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[www.floatation.org](http://www.floatation.org)

## The Float Tank Association microbiology project

The quality of our joint microbiology project depends entirely upon the quality of the data that we accumulate. The quality of data depends on careful we are at taking notes at the time we collect the samples.

### **Step 1: Select the lab you will use for your microbiology testing.**

The US EPA helped establish a system of validating quality environmental testing labs in 1995. Laboratories that participate in this system are members of the National Environmental Laboratory Accreditation Program (NELAP) and have demonstrated their proficiency to a third party review system. You can find a local NELAP by using this link  
<https://lams.nelac-institute.org/Search>

### **Step 2: Discuss your microbiology testing with the local lab**

Not all NELAP labs can run every assay you may want. Plus, microbiology assays should be completed by the lab within 6 hours of the time you collect the sample. Coordination of sampling, transportation and assay in the lab is vital if the results are classified as “valid” on the report from the lab. Let the lab know that float solution cannot be refrigerated, or it will “salt out” and the results will be useless.

### **Step 3: Discuss which bacterial assays you want performed**

There are no universal standards for float tanks. The closest methods we have are for treated recreational water (swimming pools and spas). The most appropriate methods are from Standard Methods for the Examination of Water and Wastewater (usually just called “Standard Methods”). Any NELAP that tests water will have a copy of the Standard Methods manual, but they may not be able to run every method. The most valuable methods are:

1. SM 9213 E. Membrane Filter Techniques for *Pseudomonas aeruginosa*
2. SM 9215 D. Heterotrophic Plate Count: Membrane Filter Method
3. SM 9222 B. Standard Total Coliform Membrane Filter Procedure using Endo Media
4. SM 9222 D. Thermotolerant (Fecal) Coliform Membrane Filter Procedure
5. SM 9213 B.6. Test for Staphylococci or *Staphylococcus aureus*

These are listed in the order of their importance. Run what you can afford or what you are required to by your local department of health. If you can afford only one assay, select SM 9213 E. for *Pseudomonas aeruginosa*. Any data is better than no data.

### **Step 4: Collect your samples**

The lab will provide sterile sample containers. If you use chlorine, hydrogen peroxide or ozone let the lab know. They will provide a neutralizer for the treatment you are using. UV does not require any neutralizer. Prepare the sample label that was provided by the lab. Important information is the date,

time of collection, your initials, tank/pod number, and your company name. Carefully open the sample container. Lay the cap to one side with the cap facing up. DO NOT touch the inside of the cap or container. With the mouth of container pointing down, plunge the container into the float solution until it is at least 4 inches below the surface. Turn the container over and allow it to fill to the top. Remove the container and quickly replace the cap. Place the label on the sample.

**Step 5: Test your salt concentration**

Use whatever method you normally use. Knowing what your salt level will be extremely valuable. You can do this part yourself. Chances are your lab will not be able to run this assay as well as you can.

**Step 6: Submit the sample to the lab**

During your discussion with lab, they will describe how to submit the sample. This normally involves a “Chain of Custody” form and sample labels. Different labs use different forms so follow the directions they provide. Remember, for samples to be considered “valid” the lab must complete their assay within 6 hours of when you collect the sample.

**Step 7: Relax!**

You have done the hard part. Get in a float. The lab will handle everything from here on. In 2 to 4 days, you will get a written report from the lab. After you have a few reports, you can email them directly to Dr. Roy Vore at [roy.d.vore@gmail.com](mailto:roy.d.vore@gmail.com). Expect a few germs now and then. Finding an occasional germ now and then proves the tests are working.

Since there are no universal testing requirements for float tanks, we get to begin the process of writing them! So, let's start with testing one tank per month, unless your health department requires more than that. The testing will rotate to different tanks each month. The tests are likely to cost between \$30 and \$60 per test. This will become very expensive if you test every tank every month. Do what you can afford and do not feel obligated to do more than that. By doing a limited number of tests at any one float center but having many float centers sharing data we can develop a very important data base without imposing a huge burden on any one center.

If you have questions about any of these procedures, you can email Roy Vore. Roy and Dr. Flux will be the only people that see your results before their codes and your company name and address are obscured.

The Float Tank Association anticipates that it will take at least 18 months to gather enough data, analyze it, and publish it in a quality microbiology scientific journal. The FTA will then be able to share that journal article with the Centers for Disease Control and Prevention (the CDC), The Model Aquatic Health Code (MAHC), The National Environmental Health Association (NEHA), Health Canada and other national, state and local departments of health.