

Fast GC Module

- Resistively-heated low mass column
- FID or Pulsed Discharge Detector
- Compact, efficient chromatography

The Problem

Much recent work has been devoted toward meeting the demand for fast, portable analysis of a wide variety of potential samples. This research has led many to the realization that efforts to miniaturize the classic gas chromatograph can only go so far before one winds up frustrated by the considerable bulk and power requirement of the oven and heating element. Recognizing this, Valco has accelerated the development of a system concept which is literally "outside the box."

Our Solution

The VICI Fast GC Module includes the three basic elements of a classic GC: (1) an inlet, (2) a column, and (3) a detector. Our system demonstrates that excellent chromatography can be accomplished using small, lightweight components to produce rapid, high-resolution analyses for virtually any application that demands quick answers from an easily portable instrument.

1. The inlet

The inlet consists of a heated injection port for syringe injection. An air actuated sample loop injector is optional.

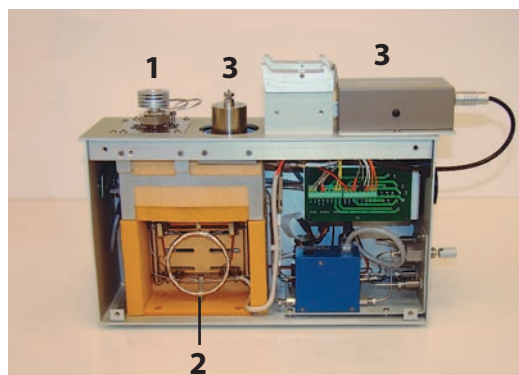
2. The column

The column is resistively-heated by applying a low-voltage current to a nickel jacket or wrap surrounding the column, eliminating the need for a traditional GC column oven and heating element with their power and space requirements. Column temperature is controlled by regulating the amount of current, with a small fan for quickly cooling the low-mass column to near-ambient temperature.

3. The detector

Choose between an FID or a Model D-4 Pulsed Discharge Detector, which is universal, non-destructive, and highly sensitive. The D-4's response to both inorganic and organic compounds is linear over a wide range. Response to fixed gases is positive (increase in standing current), with an MDQ in the low ppb range.

**FOR MORE INFORMATION,
CONTACT OUR TECHNICAL DEPARTMENT.**



Fast GC Module and controller mounted on an autosampler