Clinical Skills Sheet : Dental machine set up

Task : Set up and prepare the dental machine for use.

The dental machine is a valuable and costly piece of equipment. Please use with care and if in doubt, ASK a member of staff for assistance!

The Cocoon Hygienist must not be used in the presence of patients or practitioners fitted with pace-makers or other active implants due to potential risk of interference.

<table>
<thead>
<tr>
<th>Turning on the machine</th>
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<tbody>
<tr>
<td>Ensure that the compressor is on a flat surface in a well ventilated room</td>
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<tr>
<td>On the rear panel of the cocoon hygienist, turn the on/off switch to the on (“1”) position</td>
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<th>Filling up the water canister</th>
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<td>Unscrew the green lid (anticlockwise)</td>
</tr>
</tbody>
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Fill up the canister with **distilled** water. Do not overfill!

Replace the lid and pump canister full of air. Continue until resistance is felt.

Lock the handle into position by pushing down and twisting it clockwise.
Using the Suprasson handpiece

To connect the handpiece, simply align the head to the base and firmly push it into position

To attach the scaler tip, simply insert the tip and turn it clockwise

To obtain adequate vibration of a tip, it must be correctly tightened using the supplied key. Attach the key as illustrated and turn it clockwise. It must not be forced beyond its stop. To avoid it becoming locked, the tip should be removed after each use.

Ensure that the instrument selector switch is up (ultrasound position)
### Using the micro-motor Satelec handpiece

To connect the micro-motor to its cord connector, simply screw it on. The two red marks should line up. **Do not connect the handpiece until the drive motor has completely stopped.**

![Image of Satelec handpiece](image)

Before attaching the prophylactic head (for polishing), the blue section should be turned fully to the right until you hear it click (dots should be misaligned)

To attach the contra-angle prophylactic head, align the positioning marks on the motor and the handpiece, and insert straight.

![Image of contra-angle prophylactic head](image)

Once in position, turn the blue section fully to the left, lining up the 2 dots (arrowed) to lock the handpiece.

![Image of locking the handpiece](image)
The prophy cups snap on to the head of the handpiece.

| Turn the spray selector off to stop the irrigation flow |
| Ensure that the instrument selector switch is down (motor position) |
| To change the direction of the motor, use the three-way motor rotation direction switch on the face of the unit. |
| Optimum power control setting? |

**Using the Satelec handpiece (drill bit)**

To connect the drill bit, remove the contra-angle handpiece and then simply snap it into position.
To insert the bur, push the button at the back of the chuck and at the same time push the bur into the chuck until it stops (4-6mm depth).

**Note:** The push-button chuck has a double action. The button stops when it touches the rotor. Depress it further and the bur can be attached or removed.

After the bur is inserted, push and pull the bur to make sure it is held firmly in place. This action will further increase the bur retention force.

Ensure that the instrument selector switch is down (motor position)

**Optimum power control setting?**

To change the direction of the motor, use the three-way motor rotation direction switch on the face of the unit.

To remove the bur, depress the push button and pull out the bur.

### Using the 3-function syringe

The 3-function syringe may be used in conjunction with other functions and works independently of the footswitch.

There are 3 possible combinations:

- **Air alone**
- **Water alone**
- **Air and water (atomised spray)**
Attach a disposable riskontrol to the 3-function syringe (a new one must be used for each patient). Ensure that both are lined up and then firmly push the riskontrol into position.

Turn the spray selector on to enable the irrigation flow

Re-filling the water canister

**IMPORTANT!**
When the canister is pressurised, release the pressure relief valve before attempting to remove the canister lid

Unscrew the green lid (anticlockwise)

Fill up the canister with **distilled** water. Do not overfill!

Replace the lid and pump canister full of air. Continue until resistance is felt.

Lock the handle into position by pushing down and twisting it clockwise
### Shut down of the machine

On the rear panel of the cocoon hygienist, turn the on/off switch to the off ("0") position

Turn off the water supply

To disconnect the motor and the contra-angle handpiece, hold the front part of the motor and the back part of the handpiece, and pull straight out.

*Do not disconnect the handpiece until the drive motor has completely stopped.*

### Maintenance and sterilisation

Scrub dirt and debris from the contra-angle handpiece. **Do not use a wire brush.**

Wipe clean with alcohol and / or dental disinfectant wipes. It should never be immersed.

The Suprasson handpiece and drill attachments must be lubricated with pana spray prior to sterilisation. Shake the spray can 3 – 4 times to mix lubricant and propellant.

Holding the handpiece/drill firmly, insert the E-type spray nozzle in the base and spray for approximately 2 – 3 seconds until oil comes out of the handpiece/drill head.
Always sterile the Suprasson handpiece without the tip mounted

Insert handpiece into an autoclave pouch and seal. Autoclave for 20 minutes at 121°C or 15 minutes at 132°C.

Following sterilisation, the handpiece should remain in the autoclave pouch until it is required for use.

In use and during successive sterilisation procedures, check the Suprasson handpiece for any sign of external damage before you next use it.

Remove the riskontrol from the syringe and discard into clinical waste after each patient.

The syringe should be cleaned with alcohol and / or dental disinfectant wipes. It should never be immersed.

After use, tips should be cleaned with a cotton bud soaked in alcohol, by wipes or by immersion in an ultrasound tank.

The casing of the cocoon hygienist, as well as the handpiece cord and the micro-motor cord should be cleaned with alcohol and / or dental disinfectant wipes.

Sterilisation can be carried out by any conventional heat process. Tips made with metal should be individually placed in a cloth or sterilising bag.
Empty the water canister of unused water by releasing the pressure relief valve before attempting to remove the canister lid.

N.B. Chlorhexidine must never be placed in the water canister as it will cause damage to the dental machine. The canister should instead be rinsed out with water and dried out in between dental procedures.

**Question:**
**Why should metal tips be wrapped and sterilised individually?**
**Answer:**
Any contact with other metal tips will lead to the formation of electrolytic couples causing localised deterioration.

**Question:**
**Why should distilled water be used in the water canister?**
**Answer:**
To avoid lime scale build up in the hose.