

**LIMITED WARRANTY**  
**SCOPE OF WARRANTY**

Midmark Corporation (“Midmark”) warrants to the original purchaser its new PowerVac® products and components (except for components not warranted under “Exclusions”) manufactured by Midmark to be free from defects in material and workmanship under normal use and service. Midmark’s obligation under this warranty is limited to the repair or replacement, at Midmark’s option, of the parts or the products the defects of which are reported to Midmark within the applicable warranty period and which, upon examination by Midmark, prove to be defective.

**APPLICABLE WARRANTY PERIOD**

The applicable warranty period, measured from the date of installation for the original user, shall be five (5) years or 10,000 usage hours (whichever comes first) for all warranted products and components and ten (10) years or 20,000 usage hours (whichever comes first) for the pump only.

**EXCLUSIONS**

This warranty does not cover and Midmark shall not be liable for the following: (1) repairs and replacements because of misuse, abuse, negligence, alteration, accident, freight damage, or tampering; (2) products which are not installed, used, and properly cleaned as required in the Midmark “Installation” manual and or PowerVac® Care Guide for this applicable product; (3) products considered to be of a consumable nature; (4) accessories or parts not manufactured by Midmark; (5) charges by anyone for adjustments, repairs, replacement parts, installation, or other work performed upon or in connection with such products which is not expressly authorized in writing in advance by Midmark.

**EXCLUSIVE REMEDY**

Midmark’s only obligation under this warranty is the repair or replacement of defective parts. Midmark shall not be liable for any direct, special, indirect, incidental, exemplary, or consequential damages or delay, including, but not limited to, damages for loss of profits or loss of use.


**NO AUTHORIZATION**

No person or firm is authorized to create for Midmark any other obligation or liability in connection with the products.


**THIS WARRANTY IS MIDMARK’S ONLY WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. MIDMARK MAKES NO IMPLIED WARRANTIES OF ANY KIND INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS.**

**Important Information**  
**Safety Symbols**


These symbols may appear on your equipment and/or in the manuals. Warnings and cautions are provided in the manuals where applicable



**WARNING**  
*Indicates a potentially hazardous situation which could result in serious injury.*




**Caution**  
*Indicates a potentially hazardous situation which may result in minor or moderate injury. It may also be used to alert against unsafe practices*




**Equipment Alert**  
*Indicates a potentially hazardous situation which could result in equipment damage.*


**Note**  
*Amplifies a procedure, practice, or condition.*




Consult User Guide for important information.




Proper shipping orientation




Catalogue Number




Fragile




Serial Number




Protective earth ground




Manufacturer




Keep dry




Maximum stacking height (palletted units)



Fuse rating specification



Caution hot surface



Ordinary Equipment

**Intended Use**

To provide vacuum suction during general examinations and procedures conducted by qualified dental professionals.

**Electromagnetic Interference**

This Midmark PowerVac® and Evacuation control box are designed and built to minimize electromagnetic interference with other devices. However, if interference is noticed between another device and this units:

- Remove interfering device from room
- Connect interfering device into an isolated circuit
- Increase separation between unit and interfering device
- Contact Midmark if interference persists

**Disposal of Equipment**

At the end of product life, the unit(s), accessory, and other consumable goods may become contaminated from normal use. Consult local codes and ordinances for proper disposal of equipment, accessories and other consumable goods.

**Transportation**  
**Storage Conditions**

Ambient Temperature Range:  
+41°F to 100°F (+5°C to +38°C)

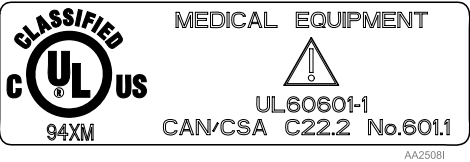
Relative Humidity:  
10% to 90% (non-condensing)

Atmospheric Pressure:  
500hPa to 1060hPa (0.49atm to 1.05atm)

**Note: The PowerVac® is electrically designed to be only sold in U.S.A. or Canada.**

***This product has been evaluated with respect to electrical shock, fire and mechanical hazards only, in accordance with UL60601-1 and CAN/CSA C22.2 NO. 601.1.***

**Classifications: Class 1, Type B Applied Part**



**Midmark Corporation**  
For contact information, go to:  
[www.midmark.com](http://www.midmark.com)



**PowerVac®**  
**Care Guide**

*To ensure years of reliable service, follow the care instructions outlined in this guide. If service is required, contact your authorized Midmark dealer.*

**Dealer (name / phone):**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Model Number:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

**Date of Purchase:** \_\_\_\_\_

Log		
Date:	Services Performed:	Technician:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

## Daily

### A. Clean Vacuum Piping System.

Clean vacuum piping system with a non-foaming vacuum system cleaner. Midmark recommends Precision Clense, Order No. 77000570.

*Note: By using a non-foaming vacuum system cleaner on a daily basis, the PowerVac® separation tank will stay rinsed and clean. This practice helps protect the internal tank controls and eliminates the need to rinse the separator tank. (See PowerVac® Service and Parts manual located on [www.midmark.com](http://www.midmark.com) regarding rinsing the separation tank.)*

*Note: For the first two weeks of using Precision Clense, flush lines at the beginning of the day with water and check traps twice a day. After the first two weeks, flush with water and check traps as needed.*

- 1) Start with the furthest operator from the vacuum.
- 2) Suction cleaning solution.  
(Follow mixture instructions provided with the vacuum system cleaner.)

*Note: Alternate air and vacuum while cleansing; submerge and remove HVE and SE from mixture several times until mixture is consumed.*

- 3) Keep the cleansed vacuum lines (HVE and SE) open and move to the next operator.
- 4) Repeat steps 1-3 until all vacuum lines are cleansed.

*Note: PowerVac® **MUST** run for 5 minutes after all operatories are cleansed.*

## Vacuum Level Adjustment Procedure

**Adjust the center mounted screw inside the valve.**

Use 1/4 inch nutdriver and phillips screwdriver. Each full clockwise turn increases the vacuum level by approximately 2" Hg.



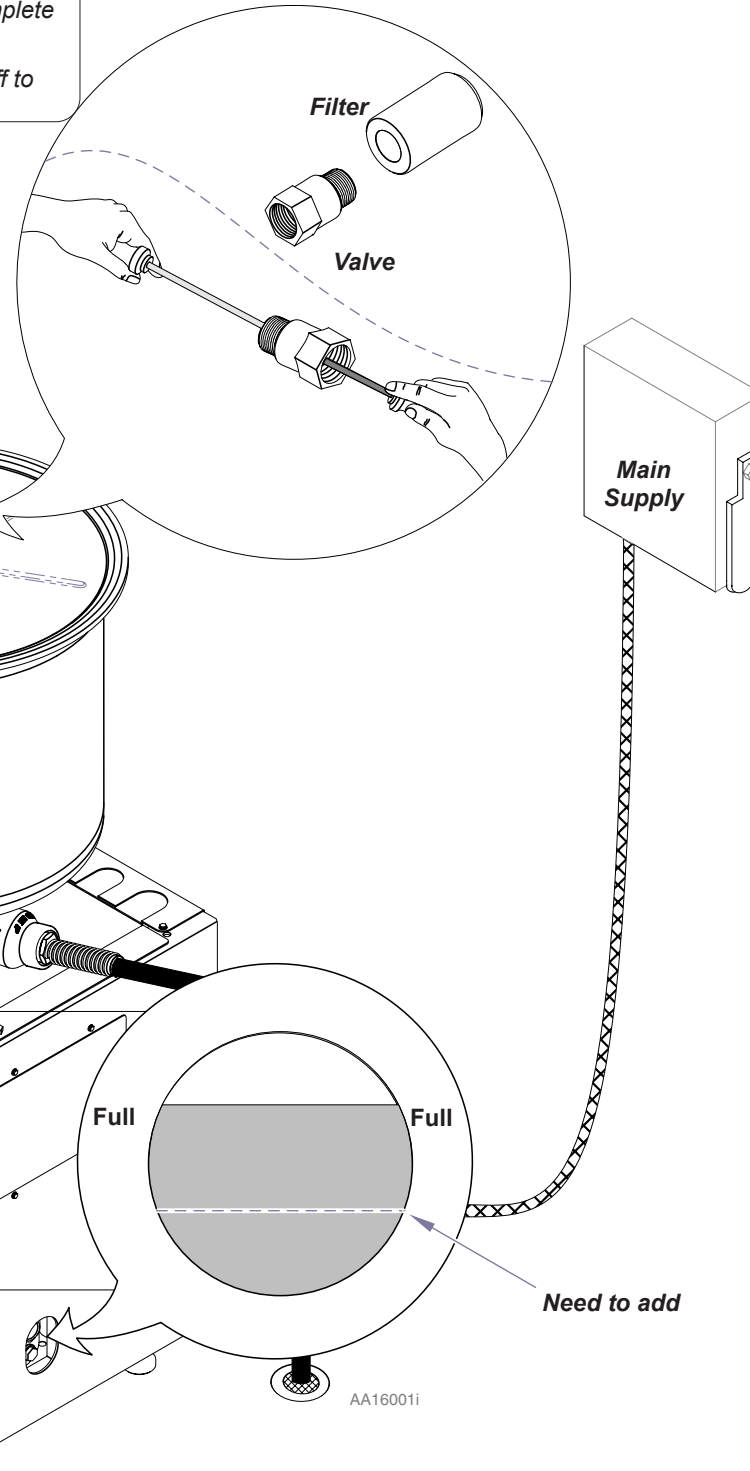
**Caution**  
Never operate the equipment without complete and proper grounding. The On/Off switch controls only the secondary circuit power. The main power source must be turned off to remove all power in the control box.



**WARNING**  
Motors are thermally protected with automatic reset. Unit may start without warning.

Vacuum Level Gauge

On/Off Switch



## Quarterly Inspection

### A. Check Gearbox Lube Level .

The gear lube level is set at the factory to 1/2 full. A site glass is provided to visually inspect the gear lube level. If the gear lube level is 1/3 full or less, fill as needed and monitor oil level. Replace absorbent pad if required.

### B. Inspect Vacuum Relief Valve Filter

If the mechanical room contains excessive contaminated air, the VRV filter may become dirty. If it appears clogged, contact Midmark Technical Service at 1.800.MIDMARK or refer to the PowerVac® Service and Parts manual located on Technical Library at [www.midmark.com](http://www.midmark.com), Midmark P/N 004-0494-00.

## Annual / 2,000 HR Inspection

### A. Inspect Belt

If the belt appears loose, makes noise, abnormally worn, contact Midmark Technical Service at 1.800.MIDMARK or refer to the PowerVac® Service and Parts Manual located on Technical Library at [www.midmark.com](http://www.midmark.com).

### B. Use Conditioning Fluid

To maintain proper vacuum performance pour conditioning fluid (part# 002-1910-02) into intake hose. (See maintenance kit instructions (003-10248-00) located on [www.midmark.com](http://www.midmark.com) for proper procedures.)

### C. Inspect Tank

If required, use garden hose adapter and flush tank with garden hose. Refer to procedure in the PowerVac® Service and Parts Manual located on Technical Library at [www.midmark.com](http://www.midmark.com).

#### Note

Every 10 years and or 20,000 hours of usage, Change Gear Lube. See PowerVac® Service and Parts Manual for procedure.