

ENVIRONMENTAL EXPRESS

StepSaver: Frequently Asked Questions

Can I connect 2 manifolds together on the StepSaver?

- Yes, this is often done to expand capacity or for space issues. When you go to connect the 2 manifolds, replace the PVC nut in one of the manifolds with the G4014 PVC hose barb. Then by cutting off a small length of tubing that goes from the manifold to the pump, connect from the single barb on one manifold to one of the two barbs on the other manifold. The remaining barb connects to the pump.

I cannot remove my extraction head from the manifold. How can I get it unstuck?

- Unscrew the male taper from the manifold. Place the taper with extraction head attached in a freezer for approximately 20 minutes. The PVC taper will contract enough for the glass extraction head to slip off easily.

My Oil & Grease standard has visible material floating in the solution. How can I get it back into solution?

- The floating material is stearic acid and it is important for it to be in solution because it will affect recoveries. The stearic acid will return to solution only by slightly warming the standard simply by putting the vial or tube into their pocket for roughly 10 minutes. The standard should never be heated by any other external heating source as it is flammable.

Can I evaporate the hexane to dryness in the G1045 flask by placing it in an oven or water bath?

- The hexane should not be evaporated to dryness in a closed environment as it is very flammable and could result in an explosion. The recommended method of evaporating the hexane is by using air flow by vacuum tube, such as our QuikVap system.

How much vacuum is required to adequately pull the sample through the extraction disk?

- We recommend that the vacuum pump be rated to pull 25 inches of mercury. We offer the G3060 which meets this specification.

Can the extraction disks be re-used?

- Both the 3M and UltraFlow disks are recommended for one-time-use only. Reusing the disks will affect recoveries.

My manifold is leaking by the vacuum valve when I direct the filtration to waste--why?

- You must open the vacuum valve on the manifold prior to turning the StepSaver stopcock to the waste side. This will prevent any leaks through the vent hole in the manifold.

What trouble shooting steps should I follow if I am experiencing low recoveries?

- Acidify the sample to a pH <2. Even a DI Blank will not filter properly without being acidified.
- Perform the analysis when the samples are at room temperature. Flocculation can occur with cold water. Once the stearic acid flocs out, it is very difficult to dissolve in n-Hexane.
- Use fresh reagents. If you do not activate the disk with FRESH methanol not only will the disk not absorb the Oil and Grease, it will not filter completely.
- Initially rinse the disk with n-Hexane. An initial rinse with n-Hexane MUST be done prior to adding the Methanol for activation.
- Vacuum for at least 10 minutes after the sample appears dry. You may not see any liquid coming out, but it is. Drops at a time add up.

