

# SMART USER MAINTENANCE

GUIDE











#### **DAILY MAINTENANCE AND DISINFECTION**

Daily maintenance is important to reduce the amount of bacterial build up within the system; preventing blockage, upleasant odours and to help maintain a safe working environment for your staff and patients.



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.

#### **HYGIENE AND DISINFECTION**

Cleaning, disinfecting and system maintenance are imperative to ensure long life of the suction system. Failure to properly clean, disinfect or maintain the system as per the manufacturer's recommendations may affect the **WARRANTY.** Magnolia by Cattani have products available that are fully compatible with the system's components and deliver the ultimate care. To find out more about care product details please go to pages 16 and 17.

PLEASE REFER TO USER MANUAL AND WARRANTY STATEMENT FOR FURTHER DETAILS.

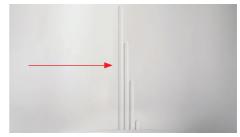


#### **DAILY MAINTENANCE**

PULI-JET Gentle 2.0 should never be pre or semi diluted. It must be diluted (according to the instruction) and then used straight away.



1. Fill the Cattani Pulse Cleaner with 2.5 litres of ambient temperature 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 PULI-JET Gentle 2.0 disinfectant on a level and steady surface.



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



Gently squeeze the bottle to force the disinfectant solution into the measuring dispenser.



 Continue to squeeze until the disinfectant solution reaches the 30ml line in the measuring dispenser.





 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 Pulse Cleaner.

Take care to not allow more solution from the main bottle to 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 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.



#### SUCTION UNIT MAINTENANCE

Point your smartphone camera at this QR code to view our short instructional videos

#### **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. Please refer to your dental chair manufacturer's handbook for location and removal instructions of the filter.

- Locate and remove the suction filter from the dental chair. 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 the 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. Wipe down the o-ring seal to remove 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.



#### **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 the 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. Wipe down the o-ring seal to remove any gritty material.
- Apply a few drops of Lubri-Jet lubricant to the rubber o-ring and coat o-ring evenly
- 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.



# AFTER CARE MAINTENANCE TO BE PERFORMED BY A TECHNICIAN

#### **OUR AIM IS 100% RELIABILITY**

Consideration should be given to the maintenance of the Cattani equipment installed in your plant room. Implementation of a routine maintenance schedule at your practice should be your highest priority.

Servicing your compressor and SMART Suction Unit on time annually is important. Annual servicing will reduce the risk of unwanted breakdowns, interruptions or delays in daily practice and loss of income due to stopping for unexpected repairs.

Routine servicing by a technician ensures the long term reliability of your equipment, trouble free operation and greatest life expectancy.

Servicing of Cattani Suction & Compressor equipment should be performed by a trained Authorised Service Technician using only Genuine Cattani Parts.

To book a service please contact your Authorised Cattani Equipment supplier or contact Cattani for further information.

#### MINOR SERVICE - COMPRESSOR

EVERY 2,000 HOURS (12 MONTHS)

- Complete System Check
- Replace air inlet filters
- Replace drying column HEPA filter & o-ring

#### SK1013B

Service Kit for 1 Cylinder Head Unit

#### SK2013B

Service Kit for 2 Cylinder Head Unit

#### SK3013B

Service Kit for 3 Cylinder Head Unit

#### INTERMEDIATE SERVICE - COMPRESSOR

EVERY 6,000 HOURS (3 YEARS)

- Complete System Check
- Replace air inlet filters
- Replace motor start capacitor
- Replace drying column HEPA filter & o-ring

#### **SK101B**

Service Kit for 1 Cylinder Head Unit

#### SK201B

Service Kit for 2 Cylinder Head Unit

#### **SK301B**

Service Kit for 3 Cylinder Head Unit



#### **MINOR SERVICE - SUCTION**

EVERY 2.000 HOURS (12 MONTHS)

- Complete System Check
- Replace inlet filter o-ring & lubricate
- Check amalgam cup level
- Replace HEPA filter cartridge

#### 211956SK

**Minor Service Kit** 

(Micro SMART & Micro SMART Cube)

#### 211974SK

**Minor Service Kit** 

(Turbo SMART & Turbo SMART Cube)

#### 040727

**Lubri-Jet Silicone Drops** 

#### 160540

HEPA H14 filter cartridge (4-6 Surgeries)

#### 160541

HEPA H14 filter cartridge (9-12 Surgeries)

#### INTERMEDIATE SERVICE- SUCTION

EVERY 4.000 HOURS (2 YEARS)

- Complete System Check
- Replace inlet filter o-ring & lubricate
- Install Service kit for Amalgam Retention Unit
- Check amalgam cup level
- Replace HEPA filter cartridge

#### MR60SK

Service Kit for Hydrocyclone ISO 6
[Micro SMART & Micro SMART Cube]

#### 1H00SK

Service Kit for Hydrocyclone ISO 18

0R

#### 1H02SK

Service Kit for Hydrocyclone ISO 18 with brass recirculation valve & cage (Turbo SMART & Turbo SMART Cube)

# AFTER CARE MAINTENANCE TO BE PERFORMED BY A TECHNICIAN CONTINUED

#### **MAJOR SERVICE**

EVERY 10,000 HOURS (5 YEARS)

- Complete System Check
- Replace inlet filter o-ring & lubricate
- Install Service Kit for Centrifuge
- Install Service Kit for Blower
- Check amalgam cup level
- Replace HEPA filter cartridge

MICRO SMART 10,000 HOUR SERVICE KITS

#### 025401SK

Centrifuge – Micro SMART & Micro SMART Cube

#### 014057SK

Blower - (Uni Jet 40) Micro SMART

#### 017500SK

Blower - (Uni Jet 25) Micro SMART Cube

TURBO SMART SERVICE KITS

#### 0034MS3SK

Centrifuge – Turbo SMART & Turbo SMART Cube

#### 1M00005K

Blower - (Uni Jet 75) Turbo SMART

#### 014095SK

Blower - (Uni Jet 40) Turbo SMART Cube



#### **AMALGAM CONTAINER REPLACEMENT**

#### **NOTIFICATION & VERIFICATION**

If your SMART suction system is fitted with a Hydrocyclone amalgam retention unit, alarm messages will appear on the unit's display to notify you that the amalgam levels in the amalgam retention cup have reached 95% or 100%.

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 include routine amalgam cup exchange during Aftercare Maintenance which is performed by a trained 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 approximately 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.

Daily disinfection is critical to keeping your suction system operating at its hest. Following the manufacturers recommendations for disinfection will assist in preventing false alarms. 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.



#### **SMART ALARM CODES - AMALGAM CUP**

Alarm	Code	Description	Solution
i13	45	Level sensor disconnected	Ensure the amalgam sensor is connected and check to see if the amalgam sensor and wiring is damaged.
			Cycle power and test for re-occurring fault. If fault persists the amalgam alarm will need to be replaced.
i14	46	Exceeded 95% amalgam level	Warning that the amalgam cup is nearly full. Replace amalgam container as soon as possible.
i15	47	Exceeded 100% amalgam level	Warning that the amalgam cup is full. Replace amalgam container immediately. If container is not replaced the suction unit will not function after the next power cycle.



#### **MICRO SMART / CUBE**

- 1. Turn the unit off unit with the switch on the control panel.
- Turn the handle underneath the container clockwise to lower it until it reaches the base.
- 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 2.0 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.









# TURBO SMART / CUBE / MULTI-SMART

- 1. Turn the unit off with the switch on the control panel.
- 2. Open the drain tap (the tap is open when the lever is in line with the tube) and loosen the breather valve (do not remove). Wait for 15 seconds.
- 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 2.0 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).
- 6. 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**

- Turn the unit off unit with the switch on the control panel.
- Open the drain tap (the tap is open when the lever is in line with the tube) and loosen the breather valve (do not remove). Wait for 15 seconds.
- 3. 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 2.0 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. Close the overflow tap and tighten the breather valve.













#### 060980

#### **PULI-JET GENTLE 2.0 DISINFECTANT 1LT**

A non-foaming commercial grade disinfectant for semi-wet, wet and dry suction systems. 1 lt makes 33 doses (30ml of PULI-JET Gentle 2.0 to 2.5 lt of warm water). Available in 1 lt bottles.



#### 040720

#### **PULSE CLEANER**

Used to automatically aspirate PULI-JET Gentle 2.0 disinfectant through the suction system. It aspirates air and fluids to create turbulence for effective disinfection.





#### 040825

#### **ANTIFOAMING DISINFECTANT TABLETS**

Reduces foam in suction systems created by blood and mucus, as well as releasing a disinfectant through the working day. Use one tablet per surgery, per day.

Each box contains 50 tablets.



#### 040727

### LUBRI-JET SILICONE LUBRICANT DROPS 30ML

Silicone based lubricant in a handy dropper bottle. Ideal for lubricating O-rings.

Each pack contains 4 bottles.

#### **SMART ALARM CODES**

Alarm	Code	Description	Solution
i04	36	TEMPERATURE LIMIT EXCEEDED	Switch machine OFF, wait for blank screen, switch ON and test.
		Ambient temperature of the plant area is too hot! Check ventilation or cooling system.	
i07	39	MIN / MAX VOLTAGE EXCEEDED	Switch machine OFF, wait for blank screen, switch ON and test.
		Mains power supply is too high or too low.	
i14	46	95% AMALGAM CUP LEVEL EXCEEDED	Switch machine OFF, wait for blank screen, switch ON and test.
		Replace amalgam container.	
i15	47	100% AMALGAM CUP LEVEL EXCEEDED	Switch machine OFF, wait for blank screen, switch ON and test.
		Replace amalgam container.	



#### **FREQUENTLY ASKED QUESTIONS:**

#### 1. LOW SUCTION IN THE SURGERY

- Check that suction filters in the dental chair are clean and being maintained on a regular (daily) basis.
- Check to ensure the inlet filter basket on the centrifuge is clean and being maintained on a regular (weekly) basis.
- Check to ensure the daily disinfection procedure utilising PULI-JET Gentle 2.0 disinfectant is being performed properly.
- Check ambient temperature of the plant room.

### 2. PLANT AREA HAS AN UNPLEASANT ODOUR

- Check the daily disinfection protocol of the surgery. Ensure that PULI-JET Gentle 2.0 disinfectant is being used in the correct quantity and dilution for each chair in the surgery.
- Check to ensure the inlet filter basket on the centrifuge is clean and being maintained on a regular basis (weekly).
- Check that the exhaust hose and plumbing connections are not damaged or leaking exhaust air into the plant area.

## 3. THERE IS FLUID ON THE FLOOR UNDER THE COMPRESSOR

 Empty fluid from the condensate bottle next to the compressor. This bottle should be checked and if necessary emptied once a month.

# WE HAVE BEEN SPECIALISING WITH AIR TECHNOLOGY FOR 50 YEARS: SPECIALISATION HAS GIVEN EXCELLENT RESULTS.



#### PROTECT THE POWER BEHIND YOUR PRACTICE - EVERY DAY

The After Care Programme is like insurance: it protects your business and saves money by cutting the risk of plant room equipment failure.

Meanwhile, daily and weekly hygiene maintenance is essential to keep your suction system safe, as well as to maximise its performance and longevity. To learn the simple steps required, use the QR code below.

#### Sales and Technical Support:

#### Australia

+61 3 9484 1120 cattani@cattani.com.au www.cattani.com.au

#### **New Zealand**

0800 68 22 88 cattani@cattani.co.nz www.cattani.co.nz

#### **Company Address**

280 Dundas Street, Thornbury VIC 3071

