**Maintenance and cleaning of the device**

This majority of the components of the main ventilator system are assembled with unplasticised PVC, an inert, chemically resistant substance. Insertion of parts can be accomplished through plastic welding, PVC glue or friction fitting with teflon tape. All of these are suitable for drinking water purposes.

The only interface between air going to the patient and the outside environment is through the water in the system. As this leads to the small potential for contamination in the system, this water is constantly cleaned and sanitized throughout the use of the ventilator, by using an external pump and UV sterilizer. This runs a 9W bulb and sterilizes water at 23mcgW/cm2. This ensures inhibition of bacterial, fungal and some viral growth within the water reservoir.

Between use, the device should be cleaned in accordance with hospital protocols. The best method of sterilizing unplasticized PVC is Ethylene Oxide Sterilization, though this is not widely available (available at VGH in the lower-mainland of B.C.). An alternative can be a thorough wipe down with ethanol or iodophor. All tubing will be sanitized or replaced in accordance with hospital policy.

LINK TO FULL DEMONSTRATION VIDEO: <https://vimeo.com/402801085/5c2932b0c2>