



# HAPSITE<sup>®</sup> ER Chemical Identification System

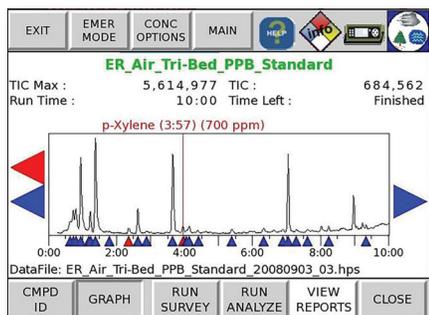
Quick, Easy, Accurate  
On-Site Performance



# The Only Person-Portable GC/MS That Identifies VOCs and SVOCs

## SIMPLE OPERATION FOR SOPHISTICATED ANALYSIS

HAPSITE ER is the only person-portable Gas Chromatograph/Mass Spectrometer (GC/MS) that requires minimal training to deliver qualitative and quantitative lab-quality results—in the field, in less than 10 minutes. In fact, all the operator has to do is push a button to begin identifying and quantifying volatile organic compounds (VOCs), toxic industrial chemicals (TICs), toxic industrial materials (TIMs), chemical warfare agents (CWAs), and select semi-volatile organic compounds (SVOCs).



HAPSITE ER delivers qualitative and quantitative lab-quality results in less than 10 minutes.

HAPSITE ER has the capability to identify analytes in the PPM (parts per million) – PPT (parts per trillion) range. The GC column provides sharp chromatography and excellent resolution. During the quantitation method, the front panel clearly displays what chemicals are

## ADVANTAGES AT A GLANCE

- Fast, confirmatory results in the field directly comparable to laboratory GC/MS data
- Universal interface allows for accessory expansion without a hardware change to HAPSITE
- Simple operation for even basic skill levels with minimal training
- Visual confirmation of correct probe placement for optimum sample collection
- Clear, color indicators of sample identity and level of danger
- Pre-programmed methods to obtain quality data in minutes with a few simple keystrokes
- Bright, graphical display of chromatograms, spectra, and instrument status for easy viewing
- Built-in GPS records exact sampling location for legally defensible data

present, their concentration, and access to information regarding the degree of danger—to help make quick decisions affecting life, health and safety.

## ENSURES OPTIMAL DISTANCE FOR THE MOST ADVANTAGEOUS SAMPLE COLLECTION

A visual indicator guides the critical process of probe location. This feature prevents the user from drawing too much sample into the instrument—causing saturation and inconclusive results. To accomplish this, HAPSITE ER employs a probe distance indicator that delivers visual feedback for the probe's optimal placement relative to the spill, drum, or other point source.

It's simple. When using Survey mode (MS only), the bar turns green when the user is drawing sample at the proper distance. Then, a push of the "RUN ANALYZE" button transitions the unit directly into GC/MS sampling mode. This ensures that sampling is done correctly, regardless of operator skill level or education.

## HAPSITE ER DELIVERS SIMPLE ANALYSIS IN SECONDS AND DETAILED RESULTS IN MINUTES

HAPSITE ER uses a concentrator only for both low-level and high-level sampling. This reduces the time lost from manually changing sampling configurations for desired detection limits.

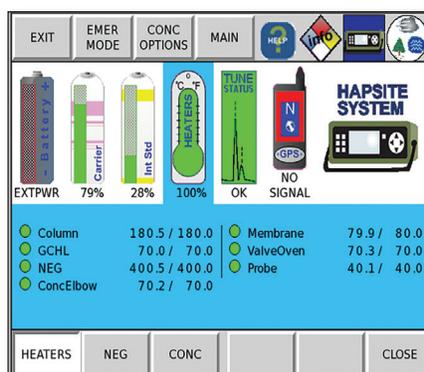
HAPSITE ER delivers vital information immediately. Use it in Survey mode for initial sampling to pinpoint chemical hazards with sensitivity down to 1 PPM. With one touch sampling, you can quickly and easily switch to full GC/MS mode for low-level detection (PPM/PPB range) and identification.

## PRECISION SAMPLE COLLECTION ENSURES EXCELLENT REPRODUCIBILITY

A unique volume sample collection allows for portability of calibration curves, which is particularly useful when chemical exposure to multiple

EXIT	EMER MODE	CONC OPTIONS	MAIN	HELP	INFO	GPS
<b>ER_Air_Tri-Bed_PPB_Standard</b>						
TIC Max :		5,614,977	TIC :	684,562		
Run Time :		10:00	Time Left :	Finished		
<b>1: Toluene</b> RT: 2'21"						
CAS#:	108-88-3	FIT: 88.0%	CONC:	600.0 ppm		
<b>2: p-Xylene</b> RT: 3'57"						
CAS#:	106-42-3	FIT: 93.0%	CONC:	700.0 ppm		
2: Ethanol, 2-fluoro- RT: 0:38						
CAS#:	371-62-0	FIT: 70.0%				
2: Acetone RT: 0:43						
CAS#:	67-64-1	FIT: 79.0%				
DataFile: ER_Air_Tri-Bed_PPB_Standard_20080903_03.hps						
CMPD ID	GRAPH	RUN SURVEY	RUN ANALYZE	VIEW REPORTS	CLOSE	

The highlighted chemicals are linked to the on-board NIOSH database for actionable information that can be used to quickly assess the danger level.



On-screen icons show at a glance the status of the HAPSITE ER systems. Touch any icon for system information.

HAPSITEs is a concern. The software measures the sample flow rate and fills to a fixed volume, ensuring consistent results, even if environmental factors affect the flow rate of sample collection.

## FAST, CLEAR WARNING OF PRESENT DANGER

Touch screen function provides quick access to critical information about the potential dangers of various compounds. Large buttons and color coding make it easy to operate, even when outfitted in personal protective equipment (PPE).

Critical safety information can't come too quickly, and HAPSITE ER is as fast as it gets. Touch screen navigation of the system quickly identifies various compounds and concentrations, and displays them in color according to their relative hazard level, including IDLH (Immediately Dangerous to Life or Health). HAPSITE ER displays not only the chemical name, but also information about the chemical and an indicator of the level of toxicity and interpreted danger level.

## MINIMAL TRAINING PRODUCES OPTIMUM RESULTS

An instructional CD and a series of one-day courses are all anyone needs to operate HAPSITE ER like a seasoned chemist.

The training CD will provide everything the operator needs for front panel operation. The CD can be used as a refresher tool or an instructional guide for new users. In depth data interpretation proficiency can be achieved by taking additional Smart IQ courses.

## A FULL RANGE OF ACCESSORIES FOR APPLICATION-SPECIFIC PERFORMANCE



**HAPSITE HeadSpace Sampling System:** for highly accurate on-site analysis of VOCs in water, soil, and solids, with detection limits into PPT range.



**HAPSITE SituProbe:** for lab-quality water analysis through a modified purge and trap system. Use it to analyze individual samples for continuous stream analysis, with detection limits into PPT range.



**Service Module:** allows for general maintenance and can be used as an alternate source of vacuum during stationary operation.

## SPECIFICATIONS

Operating temperature	5 – 45°C
L x W x H	46 x 43 x 18 cm (18 x 17 x 7 in.)
Weight	Approximately 19 kg (42 lb.) with battery
Power supply	Rechargeable NiMH battery pack or AC converter
Battery life	2 – 3 hrs
Power requirement	24 V (dc), 30 watts at normal operating conditions
Hard drive	16 GB internal storage
Flash drive	USB
Display	6.5 in. VGA color display with touch screen
Sample introduction	Air probe (included) or optional accessory
Carrier gas	Nitrogen
Data system	Intel® Pentium® processor
Communication	802.11G wireless or direct Ethernet connection
Data analysis	AMDIS Mass Spectral Libraries, NIOSH, (NIST on optional laptop)
Sample type	VOCs and select SVOCs
Detection limit	PPT for most analytes
<b>MASS SPECTROMETER</b>	
Mass range	41 – 300 AMU (1 – 300 AMU using SIM)
Scan rate	1000 AMU/sec @ 10 points per AMU
Ionization mode	70 eV Electron Impact
Detector	Electron multiplier
Vacuum system	Non-evaporative getter (NEG) pump
Dynamic range	7 decades
<b>GAS CHROMATOGRAPH</b>	
GC column	15 M, Rtx-1MS, 0.25 mm i.d., 1.0 um df (included)
Temperature range	45 – 200°C

## APPLICATIONS

- Environmental assessment
- Chemical monitoring
- Emergency response



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