



LARGE VOLUME CONCENTRATION (LVC) KIT

THE MOST EFFECTIVE AND RAPID CONCENTRATION
METHOD FOR LARGE LIQUID VOLUMES UP TO 100+ LITERS

THE LARGE VOLUME CONCENTRATION (LVC) KIT provides rapid concentration of bacteria, protozoa, and viruses from volumes up to 100 liters using existing head pressure or with the use of a basic pump, no other device is needed. The Kit works much like InnovaPrep's automated concentration instruments which use membrane filtration and a patented Wet Foam Elution™ technology to recover microorganisms into a small final volume (70 mL) in seconds.

The one-pass method improves your limit of detection by several orders of magnitude, enabling detection at previously undetectable levels, especially important for trace contamination.

FAST AND EASY FILTER ELUTION WITH INNOVAPREP'S WET FOAM ELUTION METHOD

The LVC kit contains everything needed for sampling and extraction including

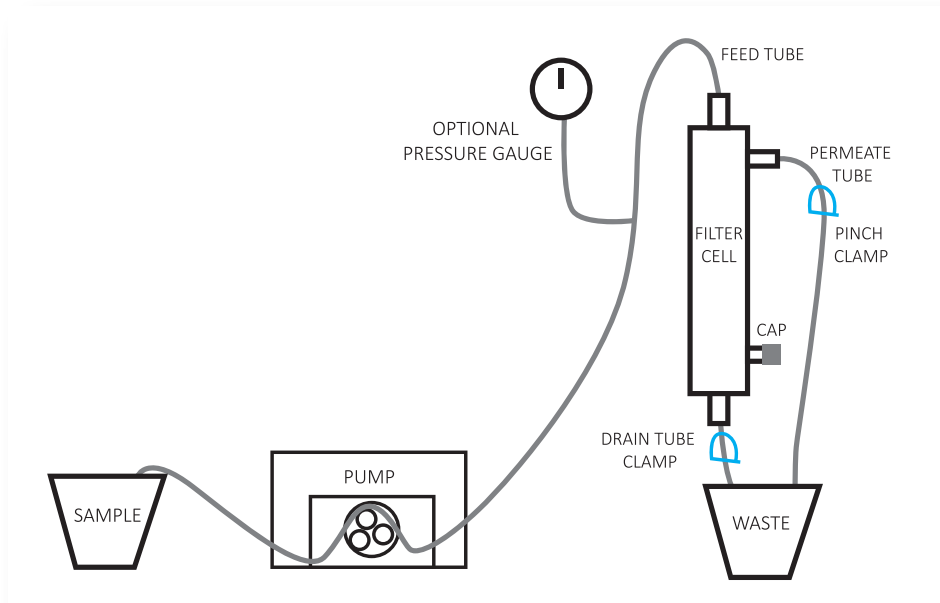
- A Filter Cell
- Tubing kit and clamps
- Elution foam canister
- Interface fitting

Sample fluid is forced through the membranes of the Filter Cell in a dead-end configuration. The particles are trapped as the fluid passes through the membrane and is forced out to waste. To recover the captured particles from the Filter Cell, the user presses the elution canister to the supplied fitting in the top of the filter cell. Foam is released from the canister and is swiftly forced through the bores of the hollow fibers within the Filter Cell. The final concentrate is dispensed into a collection container placed under the opposite end of the Filter Cell.

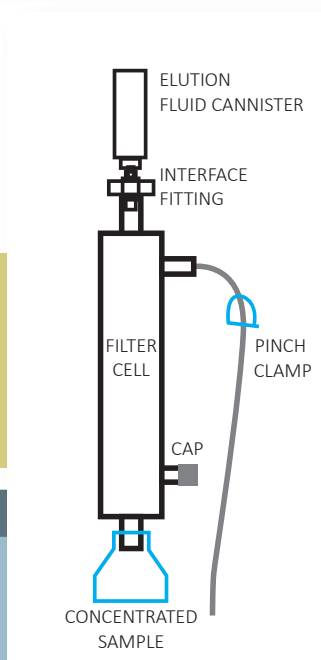
The elution fluid is conveniently packaged in a single-use canister. The fluid is infused with carbon dioxide. During the extraction process, the dissolved CO² expands and come out of solution to form microbubbles. These microbubbles expand the volume of the fluid sevenfold or more, behaving as a solid body as it moves down the inner bore of the hollow fibers in the Filter Cell creating uniform flow without channeling. The process gently exfoliates and lifts the particles that adhere to the Filter Cell wall into the concentrate. The elution process is instant and the foam collapses into a liquid in seconds – ready for analysis.

An additional benefit of Wet Foam Elution is the simultaneous clean buffer matrix exchange which removes soluble inhibitory substances.





The LVC kit provides a fast and simple first stage concentration step prior to a second stage step with the Concentrating Pipette Select. The InnovaPrep Concentrating Pipette (below) may allow you to process the LVC concentrate further to as low as 250 μL in minutes.



Concentrating Pipette Select™

FILTER CELL

- Polysulfone Hollow fiber membrane filter cell with 2.5 m² surface area
- Ultrafilter
- Flow rate up to 1 liter/minute.
- Input sample volume (sample dependent) up to 100 L

ELUTION FLUID SPECIFICATIONS

Elution Fluids

- 0.075% Tween 20/Tris recommended for rapid methods such as PCR and immunoassay
- 0.075% Tween 20 PBS recommended for culture-based methods

Elution Fluid Volume

- Fluid Volume 70mL
- Pressure Rating 135 PSI

FIELDS OF USE

- Recreational Waters
- Source Tracking
- Sources Water
- Swimming Pools
- Industrial and Agricultural Run-Off
- Aquaculture
- First Responders
- Wastewater