## Restek GC Carrier Gas Management System

(Compatible with  $^{1}/_{8}$ - and  $^{1}/_{4}$ -inch fittings-cat.# 21999)

Replacement traps: Moisture Trap: ¹/s-inch fittings-cat.# 21997; Hydrocarbon Trap: ¹/s-inch fittings-cat.#21991; Oxygen Trap: ¹/s-inch fittings-cat.# 22010

NOTE: It is important to follow this installation procedure. Otherwise, lifetime of the traps will be greatly reduced.

## **Overview**

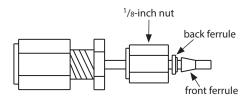
The Restek® GC carrier gas management system (GMS) is designed to remove moisture, oxygen, and hydrocarbons from the carrier gas. The oxygen trap indicator changes from light green to grey as oxygen is removed.

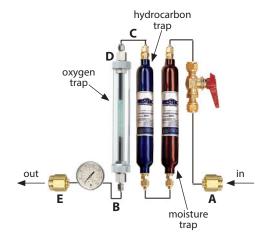
**WARNING:** Do not pass air or oxidizing gases in concentrations above 0.1% through the oxygen trap! The rapid oxidation of the active adsorbent in this filter can cause the filter bed to become extremely hot, resulting in danger of fire or burn injuries. Limited exposure of the filter to air during installation does not result in rapid reaction or dangerous heat generation. Special precautions might be required when using hydrogen. Consult local regulations and your company's safety procedures.

## **Installation Instructions**

- 1. The GMS is fitted for use with  $^{1}/_{8}$ -inch tubing. If you are connecting the GMS to  $^{1}/_{8}$ -inch tubing, please move to Step 3. If  $^{1}/_{4}$ -inch OD tubing is being used to connect to the GMS, you will need to add the supplied adaptors to the GMS.
- 2. Remove the nuts and plugs from the <sup>1</sup>/<sub>8</sub>-inch fittings (**A & E**) on the GMS. Place the <sup>1</sup>/<sub>8</sub>-inch nut and ferrule onto the <sup>1</sup>/<sub>4</sub>-inch adaptor fitting (see figure at right). Slide the adaptor fittings into the <sup>1</sup>/<sub>8</sub>-inch bulkhead fittings (**A & E**) and tighten the <sup>1</sup>/<sub>8</sub>-inch nuts until the adaptor can no longer be moved.
- 3. Connect carrier gas line to the inlet fitting (A) and tighten.
- 4. Establish carrier gas flow to the pre installed moisture and hydrocarbon traps in the gas management system. Place the toggle valve in the "open" position.
- 5. Let the system purge for approximately 5 minutes.
- 6. Connect the pre-bent stainless connection line (**B**) to the outlet of the oxygen trap. Use two wrenches to tighten the fitting to prevent the glass trap from breaking.
- 7. Connect the pre-bent stainless connection line **(C)** from the outlet of the hydrocarbon trap to the inlet of the oxygen trap **(D)**. Use two wrenches to tighten the fitting to prevent the glass trap from breaking.
- 8. Connect the carrier gas line to the outlet fitting **(E)** and tighten. Again, use two wrenches to tighten the fitting.
- 9. Check for leaks using a Restek leak detector (cat.# 22655). Do not use liquid soap solutions as they may contaminate the system.
- 10. If leaks are detected, gradually tighten the leaking fitting to correct the leak. When the system is leak-free, your carrier gas is ready to use.







Contact Technical Service at 1-800-356-1688, 1-814-353-1300, ext. 4, or support@restek.com (or contact your Restek® representative) if you have any questions about this product or any other Restek® product.

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