



Endorsed by  
**ADA Business Resources™**



# Installation & Operating Guide

**Rebec/Pristine**  
Quality & Service

## **Introduction & Information**

- 1) Introduction & Information
- 2) General Description of Equipment
- 3) Terms & Definitions
- 4) Terms & Definitions continued
- 5) Installation Instructions
- 6) Installation Instructions continued
- 7) Installation Instructions continued
- 8) **Inspections** & Maintenance
- 9) Vacuum Line Maintenance & Cleansers
- 10) Trouble Shooting
- 11) Safety
- 12) Warranty
- 13) Warranty
- 14) Warranty
- 15) Warranty

## **Introduction**

Rebec LLC has been designing, manufacturing and selling mercury recovery devices for over 24 years. We offer one of the most durable amalgam separators on the market with a wide range of products to satisfy the needs of single practitioner clinics to large teaching universities. We chose to build our systems using stainless steel which offers supreme resistance to most harsh chemicals and the durability to withstand pressure fluctuations without failure. The equipment is also designed to be simple to use and maintain.

## **Reuse/Recycle/Disposal**

The operation of our equipment is simple. We believe that your office is busy enough to not want to worry about maintaining another piece of equipment. All that is required is to check the collector sight window once a month and log it in as well as flush the vacuum lines from the operatory with a microbial cleanser per manufacturers recommendation(s). VacuBlu, powered by Bio-Pure and available through Pristine Environmental is recommended. Line cleansers must be free of chlorinated compounds such as bleach, that may dissolve mercury from the amalgam particles in the system.

Our equipment is sized for each dental clinic. It continues to capture amalgam slurry for one year under normal operation. Yearly, the collector and/or buffer where applicable must be replaced or the upper surge tank may fill with solids and degrade the removal efficiency of the separator. The buffer and/or collector must be replaced to maintain your warranty and prove compliance with each state and local environmental agency of proper maintenance of your system.

Rebec LLC and Pristine Environmental Services LLC are both permitted Moderate Risk Waste facilities authorized to manage dental amalgam waste. They are the only separator manufacturer in North America with a waste handling facility. Our permit grants us the ability to treat and store dental amalgam waste from Conditionally Exempt Small Quantity Generators (CESQG) prior to recycle or disposal. Additionally, since we recycle the sludge, the collected material in the buffers and/or collectors are excluded from the definition of solid waste under RCRA. Therefore our facility can accept amalgam sludge from regulated generators such as hospitals, government installations, and colleges for consolidation prior to reclamation.

To ensure your environmental compliance, we select treatment, recycling and disposal facilities based on numerous criteria to include their financial strength, history or compliance, site security, insurance, closure and post-closure funding. While your waste is in transit to our facility and while it is at our facility, Rebec/Pristine maintains \$2 million dollars in pollution liability insurance. We

provide equipment to certify your compliance with the environmental regulations and will ensure proper care of your generated waste cradle-to-grave.

## **General Description of Equipment**

Classification: Type 2 sedimentation amalgam system.  
Connections are to interrupt the input to the vacuum system.

Maximum Flow Rate: 1 liter per minute. Flow restriction is included.  
Minimum Flow Rate: N/A

Full Capacity: 1050 ml or 1.05 Liter(s)

Testing sample performed with: 314 Scrap & 733 Beads  
Testing laboratories: TUV, Essen, Germany & SP Laboratories Sweden

Waste Removal Frequency: The 3001 Collector is fitted and designed to be replaced on a yearly basis. To maintain warranty, the spent units must be sent to Pristine Environmental Services at 3511-132<sup>nd</sup> Street SW, Unit 1, Lynnwood, Washington 98087-5141. Pristine Environmental Services is a permitted and pollution liability insured moderate risk waste facility.

Type 2: Sedimentation System: This equipment is a solids removal system and does not chemically treat or effectively remove dissolved mercury or amalgam particles less than 1.2 microns (um) in size.

## Terms & Definitions

Many of the terms used in this manual are used and defined as found in the ISO-11143 document of the international standard. Some terms or definitions of equipment, parts and procedures are specific for this application and are defined as follows.

**Amalgam** means an alloy containing mercury and other metals used to restore the dentition.

**Amalgam Separator** means the item of dental equipment designed to remove amalgam particles from waste water passing through the vacuum system, or any vacuum line filters and screens and/or chair-side traps of a dental facility prior to its discharge. An amalgam separator functions to reduce the number of amalgam particles and therefore the mass (amount) of amalgam entering the sanitary sewage system. It is not designed or tested to remove amalgam particles below 1.2 um in size or dissolved mercury.

**Amalgam Waste** means any waste containing mercury amalgam or otherwise associated with preparation or use of amalgam, including but not limited to amalgam collected by chair-side traps, screens, filters, vacuum system filters, amalgam separators or other devices, waste elemental mercury; and waste amalgam capsules.

**Approved Amalgam Separator** means an amalgam separator that has been demonstrated by the manufacturer to achieve 99% or greater amalgam removal efficiency. Such removal efficiency shall be determined on the basis of test data generated by a professional laboratory that is qualified to perform the following analytical methods:

- a) ISO protocol 11143-2009ANSI/ADA109 using average test results under empty and simulate full conditions: or
- b) And equivalent method that meets department-approved quality assurance and quality control criteria.

**Best Management Practices (BMP)** means that the rule indicates that each facility that is applicable must follow these guide lines.

- a) Waste amalgam including, but not limited to, dental amalgam from chair-side traps, screens, vacuum pump filters, dental tools, cuspidors, or collection devices, must NOT be discharged to a POTW.
- b) Dental unit water lines, chair-side traps, and vacuum lines that discharge amalgam process waste water to a POTW must not be cleaned with oxidizing or acidic cleaners, including but not limited to bleach, chlorine, iodine, and peroxide that have a PH lower than 6 or greater than 8.

**Dental Facility** means any institution, clinic, office or location where dentistry is practiced, as defined in M.G.L c. 112 S50

## **Dental Discharger PART 441—DENTAL OFFICE POINT SOURCE**

### **CATEGORY**

#### **§441.10 Applicability.**

(a) Except as provided in paragraphs (c), (d), and (e) of this section, this part applies to dental dischargers.

(b) Unless otherwise designated by the Control Authority, dental dischargers subject to this part are not Significant Industrial Users as defined in 40 CFR part 403, and are not “Categorical Industrial Users” or “industrial users subject to categorical pretreatment standards” as those terms and variations are used in 40 CFR part 403, as a result of applicability of this rule.

(c) This part does not apply to dental dischargers that exclusively practice one or more of the following dental specialties: Oral pathology, oral and maxillofacial radiology, oral and maxillofacial surgery, orthodontics, periodontics, or prosthodontics.

(d) This part does not apply to wastewater discharges from a mobile unit operated by a dental discharger.

(e) This part does not apply to dental dischargers that do not discharge any amalgam process wastewater to a POTW, such as dental dischargers that collect all dental amalgam process wastewater for transfer to a Centralized Waste Treatment facility as defined in 40 CFR part 437.

(f) Dental Dischargers that do not place dental amalgam, and do not remove amalgam except in limited emergency or unplanned, unanticipated circumstances, and that certify such to the Control Authority as required in §441.50 are exempt from any further requirements of this part.

**Buffer** A buffer is a simple settling chamber box used to slow the initial flow into the separation process. The buffer consists of a two chambered stainless-steel box with an inlet and outlet port. There are no flow control devices on the buffer. The design of the buffer is meant to allow heavy particles to drop out and settle to the bottom of the buffer due to high residence time of the process water.

**Buffer/Collector/Collector Treatment System** The manifold plumbing distribution system downstream of the surge tank which include 2 parallel treatment lines consisting of a REB7001/REB5001 buffer and two REB3001 collectors in series. The buffer/collector/collector treatment system ends at the discharge to the polishing unit

**Treatment Line** A treatment line is the individual effluent treatment module consisting of one REB7001/REB5001 buffer in series with two REB3001 amalgam solids collecting containers.

**Efficiency of Amalgam Separator** Mass percentage of the test sample retained by the amalgam separator.

**Evacuation Cleaner means** Using a line cleaner with a Ph value of between 6 & 8. Rebec recommends VacuBlu which meets the highest quality of a “Bug Cleaner” powered by BioPure Industries.

**Volume of an Amalgam Separator** is the capacity of the collecting containers, buffers and those cavities that are integral to the collecting container and/or to the operation of the collecting container. This includes the main surge tank and associated piping, valves, flow restrictors, sample ports, and/or polishing units that support or incorporate an outlet port for treated effluent.

**Surge Tank** is the initial effluent holding tank for the purpose of holding the maximum expected liquid volume flow from the turbine tank flush. The surge tank facilitates a gradual and regulated flow through the amalgam removal system keeping it below the maximum rated operating flow rate.

**System Classification** for the purpose of international standard, amalgam separator systems are classified according to the method of separation into the following types:

- Type 1: Centrifugal Systems
- Type 2: Sedimentation Systems
- Type 3: Filter Systems
- Type 4: Any combinations of Types 1,2 & 3





## Installation Guide 400, 400+, 1000, 1000+

### Tools Needed:

- 1) Quality Gloves
- 2) Hack Saw or the equivalent
- 3) Channel Lock Pliers
- 4) Tubing Cutter or the equivalent
- 5) Teflon Tape
- 6) Screw Driver

### Pre-Installation:

- 1) The Catch Hg is designed to be installed in-line between the last operating room and the vacuum pump. **NEVER INSTALL THE UNIT AFTER THE VACUUM PUMP.**
- 2) When selecting the system location, be sure to leave room for changing the collector at the recommended maintenance interval.
- 3) For easy movement of the system, it is recommended that flexible PVC piping is used. However, the system may be installed with rigid PVC or ABS according to the local plumbing codes.
- 4) Be sure to connect the vacuum lines properly to the indicated parts. When looking at the system from the front, the vacuum column is always on the left.
- 5) Once the air/water separator is in place, make sure the pre-installed hose washers are in place before installing the collector.
- 6) The Rebec CATCH 400 series amalgam separators are equipped with either 1" or 1.5" in and out fittings. Please indicate the size needed when purchasing the system(s). Small diameter vacuum hose may be connected to larger diameter fittings without vacuum loss but it recommended not to reduce larger vacuum hoses to smaller fittings.
- 7) The CATCH Hg 1000 system is available in 1", 1.5", 2" and 3" inlet and outlet fittings. Please indicate the size needed when ordering the system. The larger fittings can be reduced down without vacuum loss. It is recommended not to exceed the size of the tank fittings with inlet and outlet piping. Doing so may restrict the vacuum flow rate and reduce vacuum at the chair-side.
- 8) The 400 & 1000 systems are shipped in two separate boxes. The plus systems will be shipped in three boxes. Please inspect the packages upon arrival for damages and report to Rebec immediately. 800-569-1088.
- 9) Inspect all hose fittings to insure that each has a hose washer in place to prevent leakage. On occasion, these washers fall out in transit.

### Installation Instructions:

- 1) Find the desired location for the unit as close to the vacuum pump as possible

- 2) Interrupt the incoming vacuum line to the vacuum pump. Connect a new hose from the "OUT" port of the separator to the vacuum pump intake. Reconnect the hose that was removed from the pump to the "IN" port of the separator.
- 3) Place the collector into the tray; observe the color-coded dot system. (Blue to Blue)
- 4) Before connecting the brass hose fitting, be sure that the hose washers are firmly in place. Hand tighten the brass fittings.
- 5) Using channel lock pliers, tighten the fitting until snug.
- 6) When the installation is complete, open the valves for proper operation of the system. (Note: Valves are open when parallel to the hose.)

Note: Go here if you are installing a plus system.

- 4) After placing the collector in the tray, connect only the rear hose to the out port of the collector. Be sure to double check that the hose washers are firmly in place before connecting any of the fittings.
- 5) Place the buffer tank directly in front of the collector. The buffer should be in place before connecting any of the hoses.
- 6) Connect the provided hose between the collector and the buffer. Hand tighten the fittings.

#### **NOW CONTINUE TO STEP 7**

- 7) Tight all fittings until snug. Again, make sure the hose washers are in place before tightening.
- 8) Attach the remaining hoses according to the dot system. Hand tighten the brass fittings.
- 9) Using channel lock pliers, tighten all fittings until snug. Do not overtighten.
- 10) When the installation is complete, make sure to open the valves to insure the proper operation of the system. (Valves are open when parallel to the hose connected to.)

#### **FINAL SYSTEM CHECK**

- 1) Make sure the removable collector and/or buffer tanks are accessible for the yearly recycle change out.
- 2) Check to make sure the vacuum line is connected properly to the air/water separator, following the circulation sticker dots on the system.
- 3) Check to make sure the collector matches the "front" and "back" sticker dots and correctly follows the color-coded dot system in alignment with the surge tank.
- 4) When there are multiple buffers/collectors, be sure to follow the color coded dot system to insure proper installation. The buffer(s) will always precede the collector(s).
- 5) Turn on the system and listen for any hissing and/or vacuum leaks.

- 6) From an operatory, run three to five gallons of water through the system and once again check the separator for possible leaks.

**Questions? Call Rebec at 800.569.1088**  
**Hours: 8 AM to 4:30 PM Pacific Time**

## **Inspections & Maintenance**

**According to Section 441:50 (attached), the Rebec collector must be inspected once per month by checking the site window on the front upper corner of the collector. The collector is required to be changed out and sent for recycle at least once per year.**

## **§441.50 Reporting and recordkeeping requirements.**

(a) Dental Dischargers subject to this part must comply with the following reporting requirements in lieu of the otherwise applicable requirements in 40 CFR 403.12(b), (d), (e), and (g).

(1) *One-Time Compliance Report deadlines.* For existing sources, a One-Time Compliance Report must be submitted to the Control Authority no later than October 12, 2020, or 90 days after a transfer of ownership. For new sources, a One-Time Compliance Report must be submitted to the Control Authority no later than 90 days following the introduction of wastewater into a POTW.

(2) *Signature and certification.* The One-Time Compliance Report must be signed and certified by a responsible corporate officer, a general partner or proprietor if the dental discharger is a partnership or sole proprietorship, or a duly authorized representative in accordance with the requirements of 40 CFR

403.12(1).

(3) *Contents.* (i) The One-Time Compliance Report for dental dischargers subject to this part that do not place or remove dental amalgam as described at §441.10(f) must include the: facility name, physical address, mailing address, contact information, name of the operator(s) and owner(s); and a certification statement that the dental discharger does not place dental amalgam and does not remove amalgam except in limited circumstances.

(ii) The One-Time Compliance Report for dental dischargers subject to the standards of this part must include:

(A) The facility name, physical address, mailing address, and contact information. (B) Name(s) of the operator(s) and owner(s).

(C) A description of the operation at the dental facility including: The total number of chairs, the total number of chairs at which dental amalgam may be present in the resulting wastewater, and a description of any existing amalgam separator(s) or equivalent device(s) currently operated to include, at a minimum, the make, model, year of installation.

(D) Certification that the amalgam separator(s) or equivalent device is designed and will be operated and maintained to meet the requirements specified in §441.30 or §441.40.

(E) Certification that the dental discharger is implementing BMPs specified in §441.30(b) or §441.40(b) and will continue to do so.

(F) The name of the third-party service provider that maintains the amalgam separator(s) or equivalent device(s) operated at the dental office, if applicable. Otherwise, a brief description of the practices employed by the facility to ensure proper operation and maintenance in accordance with §441.30 or §441.40.

(4) *Transfer of ownership notification.* If a dental discharger

transfers ownership of the facility, the new owner must submit a new One-Time Compliance Report to the Control Authority no later than 90 days after the transfer.

(5) *Retention period.* As long as a Dental Discharger subject to this part is in operation, or until ownership is transferred, the Dental Discharger or an agent or representative of the dental discharger must maintain the One-Time Compliance Report required at paragraph (a) of this section and make it available for inspection in either physical or electronic form.

(b) Dental Dischargers or an agent or representative of the dental discharger must maintain and make available for inspection in either physical or electronic form, for a minimum of three years:

(1) Documentation of the date, person(s) conducting the inspection, and results of each inspection of the amalgam separator(s) or equivalent device(s), and a summary of follow-up actions, if needed.

(2) Documentation of amalgam retaining container or equivalent container replacement (including the date, as applicable).

(3) Documentation of all dates that collected dental amalgam is picked up or shipped for proper disposal in accordance with 40 CFR 261.5(g)(3), and the name of the permitted or licensed treatment, storage or disposal facility receiving the amalgam retaining containers.

(4) Documentation of any repair or replacement of an amalgam separator or equivalent device, including the date, person(s) making the repair or replacement, and a description of the repair or replacement (including make and model).

(5) Dischargers or an agent or representative of the dental discharger must maintain and make available for inspection in either physical or electronic form the manufacturers operating

## manual for the current device.

The recycle, buffer/collector replacement, is to be done by on sight workers or outside contractors. The replacement parts will be shipped approximately one month prior to the anniversary date. Rebec will call and request a purchase order prior to shipment of the replacement parts.

1. Remove the new collector, and buffer where applicable, from the shipping container(s). Remove the brass inlet and outlet caps on the new collectors and/or buffer. Keep the caps handy to place snugly on the spent/used collector/buffer.
2. Place the new collector/buffer near the filters that will be replaced.
3. Be sure to use eye protection, gloves and mask before changing filters.
4. Turn valves off to the filter series.
5. **WARNING:** When the plumbing connections are broken at the inlet and outlet ports on the buffers and/or collectors there may be leakage due to liquid retained in the manifold piping. Have absorbent or a wet shop-vac handy to capture leaks and spills as the hose connections are loosened.
6. Use channel lock pliers or the equivalent tool to loosen the brass hose connectors on each buffer and/or collector. **WARNING:** To prevent any leakage, please check the female hose connector(s) to make sure the hose gasket are in place and in good working condition. Replace if it has become worn. These gaskets may fall out of place during the filter replacement.
7. If available, place a cap full of VacuBlu or the equivalent microbial cleaner into each collector/buffer to be capped and shipped back to Pristine Environmental.
8. Now place the brass caps that were removed from the new filter and place them snugly onto the filter being prepared to be shipped back. Once again, make sure the hose gasket(s) are in place before screwing on the caps to the used collector(s)/buffer(s).
9. **WARNING:** Now as you install the new buffer/collector(s), make sure that color coding and orientation ( in & out) of the new filters are placed correctly. Failure to do so will impede the flow of the system and eventually cause failure.
10. Once the new collector and/or buffer are in place, once again, check the fittings to make sure the gasket(s) are in place. Screw down the connectors and tighten until snug with channel lock pliers or the equivalent. Don not over tighten!
11. Re-open the valves to the buffer and/or collector series and check for leaks. Note: The changing of the filters can be done with the vacuum system running.

12. Now: Place the spent collector/buffer into the shipping box the new filter(s) came in and tape the box up thoroughly, preparing for pick up by UPS.
13. Once the boxes are ready, call Rebec at 800.569.1088 and ask for a call tag for the box(s). Inform the clinic that UPS will be coming and asking for these box(s).
14. Before leaving the utility room, observe the new installation for any hissing and/or leakage.

## Vacuum Line Maintenance

Routine vacuum line cleaning is required for proper maintenance of the amalgam separator system. Vacuum lines will build up biological growth (biofilm) that can spread rapidly through the system. This biological growth causes problems with amalgam separators in a number of ways.

- It can rapidly build up in the piping causing restriction at bends and joints as well as all of the main truck line eventually.
- Unchecked bacterial growth in the vacuum lines can spread to the amalgam separator surge tanks, buffers and collectors. These bacteria can fill and block the capacity of the system. If left untreated, it will eventually start to fill the effluent separation tank.
- Eventually large amounts of bacterium will break loose in the main piping and clog the separator in a short period.

Picture of VACUBLU  
Powered by BioPure

## Vacuum Line Cleansers & Bleach

### 441:30

(2) Dental unit water lines, chair-side traps, and vacuum lines that discharge amalgam process wastewater to a POTW must not be cleaned with oxidizing or acidic cleaners, including but not limited to bleach, chlorine, iodine and peroxide that have a pH lower than 6 or greater than 8.

With the new National regulation, it is important to have a line cleanser that is between 6 & 8 pH according to the written document. Bleach or any bleach derivative is unacceptable.

Rebec recommends **VacuBlu powered by BioPure** as our line cleanser. **VacuBlu is a microbial solution and extends the life of the amalgam separator. Thorough maintenance of your vacuum lines and system will assure the office of adequate suction for the facility.**

**Use of Vacublu requires only two flushings per week for the results desired. Follow the instructions on the bottle for maximum results.**

**VacuBlu**, in addition to meeting the requirements of the rule will minimize the creation of soluble mercury.

## **Cleaning & Flushing**

Rebec recommends frequent cleaning of your vacuum lines and system. At a minimum, your vacuum system should be flushed at least two times per week with VacuBlu. Follow instructions closely on the VacuBlu bottle for optimum results.

## **Troubleshooting**

The manufacturer shall clearly define procedures by which the proper function of the amalgam separator is ensured, giving the controllable maintenance and recovery routines.

The operation of the Rebec amalgam separator is a passive system. Once the equipment is assembled properly and the appropriate valves are open there are two scheduled tasks to be performed:

- 1) Monthly inspection(s). Pick a day of the month that you prefer and inspect the sight window of the collector. It is located on the upper left front of the collector box. Perform this task after the vacuum system has been idle overnight or over the weekend. Do not inspect if the vacuum system is running.
- 2) Look closely at the entire system to make sure no leakage has or is occurring. If leakage is found, contact your installing dental dealer and/or Rebec at 800.569.1088.
- 3) The Rebec collector is sized for one year of use. Please recycle accordingly.

Potential Problems:

1. Failure to maintain the system by flushing it according to manufacturer's recommendations may cause biological growth to occur. This growth will cause the system not to drain properly and eventually fill.



2. Maintain chair side traps to prevent large objects from entering the system. It is recommended to change your chair side traps regularly and dispose of properly.
3. Leaking fittings may sometimes occur. This is normally due to a damaged or missing washer in the brass fitting. Changing or replacing the gasket will normally alleviate the problem. Make sure fittings are tightened snugly but do not over tighten.

## Safety

The amalgam separator system consists of a surge tank, associated plumbing, collecting containers, buffers, and effluent piping. This equipment does not have electrical connections, high pressure, or energized parts. It is designed as a passive system with no moving parts. Hazards associated with the equipment can include.

- Contact with wastewaters with pathogenic potential.
- Equipment is constructed of stainless steel which might have sharp edges that can abrade or lacerate skin.
- During waste removal, some of the pieces may weigh greater than 50 pounds and proper lifting techniques should be followed.
- Parts are assembled for use on the floor and may pose a trip hazard.

### Suggested Safety Precautions:

1. Avoid contact with liquids. Use nitrile or equivalent gloves. Check gloves frequently for damage and change them out as needed.
2. If skin contact with waste liquid, immediately wash affected area with soap and water.
3. Do not eat, smoke, or pick your nose after working on this equipment without properly washing your hands to remove potential contaminants.
4. Always wear eye protection, especially when opening plumbing connections.
5. If handling buffers or collectors, wear abrasion resistant work gloves. The edges of the equipment should be free of sharp edges and burrs but sharp edges may arise.
6. Watch out for trip hazard around the treatment system of collectors and buffers.
7. Use proper lifting techniques to avoid back injury or muscle strains. When lifting buffers and/or collectors, note that these can weigh up to 35 pounds.
8. When breaking plumbing connections be cautious of built up pressure due to bacterial growth. Bacteria can produce large volumes of gas which, when trapped due to blockage, can vent rapidly. As caps are removed or plumbing lines disconnected, the pressure can cause waste materials to be sprayed. Cover the connection to be broken with a rag or paper towel to block any spray that may erupt as the gas vents.

# Warranty

## REBEC LIMITED WARRANTY TO ORIGINAL PURCHASER

During the warranty period, REBEC LLC warrants its amalgam separators to be free of defects in material and workmanship in original conditions with the following qualifications.

This warranty will be invalidated if any of the following conditions are not met:

- 1) The product will be used under the conditions for which it has been designed.
  - a) The unit must be installed inline on the vacuum side of the typical dental vacuum system.
  - b) The unit must be installed in strict accordance with the official Rebec installation instruction(s). (Included in this manual.)
  - c) The unit must be installed in proper orientation as defined in the official Rebec installation instructions.
  - d) Pumice used with air-abrasion or prophylaxis is only approved with Rebec Plus Systems. Any use with non-plus systems will invalidate the warranty.
  - e) The unit must be installed on or near the same elevation as the vacuum with no more than 5 feet elevation difference unless approved by Rebec in advance of the installation.
  - f) There must be no appreciable increase in the number of hygienist(s) or dentist(s) on the system after the original installation unless such increases are within the operating capacity of the unit as defined in the original Rebec specification sheets that were at the time of the initial installation. Appreciable shall mean no more than 10% additional increases in users.
  
2. The unit will be operated in a manner consistent with usage instructions in the official Rebec operations instructions enclosed in this manual.
  - a) Nothing other than normal dental vacuum line effluent shall be discharged through the equipment.
  - b) If different vacuum equipment is installed after initial installation of the Rebec unit,  
Rebec must be notified prior to this change, especially if this new vacuum system will increase vacuum flow.
  - c) The unit, all fittings and connectors must not be modified or abused in any way.

3. The product must be used in a normal “office” setting completely protected from negative environmental situations.

- a) The unit must be kept from freezing.
- b) The unit must not be submerged or left in standing water.
- c) The unit must be enclosed to protect from weather.

4. The customer must maintain the equipment as specified in the official Rebec product instructions for that model.

a) Rebec must be notified of the initial installation date by completion of a warranty

notification card or phone call within two weeks of original installation date to

validate the warranty.

b) The vacuum system must be flushed and cleaned according to the vacuum pump

manufacturer’s maintenance instructions.

c) Vacuum line cleanser should NOT contain bleach or chlorinated detergents.

d) Vacuum line cleanser should not be acidic and have a pH of 6-8.

e) Vacuum lines should be disinfected at least once a week to prevent bacterial

growth.

f) The buffers and collecting container(s) on the Rebec unit must be replaced on each scheduled maintenance date. The scheduled maintenance date shall be one year from the date of the initial installation date, unless otherwise authorized by Rebec.

The replacement buffers and/or collecting containers must be installed properly as defined in the official Rebec installation instructions on or before each scheduled maintenance date.

g) Spent buffers and collecting containers must be returned to an authorized amalgam sludge processor for recycle and replacement within two months of each scheduled maintenance date. In accordance with the Rebec installation instructions for replacement collecting containers, the customer is responsible for notifying Rebec when the spent collecting container(s) are ready for pick up. This warranty will be voided if Rebec does not receive the spent collector(s) within 2 months of the scheduled maintenance date.

h) Hose fitting washers must be inspected and replaced as necessary during scheduled maintenance.

The warranty will be voided if any Rebec products are mishandled, used incorrectly, or used for any purpose other than that for which they were designed and intended by Rebec.

Warranty Claims

If your amalgam separator requires covered factory service or replacement within the warranty period, contact your dental dealer immediately. Your Rebec amalgam separator will either be repaired or replaced by your dealer as soon as possible. In the event that your dealer finds it necessary to send your device back to the factory, Rebec will make the necessary repair or replacement at no charge provided the product is delivered prepaid to the proper address. For your safety, Rebec recommends that returns be adequately insured against carrier damage or loss. Rebec will not be responsible for damage or loss by carrier. All claims should describe the specific problem for accurate analysis and evaluation, date of filing the warranty information, product installation date, with dealer name and address. No product replacement by the dealer is allowed without prior authorization by Rebec. Notwithstanding anything herein to the contrary, in the event of a disagreement between customer and manufacturer regarding a unit's amalgam removal efficiency, such unit shall be tested by the qualified professional laboratory using the ISO protocol 11143-2009ANSI/ADA 109 Specification. This under empty and simulated full conditions.

#### All Non-US Customers

All warranty claims for products purchased through your dealer must be returned to the same dealer for the claim processing.

#### Warranty Period

All Rebec amalgam separators come with a 100% product replacement warranty for the first two-year period against manufacturer defects. Coverage begins on the installation date, provided that Rebec is in receipt of the timely completed and returned installation card.

After the initial two-year period 100% product replacement warranty, all Rebec amalgam separators are further warranted against manufacturer defect for an additional five years. During years three through seven, replacement charges are prorated at a discount of 15% per year. Replacement or repairs made under warranty will not result in an extension of the original warranty period.

Note: All repairs must be performed by Rebec or Rebec approved technicians or this warranty will be invalidated.

**THERE ARE NOT EXPRESS WARRANTIES OTHER THAN THOSE LISTED AND DESCRIBED HEREIN, AND NO WARRANTIES WHETHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY AFTER THE EXPRESS WARRANTY PERIODS STATED ABOVE, AND NO OTHER EXPRESS WARRANTY OR GUARANTEE GIVEN BY ANY PERSON, FIRM, OR COMPANY WITH RESPECT TO THIS PRODUCT SHALL BE BINDING ON THE**

MANUFACTURER. MANUFACTURER SHALL NOT BE LIABLE FOR LOSS OF REVENUE OR PROFITS, FAILURE TO REALIZE SAVINGS, OR ANY OTHER BENEFITS, OR ANY OTHER SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES CAUSED BY THE USE, MISUSE OR INABILITY TO USE THIS PRODUCT, REGARDLESS OF THE LEGAL THEORY ON WHICH THE CLAIM IS BASED, AND EVEN IF THE MANUFACTURER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NOR SHALL RECOVERY OF ANY KIND AGAINST MANUFACTURER BE GREATER IN THE AMOUNT THAN THE PURCHASE PRICE OF THE UNIT(S) CAUSING THE ALLEDGED DAMAGE. WITHOUT LIMITING THE FOREGOING, CUSTOMER ASSUMES ALL RISK AND LIABILITY FOR LOSS, DAMAGE OR INJURY TO CUSTOMER AND CUSTOMER'S PROPERTY AND TO OTHERS AND THEIR PROPERTY ARISING OUT OF THE USE, MISUSE OR INABILITY TO USE THE UNIT(S) NOT CAUSED DIRECTLY BY THE NEGLIGENCE OF THE MANUFACTURER. THIS LIMITED WARRANTY SHALL NOT EXTEND TO ANYONE OTHER THAN THE ORIGINAL PURCHASER OF THESE UNIT(S), IS NOT TRANSFERRABLE AND STATES YOUR EXCLUSIVE REMEDY.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion of limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. The warranty gives you specific legal rights, and you may not have other rights, which vary from state to state.

