

Filter Cartridge Sterile Extraction

Required supplies (not provided)

1. Laminar flow hood
2. Sterile forceps
3. 0.45 micron 47-mm sterile membrane filter (EW-06644-14 www.coleparmer.com)
4. Sterile packaged 10 cc syringe
5. 5.25 X 10-inch sterile pouch (Fisher Scientific #01-812-54) for re-sterilization

Procedure

1. In a sterile, laminar flow hood, remove the filter cartridge from its sterile bag or from the SASS instrument. With a sterile forceps pull out the filter from the top of the cartridge, leaving the plastic ring behind.
2. Open the pouch containing the autoclaved 47-mm filter holder. Using sterile forceps, place a flow restriction membrane (0.45-micron 47-mm sterile filter) on top of the base of the filter holder. Place the collection filter (collection side up) onto the flow restriction membrane (see Figure 1). Attach the top of the filter holder and twist to tighten.



Figure 1: Opened 47-mm filter holder, syringe, and extraction fluid

3. Open a 10-ml plastic sterile syringe and remove the plunger and attach the syringe to the base of the filter holder.
4. Open the sterile Extraction Fluid bottle and pour the contents into the syringe barrel and place the empty bottle under the filter holder exit port (see Figure 2).
5. Insert the plunger into the barrel of the syringe and inject the Extraction Fluid, collecting the sample in the empty bottle at the exit port. Detach the syringe and fill it with air and inject the air through the filter to collect the majority of the sample. Cap the sample bottle and label with an identifying number for analysis.



Note: Be sure that the extraction fluid passes through the 0.45-micron flow distribution filter before passing through the SASS collection filter. If very large particles are being collected, it may be necessary to remove the filter support disk from the top of the filter holder to avoid removing the large particles.



Figure 2: Assembled filter holder with an attached syringe barrel containing the extraction fluid.

Equipment Reuse Procedure:

Disassemble the filter holder and discard the collection filter, the flow restriction membrane, and the syringe. Rinse out the filter holder and dry. Seal in a steam permeable bag (5.25 X 10-inch sterile pouch Fisher Scientific #01-812-54) and autoclave. Dry the bag in a 60° C oven.



Important: Never reuse the filter cartridge.