

THE DENTAL
SOLUTIONS
COMPANY™



Treatment Centres

Waterline Maintenance and Biofilm Treatment For Fresh Water Bottle Systems



Biofilm in Treatment Centre Water Lines

The treatment centre in your dental practice utilises water to cool a range of instruments such as dental handpieces, air/water syringes and ultrasonic scalers during various dental procedures. An intricate network of interconnected narrow-bore tubes called dental unit waterlines supplies water to all of these instruments and the cup filler on your dental unit. Over time a high density of micro organisms, primarily bacterial, can develop colony forming units known as biofilm in your water lines. This biofilm matrix is considered a form of contamination and maintenance and treatment of the waterlines is paramount to patient protection and the long term maintenance of your treatment centre.

Water Line Maintenance Schedule for Fresh Water Bottle Systems

1 Rinse: Rinse the waterlines prior to any patient appointment.

2 Purge*: Start by activating the cuspidor  and flushing for 1 min. Remove the individual instruments and hold over the cuspidor. Set the water flow rate, and rotate the water regulators counter clockwise. Press the foot pedal to purge the waterlines manually for between 20-120 seconds. This should be completed:

- Before starting work
- After each patient
- At the end of the workday

3 Sanitisation:** Sanitisation is the ongoing disinfection of the waterlines to aid in the prevention of biofilm in the Treatment Centres waterlines. Sanitisation takes about 24 hours and should not exceed 3 days. During sanitisation, switch the lever clockwise to change from town water to water bottle only. Empty the water bottle and refill with fresh water and approximately 0.4-0.5 Litres of undiluted Dentosept S to disinfect the water paths.

Choose the sanitisation operation on your treatment centre menu. Remove all of the instruments and press on the foot pedal to sanitise the line paths for 15 seconds by pressing on the foot pedal for each instrument. Switch the treatment centre off to allow reaction time for at least 24 hours on the device.

4 Ongoing Disinfection Treatment: The water bottle should be refilled and always maintain a ratio of 100:1 (1 Litre water 10:mL of Dentosept S) while in operation. This ratio is set to prevent the accumulation of biofilm over time and is safe for use with your patients.



5.8.7



*Some Treatment Centres will be configured with a purge/autopurge function on the device. On Intego/Intego Pro units you can refer to page 226 to learn about operating this function, otherwise perform purge manually by depressing the foot pedal.

**For first time users please refer to page 294 of your Intego/Intego Pro User Manual to learn about sanitising with a fresh water bottle. If you have an integrated disinfection system please refer to our other waterline maintenance brochure for integrated devices.

Conduct a Microbiological Water Test Regularly

Perform a microbiological test of the water from the treatment centre at regular intervals and after long periods of disuse to check the quality of the delivery systems water. All treatment centres will have some level of colony forming units (CFU). If a waterline test is completed and your dental treatment centres spore count is higher than 200 CFU, a waterline shock treatment will need to be performed on your device to clear the biofilm. **If your CFU count is too high and your dental chair has an integrated disinfection system, a technician will be required to complete the shock treatment.** If you have a water bottle system, we still recommend that you book a technician the first time that you do this or if you are utilising town water through the water bottle on your chair. Sometimes with very large CFU counts, multiple shock treatments may need to be performed to clear the waterlines. You will need to have enough biological spore tests to test each chair both before treatment and after treatment to make sure that the treatment was successful. If the spore count is still high after treatment, repeat the shock treatment or contact your Dentsply Sirona technician. Only the BRS waterline system from Alpro is approved as a shock treatment for Dentsply Sirona Treatment Centres. Please refrain from using any other waterline treatments on your Dentsply Sirona treatment centre which can cause damage to the internal blocks. Damage caused by utilising unapproved shock treatment and disinfectant products will not be covered under your Dentsply Sirona warranty.

Water Line Shock Treatment

Biofilm removal from water lines of DS Treatment Centres fitted with a fresh water bottle.

Please ensure the use of suitable Personal Protective Equipment (PPE), specifically gloves and eye protection.

Note 1: If a unit has a water bottle that can be switched to town water to supply the instruments, then this unit should have all unit water lines flushed and this should be performed by a qualified Technician.

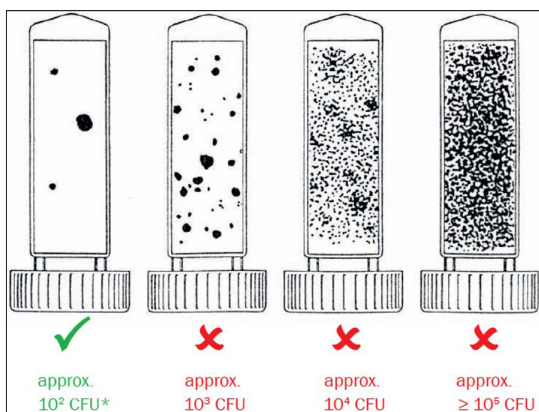


Step 1

Collect Sample (Biological Spore Test)

This step should be performed in advance of the full treatment to establish the need for shock treating the unit.

1. Take a water sample consisting of a mix of water from each instrument line into a separate cup.
2. Remove the dip slide from its tube and immerse in the collected water sample for a minimum of 10 seconds.
3. Place the slide back into its tube and secure tightly.
4. Fill in the label on the tube and the evaluation sheet (as primary sample or pre treatment).
5. Evaluation can be made after 24 hours in an incubator at 35°C to 40°C or after 3 to 7 days in a consistent temperature (not lower than 22°C).



✓ If the sample passes, no further action is required

X If the sample fails, proceed to step 2.

*When not using an incubator, warmer temperatures will give more accurate biotest readings. Fluctuations in temperature during incubation period may give incorrect readings, especially during winter months. If spores do not develop at all on the test you may have a false positive. Conduct a second test with better temperature controls to verify the findings.



Step 2

Remove Instruments and Filters

1. Open fully, all water adjustment controls for instrument hoses.
2. Remove all turbines, turbine coupling, contra angle handpieces, scaler handpieces and 3-way syringe/sprayvit tips to avoid blockage when flushing. Leave the motor attached.

Note. If completing on an Intego without the "Purge" function, the scaler handpiece must remain connected.



Step 3

Empty the Water Lines

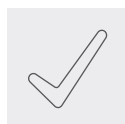
1. Fit an empty water bottle to the unit to flush out the lines.
2. Run all of the instrument lines, and cup fill until only air is coming from the lines.



Step 4

BRS PreCleaner (Red granules)

1. Carefully mix one satchel of the BRS PreCleaner (Red granules) to 2 Litres of hot water (approx. 50°C - 60°C) until completely dissolved.
2. Carefully pour the solution into the unit water bottle and fit bottle to unit.
3. Turn on the treatment centre.
4. Run the solution through the instruments in an intermittent manner (pressing and releasing the foot pedal); this process dislodges the chunks of biofilm and makes it easier to chemically bind the BRS PreCleaner and BRS Biofilm Removal solution.
5. Stop running the lines before the bottle runs completely empty.
6. Allow the solution to take effect for 15 minutes.
7. After the waiting time, run the remaining solution through each of the lines until the bottle is empty.



Step 5

BRS Remover 3 Biofilm Removal (Blue solution)

1. Mix the BRS Remover 3 (Blue) solution in 2 Litres of hot water (50°C to 60°C).
2. Carefully pour the solution into the unit water bottle and fit the water bottle to the unit.
3. Run the solution through all of the treatment centre lines including the cup fill. Starting with the 2 sprayvits, run each into a bucket until the Blue solution comes out. Then run all of the instrument lines into a bucket for 30 seconds, run the cup fill twice. Refill the bottle with solution if required.
4. Stop running the lines before the bottle runs completely empty.
5. Allow the solution to take effect for 5 to 20 minutes (no longer).
6. After the waiting time, run the remaining solution through each of the lines until the bottle is empty.





Step 6

Flushing of the Lines with Water

1. Fill the water bottle with water dosed with sanitising solution 100:1 (1 Litre water 10:mL of Dentosept S).
2. Run all lines until the bottle is empty and air is coming out of all lines.



Step 7

Sanitation of the Water Lines

1. Fill bottle with 250mL of straight sanitising solution (Dentosept S)
2. Fit the water bottle to the unit.
3. Run sanitation solution through all treatment centre lines including the cup fill. Starting with the 2 sprayvits, run each into the spittoon until the sanitation solution comes out. Then run all instruments into the cuspidor until the sanitation solution comes out, run the cup fill until the sanitation solution comes out. Don't let the bottle empty, top up if needed.
4. Turn off the unit and leave for a minimum of 24 hours.



Step 8

Preparation for use

1. After 24 hours. Fit an empty water bottle on to the unit. Run all of the instrument lines, and the cup fill until only air is coming from the lines. Remove the water bottle, refill with water, dosed with sanitation solution 100:1 (1 Litre water 10:mL of Dentosept S). Run all instrument lines for a minimum of 30 seconds, and the cup fill 3 times.
2. The unit is now ready for use.
3. Take a water sample consisting of a mix of water from each instrument (As in step 1).
4. If the sample fails, the process must be repeated. This is possible for units that have high levels of contamination. If the treatment centre has failed more than two times after completing the shock treatment contact your Dentsply Sirona Technician.



Waterline Maintenance and Treatment

Waterline Testing

Biotest

3079 | Alpro Dip slide Biotest pack of 10x

Dip slide for semi quantitative monitoring of microbial load of water and surfaces. The microbial count is measured in Colony-Forming Units (CFU) per mL.



DS Single Test

5853775 | DS Single Total Count Test

Dip slide for semi quantitative monitoring of microbial load of water and surfaces. The microbial count is measured in Colony-Forming Units (CFU) per mL.



Waterline Disinfecting Solution

Dentosept S

6610310 | Dentosept S 1 L

Disinfection Solution of Water Lines for internal use in treatment centres.



BRS Kit

B3179WB | BRS Treatment Kit

Full set for shock treatment of Treatment Centres experiencing a CFU count of 200 or higher. Includes BRS PreCleaner and Remover.

