



ICx Technologies makes mobile mass spectrometers (MS) for the accurate detection and identification of known and unknown chemical threats. ICx redefines the industry standard for high performance gas chromatography (GC) by integrating the proprietary Low Thermal Mass Gas Chromatograph (LTM-GC) with its Griffin™ family of GC/MS systems.

Gas chromatography is a sample separation step used to extract a unique chemical fingerprint from a complex or unknown sample prior to mass analysis. Characterized as a separation “technology,” the compact LTM-GC is easy to maintain.

LTM-GC technology consists of an insulated capillary column wound inside a cage that has been fitted with heaters, temperature sensors, and insulation. Routine maintenance costs have been reduced by fitting the LTM-GC with replaceable guard columns. Designed to rapidly heat the sample, the LTM-GC is ideal for field applications where time and resources are limited.

The proprietary LTM-GC design provides flexibility in the sample preparation process as it enables the operator to use it in combination with traditional liquid injection techniques (syringe, autosampler, headspace sampler, etc.) or with Solid Phase MicroExtraction (SPME) fibers. The novel heating technology and miniaturization provides for rapid heating of the columns and also reduces the system’s overall power requirements.

Self-contained within the Griffin 400™ and Griffin 450™ GC/MS systems, the LTM-GC directly interfaces to the mass analyzer offering optimal performance and definitive chemical analysis for mobile applications.

BENEFITS OF THE LTM-GC

- Provides flexibility in the sample preparation process
- Simplifies routine maintenance operations
- Cuts down routine maintenance costs
- Reduces power requirements
- Produces ultra-fast separations
- Directly interfaces to the mass analyzer

FEATURES & SPECIFICATIONS	
Flow Rate	0.5-2 mL/minute (column dependent)
Column Dimensions	Available with most column stationary phases; Lengths from 1 m to 30 m, inner diameter from 0.1 mm to 0.25 mm
Temperature Ramp Rate	Up to 100 °C/min (Column dependent)
Temperature Range	Temperature programmable from 40-300 °C/min (max temperature of 300 °C)
Injector Temperature	Split/Splitless injector 200 °C default, 250 °C max
Carrier Gas	Choice of Helium or Hydrogen (Available from many sources)

