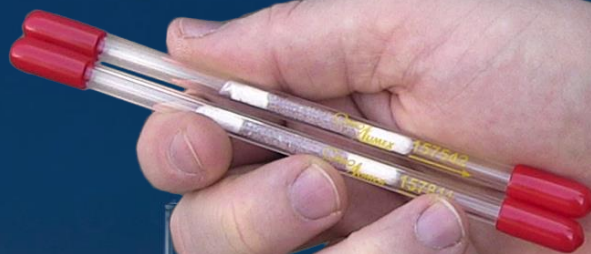




Gold-Coated Silica Bead Traps



DESIGNED FOR MEASUREMENT IN NATURAL GAS

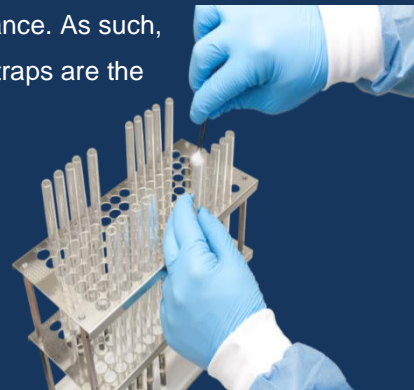
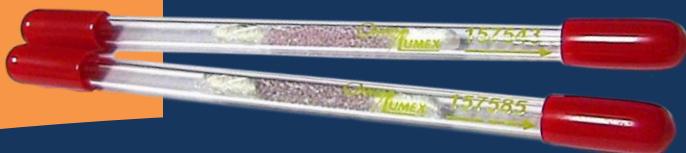
OUR GUARANTEE

What makes us unique is that we make every part of each sorbent trap in-house. This allows us to be in control of each step of the manufacturing process and to use the most extensive QA/QC procedures. Throughout our years of experience in manufacturing sorbent traps we have run into a multitude of different types of stacks and potential problems for sorbent traps. However, we have been able to overcome each and every situation with a special testing plan to solve the problem for each client. We will work with you until the traps work perfectly and we will even customize your sampling plan for your particular source conditions. The sorbent traps we will provide for you are performance guaranteed!

APPLICABLE FOR METHODS ASTM D5954 and EPA M30B

In crafting our traps, we use authentic gold-coated silica beads that allow for the capture of mercury without obtaining unwanted organic compounds. When testing natural gas, organic compounds can interfere with analyzing of sorbent traps; however, this is not of concern with our silica-based traps since organics do not interact with the beads. For you, this means precise, accurate measurements – each and every time.

At Ohio Lumex Company, we have extensive QA/QC procedures for each step of sorbent trap manufacturing. These QA/QC procedures include (but aren't limited to) qualifying all sorbent trap components and maintaining complete and accurate records. Every trap is double checked to be of the highest quality. Additionally, each sorbent trap is made in-house, where we have complete control over our highly detailed, second-to-none manufacturing process. This gives us the ability to achieve optimal performance. As such, it is with the utmost certainty that we state our traps are the BEST to your specific conditions.



TUBE HANDLING

You must protect the tubes from gross external contamination during field sampling. Analytical thermal desorption equipment used to analyze tubes must desorb organic compounds from the interior of tubes and exclude contamination from external sampler surfaces in the analytical/sample flow path. If the analytical equipment does not comply with this requirement, you must wear clean, white, cotton or powder-free nitrile gloves to handle sampling tubes to prevent contamination of the external sampler surfaces. Sampling tubes must be capped with two polyvinyl chloride long-term storage caps to prevent ingress of airborne contaminants outside the sampling period. When not being used for field monitoring, the capped tubes must be stored in a clean, air-tight, shipping container to prevent the collection of contaminants.

LABORATORY ANALYSIS

Ohio Lumex is a full staff laboratory capable of doing all of your sorbent trap analysis.

Standard Turnaround is 1 week.

We can do Same Day RUSH analysis!

We utilize the most extensive QA/QC per ASTM Method D5954, Method 30B and PS 12B.

We have analyzed 1000's of Sorbent Traps.

Bulk discounts available for Sorbent Trap and Analysis Customers.

SAMPLING

The distance from the sampling point to the sampler should be minimized because mercury is easily absorbed on tubing lines and sampling equipment. The entire sampling system must be passivated with the sample gas before any sampling, especially if low levels of mercury are expected.

Any pumps, metering valves, and so forth or other flow- and pressure-controlling devices should be located downstream of the sampler. The entire sampling line should be heated to prevent condensation, especially when a pressure reduction device is used to step down the pressure for sampling.

Ohio Lumex recommends a flow rate of less than 1LPM. A total flow volume measurement device, such as a mass flow controller or dry gas meter, can be used to record the exact amounts of gas sampled for more accurate sampling.

Remove the fitting on one end of each tube and join the two tubes end-to-end with a short piece of silicone tubing.

Connect the back end of the sampling tube assembly (Tube 2) to the rotameter and connect the front end of the sampling tube assembly (Tube 1) to the sampling point. Carefully open the sampling valve and quickly adjust the flow control (and pressure if necessary) to obtain the required flow rate. Record the time and flow data at the start of sampling. Mark the direction the sample gas flowed through the tube.

Flow the sample through the sampling tube for the desired amount of time, periodically checking that the flow is staying close to what it originally was and adjusting it if necessary. Typical volumes of gas range from 50 to 100 L. A smaller volume of gas should be used for a sample containing a high concentration of mercury. The optimal range that should be collected is between 2 and 300 ng of mercury. The capacity of the sorbent is much higher, approximately 7 µg, but a loading at this level should be avoided as the collection efficiency is lessened and the linearity of the atomic absorption spectrometer exceeded.

At the end of the sampling period, disconnect both tubes, and replace all of the endcaps tightly on the tubes.

Record any relevant information on the sample chain of custody (COC) that accompanies the samples from preparation of the tubes through receipt for analysis, including the following information: Unique tube identification numbers for each sampled tube; the date and time sorbent trap run was started; the date and time sorbent trap run was ended; the location; and problems or anomalies encountered. Place the sampled tubes into their plastic tubes and cap. Place the plastic tubes into the plastic bags with the individual tubes COC. Place the plastic bags containing the tube and COC in the storage/shipping container.

Note: Sampled tubes must not be placed in the same container as clean sampling tubes. Sampled tubes may be shipped at ambient temperature to a laboratory for sample analysis.

