm)
- Water Consumption:** 9.25 to 12.42 gal per fill (35 L - 47 L per fill)
- Heat Loss:** 4,760 Btu/hr (1,200 Kcal/h)
- Sound Level:** <65 dBa
- Cycles:** 4 pre-programmed, 36 user defined
- Injection Cleaning:** 1 to 6 levels with 8 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:

Automatic Vertical Glass Sliding Door

- Dual action automatic opening and closing creates watertight seal
- Slides down to open for user safety and reduced ceiling height requirements
- Built of laminated safety glass to reduce noise and minimize heat loss to room

Fully Extendable, Load Bearing Arms

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

Spray System

- Includes two rotary spray arms in top of chamber / two rotary spray arms 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 6 levels
- Rack actuated via automatic manifold connections when door is closed
- Racks are independent and easily removable for use on all levels
- Side by side racks - allows for washing of tall items (such as carboys) on one side with up to 3 wash levels on the other side

Super Drying System

- HEPA filtered chamber and direct injection drying
- Drying cycle is user programmable in 1° C increments
- (4) 1.8 kW (7.2 kW total) heating elements and blowers provide drying up to 110° C

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

Liquid Level Detection

- Low level chemical alarms alert user when chemical levels are low

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

Water Level Sensors

- Two independent sensors control chamber water level and prevent overflow

Programming and Cycle Operation:

- **Pre-Wash** - Selects 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 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), 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 water rinses for 30 seconds and drains. User can select hot, cold or purified water.
- **Pure Water Rinse COLD** - (DI Rinse) Select number of Pure Water Rinses (0 to 4) and length of Rinses (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 Interlocks and Photoelectric Sensor

- Prevents interference with wash cycle once it is in operation
- Stops closing of door in event of an obstruction

Automatic Vertical Glass Sliding Door

- Slides down to open for user safety, eliminating the hazard associated with guillotine type vertical doors

Ergonomic Top Loading Chemical Drawer

- Maximizes productivity while eliminating operator fatigue

Optional Features:

Steam Heating

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

Drain Discharge Cool Down

- Wastewater is 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

Seismic Tie Down Kit

- Bracket allows for seismic anchoring

Internal or 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

- Allows washer to operate properly when connected to a low pressure purified water source

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

Emergency Stop Button

- Shuts off all power to the washer

Construction:

Wash chamber

- Constructed of AISI 316L stainless steel
- High-grade finish is 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 levels

Accessories:

Manual Transfer Carts

- Constructed of stainless steel allowing for easy transfer of glassware between multiple locations
- Available in 2 levels (each side)

Basic Basket Tray and Basket Tray with Spray Arm

- Washes glassware with a large neck or opening such as beakers
- A 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)
- Allow for washing a wide variety of glassware
- Mesh hold-down screen available to prevent glassware from becoming dislodged during the 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 needed
- 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 needed
- 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 and 87 psig (200 to 600 kPa)
- Maximum consumption 265 lbs/hr, 66 lbs/cycle. Typically 1 cycle per hour is used

Steam Condensate Return (for steam condenser 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)
- Height above finished floor level between 47 and 51 inches (1200 to 1300 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

Overflow Safety Discharge

- Provide a floor drain connection or fixed discharge tube with an outside diameter of 1 1/4 inches (32 mm)
- Maximum height above finished floor level 20 inches (500 mm)
- Discharge flow rate: 5 1/4 gal/min (20 l/min) and maximum temperature 203° F (95° C)

Exhaust Hood Preferred (unless room is well ventilated)

- Exhaust hood 12 inches to 40 inches max. (300 to 1000 mm) above washers exhaust pipe
- Flow rate 60 CFM (102 m3/h), maximum temperature 203° F (95° C) and maximum relative humidity 95%.

Compressed Air

- Shut off valve with 3/8 inch hose barb fitting needed
- Pressure between 59 and 87 psig (400 to 600 kPa)

Electricity (electric models)

- 208 V, 60 Hz, 3-Phase, 21kW, 59 A/Phase
- 230 V, 60 Hz, 3-Phase, 21kW, 53 A/Phase
- 480 V, 60 Hz, 3-Phase, 21kW, 25A/Phase

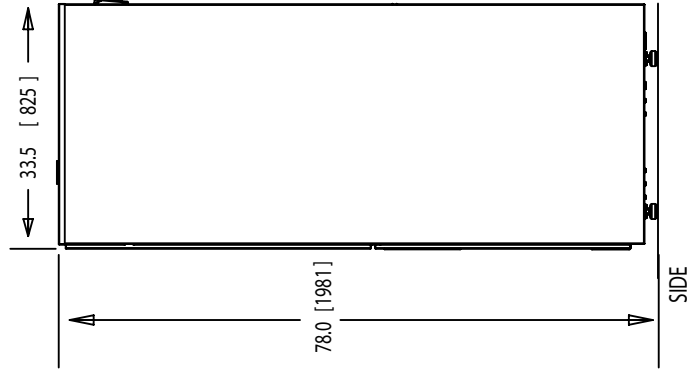
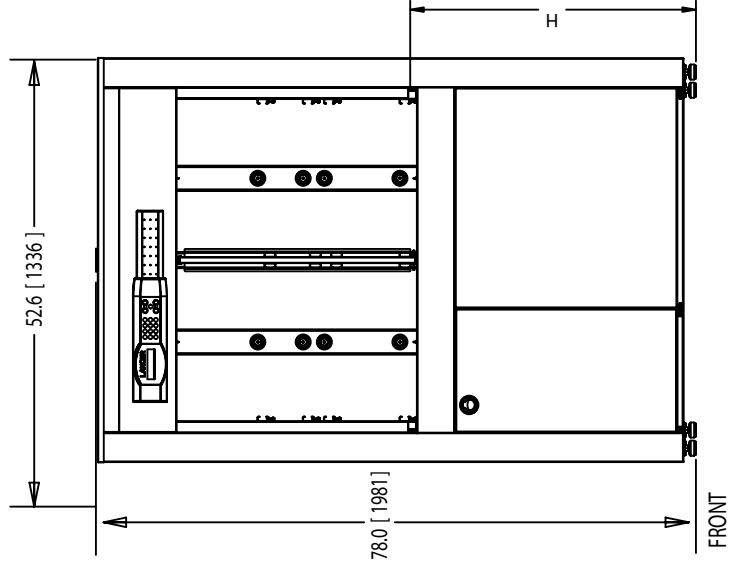
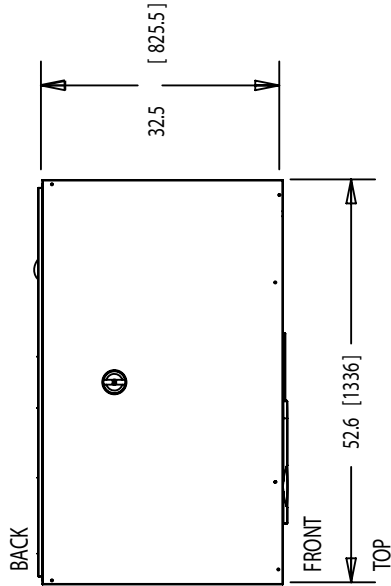
Electricity (steam heated models)

- 208 V, 60 Hz, 3-Phase, 7.2kW, 20A/Phase
- 230 V, 60 Hz, 3-Phase, 7.2KW, 19A/Phase
- 480 V, 60 Hz, 3-Phase, 7.2kW, 9A/Phase

Contact Lancer for Additional info on:

- Customization
- Maintenance Contracts
- Validation Services
- Cleaning Chemicals

NOTE: DIMENSIONS IN BRACKETS ARE IN MILLIMETERS



1800 LXA

TOLERANCE: ±.20"

EXTERNAL DIMENSIONS

Height: 78.06"
Width: 55.01"
Depth: 33.07"

CHAMBER DIMENSIONS

Height: 30.3"
Width: 41.89"
Depth: 20"

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, strainer 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 condenser 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 47-51 inches (1200 - 1300 mm) / flow rate: 10.5 gal/min (40 l/min) / ASAN 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 20 inches (500 mm).

Compressed Air - shut off valve with 3/8 inch hose barb fitting, air pressure between 59-87 PSI (consumption is minimal)

Exhaust Hood preferred - (unless room is well ventilated) - min. air gap 1.2", max. 40" (Flow rate 60cfm)

Electricity (electric models)

208 V, 60 Hz, 3-Phase, 21 kW, 59 Amps
230 V, 60 Hz, 3-Phase, 21 kW, 53 Amps
460 V, 60 Hz, 3-Phase, 21 kW, 25 Amps

Electricity (steam heated models)

208 V, 60 Hz, 3-Phase, 7.2 kW, 20 Amps
230 V, 60 Hz, 3-Phase, 7.2 kW, 19 Amps
460 V, 60 Hz, 3-Phase, 7.2 kW, 10 Amps

LANCER

3 4-2012 Revision tech data

REV. DATE

Drawing # 1800LXA

Tag #

Title:

- GENERAL DRAWING OF THE WASHER -

LANCER

1800 LXA

Drawn by: MB

Checked by:

Scale: 3/64

Sheet: 1/1

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