# SMART User Maintenance Guide















### **Daily Maintenance**

Daily maintenance is important to reduce the amount of bacterial build up within the system; preventing blockages and unpleasant odours.



It is very important that whilst cleaning filters and disinfecting the suction system, at no time should any detergents or house hold products come into contact with any components.



Only use products recommended for use by the manufacturer. Use of other products may cause damage to the equipment or effect its performance.



Always ensure you are familiar with safety warning labels, product instructions and safety data sheets before performing any processes or procedures.



Before carrying out any maintenance on this system, ensure all appropriate Personal Protective Equipment (PPE) such as: gloves, mask, full sleeve gown and eye protection are worn.

#### **DISINFECTION PROCESS**

Products used to maintain Cattani suction systems:



M-060970 Puli-Jet GENTLE Disinfectant Solution



C-040720 Pulse Cleaner Automatic Dispenser



M-140825 Antifoaming Disinfectant Tablets

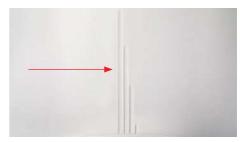


M-040727 Lubri-Jet Lubricant Drops

### **Daily Maintenance**



 Fill the Pulse Cleaner with 2.5 litres of warm water.



Each line on the inside of the Pulse Cleaner represents 1 litre, so fill it up to halfway between the second and third line.



3. Place the Puli-Jet Gentle on a level and steady surface.



 Slightly unscrew the red cap (i.e. 1 - 2 revolutions), but do not completely unscrew it.



5. Squeeze the bottle softly to force solution into the measuring dispenser.



6. Continue to squeeze until the solution reaches the 30ml mark.





 If too much solution has entered the dispensing chamber, it can be poured back into the main bottle by tipping the bottle towards the small tube on the side.



 Unscrew and remove the red cap.
 Pour the solution from the dispensing cup into the full Pulse Cleaner.

Take care to not allow more solution from the main bottle flow into the dispensing cup.



- With a disposable cloth, wipe any drips of solution from the bottle (and then dispose of the cloth).
- 11. Once pulsing has stopped please remove hoses from the Pulse Cleaner. Please note a small amount of solution will remain in the bottom of the cleaner. This can be poured down the spittoon or aspirated manually.



- Connect suction hoses to Pulse Cleaner – adaptors may be required as hose sizes vary. Pulsed aspiration of the solution will happen automatically.
- 12. It is highly recommended to continue aspirating air for several minutes before shutting down the suction system. This ensures that the disinfectant reaches the suction unit in the plant room.

Puli-Jet Gentle leaves a residue on the inside of pipes and suction tubes in order to stop growths on these surfaces. This is the reason that you may sometimes find the surface of a tube to be bily. This is completely normal and the product is designed to do this.

Puli-Jet Gentle should never be pre or semi diluted. It must be diluted (according to the instruction) and then used straight away.

### **Daily Maintenance continued**

## FILTER/SOLIDS COLLECTOR ON DENTAL CHAIR OR REAR DELIVERY SYSTEMS

This process should be completed each day, after the disinfection process. In most cases, the suction hoses in the dental surgery are part of the dental chair delivery system .

- Locate and remove the filter from the housing. It is recommended that you collect the waste material from the filter as it contains amalgam.
   This can be done by tapping the filter and allowing waste material to fall into an appropriate container and safely stored for later collection by an approved recycling company.
- Brush and rinse filter with clean water to shift any stubborn matter from the filter. Ensure the brush has not been used with any other chemical or detergent. DO NOT use any detergent or disinfectant to clean the filter – simply empty it and rinse with water.

- Wipe the outside of the filter basket and the inside of the filter housing with a paper towel, especially around the rubber o-ring seal, to clean away any gritty material.
- Apply a few drops of Lubri-Jet lubricant to the rubber o-ring and coat o-ring evenly
- Insert an Antifoaming Disinfectant
   Tablet (including the dissolvable clear wrapper) into the filter basket.
- After the filter is reinstalled, check that the o-ring seal is seated properly and not bulging out in any place as this may cause a fluid leak. If the o-ring is bulging, swollen or shows signs of wear, contact your equipment service technician for replacement.



### **Weekly Maintenance**

### FILTER/SOLIDS COLLECTOR ON CATTANI SUCTION UNIT

- This process should be completed once per week at the end of the working day, after the disinfection process.
- Turn the power off to the suction system - either at the main switch or at the power point.
- To remove the filter from its housing, twist anti-clockwise and pull. It is recommended that you collect the waste material from the filter as it contains amalgam. This can be done by tapping the filter and allowing waste material to fall into an appropriate container and safely stored for later collection by an approved recycling company.
- Brush and rinse filter with clean water to shift any stubborn matter from the filter. Ensure the brush has not been used with any other chemical or detergent.
  - DO NOT use any detergent or disinfectant to clean the filter simply empty it and rinse with water.
- Wipe the outside of the filter basket and the inside of the filter housing, especially around the rubber o-ring seal, to clean away any gritty material.

- Apply a few drops of Lubri-Jet lubricant to the rubber o-ring, work it around the entire o-ring and then reinstall the filter into its housing.
- After the filter is reinstalled, check that the o-ring seal is seated properly and not bulging out in any place as this may cause a fluid leak. If the o-ring is bulging, swollen or shows signs of wear, contact your equipment service technician for replacement.
- Turn the power back on to the suction system.

#### **GENERAL OBSERVATION**

Ensure the area around the suction system is clean and clear of debris that may affect ventilation. Check the display on the keypad for any error messages or warnings and report as necessary. Check for any signs of fluid leaks or damaged hoses and if suspect, report to your equipment service technician.

### Maintenance to be Performed by a Technician





For any of the following procedures, please consult the user manual or contact Cattani for further information.

It is recommended that any time a component containing a rubber o-ring or seal is disassembled, to replace the o-ring or seal on reassembly.

#### **EVERY 12 MONTHS**

Using the display (1), check the maximum detected temperature and alarm log for any signs of overheating or re-occurring faults and act accordingly.

Remove the vacuum hose (2) between centrifugal separator and the blower and check internally for any signs of fluids being present. It should remain completely dry. If any moisture is present, check the operation of the centrifugal separator.

Check system for any perished hoses or o-ring seals that may be causing fluid or air leaks and replace as necessary.

Check the operation of the centrifugal separator recirculation valve (3) and the bypass valve (4) within the Hydrocyclone (if fitted).



If there are any signs that daily and weekly maintenance are not being carried out effectively, or products other than that recommended are being used, consult with the staff/ owner and reiterate the appropriate procedures.

If system is fitted with a HEPA or bacterial filter, it is recommended to replace the cartridge.

#### **EVERY 18 to 24 MONTHS**

It is recommended to install a service kir for the Hydrocyclone every 24 months. The service kit comprises of a set of replacement o-ring seals and hoses.

#### C-MHSK00

Service Kit for Hydrocyclone ISO 6 (Micro SMART)

#### C-1HSK00

Service Kit for Hydrocyclone ISO 18 (Turbo SMART)

#### C-160540

HEPA H14 filter cartridge

#### C-160541

HEPA H14 filter cartridge 9-12 Surgeries

### EVERY 8,000 to 10,000 HOURS (5-6 YEARS)

It is recommended to install a service kit for suction system. The service kit comprises of replacement waste outlet non-return valve, inlet filter, recirculation valve diaphragm, vacuum hose (b/w separator and blower), blower bearings and seal.

#### C-MSK000

Service Kit for Micro SMART

#### C-15K000

Service Kit for Turbo SMAR1

### **Amalgam Container Replacement**

#### **NOTIFICATION & VERIFICATION**

If your SMART suction system is fitted with a Hydrocyclone amalgam retention unit, alarm messages will appear on the units display to notify you of 95% and 100% amalgam levels.

When the 95% level alarm is displayed, make arrangements to have the amalgam container replaced at an appropriate time (whilst not seeing patients) as the system will need to be turned off. Waiting until the 100% level is reached may cause interruption to your clinic.

Whilst this process can be performed by clinic staff, it is highly recommended to employ your equipment service technician.

The amalgam container is always full of waste fluid and a varying level of amalgam waste material. 100% amalgam waste capacity of the container is approx. half the container. The amalgam waste material settles at the bottom of the container and usually appears darker than the waste fluid. **BEFORE** replacing the container, firstly verify the 95 or 100% level alarm visually.

If this cannot be determined visually from the outside, begin the container replacement process and check internally when the container is removed.

False alarms can occur if the daily disinfection process in ineffective. If the disinfectant is not aspirated through the entire suction system & Hydrocyclone amalgam container, it is possible for a dark bacterial build up to form on the inside of the container. This can block the level sensor and trigger a false alarm. If this is occurring, check your disinfection processes and/or contact your equipment service technician or Cattani for further advice.

In this case, the rib in the back of the container (that fits into the sensor) will need to be cleaned with an appropriate brush. The container can then be reinstalled with a new o-ring seal as per the container replacement procedure.



### Micro SMART

- 1. Turn the unit off unit with the switch on the control panel.
- Turn the handle underneath the amalgam container clockwise until the container reaches the base.
- 3. Gently slide container out of the front of the holder.
- 4. Place the container on a level surface. Dispense a small amount of Puli-Jet Gentle disinfectant into the waste fluid to within 5mm of the container rim. Remove lid from new cup and place the lid on the full container. Push lid down with your palm and twist to lock into position. The container is now sealed and safe to store until pick-up.
- Replace the o-ring on the Hydrocyclone and coat with a few drops of Lubri-Jet drops (New o-ring located in new waste container).
- Place the new container into the guide, ensuring the guide's plastic disc fits within the recess at the base of the container.
- 7. Push the container forward and turn the handle anti-clockwise until the container is fully located and sealed.









### **Turbo SMART**

- 1. Turn the unit off with the switch on the control panel.
- Open the drain tap and loosen the breather valve to drain fluid from the Hydrocyclone. Wait 15 seconds.
- 3. Support the base of the container to keep it level and slowly lift the lever to remove.
- 4. Place the container on a level surface. Dispense a small amount of Puli-Jet Gentle disinfectant into the waste fluid to within 5mm of the container rim. Remove lid from new cup and place the lid on the full container. Push lid down with your palm and twist to lock into position. The container is now sealed and safe to store until pick-up.
- Replace cone tip and o-ring seal on the Hydrocyclone. Coat the o-ring with a few drops of Lubri-Jet drops (New cone tip and o-ring located in new waste container).
- Place the new container into position; carefully locate the tags of the container with the lever. Push the lever down slowly to lock the container into place.
- 7. Close the drain tap and tighten the breather valve.

















### **Maxi SMART**

- 1. Turn the unit off unit with the switch on the control panel.
- 2. Open the overflow tap and loosen the breather valve to drain fluid from the Hydrocyclone. Wait 15 seconds.
- Turn the handle underneath the amalgam container clockwise until the container reaches the base.
   Gently remove the container.
- 4. Place the container on a level surface. Dispense a small amount of Puli-Jet Gentle disinfectant into the waste fluid to within 5mm of the container rim. Remove lid from new cup and place the lid on the full container. Push lid down with your palm and twist to lock into position. The container is now sealed and safe to store until pick-up.
- Replace the o-ring on the Hydrocyclone and coat with a few drops of Lubri-Jet drops (New o-ring located in new waste container).
- Place the new container into the guide, ensuring the guide's plastic disc fits within the recess at the base of the container.
- Push the container forward and turn the handle anti-clockwise until the container is fully located and sealed. Close the overflow tap and tighten the breather valve.











### **Amalgam Recycling**

Amalgam container replacement should be part of the annual maintenance of the suction system performed by your service technician.

CMA Ecocycle remind dental practices to kindly [do the right thing[] by having your [waste[] amalgam recycled at all times. Your amalgam cup/container will be exchanged allowing the material to be recycled by EPA certified apparatus.

Please don! place this item in the rubbish bin and/or down the sink.



### Call 1300 32 62 92

**CMA Ecocycle** I your amalgam recycling specialist.

Contact your equipment service technician or Cattani if you require any further information.





M-060970 Puli-Jet GENTLE Disinfectant Solution



M-140825 Antifoaming Disinfectant Tablets



C-040720 Pulse Cleaner Automatic Dispenser



M-040727 Lubri-Jet Lubricant Drops



C-160540 HEPA H14 Filter 4-6 Surgeries Housing not included



C-160541 HEPA H14 Filter 9-12 Surgeries Housing not included



P. +61 3 9484 1120 NZ Toll Free 0800 68 22 88 F. +61 3 9484 4052 E. cattani@cattani.com.au

280 Dundas Street Thornbury, VIC 3071