AIR SAMPLING WITH SUMMA CANS AND REGULATORS

***DO NOT APPLY LABELS OR WRITE DIRECTLY ON CANISTERS!**

**** YOU WILL NEED (1) 9/16TH INCH WRENCH. WE DO NOT RECOMMEND ADJUSTABLE WRENCHES BECAUSE THEY CAN EASILY LOOSEN SLIGHTLY AND STRIP THE FITTINGS.**

SAMPLING INSTRUCTIONS FOR UN-ASSEMBLED, THREADED CANISTERS

1. Place canister in area of sampling and select the appropriate regulator for your sampling event.
2. Verify the valve is securely closed and remove the dust (brass) cap from can - the 9/16in wrench will fit the dust cap. **{Helpful Hint}** Only the dust cap is to be removed. The valve is to remain tight and secure. Any adjustment to the canister valve may cause a leak.
3. Using your hands, attach the regulator to the canister, finger-tightening the nut onto the canister. You should be able to thread the nut - with minimal resistance – for multiple turns. **{Helpful Hint}** If there is resistance to tighten from the start, DO NOT continue tightening as you could strip the threading; loosen and verify proper seating before proceeding to finger tighten.
4. Once the regulator is finger tight onto thread adapter of the canister, tighten the regulator with the 9/16in wrench. Tighten approximately 1/4in turn with the the wrench, or until tight. **{Helpful Hint}** Over-tightening may cause leaks. There should be no 'play' at the connection when fully secure.
5. If there is a leak check to be performed on the canister/regulator setup prior to sampling, perform this check now - prior to removing the brass caps from the regulator. See below for details (This step is recommended for all sampling events). If not, proceed to step 6.
6. Remove brass caps from regulator using 9/16in wrench. Open the valve approximately 1 full turn to begin sampling and immediately check the gauge to notate the initial vacuum reading. If you hear a hissing or see the gauge pressure dropping quickly, close promptly and check fittings to ensure they are snug. Note: Gauges are for approximate readings and are checked to be +/- 2 of actual pressure. **{Helpful Hint}** It is possible to loosen the valve too far, causing a leak at the valve.
7. After the sampling time has elapsed, note the final pressure. Close the valve and remove the regulator using the 9/16in wrench.
8. Replace the dust cap on the canister using the techniques described for the regulator on in steps 3-4.
9. Ensure the chain of custody and canister tag are completed with all project, sample, and analysis information. Place cans and regulators back in box similar to how they were packed and prepare to return them to the lab.

PRE-SAMPLING, FLOW CONTROLLER LEAK CHECK PROCEDURE: (1:16 THROUGH 2:16 IN VIDEO)

1. With the flow controller/restrictor secured to the canister and the dust (brass) cap(s) secure on the controller, open the canister valve, then close the valve immediately.
2. Step 1 will create a vacuum on the controller/restrictor. The vacuum can be recorded as the initial canister vacuum.
3. If the controller/restrictor is appropriately connected to the canister, the vacuum gauge will hold (no drop in vacuum). Holding vacuum for approximately 30 seconds will give you confidence in the controller/canister connections. **{NOTE}** The lab performs this check on all FCs prior to shipment.
4. If the vacuum drops, then check connection at canister and brass cap(s) - or any other connection within the FC that may have loosened during shipment - and perform Steps 1-3 again.
5. After completion of the successful leak check, remove the dust cap and proceed with sampling. (Step 6 above)

CHECK OUT OUR INFORMATIONAL INSTRUCTION VIDEO: