

Canister Sampling Instructions

Considerations

Fittings do not need to be over tightened. All fittings on the sampling hardware are Swagelok[®], which ensures an air-tight seal if installed correctly. Adequate tightening is finger tight plus approximately 1/4" turn with a 9/16" wrench. When assembled, hardware should not be able to be rotated by hand.

Grab Sampling

- 🔧 Remove the brass cap from the canister.
- 🔧 Turn canister valve to the open position. The canister will hiss as air enters the canister.
- 🔧 As soon as the hissing slows, close the canister valve fully by turning clockwise until hand tight.
- 🔧 Replace brass cap.

Time Integrated Sampling

- 🔧 Remove brass cap from the canister.
- 🔧 Attach flow controller. The flow controller should be tightened with a 9/16" wrench with the flow controller at eye level and the canister on a flat surface. Tighten snugly but do not over tighten.
- 🔧 Flow controllers for ambient air samples will have a filter on the end (figure 1), while flow controllers for soil gas, sub-slab, or near-slab will have hose barbs on the end (figure 2). These fittings can be changed as per client request.
- 🔧 If rough edges in threads are encountered, gently use the 9/16" wrench for one-quarter turn to get over the rough patch. Applying too much pressure will strip the threads and compromise sample integrity.
- 🔧 Place canister in desired location and open canister valve fully.
 - 🔧 The flow controller should read approximately -30" Hg.
 - 🔧 Record the initial pressure, start time, and start date on the COC.
- 🔧 The pressure should be monitored near the end of the sampling period to ensure that the sampling is ended before the canisters reach ambient pressure.
- 🔧 At the end of sampling period, record canister pressure, stop time, and stop date on the COC.
- 🔧 Close valve fully, replace brass cap, and remove flow controller.

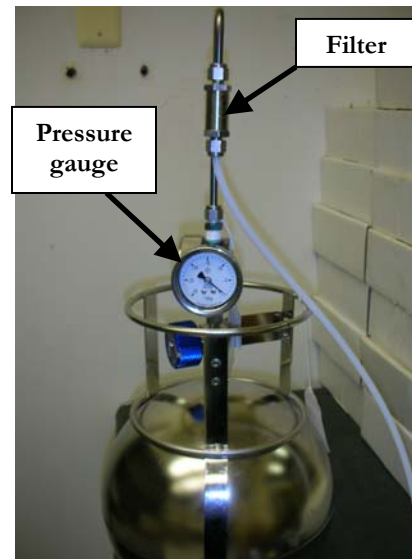


Figure 1: Air sampling canister with filter

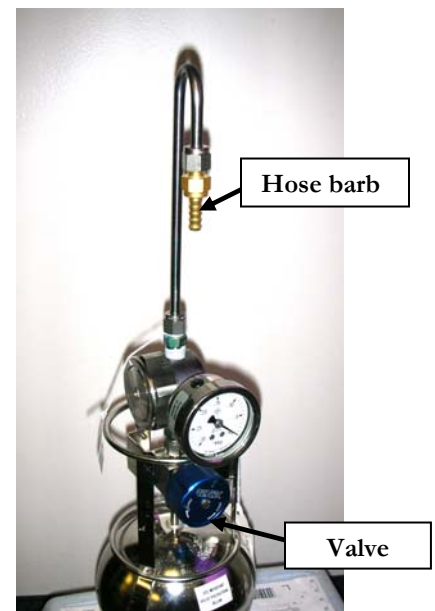


Figure 2: Air sampling canister with hose barb

Canister Sampling Instructions

After Sampling

- Always replace the brass can to the air sampling canister
- Complete the chain of custody in its entirety. Do not cross out fields on the COC that may not apply to your sampling or job.

NOTE: Times should be recorded on the COC based on a 24-hour clock (AKA military time). e.g. If it is 3:15PM, the time should be recorded as 15:15.

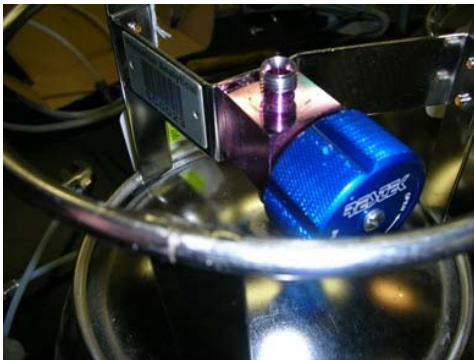


Figure 3: Threads on the air sampling canister. This is the connection point for both the flow controllers and the autosampler (Figure 4)

WARNING!

Please follow these directions carefully. Failure to follow these instructions may cause damage to canisters and/or flow controllers. If damage occurs, analysts will be unable to draw samples from canisters. The canister user will be held monetarily responsible for damages.

If you have any questions on use of canisters, please call (973) 361-4252 x273. We are happy to help!



Figure 4: Autosampler for air sampling canisters. If threads on canisters are found to be cross-threaded or otherwise disturbed, the laboratory may not be able to secure a leak-proof seal between the canister and the autosampler connection point,