

AQUABOX

NEW AQUAFILTER FAMILY BASED DEMONSTRATION UNITS

New AquaFilter Family Demonstration Kit is based on showing the family unit filtering out particles **SMALLER** than all bacteria. It is also capable of filtering out viruses albeit viruses are rarely found free. Viruses range from 0.02 microns to 1.0 micron but generally need to live in larger secondary bodies to survive.

Our new in house Aquabox Demonstration system is based on an Aquabox fitted with a plastic window in its side, part filled with water with a small quantity of **Red Clay** suspended in the water. The water in the Aquabox looks "cloudy" /"Dirty." After the water has passed through the Aquafilter Family unit, the water looks and is sparkling clean having removed all particles smaller than the smallest bacteria.

Membrane Specification

The smallest bacteria's are around 0.3 microns while most bacteria are typically in the range of 2 microns to 5 microns and upwards to ~15 microns. (Bacteria are rarely spherical.)

The AquaFilter membrane filters out all particles less than 0.02microns which is very significantly smaller than all forms of bacteria and viruses.

Disperse the Red Clay

To make the demonstration unit function, add a small quantity of red clay (provided) to the water by **kneading** the clay under water between ones first finger and thumb until the water is cloudy. (The clay is milled down to 0.1 micron and then re-agglomerated for shipping. This re- agglomerated clay needs to be reversed. I.e. the particles need to be physically dispersed.)

The suspended clay is typically 50% (numerically) in the range ~ 0.1 to 0.2 microns, smaller than the smallest bacteria. The Aquafilter easily removes all the 0.1 micron / 0.2 micron clay particles since the membrane's design criterion is to remove all particles greater than 0.02 microns in the feed water.

We recommend the Family Unit over the Community Unit because it operates at a water flow of 1 litre /minute which is more practical than the 5 litre/minute of the Community unit.

Offer a Glass to Filtered Water to the Audience to Drink.

The filter removes all the red clay particles delivering a sparkling clear glass of water from the dirty cloudy red water in the box. You can then safely offer the audience a sample glass of the sparkling cleaned water for them to taste! Some people are shocked by this.

To add reality, fine some real putrid water and personally drink the filtered water in front of the audience. No adverse symptoms to date.

If you have any difficulties, please contact Aquabox/myself.

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Kneading the Red Clay



Cloudy Water in the Box



Demonstration Set Up



Sparkling Clean Water in the Glass