

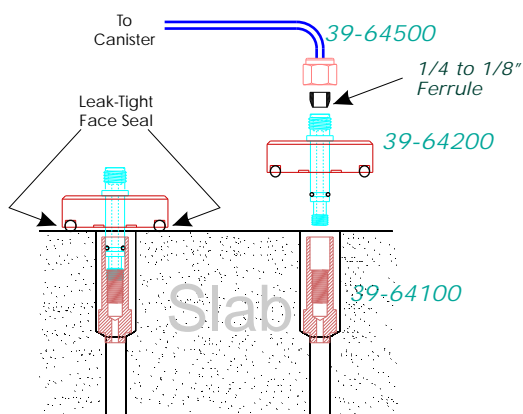
# Soil Gas/Vapor Intrusion, Arson



Solvent Enhancement Enclosure (SEE)



1M Soil Probe & 29-MC400L



## Landfill/Soil Gas

Subsurface landfill and soil gas can be sampled into MiniCans using 1/2" diameter sampling probes. Filling is complete once the canister is within about 5" Hg of atmospheric pressure. A gas-tight syringe is used to remove ambient air before sampling. Surface contaminants can be sampled using the Solvent Enhancement Enclosure (SEE) which allows vapors to build up for up to several minutes before the evacuated MiniCan is attached to withdraw the concentrated sample. This is an ideal screening tool, useful in locating contaminated hotspots requiring treatment or cleanup. Sub-slab sampling for vapor intrusion monitoring is performed using a two-piece Silonite® coated sampler. The low-cost probe is grouted into a 1" hole, while the face-sealing connector makes a reliable seal on the concrete surface to the outside of the grouted hole.

Unit	Part No.	Description
EA	39-61000	1 Meter Sampling Probe
EA	39-67000	Evacuation Syringe w/Quick Connect
EA	29-MC400L	0.4L MiniCan™ with QC Valve
EA	39-63030	3L Solvent Enhancement Enclosures
EA	39-63075	7.5L Solvent Enhancement Enclosures
EA	29-70200	GC Syringe Sampling Port
EA	39-64100	Slab Probe (grouted into slab)
EA	39-64200	Face Sealing Slab Fitting-1/4" Port Out
EA	39-64500	Slab Sampling Silonite Tubing Kit



Vapors can be sampled directly once a positive canine response is obtained.

## Arson Investigation

MiniCan™ and Bottle-Vac™ samplers are ideal for investigating the presence of accelerants at a burn site. Vapor phase samples can be collected directly using Restricted Samplers (see Page 17), Solvent Enhancement Enclosures (SEE) or soil probes (see soil gas sampling application above). The self-contained vacuum pulls the sample into the container without requiring a power source.

Analyzing individual pieces of debris for accelerants can also be done by placing the debris into low-cost, analytical grade LVH vials (Large Volume Headspace) rather than using paint cans that may adversely affect the sample. Direct analysis of the headspace can be performed in a fraction of the time needed to perform the "passive adsorbent transfer" technique more commonly used (see Page 47). LVH vials can also be used to collect carbon soot-covered window glass, as the deposited soot will start adsorbing the accelerant immediately after the fire is extinguished and temperatures return to ambient levels. When combined with on-site GC/FID(MS) operating out of a small mobile lab, the MiniCan and LVH samplers can provide results immediately while a potential crime scene is still secure.



LVH samplers allow accelerants to be analyzed from debris in minutes rather than the 12-24 hours required for classical charcoal strip passive transfer and solvent extraction, with 10 to 1000 times greater sensitivity!

Unit	Part No.	Description
EA	29-MC400QT	0.4L MiniCan™ with Micro-QT™ Valve
EA	29-BV460AC	Evacuated, Certified Bottle-Vac™ Sampler
EA	39-63030	3L Solvent Enhancement Enclosure
EA	39-RS-QT2	1 Min. MiniCan/Bottle-Vac Sampler
EA	39-75500	500ml LVH Vial and Cap(Box of 12)
EA	29-70010QT	Vacuum Sampler Check Gauge