

ERB Autoclave Liquid Sterilization Protocol

By Mike Nelson

This protocol will sterilize liquids at 121°C for 30 minutes.

Note:

- **DO NOT** open autoclave door unless the temperature gauge reads “0”. Zero on this gauge corresponds to 100°C, so contents may still be hot inside. Always stand back, use thermal gloves, and distance your face when unsealing the door.
- **DO NOT** seal containers before loading them. Make sure all vessels are unsealed and have foil covers and/or caps loosely sitting on top of them.

Machine Setup:

- Fill the autoclave water reservoir with enough distilled water to cover the top of the heating coils (~4 Liters if starting from empty).
 - Distilled water can be found in room 1224. **Use ONLY this water.**
- Switch bottom control knob to “fill water” until a thin coating of water almost reaches the front of the autoclave (takes about 30 seconds), then switch knob back to “STE” setting.
- Load samples into the autoclave in a **secondary container**. No liquid samples should ever be placed directly on the metal grate.
- Close door and seal firmly.

Initializing Run:

- Turn master power switch to “ON”.
- Set temperature knob two notches above the “121C/250F” mark.
- Set timer to 55 minutes
 - The machine should now automatically start heating. The “heat” light should come on.
- Check the temperature gauge 25 minutes into the run to ensure it has reached 250°F. If not, wait until it reaches 250°F and ensure the timer is set for 30 more minutes.
 - You should also check at this point to make sure steam is not leaking out of the door. If it is, tighten the door seal further.
- When the timer reaches zero, the machine will shut off and begin cooling. Wait until temperature is at its minimum (marked as “0”) before opening the door. It should take ~25-30 minutes for the machine to sufficiently cool.

Finishing Run:

- Remove samples and seal tops of vessels.
- Leave door of autoclave open in order to facilitate further cooling.