



When There's  
No Time  
for Downtime

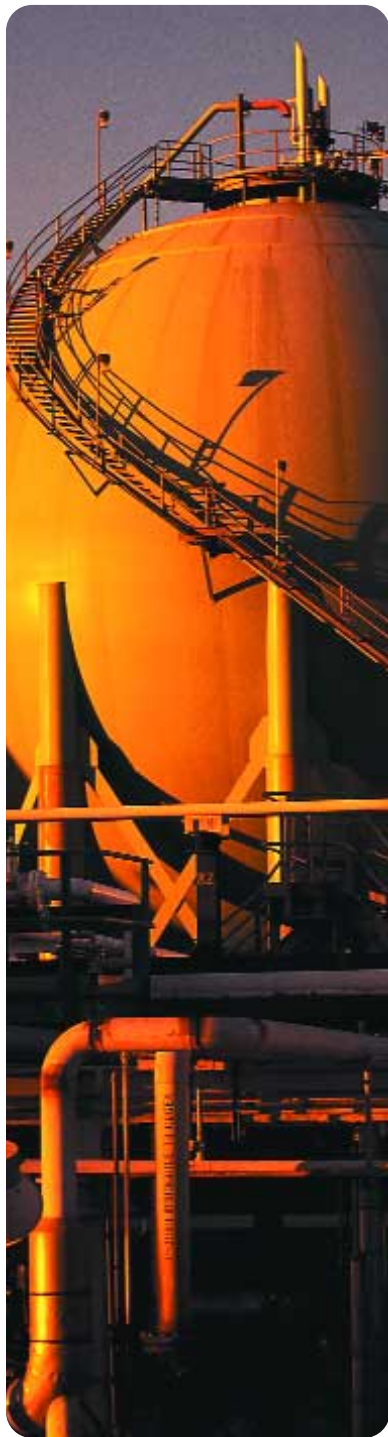


**Agilent 3000  
Micro Gas  
Chromatograph**



**Agilent Technologies**

# Gas Chromatography You Can Depend On



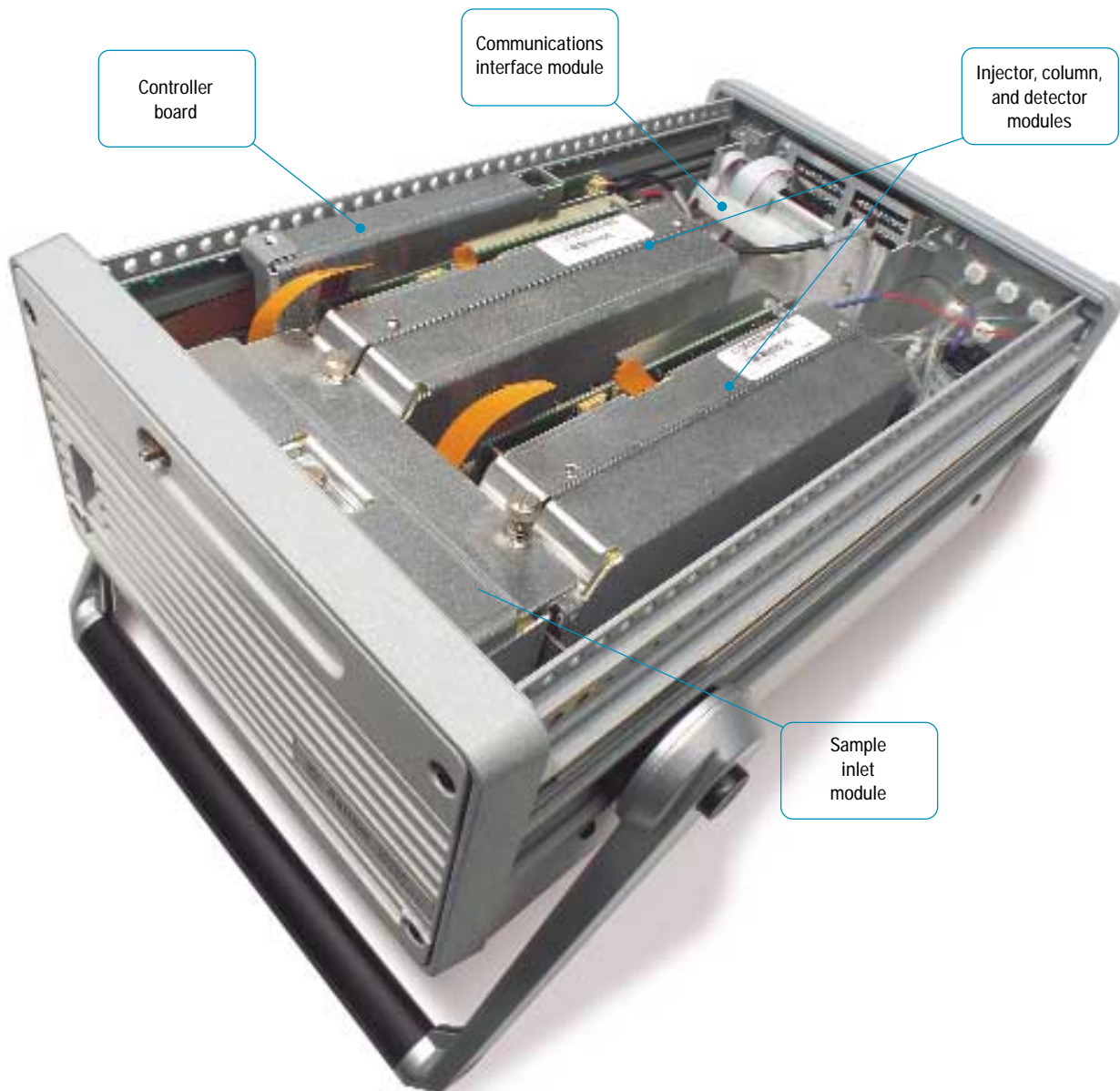
Your job uses gas chromatography both in the lab and on the line where the measurement is done. From wellhead to refinery, through downstream production, the instrumentation has to be ready to do the measurement right, when you need it, day-in and day-out. It has to be accurate and simple to use, and produce timely testing results, whether for research, manufacturing, or storage and distribution.

The Agilent 3000 Micro Gas Chromatograph is that kind of product. Dependable. Easy to use. Accurate. Fast. It's designed specifically for quantifying chemical compositions in applications throughout the hydrocarbon processing industry—refineries, natural gas production and distribution, chemical operations, and oil and gas exploration—and in fuel cell development and industrial gas production.

## Service When You Need It

The full strength of the Agilent organization is behind the 3000 Micro GC with service options that help you maintain full-time measurement capability. You can choose to:

- Replace an inoperative module with one you have on hand—the fastest, most convenient approach,
- Order an exchange module, shipped to you within 24 hours,
- Send the entire unit or module to an authorized Agilent repair center, or
- Contact Agilent for on-site service.



## Dependability by Design

Start with reliability. The robust construction of the 3000 micro GC, with components designed for the challenges of the factory and field, means long-term, trouble-free operation. Reliability is designed in, with features like Electronic Pressure Control (EPC) that reduce susceptibility to the effects of ambient temperature and pressure. Get accurate, reproducible results in any environment, in the lab, in a desert, or on an icy offshore oil rig.

True dependability means quick and easy diagnosis and repair if problems do arise. The modular construction allows fast resolution of most problems, by a simple module exchange requiring no special tools or training. Repair can take just minutes, with minimum impact on production.

Each heated module contains an injector, capillary column, and detector that are optimized to measure pre-selected components. When it is time to change modules, built-in identification codes allow plug-and-play simplicity, ensuring the correct

module is installed. This cost-effective, self-contained design allows you to keep replacement modules on hand, ready for a repair or reconfiguration.

# The Right Features, at the Right Time, at the Right Place



## Fast Analysis

With the 3000 micro GC you get results faster in two ways. Designed for fast analysis, the micro GC often produces results in under 120 seconds that normally take over twenty minutes with traditional measurement techniques. The compact size contributes to fast sample turnaround, since the analysis can be performed right at the point where measurement is needed. There's no need to send samples to the lab and wait for results.

## High Quality Results

Features designed into the 3000 contribute to superior\* performance, including extended detector dynamic range and digital pneumatics with full computer control. The small size, speed, and multi-channel design also support data integrity, because you can perform repeat measurements or confirm peak identification in less time than a single measurement would take in a conventional GC.



\*Typical precision for measurement of natural gas components is less than 0.05 RSD for retention time and less than 0.3% RSD for quantification.



### Convenient and Easy to Use

The 3000 micro GC lets users at various skill levels—even without chromatography expertise—quickly and easily obtain accurate measurements. These measurements are reproducible, even with impurities present.

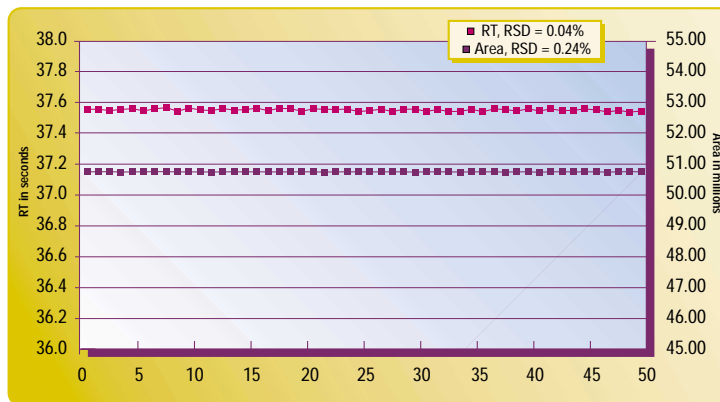
In keeping with the commitment to ease of use by the operator or supervisor, the Certity Networked Data System for Chemical QA/QC makes complete control convenient and effective. This software includes industry-specific reporting capabilities.

### GC Where the Measurement is Needed

The briefcase-sized Agilent 3000 Micro GC travels anywhere measurement is needed, from the lab to the sampling point. The design and construction fulfill the need for ease of operation wherever the system is used.

A built-in LAN connection allows remote access to the instrument for control, data collection, or diagnosis.

### High Precision Performance of Agilent 3000 Micro GC



# Configurations for You and Your Industry

The Agilent 3000 Micro GC is supplied preconfigured for applications in a broad spectrum of industries. Application-specific analyzers are ready to go, complete

with instrument, software, calibration gases, and computer.

A few examples of these analyzers illustrate the possibilities with the 3000 micro GC.

## Applications include:

- Natural gas
- Fuel cells
- Oil and gas exploration
- Chemical Manufacturing
- Heating and Cooling
- Refining
- Landfill gases
- Specialty chemicals
- Mine safety

## Natural Gas Production and Distribution

A gas processing plant benefits from the Agilent 3000 Natural Gas analyzer, an application-specific configuration of the 3000 micro GC. This complete solution includes GC, software, calibration gases, and computer ready to provide fast, dependable, repeatable operation. This unit is effective in distribution systems, as well, allowing fast measurement of composition and calorific content at the point of transfer of custody, ensuring correct gas value and protecting distribution piping, pumps, and valves.



## Fuel Cells

The 3000 micro GC has a place in both fuel cell development and manufacturing. It is convenient for measurement of H<sub>2</sub>, CO, CH<sub>4</sub> and other components in research and development. The speed and flexibility also allow optimization of the fuel cell system performance at all points along the process, from fuel to post-stack.

## Mud Logging for Oil and Gas Exploration

Exploratory drilling is expensive. It's critical to get fast measurement of hydrocarbon content during drilling operation, so that equipment and crew are not tied up and decisions can be made about the direction and location of drilling. The 3000 micro GC fits in at the drill site, producing immediate measurements without the need for a highly skilled chromatographer or lab facility.





## Chemical Manufacturing

The use of gases as feedstocks for polymer manufacturing requires effective monitoring of the gas composition and purity. Impurities can affect manufacturing yields and even damage catalysts and system components. The fast response of the 3000 micro GC optimizes input "inspection" to confirm supplier compliance with specifications and to protect the manufacturing process integrity.

## Gas-Fired Appliance Development

It can be difficult to optimize output and efficiency of the combustion components in boilers, furnaces, or water heaters without precise information on the composition of the input gas. The small size and convenient operation of the 3000 micro GC make it possible to do this measurement at the burner input, with nearly real time results that can be used for online adjustment of the gas stream.



Heated regulators are available for gas or liquid sampling.



# Agilent 3000 Micro GC—

Fast, Accurate Measurement When and Where You Need It

The high dependability of the 3000 micro GC, the accuracy, the speed, and the ease of use—these are the characteristics you need for your measurements. It's ready all the time. For a broad range of applications, when gas composition must be

measured, there is no better choice. Contact your Agilent representative or authorized distributor for assistance selecting the right configurations for your application, or visit [www.agilent.com/chem](http://www.agilent.com/chem).

