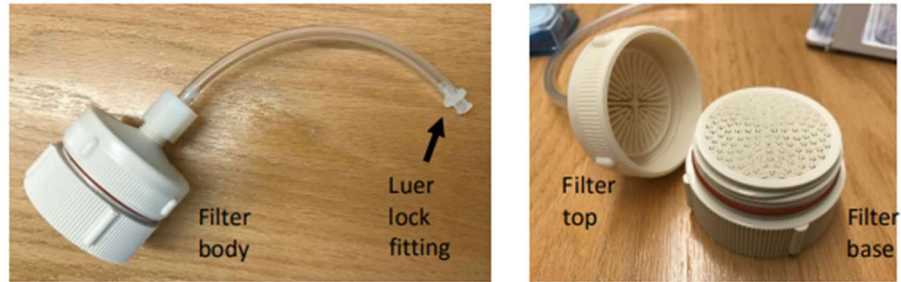


Field Filtering Procedure:

1. The Millipore Swinnex filter apparatus is shown below.



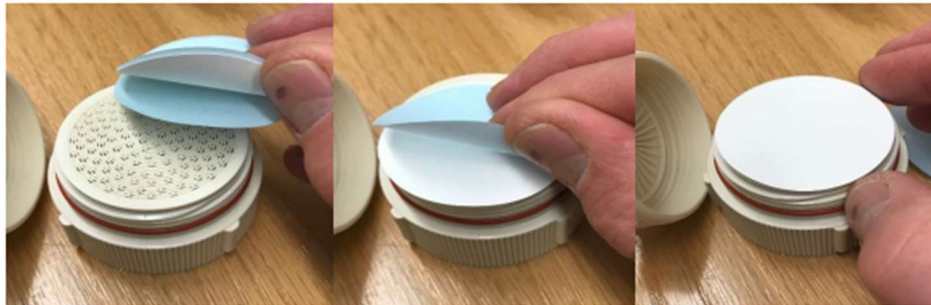
2. Open Swinnex filter holder by gripping top and base while twisting in opposite directions.

3. Prior to sampling, rinse the filter top and base thoroughly with clean water.

4. For a Dissolved Phosphorus test, use Millipore 0.45 μm PVDF filters (shown at right). The box that holds the filters can be opened more easily using a knife to separate the clear top from the blue base.



5. Each filter is sandwiched between two discs of light blue paper. Lift out a 'filter sandwich' handling the discs at the edges. Carefully discard the bottom blue disc and position the filter on the filter base (see below).



6. Place the filter top on the filter base, twist counter-clockwise until the threads click into alignment, then twist clockwise to screw two pieces together. As the filter top begins to overlap the orange O-ring on the threaded neck of the filter base, you'll feel resistance. Continue to firmly twist until the gap between the filter top and base is closed (see above, right).



7. Pull the water sample into a Luer tipped 60 ml syringe until the plunger is well-above the 60 mL mark (see below, left). Connect the Luer tip of the syringe to the Luer fitting on the filter apparatus. Push about 5 ml of water through the filter, discarding the filtered water.



8. Place the sample tube in a rack placed on a stable surface. Place the outlet of the filter apparatus on the uncapped sample tube (below, left) and push water through the apparatus until the water level in the sample tube nears the black 50 ml line. Push lightly on the syringe to slow the flow from a stream to dropwise (below, center). Add dropwise until the meniscus is just touching the top of the 50 ml line (below, right).



9. Cap the sample tube and place the Dissolved Phosphorus sample label on the tube.

10. Disassemble the filter apparatus, remove the filter and flush the syringe and apparatus with clean water before the next sample is taken.

11. Note: If the O-ring located on the filter top is not staying in position, the filter apparatus will still work with that O-ring removed. The photo at the right shows that the outer edge of the filter is not wetted, indicating that when the apparatus is firmly tightened, the filter is sealed in place. It is ideal to have the inner O-ring in place, but not absolutely necessary.

