

## Loading a POWGEN Mail-In Sample

### 1. Receive Cans-

There should be **n**- V cans, **n**- AL lids, **n+1**- gaskets, and a spreadsheet, where **n** is the number of cans requested.

### 2. Log ID from can on spreadsheet (PACXX#####) under Can#.

XX denotes can size :

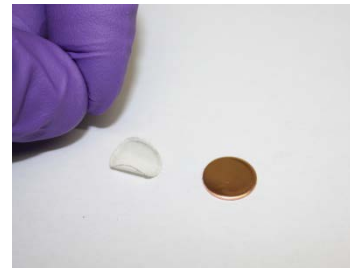
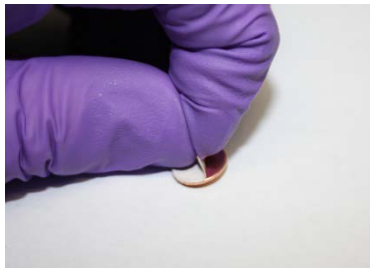
06- 6mm

08- 8mm

10- 10mm



### 3. If present, remove film from Cu gasket to expose the mirrored surface. This may not be necessary as some gaskets have no film and are polished on both sides.



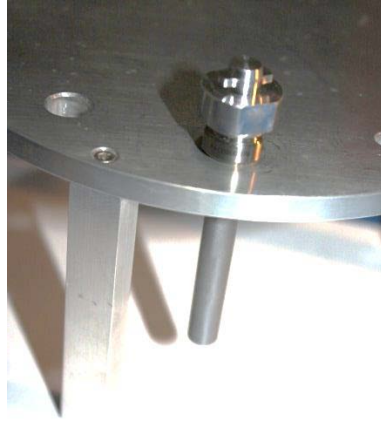
### 4. Clean the cans. Cans should be received empty and clean; however, we recommend cleaning cans.

- Clean cans with alcohol and cotton swabs or kimwipes.
- Use compressed air for drying to remove alcohol. Holding the can upside down works well.

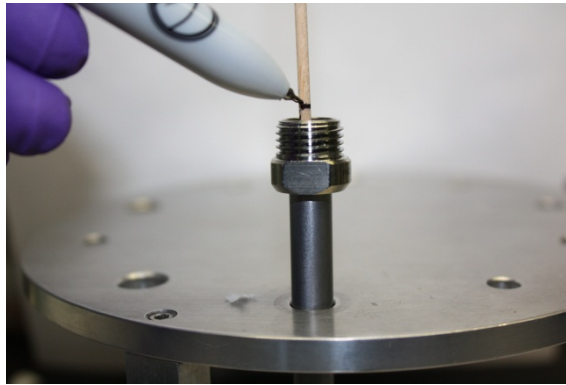


### 5. Weigh V can, Cu gasket and Al lid and log the weight on the spreadsheet under Empty Can Weight (g).

- Support V can upright. Note: An upside down funnel often works well as a holder.



- Fill can to desired height and weight. NOTE: Any sample filled above the titanium collar will not be in the beam.
- Measure height of sample using an appropriate tool and log it on the spreadsheet under Sample Height (mm). NOTE: This is required for PDF.



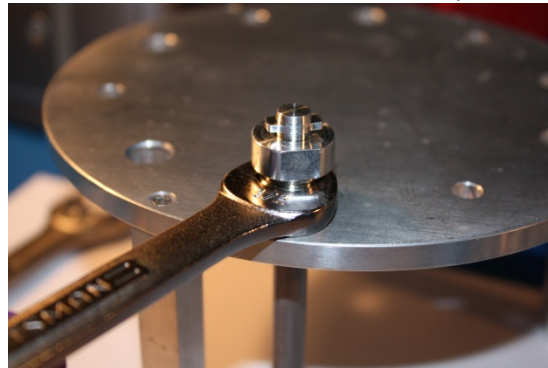
- Place the Cu gasket on top of the can. MAKE SURE TO CAREFULLY CENTER THE GASKET. This is necessary for a proper seal to be made. A poorly-centered gasket can lead to leaks.
- Thread lid with gasket onto the can and hand tighten.

11. Tighten the lid using wrenches.

- a. **ONLY USE WRENCHES WITH FLATS.** Using a wrench with teeth will damage the can and may compromise your experiment.



- b. Place a 1/2" wrench on the 2 flat sides of the collar on a sample can.

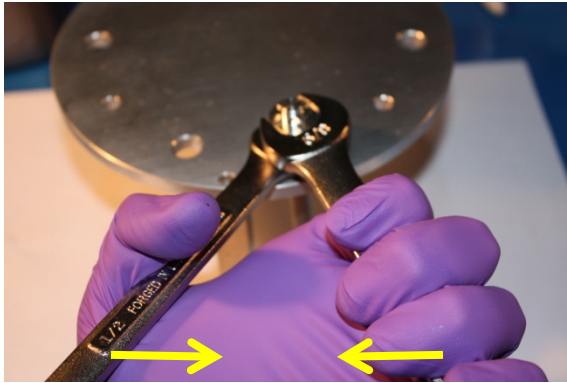


- c. Place a 5/8" wrench on the 2 flats on the Al lid.



- d. The wrenches should be held approximately 30-90 degrees apart so that the top wrench is to the right (CCW) of the bottom wrench.

- e. Squeeze the wrenches together so the top wrench moves clockwise until tight. To seal the cans requires approximately 7.5 ft·lbs (~10N·m) of torque.



12. Weigh the full can and log the weight on the spreadsheet under Full Can Weight (g).
13. Place each sealed can into a separate, appropriately labeled bag. Include the sample composition and PI name.