



# SMART MAINTENANCE

USER GUIDE



TYPE: TURBO "SMART" F  
MONTH: 04 YEAR: 17 S  
230 V 9 A 50  
WORKING TEMP. +5°C +40°C  
COD. 035115 kg. 44

# WHY IS MAINTENANCE IMPORTANT?

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.

## WARNINGS

- Always refer to the operator's handbook before carrying out any work
- Manuals are available on the website [www.cattaniesam.it](http://www.cattaniesam.it)
- We recommend their consultation especially for updates about safety
- Prior to carrying out any servicing operation make sure to wear disposable gloves, goggles, a mask and overalls
- Disconnect the appliance from the power
- Keep the plant room free from flammable and corrosive mixtures



## PEACE OF MIND FOR THE USER

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.

Cattani recommend Magnolia cleaning products which are fully compatible with the system's components and deliver ultimate care to the unit. Please follow dilution instructions in this guide.



## AMALGAM RECYCLING

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

Please DO NOT place this item in the rubbish bin and/or down the sink.

Amalgam must be collected and disposed of by an authorised licensed company.

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

# MAGNOLIA CARE PRODUCTS

## PROTECTING YOUR SYSTEM



### Puli Jet Plus

(4 x 1L bottle)  
**060900**



Disinfects, deodorises and cleans all dental aspirators (wet, semi-wet and dry line), does not contain aldehydes and phenol. 1 litre makes up to 125 litres of disinfectant or 250 litres of cleaner.

**WHEN TO USE:** Every evening.

**HOW TO USE:**

1. Shake bottle, then unscrew red cap slightly.
2. Squeeze bottle to distribute 10ml of liquid to top container.
3. To mix, fill the 'Pulse Cleaner Bucket' with warm water (approx temp 50°C) up to the third marker, then unscrew the red cap on the Puli Jet bottle fully and pour the Puli Jet Plus into the 'Pulse Cleaner bucket'.

**GENERAL CLEANING:** We recommend that you cleanse the aspiration system every evening, at the end of work. For this, fill the Pulse Cleaner Bucket up to the third marker with warm water (approx temp 50°C) and add 10ml of Puli Jet Plus solution. Pour excess down the spittoon.

**DISINFECTION:** We recommend to disinfect the aspiration system once a week with a higher concentrate of Puli Jet Plus. For this, fill the Pulse Cleaner Bucket up to the third marker with warm water (approx temp 50°C) and add 20ml of Puli Jet Plus solution. Pour excess down the spittoon.

### Puli Jet Classic

(4 x 5L bottle)  
**040715**



Cleans, sanitises and deodorises dental suction units. 5 litres makes up to 250 litres of cleaner.

**WHEN TO USE:** Every evening.

**HOW TO USE:**

- 1) Fill the 'Pulse Cleaner Bucket' with warm water (approx temp 50°C) up to the third marker, then measure out 50ml of Puli Jet Classic cleaner and pour it into the 'Pulse Cleaner bucket'.
- 2) Using the terminals, aspirate the mixed Puli Jet Classic solution from the Pulse Cleaner through the equipment. Pour excess down the spittoon.

### Sanitising Antifoaming Tablets

(50 per box)  
**040825**



Stops foam build up, which can cause an interruption in the aspiration.

**APPLICATION:** Single surgery and centralised suction systems.

**WHEN TO USE:** Every day, after cleaning and disinfection.

**HOW TO USE:** At the beginning or end of every working day, after cleaning, place 1 or 2 tablets inside the tip support filter or filter housing on the pump, tablet action lasts the entire day.

### Lubri Jet Spray

(1 x 150ml can)  
**040735**

(4 x 150ml can)  
**040737**



Silicone spray for lubricating surfaces including diaphragms, O-rings, plastic materials and metal, useful for treating clamp hinges and scissors before placing in autoclave. Silicone lubricant with non-flammable ozone-friendly propellant, contains high-quality silicone oil and is dust-repellent.

**APPLICATION:** Surfaces exposed to friction, rubber o-rings, plastic and metal materials.

**WHEN TO USE:** When required.

**HOW TO USE:** Ready-to-use, Shake before use, Clean and wipe the parts to be lubricated, then spray.

### Lubri Jet Drop

(1 x 30ml bottle)  
**040726**

(4 x 30ml bottle)  
**040727**



Silicone based liquid for lubricating surfaces including diaphragms, O-rings, plastic materials and metal, useful for treating clamp hinges and scissors before placing in autoclave. Put a drop onto the instrument and wipe off excess before putting in autoclave. Silicone lubricant for the periodic lubricant of the hinge of pincers, scissors and other instruments of the dental surgery. Contains high-quality silicone oil and is dust-repellent.

**APPLICATION:** Surgical instruments with the parts subjects to friction (scissors, pincers, etc).

**WHEN TO USE:** When required.

**HOW TO USE:** Put a drop on the parts under friction. To be used on clean and dry instruments before sterilization.

### Pulse Cleaner

**040720**



Pulse Cleaner is a turbulence-maker.

To prepare the Puli Jet solution, pour the concentrated product into warm water (approx temp 50°C) and then place the terminals on the pistons. The cleansing aspiration will start without any further operation.

The solution left in the container can be used to sanitize the spittoon bowl. Do not rinse the aspirator; do not turn on the spittoon-rinsing tap: Puli Jet Plus will go on sanitizing and dissolving blood and mucus all night.

1x16mm & 1x11mm connections, reducers for smaller terminals included.

# DAILY MAINTENANCE

TO BE CARRIED OUT BY INSTRUCTED SURGERY STAFF

## CHECK FOR ANY ALARMS ON THE DISPLAY

SEE ALARMS DESCRIPTION BELOW

Before carrying out any daily maintenance check the display on the keypad for your unit for any possible alarms.

These alarms will indicate any issues such as the Amalgam level and any temperature faults.



Alarm Information:

CODE	ID	DESCRIPTION	SOLUTION
114	2	Amalgam level > 95%	Replace the amalgam container as soon as possible
115	3	Amalgam level > 100%	Replace the amalgam container
104	36	Over temperature (temperature has exceeded max. allowed limit)	Ventilate the plant room (check the control panel cooling fan)

### 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.

# DAILY MAINTENANCE

TO BE CARRIED OUT BY INSTRUCTED SURGERY STAFF

## CLEANING AND DISINFECTING YOUR SMART SUCTION UNIT

### User Instructions:

**1.** Fill the Pulse Cleaner Bucket with 2.5 litres of warm water (approx temp 50°C).



**2.** Each line on the inside of the Pulse Cleaner Bucket represents 1 litre, so fill it up to halfway between the 2nd and 3rd line.



**3.** Place the Puli Jet on a level and steady surface and slightly unscrew the red cap, but do not completely unscrew it.



**4.** Squeeze the bottle softly to force the solution into the measuring container at the top of the bottle, until it reaches the desired mark (10ml general cleaning or 20ml disinfecting).



**5.** If too much solution has entered into the container it can be poured back into the bottle by tipping the bottle towards the small tube on the side of the bottle.



**6.** Unscrew and remove the red cap fully and pour the solution into the Pulse Cleaner Bucket making sure that no extra solution travels up the pipe from the main bottle.



**7.** When all the solution has been poured into the Pulse Cleaner Bucket, replace the red cap and then with a disposable cloth, wipe away any residue from the bottle.



**8.** Connect your suction hoses to the Pulse Cleaner Bucket (adaptors may be required), pulsed aspiration of the solution will happen automatically.



**9.** Once pulsing has stopped please remove the suction hoses from the Pulse Cleaner Bucket.

Please note: there may be a small amount of solution left at the bottom of the Pulse Cleaner Bucket, this can be poured down the spittoon or aspirated manually.

It is recommended that you continue to aspirate air for several minutes before turning off the suction system. This ensures that the disinfectant reaches the suction unit in the plant room.

# DAILY MAINTENANCE

## TO BE CARRIED OUT BY INSTRUCTED SURGERY STAFF

### CLEANING THE INLET DEBRIS FILTER



Inlet debris filter location:

MICRO SMART



MICRO SMART CUBE



TURBO SMART



TURBO SMART CUBE



MAXI SMART



Instructions for cleaning:

1. Turn the power off to the suction system.
2. 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.
3. 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.
4. 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.
5. Apply Lubri Jet drop or spray lubricant to the rubber o-ring, work it around the entire o-ring and then reinstall the filter into its housing.
6. 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.
7. Turn the power back on to the suction system.



### CLEANING THE ASPIRATION FILTERS

It is recommended that you clean the filters on the dental unit and replace the Antifoaming Tablets (if used).



# DAILY MAINTENANCE

## TO BE CARRIED OUT BY INSTRUCTED SURGERY STAFF



### 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 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 (to do this the system will need to be turned off).

It is not necessary to empty the amalgam container immediately when the alarm indicates 95% however, 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 is 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.

\* All waste amalgam must be handled and disposed of correctly, see your practice procedures for the disposal of hazardous waste and materials.

\*\* If the original container is to be re-used, place any small container under the tap and then empty into the approved waste container, do not pour down the sink. Clean the level sensing groove of the container with a cotton bud or similar.

The above are guidelines only, if you require further assistance please contact your engineer.

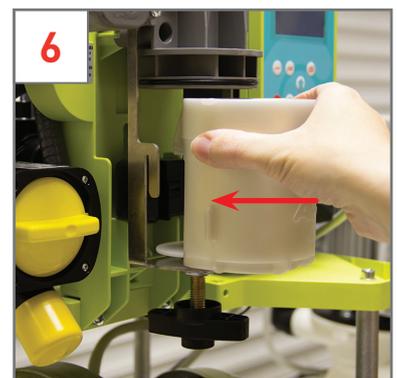
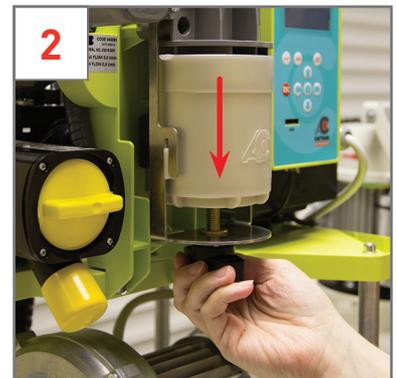
# DAILY MAINTENANCE

TO BE CARRIED OUT BY INSTRUCTED SURGERY STAFF



## CHANGING THE AMALGAM CONTAINER MICRO SMART / MICRO SMART CUBE

1. Turn off the unit with the switch on the control panel.
2. Turn the handle underneath the amalgam container clock-wise until the container reaches the bottom of the thread.
3. Gently pull the container outward.
4. Top up the amalgam container to within 5mm of the rim with neat Puli Jet Plus. Place the container on a solid surface and carefully place a new lid on top, twist and lock in position. Then push in the small plastic bung and twist to lock. The container is now airtight and safe for disposal\*. If re-using the original amalgam container, empty the contents into an approved amalgam waste container\*\*
5. Before replacing or refitting the new container treat the o-ring seal with a silicon based lubricant (not vaseline).
6. Replace with a new container (043132), relocate the new container into the stainless steel guide making sure the plastic disc fits within the recess at the base of the amalgam pot.
7. Push the container forward and turn the handle anti clock-wise until container is fully located and sealed at the top of the lever.



# DAILY MAINTENANCE

TO BE CARRIED OUT BY INSTRUCTED SURGERY STAFF

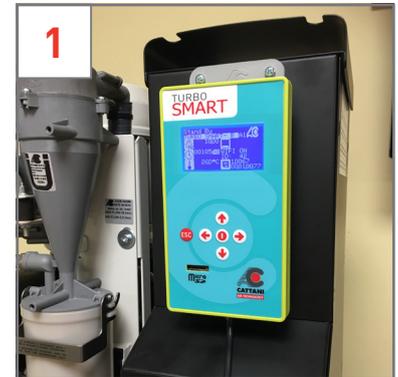


## CHANGING THE AMALGAM CONTAINER TURBO SMART / TURBO SMART CUBE

1. Turn off the unit with the switch on the control panel
2. Turn the vent valve on the top of the amalgam separator anti clock-wise to open it so you can empty the excess liquid from the amalgam container. Wait 15 seconds.

Turn the drain tap (left hand side of amalgam container) to the vertical position allowing the liquids to drain into the pot.

3. Gently hold the collection container and slowly lift the stainless steel lever, the amalgam collection container can now be removed.
4. Top up the amalgam container to within 5mm of the rim with neat Puli Jet Plus. Place the container on a solid surface and carefully place a new lid on top, twist and lock in position. Then push in the small plastic bung and twist to lock. The container is now airtight and safe for disposal\*. If re-using the original amalgam container, empty the contents into an approved amalgam waste container\*\*
5. Turn the drain tap (left hand side of amalgam container) to the horizontal position.
6. Before replacing or refitting the new container treat the o-ring seal with a silicon based lubricant (not vaseline).
7. Replace with the new container (043135), place the new container into position carefully but DO NOT push up onto the separator. Relocate the stainless steel lever by pushing downwards to lock the container into place.
8. Turn the vent valve on the top of the amalgam separator clock-wise to close it.



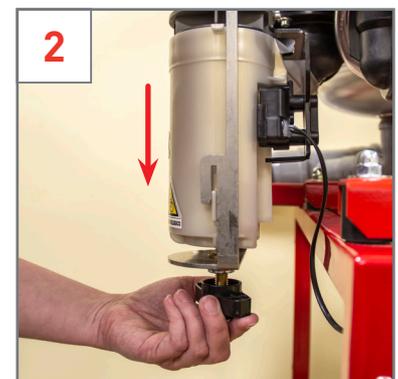
# DAILY MAINTENANCE

TO BE CARRIED OUT BY INSTRUCTED SURGERY STAFF



## CHANGING THE AMALGAM CONTAINER MAXI SMART

1. Turn off the unit with the switch on the control panel.
2. Turn the handle underneath the amalgam container clock-wise until the container reaches the bottom of the thread.
3. Gently pull the container outward.
4. Top up the amalgam container to within 5mm of the rim with neat Puli Jet Plus. Place the container on a solid surface and carefully place a new lid on top, twist and lock in position. Then push in the small plastic bung and twist to lock. The container is now airtight and safe for disposal\*. If re-using the original amalgam container, empty the contents into an approved amalgam waste container\*\*
5. Before replacing or refitting the new container treat the o-ring seal with a silicon based lubricant (not vaseline).
6. Replace with a new container [043138], relocate the new container into the stainless steel guide making sure the plastic disc fits within the recess at the base of the amalgam pot.
7. Push the container forward and turn the handle anti clock-wise until container is fully located and sealed at the top of the lever.



# **ANNUAL MAINTENANCE**

## **TO BE PERFORMED ONLY BY A TRAINED TECHNICIAN**



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 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 trained technician ensures the long term reliability of your equipment, trouble free operation and greatest life expectancy.

Servicing of Cattani Suction equipment should be performed by a trained Authorised Service Technician using only genuine Cattani parts.

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

## **WHAT SHOULD BE COVERED IN AN ANNUAL SERVICE?**

- Complete System Check  
This includes: Checking maximum detected temperatures and any other alarms on the display.
- The technician is required to check to make sure that routine maintenance has been duly carried out and that the recommended Magnolia cleaning products are used.
- A complete service using the appropriate kit for the suction unit:

900051 or 900050 for Micro Smart and Micro Smart Cube  
900053 for Turbo Smart, Turbo Smart 2v and Turbo Smart Cube  
900026 for Maxi Smart

Technicians must make sure that when parts are reassembled all O-rings on the amalgam container and debris filter are lubricated with the recommended Lubri Jet Spray (040735) or Lubri Jet Drop (040726).

A simple diagnostic test should be completed after every service, please see the relevant instruction manual for your unit.

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

**HOW IS IT WE LEAD IN OUR FIELD, WHEN WE COST LESS THAN THE ALTERNATIVES? THIS IS HOW:**

**Constant research:** this lets us apply the latest technology in all of our products and solutions.

**We enhance performance:** electronic and information technology allow us to increase the performance and reliability of our products.

**We reduce costs:** less maintenance and energy costs mean on a cost-benefit analysis we are always the most economical.

**We reduce environmental impact:** we save 50% on raw materials in the production stage and our customers save between 30% and 50% on electrical consumption thanks to inverter drive technology.