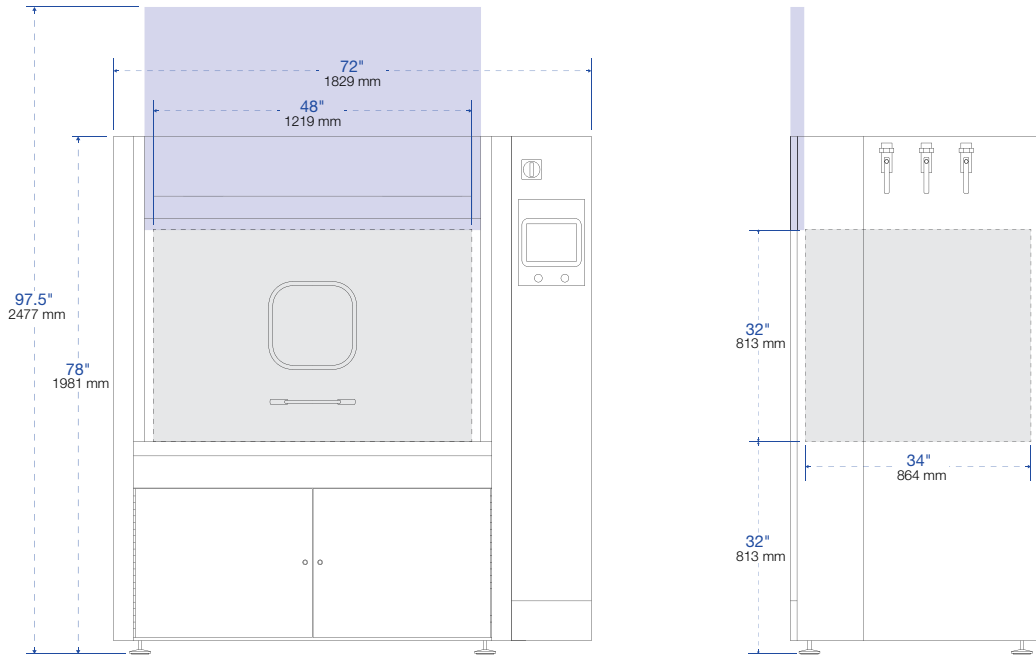


Getinge Vivus Cage & Bottle Washer

vivarium cage & bottle washer

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SPECIFICATIONS



Getinge Vivus Cage & Bottle Washer

- **Door Configuration**
Single or double door pass-through configuration

- **Dimensions**

Model	Chamber Size (w x h x d)	External Size (w x h x d)
VT 773	48" x 32" x 34" (1219 x 813 x 864 mm)	72" x 78" x 39" (1829 x 1981 x 991 mm)
VT 775	48" x 32" x 48" (1219 x 813 x 1219 mm)	72" x 78" x 53" (1829 x 1981 x 1346 mm)

- **Location of Controls and Service Access**
Right Hand Controls and Service
Left Hand Controls and Service
- **Installation and Mounting**
Floor Mounted Machine Base
 - 32-inch Load Height
- **Cycle Functions**
Prewash, Detergent Wash, Acid Wash, Acid Soak, Neutralization, First Rinse, Final Rinse/Disinfection



Drawings display front and side of VT 773 washer.

VT 773 washer

General Specifications

All over the world equipment from Getinge supports the Life Science industry in their efforts to discover and produce cures. With insight into issues you face every day in the vivarium, we provide the best solutions to your challenges and serve as a partner that you can always rely on.

Getinge's worldwide reach and extensive installed product base provides the knowledge necessary to assist our customers in planning for optimal and efficient processes. With our premium equipment, consumables, project management, logistics, validation, service and training, you can count on Getinge – right from the start.

The Getinge Vivus Cage and Bottle Washer ensures reliable, effective cleaning with high throughput and efficiency.

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Intended Use

Intended for detergent solution washing and clean rinsing of cages, racked utensils and bottles used in research animal care laboratories and facilities.

Standard Safety Features

Rising Guillotine Style Doors – The unit contains rising guillotine style doors, complete with counterweights, and is double-panel insulated with viewing window and safety switch. Single entry is standard but pass-through operation is offered as an option. Doors at each end of the chamber promote a convenient and aseptic flow of goods from a soiled work area to a clean preparation area. Additionally, optional door interlocks assure integrity of barrier wall by allowing only one door to be open at any given time. The system includes limit switches at each door location that are wired with the automatic control system.

View-in-Process – Double-paned safety tempered glass provides a large port for viewing inside the chamber. Double-paned window provides excellent sound and heat abatement, as well as an extra measure of operator safety.

Multipurpose Load Grid – A sturdy multipurpose load grid allows direct placement of large articles at a comfortable 32-inch (813 mm) ergonomic load height.

Illuminated Chamber – The chamber is fully illuminated by a pair of LED lights mounted on top the unit, shining through safety glass upper windows.

Personal Safety Systems – Emergency stop buttons are provided at all external door zones to immediately terminate all processing functions.

Visual and audible alarms are provided at all external door zones. Once an emergency stop has occurred, alarms must be acknowledged, the controls must be reset and the start button must be reactivated to resume normal function.

Features and Benefits

The Getinge Vivus Cage and Bottle Washer includes a suite of features and benefits designed for performance and operator safety.

Automatic Seven Phase Treatment Cycle – The standard treatment cycle consists of a prewash phase, a first agent wash phase, a second agent wash phase with an associated soak phase, a first/final rinse phase and a vapor removal phase. All cycle phases are adjustable from 0 – 60 minutes. All wash and rinse treatments are recirculated under pump pressure. The cycle, once activated, is completely automatic. Additional cycle treatment phases are available to assure effective cleaning and process repeatability.

Washer Sump – Sump tank holds an economical 25 gallons (94.6 liters) and the unit is floor mounted for ease of installation.

Reciprocating Jet-Spray Manifold – Wash and rinse jets surround the load and continuously reciprocate from front to rear of the cabinet to deliver large volume, high impact spray to all surfaces of the load. A silent, reliable pneumatic actuator moves the jet headers smoothly and efficiently.

High-Volume/High-Pressure Wash – Solution from the sump is pressurized by a 7.5 HP (5.6 kW) pump providing coverage of 200 gpm (757.1 liters/minute) which energizes the reciprocating spray manifold system at pressures exceeding 40 psi (2.76 bar) assuring total impingement of the load for thorough cleaning.

Self-Cleaning Debris Filter – All process solutions are forced through a canister containing a removable fine mesh filter having perforations smaller than the jet spray nozzles, to prevent clogged orifices. Upon completion of the treatment, the flow through the filter is reversed and debris is backflushed. The fine mesh filter can be accessed easily by removing a sanitary tri-clamp and cap from the top of the canister. The filter maximizes uptime and reduces routine maintenance.

Agent Injection Ports with electrical Contacts – Machine is ready for quick connection of vendor supplied detergent, acid and neutralizer pumps. Dosing is adjusted volumetrically from the operator touchscreen, delivering the right concentration of chemicals into each phase.

Effluent Cooling – A temperature probe is placed ahead of the drain discharge. If the temperature of the solution rises above the 140°F (60°C) a cold water valve automatically opens to mix cold water into the drain line to comply with municipal codes for wastewater.

Water Saver – Each cycle is programmed to save the last rinse phase water for reuse in the prewash phase of the next cycle. Saving the final rinse will reduce cycle consumption by 25 gallons (94.6 liters).

Sump Heat Exchanger/Steam Coil – Solutions in the sump are heated by use of a stainless steel steam coil. An optional preheater to heat incoming water can be mounted on the side wall of the unit. Each rapidly elevates and maintains temperature at specified setpoints. Wash and rinse temperatures are adjustable from 120° – 195°F (50° – 90°C).

Wash and Rinse Treatment Temperature Guarantee – The selected wash and/or rinse treatment periods will not begin timing until the recirculated wash and/or rinse treatment solution temperature reaches the desired, programmable setpoint, assuring a minimum temperature during the entire treatment period. Wash and/or rinse phase temperature guarantee selection and temperature setpoints may be locked in by supervisors to ensure security of desired treatment temperatures for proper disinfection.

Quality Statement

Confidence in Getinge group is the most important quality criteria. This is the hallmark of all of our external and internal commitments, activities and products. Products and services supplied by Getinge conform to agreed terms and expectations. The achievement of these quality goals is the basis for continued competitive and successful enterprise operations.

Standards & Codes

UL508A

ASME Code section VIII, Div 1

Getinge Vivus Cage & Bottle Washer

vivarium cage & bottle washer

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ORDERING INFORMATION

Make your selections:

= Standard selection

= Optional selection

Model/Size

The Getinge Vivus Cage and Bottle Washer comes standard in two sizes to choose from (Select One):

Model	Chamber Size (w x h x d)	External Size (w x h x d)
<input type="checkbox"/> VT 773	48" x 32" x 34" (1219 x 813 x 864 mm)	72" x 78" x 39" (1829 x 1981 x 991 mm)
<input type="checkbox"/> VT 775	48" x 32" x 48" (1219 x 813 x 2119 mm)	72" x 78" x 53" (1829 x 1981 x 1346 mm)
<input type="checkbox"/> Custom – Consult Factory		

Location of Service Access / Controls

The washer is available in right hand service access/control or left hand service access/control to suit your individual application.

- Right hand service access and control
 Left hand service access and control

Voltage Supply

Customer must provide 60AMP fusible disconnect.

480 Volt, 3-phase, 60Hz - Standard

- 208 Volt, 3-wire, 3-phase, 60Hz
 208 Volt, 4-wire, 3-phase, 60Hz
 240 Volt, 3ph/3-phase, 60Hz

Door Options

Single door - Standard

- Double door pass-through – Option
Machine can be provided with a door at each end for operation within a clean-dirty room environment. Optional barrier wall flanges can be provided to seal one end of the unit to the wall (see Wall Trim options).

Wall Trim Options

The washer is available with several installation panel options.

- Freestanding - Standard
- Service enclosure - Standard
- Pass-through wall flange

Tank Options

- Monitored Effluent Cooling – A tank is provided to receive effluent. If the temperature of the solution rises above the 140°F (60°C) a cold water valve automatically opens to mix cold water into the tank prior to releasing the solutions to the drain line to comply with municipal codes for wastewater.

Spray System Options

- Instantaneous Hot Water – A stainless steel heat exchanger is provided to raise the temperature of the incoming water by ~80°F (27°C).
- Tech Wash* – This cycle has two phases: wash and rinse. During the wash cycle detergent is dosed volumetrically into the existing sump water and the wash phase runs for a preset time; once complete the timed rinse begins. During the rinse phase, fresh hot water flows through the outboard heat exchanger and through the entirely separate rinse circuit. The temperature of this water is controlled within a narrow range (generally 200–205°F (93–96°C)). Water use is thus reduced to 12–25 gallons (45–95 liters) per load as the only fresh water is for the rinse. Detergent consumption is halved, steam and electrical usage is sharply reduced per cage due to the shorter cycle time, and cycle time is reduced from ~25 minutes to ~10 minutes. (Above instantaneous hot water must be purchased)
**This option is not available with the Electric Heater Option*

Control Options

An industrial-grade, fully modular programmable logic control panel with a color touchscreen operator interface provides user-friendly access to all machine functions. Four individual treatment routines can be named and programmed by supervisory personnel with complete flexibility as to treatment phases, times, temperatures and chemicals. The programming and service functions are access restricted and protected by pin codes, which limit the operator accessibility to these specific functions.

- Enhanced Communication – Ports are provided to enable RS232 communication with a third-party reporting software. – Standard
- Ethernet Communication
- Printer – A panel-mounted printer with paper return is provided to record all pertinent cycle information in real time.
- Monitored pH Neutralization – If local regulations require effluent solutions to adhere to provable upper and lower pH limits.

Other Equipment Options

- Knocked Down Shipment – Unit can be provided in sections in order to pass through a standard 36" door. Factory personnel will be required to reassemble the unit on site.
- Exhaust Fan – If building exhaust is inadequate, an integral exhaust fan can be provided.
- Contained Exhaust System – In a situation where neither connection to building exhaust nor ventilation to the outside are possible, a condensing appliance is provided to reduce the temperature and moisture content of the exhaust steam to allow discharge directly into the room.
- Air Compressor – A small oil free air compressor can be provided if building compressed air is unavailable. The compressor can be unit or remotely mounted.
- Seismic Restraints – Appropriately designed and sized stainless steel anchor brackets are provided to be bolted to the floor after unit installation in order to comply with local seismic codes.
- Electric Heat Option – A stainless steel heater coil replaces the sump steam coil. Slower cycle times can be expected but this provides the customer the flexibility when steam is not available for operation.
- Transfer Cart – A stainless steel cart with fold down UHMW plastic top will align with the door or load grid, allowing racks/objects to be loaded and unloaded as well as transported easily to a storage area.
- Custom Racks – Appliances can be provided to hold down any cage or other object required in optimum positions to provide thorough and efficient washing.

Materials and Construction

Wash chamber is constructed of multiple modules, a sump wall and roof panels. The interior walls are AISI 304 stainless steel, with a #3 finish for long lasting durability. Exterior panels are AISI 304 stainless steel with a #3 finish.

Interior of double pane chamber ceiling, wall panels and doors are insulated with two-inch (2", 50 mm) thick, compressed fiberglass bats provide a minimum R-value of 8.7 to reduce heat loss.

Process piping, valves, inline heat exchanger, steam coils, manifold tubes, sump base, removable filter screens and chamber floor are made of AISI 304 stainless steel. AISI 304 stainless steel tri-clamp connections are used for easy removal of key process components. Gaskets and hoses are EPDM, PTFE, or silicone.

Cycle/Phase Description

Placing Load in Chamber – Place bottles, cages, utensils or containers on the interior load grid.

Start of Processing – Select the required cycle and press the START button. The sequence of cycle phases will vary depending on the intended use of the cycle or the pre-programmed intent of the cycle. The following describes a sample factory set program typical for the life science environment.

Prewash – Hot water fills the sump or water remaining in the sump from the last rinse phase of the previous cycle is recirculated through the jet spray system under pump pressure. Phase time and temperature are user programmable from 0–60 minutes and from 120–190°F (49–88°C) respectively.

Drain – Upon completion of the timed prewash phase, the pump is energized and the sump solution is sent to the drain where it will be injected with cold water prior to being sent to the building waste line.

Detergent Wash – Hot water fills the sump for the first cycle of the session. Once full, the circulation pump will start and a pressurized cleaning solution will be forced into the spray manifold nozzles and onto the load. Phase time and temperature are user programmable from 0–60 minutes and from 120–190°F (49–88°C) respectively.

Drain – Upon completion of the timed wash phase, the pump is energized and the sump solution is sent to the drain where it will be injected with cold water, prior to being sent to the building waste line.

Acid Wash – Hot water fills the sump for the first cycle of the session. Once full, the circulation pump will start and a pressurized cleaning solution will be forced into the spray manifold nozzles and onto the load. Phase time and temperature are user programmable from 0–60 minutes and from 120–190°F (49–88°C) respectively.

Soak: A subsequent soak period may be programmed from 0–60 minutes, to permit the agent solution to work on the load before proceeding to the next treatment phase.

First Rinse – Upon completion of the drain phase, fresh hot water fills the sump. Once full, the circulation pump is energized and rinse water is forced into the spray manifold nozzles and onto the load. Phase time and temperature are user programmable from 0–60 minutes and from 120–190°F (49–88°C) respectively.

Drain – Upon completion of the timed rinse phase, the pump is energized and the sump solution is sent to the drain where it will be injected with cold water prior to being sent to the building waste line.

Final Rinse – Upon completion of the drain phase, fresh hot water fills the sump. Once full, the circulation pump is energized and rinse water is forced into the spray manifold nozzles and onto the load. Phase time and temperature are user programmable from 0–60 minutes and from 120–190°F (49–88°C) respectively. Rinse phase can be programmed to repeat a second time utilizing the same phase parameters.

Exhaust – The unit stands idle for a sufficient period of time for the facility vent system to remove vapor from within the chamber. Phase time is user programmable from 0–60 minutes.

End of Cycle - Upon completion of the cycle, the cycle complete light is illuminated with an audible signal on the unload-side operator panel. Operators can now open the unload door and remove the loads.

Removing Loads from the Chamber – Remove the load to a safe position outside the chamber.

Utility Requirements

	VT 773	VT 775
Electrical	60Hz, 3-phase, 6 kW	60Hz, 3-phase, 7.5 kW
	208V – 3 wire 208V – 4 wire 240V 480V	
Add for Electrically Heated Units	60Hz, 3-phase, 24 kW	
Steam	1½" FPT 30–80 psi 350 lb./hr max 250 lb./hr avg	1½" FPT 30–80 psi 400 lb./hr max 300 lb./hr avg
Condensate	1" FPT	
Hot Water	1" FPT, 35 psi 140–180°F (60–82°C) 140 Gal/Load max	
Drain	1.5" FPT 140°F (60°C) max 60 gpm max	
Exhaust	6" Dia. 200 SCFM 180°F (82°C) Saturated	
Compressed Air	½" FPT, 80 psi 4 SCFM	
Cold Water	¾" FPT, 35 psi	

	VT 773	VT 775
Shipping Weight	2100 lb.	2300 lb.
Dynamic Weight as Installed	2200 lb.	2400 lb.
Cage Capacity		
Standard Mouse	32	48
Standard Rat	12	16
Sump Capacity	25 gallons (95 liters)	25 gallons (95 liters)
Heat Radiation		
Typical Door End	3000 btu/hr	3000 btu/hr
Typical Service Side	12000 btu/hr	12000 btu/hr
Typical Blank Side	2000 btu/hr	2000 btu/hr

Notes to Utilities Table:

- A dedicated disconnect switch shall be installed by others in accordance with all NEC and local electrical codes.
- Condensate shall be connected by others to a non-pressurized gravity main. The maximum condensate lift shall not exceed 15 feet.
- Steam pressure shall not exceed 80 psi. Factory shall be consulted for steam pressures below 30 psi dynamic.
- Drain shall be installed by others such that there is an air gap between the discharge point and the floor drain, or otherwise in strict accordance with local plumbing codes.
- Exhaust connection shall be made by others using non-corroding materials and all ductwork shall be sealed and pitched towards the machine. Any low points shall have individual lines installed. Effluent vapor is 180°F (82°C), 100% saturated air.

Notes

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Getinge Group is a leading global provider of innovative solutions for operating rooms, intensive-care units, hospital wards, sterilization departments, elderly care and for life science companies and institutions. With a genuine passion for life we build quality and safety into every system. Our unique value proposition mirrors the continuum of care, enhancing efficiency throughout the clinical pathway. Based on our first-hand experience and close partnerships, we are able to exceed expectations from customers – improving the every-day life for people, today and tomorrow.