

# GRIFFIN X-SORBER FIELD USE: NOTES FOR THE HOT ZONE

Designed for the collection and desorption of air samples, the Griffin™ X-Sorber is easy to operate weighing only 3 lbs and is compatible with the Griffin 450 mobile GC/MS system.

The X-Sorber provides flexible options for a broad range of applications. Users can hand-carry the X-Sorber while sampling, utilize the clip accessory for hands-free operation in the field, or employ the “leave and retrieve” Concept of Operation (CONOP) via programmable collection methods. On-board software allows the following sample collection methods to be programmed into the X-Sorber:

- Time-based sample collection (i.e. sample for specified amount of time with an option for time delay during leave and retrieve CONOPS)
- Multiple sample times over a given period
- Volume based sample collection (i.e. collect specific sample volume and automatically shut-off upon completion)
- Manual sample collection

Utilizing multiple X-Sorber units enables simultaneous sample acquisition at multiple downrange locations. Upon completion of sample collection, each X-Sorber can be docked with a Griffin 450 for data download and sample identification. A second docking port in the Griffin 450 provides a conditioning station for recently sampled X-Sorbers to be prepared for re-use.

## METHOD DEVELOPMENT

All X-Sorbers are provided with a standard manual sample collection method, where users are able to start/stop the X-Sorber at any time. For users who require more specific time-based or volume-based sample collection methods, custom methods can be developed using the Griffin System Software™ (GSS) Suite. The X-Sorber must be docked with a Griffin 450 in order to complete method and data transfers. ICx offers a service program for returning the X-Sorber to the ICx Applications and Test Center for assistance with method development and programming.

## HOT-ZONE SAMPLING

Every X-Sorber is equipped with the capability to log sample collection date and time, as well as GPS coordinates. The two sorbent tubes within the X-Sorber have unique serial numbers. Samples can be collected onto Tube A, Tube B, or both simultaneously. Dual-tube sampling allows users to analyze one tube and archive the other tube as chain of evidence.

## DECONTAMINATION

The external components of the X-Sorber, as well as the sorbent tubes, are decontaminable via a wipe down process. Users should always complete the decontamination process and replacement of sorbent tubes outside of the hot zone.

If removed or replaced while in the hot zone, the sorbent tubes and internal components of the X-Sorber may become contaminated. The inside of the X-Sorber can not be decontaminated once it has been exposed to contamination.

## IDENTIFICATION

The X-Sorber is designed to fit seamlessly with the Griffin 450 GC/MS for thermal desorption, data transfer, and sample analysis. As an alternative, the sorbent tubes (standard size) may be removed from the X-Sorber and inserted into a commercially available thermal desorption system for further analysis.

All analyses should be completed in a safe, non-contaminated environment with proper ventilation. Whether users are docking the X-Sorber with a Griffin 450 GC/MS for analysis, or using another commercially available thermal desorber system, proper care should be taken to protect the area from becoming contaminated by the equipment.

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