

Agilent 5977C GC/MSD Single Quadrupole System

Key Uses:

- Commercial and contract testing laboratories - for routine quantitative applications requiring a robust and reliable system that provides accurate measurements
- Research laboratories - looking to do qualitative/unknowns analyses in various matrices

Key Features:

- New HydroInert source for Hydrogen carrier gas applications
- Built-in GC intelligence and smart diagnostics
- JetClean self-cleaning ion source
- Smart Alerts software monitors instrument health
- Detection limits as low as 1 fg
- Consistent data acquisition and analysis using MassHunter Quantitative and Qualitative software
- Accountability, Consistency, and Transparency (ACT) label on the GC/MSD

Overview

Building on a long track record of innovation, The Agilent 5977C GC/MSD is the latest in the series of most trusted single quadrupole GC/MS instruments. It is ideal for labs that focus on applications such as environmental, chemical, petrochemical, food, forensic, pharmaceutical, and material testing.

Coupled with new technologies that drive maximum productivity in an analytical lab, the 5977C improves sample throughput and analytical performance, thereby enabling better business outcomes.



Agilent 5977C GC/MSD Key Features Explained

Improve instrument sensitivity (10x greater) and reliability with detection limits as low as 1 fg IDL.

Improve chromatographic efficiencies for Hydrogen Carrier gas applications, with the new HydroInert source. It is designed with a new proprietary material that helps minimize loss in sensitivity and spectral anomalies associated with H₂ gas.

Greatly reduce or even eliminate the need for manual source cleaning with the JetClean self-cleaning ion source.

Enhance productivity with the built-in intelligence of the 8890, 8860 and Intuvo 9000 GCs with its smart diagnostics, monitoring, and simplified access to powerful operations through the integrated touchscreen and browser interface.

Improve mass spectrometry workflows and ensure inertness with every surface that touches your sample with Inert Flow Path products ranging from columns, liners, inlets, gold seals and ferrules.

Perform preventive maintenance and monitor instrument health with email-based alerts, notifying you when to consider replacing key consumables and when an instrument stop running anywhere in your lab with Agilent CrossLab Smart Alerts software.

Develop new methods with fast and reliable compound identification using MassHunter Unknowns Analysis and its ability to create custom retention time-locked spectral libraries.

Simplify and speed up data analysis and review with MassHunter Review-by-Exception and Compounds at a Glance.

Achieve high mass accuracy on the 5977C GC/MSD using Cerno Bioscience's MassWorks MS calibration technology.

To enable our GC/MS users to make a better-informed, sustainable choice, Agilent has partnered with My Green Lab to have our GC/MSD independently audited for their Accountability, Consistency, and Transparency (ACT) label.

Key Benefits of the Agilent 5977C GC/MSD to Laboratory Operators and Managers

Reduce downtime and improve profitability

During routine analysis, matrix deposits inevitably build up. In the past, lab analysts would have to remove the ion source, scrub the lens, then put it all back together. The **Agilent JetClean self-cleaning ion source** maximizes instrument uptime and sample throughput by greatly reducing or even eliminating the need for manual ion source cleaning, resulting in an additional 1–2 days/month to perform analyses.

Agilent CrossLab Smart Alerts software can be installed on any PC in your lab to monitor instrument health and provides email-based alerts, notifying you when to consider replacing key consumables, when to perform preventive maintenance, and when a GC/MSD instrument stops running anywhere in your lab.

Improve run times and lower operating costs

Many GC and GC/MS analyses are performed on complex samples that contain high-boiling compounds. Agilent's Capillary Flow Technology enable the column to be backflushed once all peaks of interest have eluted. Backflushing reverses the flow in the column so that any remaining components are forced out through the sample inlet and offers many benefits, such as reduced cycle times, shorter analytical run times and cool-down times leading to faster results and higher laboratory throughput and productivity.

Helium being a finite resource makes it very expensive. The high price and reoccurring shortages have increased demand for applications using hydrogen as the carrier gas. The new HydroInert source is designed to improve chromatographic efficiencies with Hydrogen Carrier gas like faster, shorter separations and helps avoid loss of sensitivity, spectral anomalies and offers superior high-boiler peak shape, especially for PAHs.

For more information visit Agilent's newsroom or contact Naomi Goumillout, Director, Business Public Relations (naomi.goumillout@agilent.com)