

# GRIFFIN™ | 400

MOBILE GC/MS FOR CHEMICAL  
DETECTION AND IDENTIFICATION

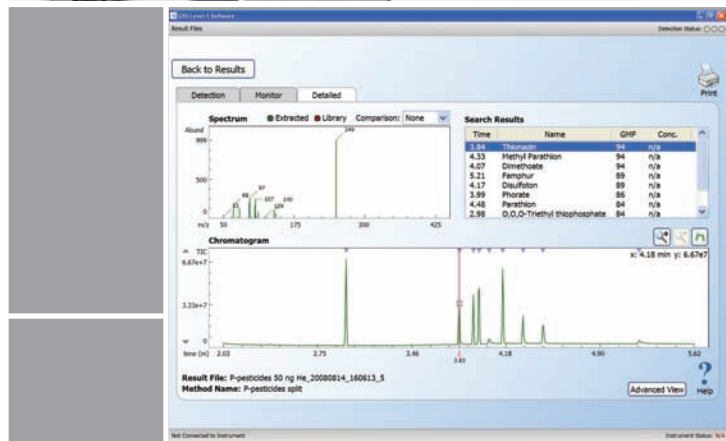
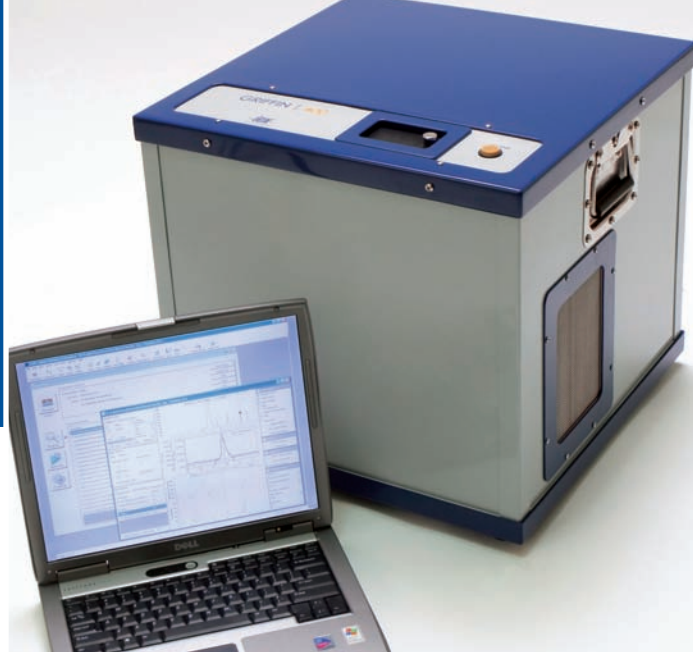
Specialized for transportable and mobile applications, the Griffin™ 400 provides laboratory quality chemical analysis at the site of interest.

The Griffin 400 gas chromatograph/mass spectrometer (GC/MS) offers high-performance detection, identification, quantitation and confirmation for a broad range of compounds of interest. Specifically, the Griffin 400 is capable of confirming the presence of illicit drugs, explosives, chemical warfare agents (CWAs), industrial chemicals and organic compounds, including both volatile and semi-volatile components. In addition, the Griffin 400 supports a number of flexible sample introduction options.

The Griffin 400 is equipped with a flexible low thermal mass-gas chromatograph (LTM-GC) split/splitless inlet. For liquids analysis, the user can inject samples directly into the inlet using syringe or solid-phase microextraction (SPME) fibers. The system also provides for an autosampler and headspace option.

To further enhance its mobile capabilities, the analytical components of the Griffin 400 have been shock mounted and placed on a durable and rugged chassis. This shock mounting system makes the Griffin 400 operational in more aggressive environments, such as vehicles and mobile analytical labs, that are taken directly to the site of interest.

Like the other products in the Griffin family, the Griffin 400 utilizes a patented cylindrical ion trap (CIT) mass analyzer. FLIR GC/MS/MS products are the first field-portable mass spectrometer systems capable of providing detection through multidimensional mass analysis (MS/MS), enabling users to receive more comprehensive and accurate chemical information through multiple levels of analysis.



## APPLICATIONS

- On-scene mobile laboratory response
- Drugs of abuse detection and identification
- Environmental contaminant analysis
- Hazardous incident threat mitigation

## BENEFITS

- Ease of use
- Analytical flexibility
- Rapid response time
- Positive identification of unknown chemicals
- Reduced operational costs

## SPECIFICATIONS

Operating Temp.	5°C to 35°C
Operating Humidity	Less than 85% relative humidity
Dimensions / Weight	19.2 in x 19.2 in x 18 in / 82 lbs
Power Supply	Multiple power source options, including: <ul style="list-style-type: none"> <li>• Input voltage of 100 to 120/220 to 240 VAC, 50/60 Hz and 15 A</li> <li>• May also be powered by 24 VDC (+/- 5%, 25 A, 600 W), fuse protection (30 A minimum)</li> </ul>
Sample Introduction	Split/splitless injector for sampling via: <ol style="list-style-type: none"> <li>1. Direct syringe injection</li> <li>2. SPME fiber</li> <li>3. Headspace sampler (opt. accessory)</li> <li>4. Autosampler (opt. accessory)</li> </ol>
Calibrant	Onboard FC-43© (Perfluorotributylamine)
Carrier Gas	Connection for external gas cylinder (choice of He or H <sub>2</sub> ) - available from many sources. Also H <sub>2</sub> generator
User Interface	Full automation by connection with portable or desktop PC (Ethernet connection TCP/IP); Remote operation and remote diagnostics
User Software	Griffin System Software™ (GSS), NIST and AMDIS mass spectral libraries are included, as well as user-defined library capabilities
Training	Operator and support training available
Transportability	Ruggedized chassis and internal shock mounting system for rugged transportation

## MASS SPECTROMETER

Analyzer / MS <sup>n</sup>	Cylindrical ion trap (CIT) - MS/MS capable
Mass Range	40 to 425 m/z
Scan Rate	Up to 10,000 m/z per second @ 20 points per m/z
Ionization Type	Internal electron ionization (EI)
Detector	Electron multiplier
Vacuum System	Miniature turbo molecular pump and miniature quad diaphragm (contained within instrument, no external pump required)

## LOW THERMAL MASS-GAS CHROMATOGRAPH

LTM-GC Column	Standard Rxi-5MS, 30m x .25mm x .25um; Other columns available at request
Temp. Programmable	40°C to 300°C
Temp . Ramp Rate	Up to 100°C/min (column dependent)
Max Column Temp.	300°C (column dependent)



*Chemistry happens  
outside the lab...  
so should analysis.®*

