



**Saint Mary's
University**

Electron Microscopy Centre

**Title: STANDARD PROCEDURES TO USE THE
ULTRASONIC CLEANER**

Equipment: Branson Ultrasonic Cleaners Model 1510

Revision: 1.0

Effective Date: 12/21/2005

Author: X. Yang

Warning!

Before you attempt to operate this equipment for the first time, please make sure you are aware of the precautions that you must take to ensure your own safety.

 CAUTION 
<ul style="list-style-type: none">• Do not place parts or containers directly on the bottom of the cleaning tank; use a tray or wire to suspend items.• Do not allow the solution to drop more than 3/8 inch below the operating level line with the cleaner on.• Do not ever use alcohol, gasoline or flammable solutions. Doing so could cause a fire or explosion. Use only water-based solutions.• Do not use mineral acids. These could damage the tank.

To prevent personal and/or property damage:

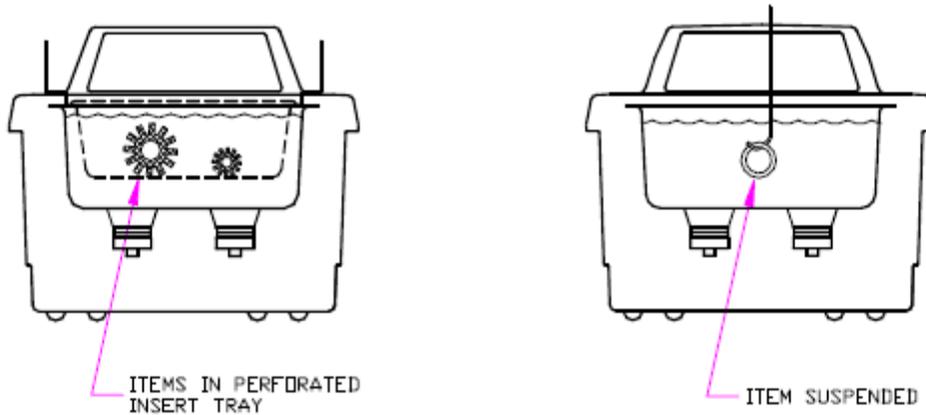
- Do operate the cleaner with a vented cover or no cover.
- Do use water-based solutions.
- Do not ever use alcohol, gasoline or flammable solutions. Doing so could cause a fire or explosion and will void your warranty. Use only water-based solutions.
- Do not ever use mineral acids. These could damage the tank.
- Do not touch the stainless steel tank or cleaning solution -- they may be hot.
- Do not allow fluid temperature to exceed 70°C (160°F).
- Do not place your fingers or hands into the tank while the cleaner is operating. Doing so may cause discomfort and possible skin irritation. Avoid contact with solutions and provide adequate ventilation.
- Do not use solutions containing chlorine bleach.

Standard Procedures to Use the Ultrasonic Cleaner

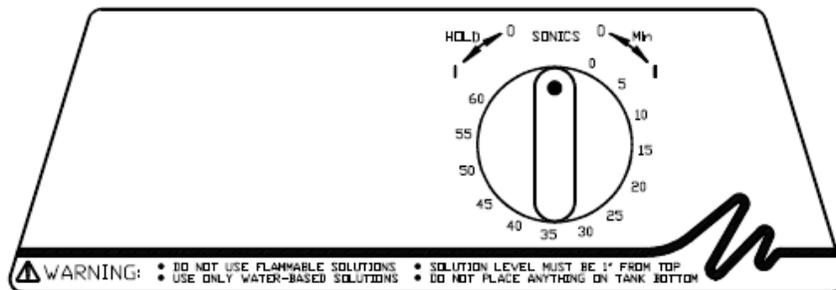
Direct cleaning

1. Fill the tank with warm water and a cleaning solution.
2. Place the items to be cleaned in a basket, perforated tray and lower them into the tank. You can also suspend items on a wire and then immerse them in the solution.

Note: The cleaning solution should over the items to be cleaned.



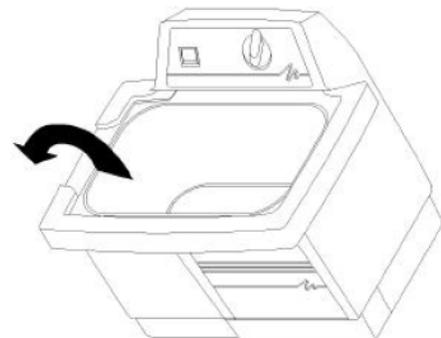
3. Set the timer to desired value (0-60 min) by turning it clockwise.



Note: In order to maximize the cleaning efficiency; it is always a good idea to “degas” the cleaning solution previous to real cleaning. This could be done by set the timer to 5-10 min. and let the cleaner run to allow solution to “degas”.

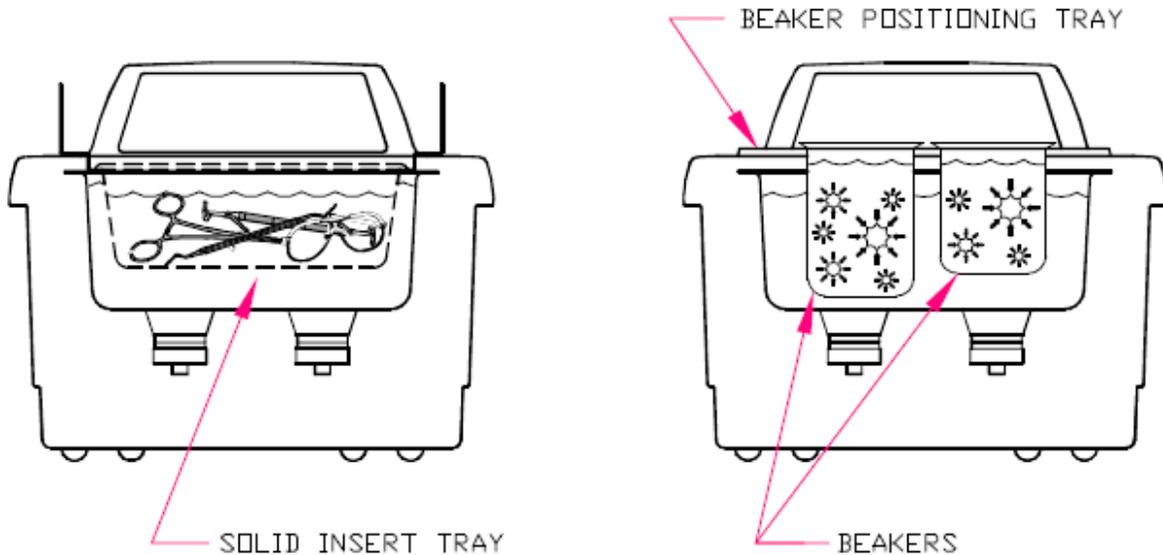
4. Rinse the clean items with clean water or other solutions and dry them, if necessary.
5. Drain the cleaner. To empty, use the indented side of the rim to pour the used solution into a waste disposal unit, rinse the tank thoroughly.

Caution: Always unplug the cleaner before emptying the tank.



Indirect cleaning

1. Fill the tank with warm water and a cleaning solution.
2. Pour your solution medium into one or more beakers or into a solid insert tray.



3. Place the beakers in a beaker positioning cover or a solid insert tray to fit your cleaner. Beakers should not touch the tank's bottom.
4. Set the timer to desired value by turning it clockwise.
5. Rinse the clean items with clean water and dry them, if necessary
6. Drain the cleaner.

Reference:

1. Operator's Manual for Branson Ultrasonic Cleaners, Branson Ultrasonics Corp.