

VC Ultra Acid Vapor Cleaning System

SavilleX's VC Ultra Acid Vapor Cleaning System (VC Ultra) offers labs performing microwave sample preparation a safe, efficient and user-friendly alternative for acid cleaning microwave digestion vessels. The VC Ultra is manufactured from ultraclean fluoropolymers and utilizes high purity acid vapor to effectively clean up to 40 digestion vessels and caps in a single cleaning cycle. Custom microwave vessel cleaning racks, compatible with the most commonly used microwave digestion vessels, are available to minimize handling and acid exposure while pre-programmed cleaning cycles eliminate the need for method development. The universal cleaning kit further enhances the versatility of the VC Ultra, as it can be configured to clean a wide variety of other labware used in trace metals analysis.

Design Features

The VC Ultra is comprised of a large cabinet manufactured entirely from PTFE and PFA. The base of the cabinet forms a 1 L acid reservoir, which is resistively heated by a silicone rubber heating mat. Twin safety latches secure the door of the VC Ultra in place and dual "soft-open" dampers allow for easy opening and closing of the system. When open, the door of the VC Ultra rests on top of a support bracket that features a conveniently located front fill tube. The front fill tube allows for safe and easy addition of acid and doubles as a liquid level gauge that displays the amount of acid in the reservoir. Drainage of the VC Ultra is completed via an easily accessible stopcock, located on the underside of the support bracket.

The VC Ultra cleans microwave vessels and other labware with high purity acid vapor generated by sub-boiling the trace metal grade acid contained in the reservoir. The cleaning acid is reusable minimizing waste and disposable costs. The cleaning chamber of the VC Ultra can accommodate one or two microwave vessel cleaning racks made from PTFE. A range of racks are available, enabling most commonly used microwave digestion vessels to be cleaned. The vessel racks sit in grooved channels, cut into the interior surface of the cleaning chamber door, and slide in and out of the cleaning chamber using the rack positioning tool. The cleaning chamber also features two removable PFA shelves for cleaning microwave caps and inserts while the vessels are being cleaned. The VC Ultra can also be configured to acid clean a variety of other labware via the universal cleaning kit. The kit consists of 12" fluoropolymer cleaning posts which are attached via grid connectors, to a PFA grid installed in the cleaning chamber. The cleaning posts can be easily cut to length to accommodate different sized labware and multiple posts can be used to support larger objects.

The VC Ultra is controlled by a separate, full color, touch screen controller and can be operated completely unattended. When the system is powered on, the previously run cleaning cycle automatically reloads. The user then simply presses start or loads one of the pre-loaded cleaning cycles which range from 30 minutes to 4 hours. The



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system can also be operated in a manual mode allowing the user to have complete control over profile settings. A status light on the front of the controller indicates when the VC Ultra is safe to open. The status light changes color depending on the temperature reading and the current stage of the cleaning cycle. At the end of the cleaning cycle, racks are removed, rinsed with DI water and allowed to dry prior to use. An optional vessel transport case, manufactured from HDPE, enables the racks to be transferred from the VC Ultra to the work area, and is also a convenient way to store vessels and keep them clean and ready for use.

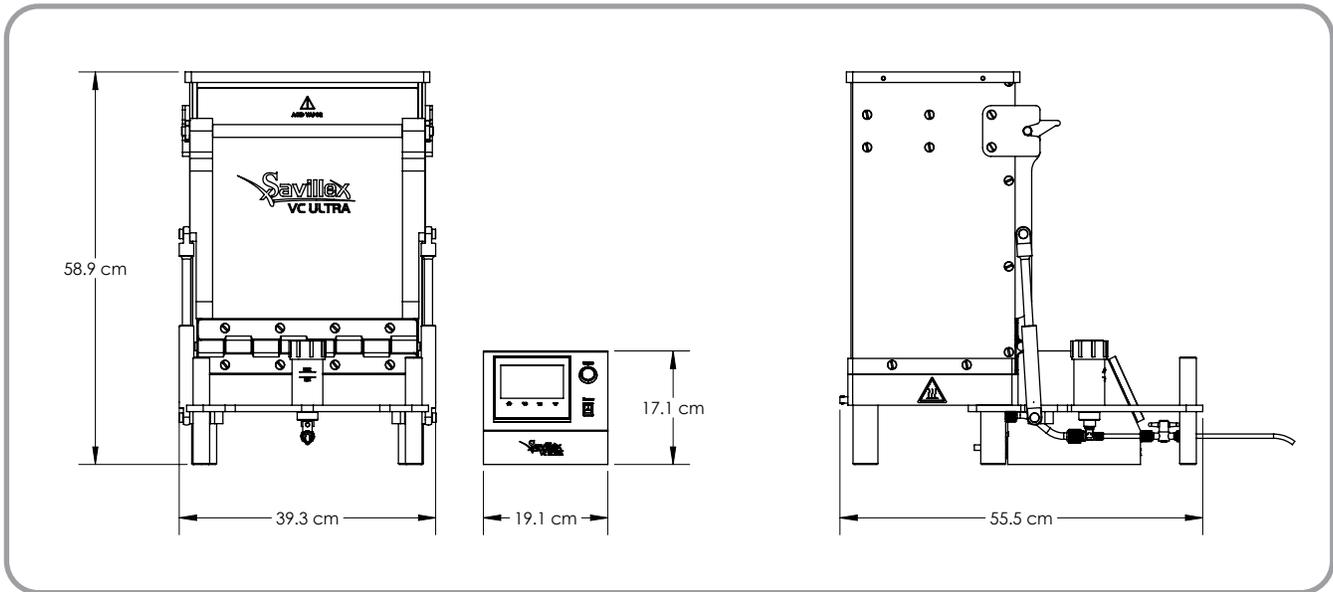
The VC Ultra must be installed inside a fume hood. The controller is connected by a 2 m power cord and should be placed outside the fume hood.

General Specifications

| Feature | Specification |
|---|---|
| Material of Construction (wetted parts) | Fluoropolymer |
| Power Source (three-wire earth grounded only) | 120 or 230 VAC +/- 10%, 50/60 Hz |
| Power Supply | 360 watt resistance heater |
| Power Cord Length | 2 m (6.6 ft) VC Ultra unit to controller 2 m (6.6 ft) controller to outlet |
| Dimensions (footprint) VC Ultra Cleaning Cabinet Full Color Touch Screen Controller | Length = 55.5 cm (21.4 in) Width = 39.3 cm (15.5 in) Height = 58.9 cm (23.2 in) Length = 20.3 cm (8.0 in) Width = 19.1 cm (7.5 in) Height = 17.1 cm (6.7 in) |
| Installation Location | Fume Hood |
| Reservoir Capacity | 1000 mL |
| Suitable Cleaning Solutions | Nitric acid ($\leq 70\%$) and water |
| Cleaning Shelves | Removable; two included |
| Microwave Vessel Cleaning Racks | Various sizes; purchased separately |
| Shipping Weight | 27 kg (60 lbs) |
| Warranty | 1 year |

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Ordering Information

VC Ultra Acid Vapor Cleaning System

| Part Number | Description |
|---------------|---|
| 550-300-120 | VC Ultra Acid Vapor Cleaning System, 120 V |
| 550-300-230 | VC Ultra Acid Vapor Cleaning System, 230 V |
| 550-300-230UK | VC Ultra Acid Vapor Cleaning System, 230 V, UK Plug |

Microwave Digestion Vessel Cleaning Racks

| Part Number | Vessel Compatibility | Position Hole Diameter (mm) | No. of Positions |
|----------------|--------------------------|-----------------------------|------------------|
| 550-300-100794 | CEM Mars Xpress 55/75 mL | 29.2 | 20 |
| 550-300-100795 | CEM Mars Xpress Plus | 37.2 | 12 |
| 550-300-100796 | CEM iPrep | 43.9 | 8 |
| 550-300-100797 | CEM EasyPrep | 47.2 | 6 |
| 550-300-100799 | CEM SP-D 4/10 mL | 20.3 | 24 |
| 550-300-100798 | CEM SP-D 35/80 mL | 35.9 | 12 |
| 550-300-100780 | Milestone Maxi-44 | 32.0 | 16 |

Note: The VC Ultra can hold up to two vessel cleaning racks

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Optional Accessories

| Part Number | Description |
|----------------|--------------------------------|
| 550-300-100791 | Universal Labware Cleaning Kit |
| 550-300-200375 | 12" Cleaning Posts; Qty 10 |
| 550-300-600721 | Grid Connectors; Qty 15 |
| 550-300-100803 | Vessel Transport Case |



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