APPLICATION

The Cage and Rack Washer is a heavy-duty, large capacity, high-impingement hydro-spray washer designed for thorough, efficient cleaning of cages, racks, debris pans, and miscellaneous items used in the care of laboratory animals. The unit is designed to be either Floor or Pit mounting for ease of loading and unloading.

SIZE - INCHES

Compartment- 46" W x 85" H x 85-122" D

Overall Unit*- 84" W x 94" H* x 100-130" D

STANDARD FEATURES

KNOCK-DOWN MODULAR CONSTRUCTION The washer is designed for complete disassembly into sections small enough to fit most elevators and for entry into existing facilities. Uncrated sections can pass through a **3'0"** x **6'8"** standard doorway.

OSCILLATING SPRAY JET SYSTEM
The washer is provided with an oscillating jet-spray system for all treatment solutions. The system consists of high-impingement machined jets mounted on spray trees suspended from an oscillating carriage traveling on self-lubricating machined wheels. The jets are positioned to reach all cart and cage surfaces, including the underside of shelves and base. The system is driven with a bi-directional pneumatic cylinder in conjunction with the treatment schedule. The unit is equipped with a safety system to prevent the oscillating header from damaging items being washed. Interference of greater than 15 seconds will be indicated visually and audibly to the operator.

INSULATED CONSTRUCTION
Washer cabinet is completely insulated to minimize noise, hot outer surfaces, and heat rejection.

Washer door(s) are provided with insulated double-pane 1/3rd viewing window.

Optional windows available.

PERSONNEL SAFETY FEATURES
Opening the door (either load-end or unload-end if pass-through unit) automatically stops operation of the washer. The door(s) must be closed, alarm acknowledged, and the "Cycle Start" button depressed to continue operation from the beginning of the interrupted phase.

Two (2) red safety cables are installed inside the wash chamber (one on each side). If either cable is pulled, all operation of the washer is immediately stopped.

The door(s) (load-end or unload-end if pass-through unit) are designed with an explosion-release closures, that readily open when pushed from inside the cabinet.

An Emergency Stop (ES) button is provided on the load-end control panel (and unload-end if pass-through unit). If the operations of the wash cycle are interrupted by pressing the (ES) Button, all operations stop and the operator must restart the system.

MULTI-CYCLE COLOR/GRAPHIC PLC CONTROL SYSTEM
A named brand (GE or Allen Bradley) solid-state PLC control system monitors and automatically controls all process operations and functions. Any of the twelve-cycles may be operator named and configured with specific treatment phases to permit a wide variety of loads and processing requirements. Individual cycle phase times and temperatures and other key process parameters are programmable. Each cycle may be locked by supervision to ensure process integrity. Cycle programming is controlled by a supervisory access code. With the optional Strip-Chart Printer, each cycle program may be reviewed and printed on demand.

AUTOMATIC TEN-PHASE TREATMENT CYCLE
The standard treatment cycle may consist of any of the following phases: Pre-wash, Agent Wash 1, Agent Flushing Rinse, Agent Wash 2, Acid Neutralizer, First Rinse, Second Rinse, Final Rinse, and Vapor Removal. Any or all cycle phases may be selected or deselected by the user. All Agent Wash (Alkaline or Acid) and Rinse treatments are recirculated under pump pressure. The cycle, once activated, is completely automatic.

DATA COMPUTER PORT
An Ethernet port is provided for the ability to download cycle data to a remote computer terminal. Custom software may be required to accommodate specific applications.

FACTORY SOFTWARE RESTORATION
The unit shall be provided with a backup software/program stored on a flash drive.

AUTOMATIC SELF-CLEANING DEBRIS SCREEN
The treatment pump(s) are provided with high capacity self-cleaning debris screen which automatically flush debris to the building drain when the unit is drained. To help prevent jet plugging, the screen is provided with holes that are considerably smaller than the size of the machined jet orifices. The screen is inter-piped and inter-wired with the control system to filter all solutions.

TEMPERATURE GUARANTEE
The operator may select to guarantee the temperatures for any of the recirculated phase of the cycle. If the temperature guarantee is selected, the phase time does not begin to count down until the recirculated water temperature reaches the set point. If the recirculated temperature drops below the set-point during phase, the timer shall pause until the set temperature is again met. The phase-timer continues from where it stopped to guarantee the proper temperature for the entire phase.

INCOMING UTILITY GAUGES
The incoming steam, hot and cold water supplies are provided with incoming strainers and pressure gauges. Hot and cold water supplies are also provided with temperature gauges.

STAINLESS STEEL RECIRCULATING COMPONENTS AND PIPING
All piping and components, including valves, pumps, and piping that come in contact with the recirculated wash solutions shall be provided in stainless steel.

UL – INSPECTED CONTROL SYSTEM
The main control panel is inspected and labeled in accordance to the UL 508A standards.

OPERATION

The operator places the items to be cleaned in the wash chamber, closes the door, selects the proper cycle, and presses the “Cycle Start” button. The washer proceeds through the treatment schedule and automatically shuts off at the completion of the cycle. The operator then opens door and removes the cleaned items.

TREATMENT SCHEDULE – (May be programmed with any or all phases below)

PRE-WASH
Water remaining in the chamber sump from final rinse of the previous cycle is recirculated through the jet system under pump pressure and pumped to drain upon completion. Phase is adjustable from 0 – 9999 seconds in 1-second intervals and 120°F - 190°F in 1° intervals.

ALKALINE WASH
Hot water from the house supply or detergent solution from the (OPTIONAL) wash solution reservoir fills the sump and is pumped through the jet system. As required, an alkaline detergent is added during recirculation, using either the optional *LYNX* or customer-supplied detergent injection pumps. At the end of the treatment, the detergent solution is either returned to the (OPTIONAL) solution reservoir or pumped to drain at the discretion of the operator. Phase is adjustable from 0 – 9999 seconds in 1-second intervals and 60°F - 200°F in 1° intervals (May be displayed in Celsius).

DETERGENT FLUSHING RINSE
Hot water from house supply fills the chamber sump and is recirculated through the jet system under pump pressure to remove residual detergent. Recirculated water is pumped to drain on completion of treatment.

ACID WASH
Hot water from the house supply or Acid solution from the (OPTIONAL) acid solution reservoir fills
the sump and is pumped through the jet system. As required, an acid detergent is added during recirculation, using either the optional *LYNX-* or customer-supplied detergent injection pumps. At the end of the treatment, the acid solution is either returned to the (OPTIONAL) solution reservoir or pumped to drain at the discretion of the operator. Phase is adjustable from 0 – 9999 seconds in 1-second intervals and 60°F - 200°F in 1° interval (May be displayed in Celsius).

NEUTRALIZATION
A neutralization phase may be programmed to add a neutralizing agent to adjust the pH of either the acid or alkaline solution prior to discharging to drain. The neutralizer is injected for a select time, and then is recirculated to mix with the entire solution completely. Upon completion, the neutral pH solution is sent to drain.

FIRST RINSE
Hot water fills the sump and is recirculated through the jet system under pump pressure. Recirculated water is pumped to drain or may be retained in the sump to be used as the pre-wash water for the next cycle (if the last phase of the cycle). Phase is adjustable from 0 – 9999 seconds in 1-second intervals and 60°F - 200°F in 1° intervals (May be displayed in Celsius).

SECOND RINSE
Same as the first rinse.

THIRD or FINAL RINSE
Same as the first rinse

With the purchase of the **NON-RECIRCULATED FINAL RINSE OPTION,** the operator has the option to have the load be sprayed with fresh house water through a separate and dedicated spray system saving both water and time. Water may be retained in the sump to be used as the pre-wash in a subsequent wash load. The phase is adjustable from 0 – 999 seconds in 1-second intervals. (Typically 15 second duration).

EXHAUST
The unit stands idle for a sufficient length of time to remove the residual vapors.

CONSTUCTION

The base, wash chamber and chamber sump are of stainless steel and smooth construction, without crevices and ledges for the potential build-up of debris and contamination. The base and chamber sump are of one-piece welded construction, with the base containing integral door-gutters and floor grating supports.

The chamber door(s) are of double wall construction, insulated, and are equipped with explosion-release closures, heavy-duty hinges, and a large-view tempered double-pane glass observation window.

The washer cabinet is entirely insulated and covered by protective stainless-steel panels.

The wash chamber floor shall consist of smooth heavy-duty stainless-steel flooring covering the *entire* floor interior. The smooth flooring promotes both ease and quiet loading of racks. Flooring shall be provided in sections for ease of removal for cleaning or maintenance.

The chamber sump is equipped with a level-control, automatic water fill port, chemical injection ports, and a stainless steel steam coil heating the recirculated treatment solutions. The control system displays and monitors recirculated solution temperatures. Sump shall be drained after each phase, preventing cross-contamination between treatment phases and cycles.

All recirculated treatments are under pump pressure of a 10-Hp horizontal pump. The pump system is equipped with a solid state pressure sensor.

The stainless steel steam coil heating systems in the chamber sump is complete with condensate return, vacuum breakers, and steam traps. Steam coil is designed to ASME Section VIII, Div. 1, Unfired Pressurized Vessel Code, and are easily removable for cleaning or maintenance.

The washer is equipped with a transformer for the control circuit; integral Type-2 coordinated protective magnetic starters requiring no upstream fuses for overload protection of all motors, and all other electrical components required for the operation.

Exterior mounted LED lighting is provided to illuminate the wash chamber.

The washer is equipped with pneumatically actuated ball valves to control the output of the pump to the jet system, drain or detergent solution return systems.

The washer is inter-piped and inter-wired so that only one connection is required for each service or utility.

The washer is supplied with four (4) threaded detergent injection ports and electrical connections for the installation of automatic detergent injection pumps. Washer sump is also equipped with one (1) threaded half-coupling for the connection of external devices.

Programming is in Military time and Fahrenheit or Celsius temperature. Times and temperatures are expressed in seconds and full degree increments, respectively. An internal battery backs up all cycle memory for up to ten years.

A highly visible color touch screen displays cycle program data on demand and real-time in-process cycle performance. All cycle deviations are indicated with both visual and audible alarms that must be acknowledged by the operator.

The washer is designed to meet specifications by placing all serviceable components on either the right-hand or left-hand side of the washer, as viewed from the load-end.

The washer is provided with one (1) additional dry electrical contact for control of external damper(s) installed in the facility HVAC system (by customer).

DOOR CONFIGURATION – DOOR SWING (HINGE SIDE):

- ☐ **Single Door - Right Hand**
- ☐ **Single Door - Left Hand**
- ☐ **Pass-Through, Load (Right), Unload (Left)**
- ☐ **Pass Through, Load (Right), Unload (Right)**
- ☐ **Pass-Through, Load (Left), Unload (Right)**
- ☐ **Pass-Through, Load (Left), Unload (Left)**

MOUNTING CONFIGURATION (select one):

- ☐ **Floor Mounted, Right-Hand Service**
- ☐ **Access Floor Mounted, Left-Hand Service**
- ☐ **Access Pit Mounted, Right-Hand Service Access**
- ☐ **Pit Mounted, Left-Hand Service Access**

VOLTAGE (select one):

- ☐ **208 Vac, 3-Phase 60 Hz, 3 Phases Only**
- ☐ **230 Vac, 3-Phase 60 Hz**
- ☐ **480 Vac, 3-Phase 60 Hz**
- ☐ **575 Vac, 3-Phase 60 Hz**

OPTIONAL FEATURES

"REUSABLE - THROWAWAY" ALKALINE DETERGENT SYATEM - OPTIONAL

The washer is provided with a wash solution side tank with a minimum 2x sump capacity to allow the reuse of the alkaline detergent solution. The system has the capability of automatically returning the alkaline detergent solution to the side tank or pumping to drain based on a number of cycles. The tank is equipped with an automatic water fill, level control, and overflow piping.

- ☐ **Non-Heated**
- ☐ **Heated**

The optional heated tank is available with a separate heating coil to maintain the detergent water at a specified temperature. With this feature, the side tank is provided with an additional stainless steel steam coil to heat and maintain the wash solution temperature. The tank solution temperature is automatically controlled by the PLC control system.

☐ **DESCALING SYSTEM - ALKALINE TANK ONLY**

This system operates in conjunction with the Reusable-Throwaway alkaline detergent system. The system provides an automatic operation to drain the tank, spray the bottom and sides of the tank to flush loose debris. The tank is then refilled with fresh hot tap water and acid is added via customer-supplied or "OPTIONAL" LYNX-supplied dispenser. The tank is stirred and agitated to help dissolve and break up scale. The tank drains, and the interior and bottom are rinsed once again.

☐ **"REUSABLE - THROWAWAY" ACID DETERGENT SYSTEM**

The washer is provided with a wash solution side tank with a minimum 2x sump capacity to allow the reuse of the acid solution. The system has the capability of automatically returning the acid solution to the side tank or pumping to drain based on a number of cycles. The tank is equipped with an automatic water fill, level control, and overflow piping. **The washer width is increased by 14" for each additional tank selected.**

☐ **Non-Heated**

☐ **Heated**

The optional heated tank is available with a separate heating coil to maintain the detergent water at a specified temperature. With this feature, the side tank is provided with an additional stainless steel steam coil to heat and maintain the wash solution temperature. The tank solution temperature is automatically controlled by the PLC control system.

☐ **NON-RECIRCULATED FINAL RINSE**

The final rinse treatment consists of hot water from house supply sprayed through a separate set of jets. The water shall not be recirculated.

☐ **HOUSE HOT WATER HEAT EXCHANGER**

For facilities with low temperature hot water, the washer is equipped with an in-line heat exchanger to raise the "house hot water" supply temperature by approximately 60° to 80°F. The internal sump coil of the washer heats the recirculated water to set temperature as needed. The heat exchanger is inter-piped and inter-wired for automatic operation.

☐ **AUTOMATIC WATERING RACK FLUSH SYSTEM**

Washer is capable of flushing two (2) automatic watering racks with fresh house cold water during the final rinse phase. System is supplied with two stainless steel hoses with quick-disconnect hose connections and a pressure-reducing station for the house water line.

☐ **AUTOMATIC DAMPER**

The washer is provided with an automatically actuated damper mounted in the exhaust lines and coordinated with the automatic cycle. Dampers are fully open during the exhaust phase and closed during washer operation. Dampers are designed for vertical connection to exhaust vent system.

☐ **90-DEGREE AUTOMATIC DAMPER**

The washer is provided with an automatically actuated damper mounted in the exhaust line and coordinated with the automatic cycle. Damper is fully open during the exhaust phase and closed during washer operation. Damper is designed with 90° angle for connection to horizontal exhaust vent systems

☐ **EXHAUST FANS**

The washer is provided with in-line stainless steel exhaust fans inter-wired with the PLC control system to exhaust residual vapors from within the wash chamber. Fan is supplied complete with three-phase, 60 Hz motor and an integral Type-2 coordinated protective magnetic starter. Fan is designed to push exhaust a short distance at approximately ½" static pressure. Fan is provided with remote mounted grease fittings for convenient access.

☐ **"SMART" COOL-DOWN SYSTEM**

The washer is provided with an Eco-Friendly air-cooled effluent cool-down system. Cold-conditioned air is pulled through the chamber to cool effluent rapidly without needing for cold water. The effluent is cooled to 140 degrees or below before discharging to drain. The system is designed not to add additional time to the overall cycle.

☐ **DRAIN DISCHARGE COOL-DOWN SYSTEM WITH COLD WATER INJECTION**

The washer is provided with a cold-water inlet valve, integral with the drain line, to add cold water during draining to reduce the effluent temperature. A temperature gauge is included on the cold-water inlet piping. A cold-water connection is required when this option is selected.

☐ **DRAIN DISCHARGE COOL-DOWN SYSTEM WITH SURGE TANK**

The washer is provided with a cool-down tank, integrally mounted to side of washer, to accept all pumped drain discharges. A cold water valve is energized each time effluent is pumped to the tank. The hot effluent is cooled as it is mixed with cold water and gravity-drained. **Washer width is increased by 14" and a cold-water connection is required when this option is selected.**

☐ **DRAIN DISCHARGE COOL-DOWN SYSTEM WITH SURGE TANK AND TEMPERATURE GUARANTEE**

The washer is provided with a cool-down tank, integrally mounted to side of washer, to accept all pumped drain discharges. By controlling the mixing of cold water, all discharges are cooled to below the customer-programmed set-point (generally 140°F) before gravity-draining to building drain system. The system is controlled through an automatically actuated ball valve and temperature probe, and does not drain unless the effluent has been cooled to or below the set point temperature.

Washer width is increased by 14" and a cold-water connection is required with this option.

☐ **PASS-THROUGH DOOR INTERLOCK SYSTEM**

The system prevents both load-end and unload-end doors from being opened at the same time, eliminating the risk of cross-contamination. When one door is opened, the opposite door is locked. When both doors are shut, both doors are in an unlocked mode allowing either to be readily opened if needed. If power is lost, both doors will fail in the open position.

☐ **AIR COMPRESSOR**

The washer is provided with an air compressor inter-piped with an automatic control system to supply the air demand required by the washer. The compressor will be supplied with regulator, filter, holding tank, and an automatic drain valve to eliminate condensate. A separate 120V, 20A electrical supply is required for this option.

☐ **STAINLESS STEEL SERVICE ACCESS PANELS**

The washer is provided with a set of stainless steel enclosure panels with supports to fully enclose the service-component side of the washer. Panels are removable for easy access.

☐ **SPLIT BASE FOR SPECIAL ENTRY INTO BUILDING**

Base of Rack Washer is shipped in 2 or more sections and welded in place on site to provide a water-tight system. Split base is for egress into limited elevator sizes, or through tight hallways.

☐ **INCLINED FLOOR GRATING**

Floor grating sections are fixed at a pitch of 1" at unload-end to help drain flat solid surfaces of certain cages, pans, and racks that drain poorly.

☐ **AUTOMATIC INCLINED FLOOR GRATING**

During the wash cycle, the floor grating sections shall automatically raise to a pitch of 1" side to side to help drain flat solid surfaces of certain cages, pans, and racks that drain poorly.

☐ **FEEDER BOTTLE WASHING SYSTEM**

The washer is equipped with a solution coupling, capable of diverting all recirculated wash and rinse solutions through a bottle-washing cart. System is inter-piped and inter-wired for automatic operation. A Bottle-Washing Cart with a 4- or 6-basket capacity is required for use with this option.

☐ **PAN WASHING**

The washer is provided with a built-in pan rack on one (1) side of the washer chamber and additional jets mounted on the spray trees spraying outward at the pans for simultaneous washing of debris pans, cage floors while washing cages in the center chamber. **Washer and pit (if applicable) are 8" wider when this option is selected.**

☐ **LYNX OPTI-WASH SYSTEM**

The washer is supplied with a separate non-recirculated rinse header, and all components and programming allowing the operator to choose between non-recirculated or recirculated rinses for any phase of their cycle. By utilizing the non-recirculated rinse between phases, the cycle time and overall utility consumptions are minimized. The OPTI-Wash™ system enables the operator to run fast and highly efficient, low-water cleaning and disinfecting cycle. A typical rodent cycle time is estimated at less than 10 minutes without disinfections and less than 15 minutes with disinfection. No side tanks are required with this option.

☐ **LYNX OPTI-WASH -II SYSTEM**

The washer is supplied with separate heated fresh water and detergent water, re-useable throw- away side tanks, a non-recirculated rinse header, and all components and programming allowing the operator to choose between non-recirculated or recirculated rinses for any phase of their cycle. By utilizing the re-useable throw-away side tanks and the non-recirculated rinse between phases, the cycle time and overall utility consumptions are minimized. The OPTI-WASH-II™ system enables the operator to run the most efficient and quickest cleaning cycles. A typical rodent cycle time is estimated at less than 8 minutes without disinfections and less than 12 minutes with disinfection.

☐ **FLOOR SPRAY HEADER**

A stationary spray header is mounted in the floor of the unit to add additional treatment spray coverage to the underside of the loads.

☐ **SEISMIC TIE-DOWN**

Washer is designed to comply with Seismic Zone 3 and 4 requirements.

☐ **STRIP-CHART PRINTER**

A 40-column impact printer with paper take-up is provided to record all cycle program parameters and process performance data. Each program time/temperature profile may be printed as required.

☐ **REMOTE-MOUNTED CONTROL COLUMN**

The washer is provided with added wire harness length to remote mount the electrical box up to 20 feet from the unit. Field connections for remote mounting of the control column and brackets are provided with this option. An appropriate conduit chase for the wire harness is to be provided by the customer.

☐ **INTEGRAL DATA COLLECTION SYSTEM**

In lieu of, or in addition to an integral strip chart printer, the Data Collection System is provided to track, record, and store performance data as it is created during the run process of the washer. This data can be downloaded for printing or future reference and compliance purposes. Data such as date, time, cycle parameters, phase times and temperatures, alarms and other machine functions are captured and logged. Several options are available for storage:

☐ **Thumb drive Recording System:** All data is recorded onto a removable USB Thumb drive in CSV format.

☐ **Plug & Play** - custom LYNX data logging program downloaded onto a LYNX provided dedicated laptop. Customer shall take ownership of laptop and connectivity, network internet for data retrieval.

☐ **Software Package on to Customer's network:** Custom LYNX data logging program downloading to be coordinated with customer's IT department onto customer's network. LYNX to provide program and technical assistance for the upload and coordination for the system to accept data from the washer. Customer shall coordinate connectivity, network for data retrieval.

☐ **CSA - INSPECTED CONTROL SYSTEM**

The main control panel shall be inspected and labeled in accordance with CSA Standards.

☐ **THROWAWAY ALKALINE DETERGENT INJECTION SYSTEM**

The washer is equipped with a liquid detergent injection pump, detergent pick-up tube, and 50 feet of tubing for timed direct injection of alkaline detergent into the chamber sump during the alkaline wash phase.

☐ **"REUSABLE-THROWAWAY" ALKALINE DETERGENT INJECTION SYSTEM**

The washer is equipped with a liquid detergent injection pump, a detergent pick-up tube, 50 feet of tubing, a conductivity controller, and a conductivity probe. The unit automatically monitors water/chemical conductivity and injects alkaline detergent into the chamber sump during the alkaline wash phase.

☐ **THROWAWAY ACID DETERGENT INJECTION SYSTEM**

The washer is equipped with a liquid detergent injection pump, detergent pick-up tube, and 50 feet of tubing for timed direct injection of acid detergent into the chamber sump during the acid wash phase.

☐ **"REUSABLE-THROWAWAY" ACID DETERGENT INJECTION SYSTEM**

The washer is equipped with a liquid detergent injection pump, a detergent pick-up tube, 50 feet of tubing, a conductivity controller, and a conductivity probe. The unit automatically monitors water/chemical conductivity and injects acid detergent into the chamber sump during the acid wash phase.

☐ **AUTOMATIC ALKALINE NEUTRALIZATION INJECTION SYSTEM**

The washer is equipped with a liquid detergent injection pump, detergent pick-up tube, and 50 feet of tubing for timed direct injection of neutralizer into the chamber sump after an alkaline wash phase to neutralize the alkaline wash solution.

☐ **AUTOMATIC ACID NEUTRALIZATION INJECTION SYSTEM**

The washer is equipped with a liquid detergent injection pump, detergent pick-up tube, and 50 feet of tubing for timed direct injection of neutralizer into the chamber sump after an acid wash phase to neutralize the acid wash solution.

☐ **pH NEUTRALIZATION MONITORING SYSTEM**

The washer is equipped with control hardware and pH probe to monitor and control the pH level of drain discharge. Each time the washer attempts to drain, the pH level is checked. If the pH level is within a pre-set range, the washer will drain. If not, the proper neutralizing agent is injected, and the solution is recirculated and tested again. This process is repeated three times until all parameters are met. If, after the third test, the parameters are not met, an alarm will sound. The system includes all controls and is inter-piped and inter-wired for automatic operation. Chemical pumps are available but are not included with the system.

ACCESSORIES

☐ **FLOOR-MOUNTED RAMPS**

Floor-mounted units are provided with a stainless steel ramp with a non-skid surface for each doorway of the washer. Ramp(s) cover the full door width and extend out 5'.

☐ **BARRIER WALL FLANGE ASSEMBLY**

The washer is provided with a stainless-steel trim flange to enclose the opening between one end of the washer and the masonry/ CMU wall opening.

☐ **Recessed one (1) wall**

☐ **Recessed two (2) wall**

☐ **MODULAR WALL**

A stainless-steel modular wall assembly is designed and manufactured to create a walled enclosure or close off an open wall area. All materials and fasteners are of stainless-steel construction.

Linear Feet

Linear Feet (Insulated)

☐ **30" Access Door**

☐ **30" Insulated Access Door**

☐ **BOTTLE-WASHING CART**

A stainless-steel bottle-washing cart is designed to couple with the feeder bottle-washing system. Load capacity:

☐ **Four (4) baskets**

☐ **Six (6) baskets**

WINDOW OPTIONS - 1/3RD STANDARD

☐ **Full window**

☐ **16x16**

☐ **UNIVERSAL CAGE AND PAN WASH RACK**

The Universal Wash Rack is a heavy-duty stainless-steel rack that holds rodent cages and/or debris pans for thorough, efficient cleaning. The rack holds rodent cages from 5" to 8" in height with three (3) rows on each side of the rack, or debris pans up to 2" in height with two (2) rows on each side of the rack. The length and width of rodent cages and pans may vary. The standard unit has two (2) pair cage wash racks and one (1) pair pan wash rack.

☐ **CAGE WASH RACK**

The Cage Wash Rack is a heavy-duty stainless steel rack designed for thorough, efficient cleaning of various sizes of rodent cages and lids. The rack holds rodent cages from ½" to 8" in depth. The standard unit has four (4) rows on each side of the rack. To maximize the washing capabilities of this wash rack, there is an option for a fifth (5) tier. Cages are securely supported in place by using an adjustable retainer bar. The rack can accommodate up to 140 standard mouse boxes or 100 standard rat boxes.

MATERIALS OF CONSTRUCTION

Standard Items	MATERIALS
1. Base & Chamber Sump	12 Ga. 304 S/S
2. Wash Solution Reservoir(s)	12 Ga. 304 S/S
3. Door Panels	16 Ga. 304 S/S
4. Side and Top Panels	14 Ga. 304 S/S
5. Recirculation Valves and Components	304 S/S
6. Internal Water and Steam Piping	304 S/S
7. Drain Piping	304 S/S
8. Drain Valves and Components	304 S/S
9. Steam Piping – External	Schedule 80, Black Iron
10. Water Piping	304 S/S
11. Spay Jets	304 S/S
12. Steam Coils	304 S/S
13. Treatment Pump	316 S/S
Optional Items	
14. Barrier Flange(s)	20 Ga. 304 S/S
15. Modular Walls	304 S/S