

GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. All quotations are governed by the *West Virginia Code* and the *Legislative Rules* of the Purchasing Division.
4. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
5. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods, this Purchase Order/Contract becomes void and of no effect after June 30.
6. Payment may only be made after the delivery and acceptance of goods or services.
7. Interest may be paid for late payment in accordance with the *West Virginia Code*.
8. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
9. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
11. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract.
12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
13. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, this Contract may be deemed null and void, and terminated without further order.
14. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (<http://www.state.wv.us/admin/purchase/vrc/hipaa.htm>) is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
15. **WEST VIRGINIA ALCOHOL & DRUG-FREE WORKPLACE ACT:** If this Contract constitutes a public improvement construction contract as set forth in Article 1D, Chapter 21 of the West Virginia Code ("The West Virginia Alcohol and Drug-Free Workplace Act"), then the following language shall hereby become part of this Contract: "The contractor and its subcontractors shall implement and maintain a written drug-free workplace policy in compliance with the West Virginia Alcohol and Drug-Free Workplace Act, as set forth in Article 1D, Chapter 21 of the West Virginia Code. The contractor and its subcontractors shall provide a sworn statement in writing, under the penalties of perjury, that they maintain a valid drug-free work place policy in compliance with the West Virginia and Drug-Free Workplace Act. It is understood and agreed that this Contract shall be cancelled by the awarding authority if the Contractor: 1) Fails to implement its drug-free workplace policy; 2) Fails to provide information regarding implementation of the contractor's drug-free workplace policy at the request of the public authority; or 3) Provides to the public authority false information regarding the contractor's drug-free workplace policy."

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division.
2. **SPECIFICATIONS:** Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Complete all sections of the quotation form.
4. Unit prices shall prevail in case of discrepancy.
5. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
6. **BID SUBMISSION:** All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

**Request for
 Quotation**

RFQ NUMBER
DPS0902

PAGE
2

ADDRESS CORRESPONDENCE TO ATTENTION OF
JOHN ABBOTT 304-558-2544

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

SHIP TO

WEST VIRGINIA STATE POLICE

 725 JEFFERSON ROAD
 SOUTH CHARLESTON, WV
 25309-1698

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
09/15/2008				

BID OPENING DATE: **10/02/2008** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
RFQ. NO.:				DPS0902		
BID OPENING DATE:				10/02/2008		
BID OPENING TIME:				1:30 PM		
PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID: (302) 993-5941						
CONTACT PERSON (PLEASE PRINT CLEARLY): Lanita E. Price, Business Sales Specialist						
***** THIS IS THE END OF RFQ DPS0902 ***** TOTAL:						\$61,462.01
*Agilent is bidding per Quote No. 779563, which is enclosed and hereby incorporated by reference. Our bid meets all technical specifications. If you have any questions regarding our products, please call Rick Browning at (304) 562-6621. If you have any questions regarding our response, please call Lanita E. Price at (866) 428-1940. If Agilent should be the successful bidder, please reference our quotation number on your purchase order. <i>lep</i>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Lanita E. Price*</i>	TELEPHONE (866) 428-1940	DATE 09/30/2008
TITLE Business Sales Specialist	FEIN 77-0518772	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

The West Virginia State Police are soliciting bids for a Gas Chromatography system for the Toxicology Section of the Forensic Laboratory.

All bids must include the following specifications.

- Furnish and install all components of gas chromatograph
- Furnish and install all components of the headspace auto sampler
- Furnish and install corresponding data handling system including computer, cables, connections, software, operating software, hardware, and all components to make it fully operational
- All Freight costs

GAS CHROMATOGRAPH SYSTEM SHALL CONSIST OF THE FOLLOWING:

Gas Chromatograph with capillary S/SI electronic pressure controlled injector with automatic shutdown capabilities in case of a leak, one Flame Ionization Detector, one column (blood alcohol column), one headspace autosampler system, all controls and accessories with autosampler system including, bottles, connections, cables, labels, transfer lines, interfaces, software, hardware, etc.

Headspace auto sampler:

Sample capacity: Sample tray holds 70 vials in tray. Twelve position oven for optimized sample overlapping constant time heating.

Sample vials: Standard crimp top or screw cap vial, 10ml or 20ml. No adaptor required for 10ml sample vials.

Mode of operation:

Shaking with choice of off, low, or high

Constant heating time mode for each sample. Overlapping up to 12 vials for maximized sample throughput.

Multiple headspace extraction mode, with up to 100 extractions per vial for method development and validation or for analysis of sample in unusual matrices.

Multiple headspace extraction concentration mode, with up to 10 extractions per vial followed by on GC start after the last extraction to increase sensitivity.

Zone Temperatures

Oven heating from 40 degrees C to 230 degrees C in 1 degree increments
0.5 to 999 minutes in 0.1 minute increments

Loop/valve heating from 45 degrees C to 250 degrees C

Transfer line heating from 50 degrees C to 250 degrees C

Sample Pathway: Inert deactivated path from sample needle to transfer line. Transfer line length of 85 cm. Sample loop of 1ml standard with 3ml option.

Pneumatic Control:

In unit switch connection between : Built in manual pneumatics (pressure regulator and flow controller) and GC built in electronic pneumatic control.

Communications: LAN; RS-232; Remote start/stop

Interfacing with GC: Volatile inlet or other standard GC inlet

System Control:

Control and monitoring by full function control keypad and built in multiline display. Features:

- Parameter set up
- Store up to four user defined headspace methods
- Detailed power on self test
- Built in leak test routine
- Update firmware via LAN or RS-232
- Monitor set and actual values, as well as operator status

GC Chemstation:

Integrated control/Data system. Headspace parameters are part of a GC method. Using a GC Chemstation sequence table to track sample from sampling to analysis. Event log function records every step of headspace events. FDA 21 CFR part 11 compliant.

Dimensions:

- Height 55.5 cm
- Width 46.0 cm
- Depth 63.5 cm

Environmental Conditions:

- Operation: 10 to 35 degrees C
- Storage: -40 to 65 degree C
- Humidity: 5% to 95%
- Line voltage: 100-340 V \pm 10%
- Power requirement: 750 VA maximum

Gas Chromatograph:

Column Oven: Oven power must turn-off automatically when the lid/door is open. An automatic carrier shutoff in the inlet pressure drops significantly must be built-in.

- Temperature programming rates must exceed 100 degrees C per minute at starting oven temperatures up to 100 degree C
- Operating range must be from 10 degrees C above ambient and from -20 degrees C up with cryogenic cooling
- Six temperature programming ramps must be available
- Column bleed compensation must be built into the electronics

Ambient rejection must be <0.01 degree C per 1 degree C ambient change to ensure accurate and reproducible retention times

Split/Splitless inlet:

Electronic pneumatic control of carrier, split and septum purge gases, including electronic ON/OFF
Digital flow and pressure set point entry
Split and septum purge flow can be changed without changing the column flow
Total flow of up to 1000ml/min through the inlet
Gas saver mode must be built in
Constant flow or constant pressure can be selected for the carrier
Three column flow or pressure programming ramps can be set

Programmable cool on-column inlet:

Electronic pressuer/flow control
375 degree C maximum operating temperature
Three temperature program rates or oven track mode
Pressure setting range: 0-100 psi
Total flow setting range: 0-100 ml/min

Programmable temperature vaporizer:

Electronic pressure/flow control
375 degree C maximum operating temperature
Three temperature program rates
Temperature ramp rates: 0.1-720 degree C/min
Pressure setting range: 0-100 psi
Total flow setting range:
 0-200 ml/min N2
 0-1000 ml/min H2 or He
Cryogenic cooling fluid: LCO2
Available with Gerstel septumless head or septum head

Flame Ionization Detector:

Minimum detectable limit for propane: <5 pg C/sec using N2 carrier
Linear dynamic range 10⁷ using N2 carrier
Electronic auto-ranging
Automatic flame ignition, and reignition if there is a flame-out
Electronic pneumatic control of make-up, H2, and air flows (with electronic ON/OFF)
Data acquisition rate up to 200MHz

Auxiliary Pneumatic Control:

Three independent pressure-controlled channels
 Settable pressure increments: 0.01 psi
 Maximum pressure: 100 psi
 Maximum pressure ramp rate when configured as an inlet: 150 psi/min

Operation

Must provide instrument run control using up to 5 pre-stored methods
 Can be lock so that only START and STOP keys are active
 Must be a graphical interface, removable, permitting methods to be transported between instruments
 Must provide complete GC and AutoInjector control
 Must provide real time signal plot capability for a detector signal
 PC card may be installed to provide additional method storage

Communications

LAN communication built in
 RS-232-C communication built in

Features

Must not exceed 283 mm in width
 Must have has sampling, liquid sampling, and multistream valving capability
 Log book to provide a graphical listing of the last 50 significant events
 Internal diagnostics must permit the user to determine if specific areas of the instrument are operating normally
 Run Log to record up to 50 potential errors that occurred during the last analytical run
 Run time and Clock time programming must be built in;
 Plugs in standard 15 amp service outlet (120V version)

Laser printer – Laserjet P3005D or equivalent

17 inch flat panel monitor – HP L1710 or equivalent

All accessories, hardware, software, software packages, cables, etc. for the entire system to be fully operational in every aspect

Sixty days allowed for delivery and installation. Installation must be performed by factory trained service personnel.

Standard manufacturer's warranty will be provided to include parts, parts exchange, freight costs for parts, labor, transportation, and all expenses involved for all components

being bid on for a total of twelve months. All services will be performed by the successful vendor. Local on-site service must be available. Remedial service shall be provided within three working days from the time of request. There shall be access to a toll free "800" number for immediate service support.

A tuition-free course for one person concerning the operation and maintenance of the system will be provided by the successful vendor at their location

After system installation, the successful vendor will provide on-site training covering the operation of the system to all chemists involved at our location in South Charleston, WV

All items shipped to the West Virginia State Police must come from one vendor including all OEM components

Service must include total coverage for all equipment delivered to the West Virginia State Police

Any deviation from these specifications will result in the bid being non-responsive.

VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with *West Virginia Code*, §5A-3-37. (Does not apply to construction contracts). *West Virginia Code*, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the *West Virginia Code*. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

- 1. **Application is made for 2.5% resident vendor preference for the reason checked:**
 Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,
 Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,
 Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,
- 2. **Application is made for 2.5% resident vendor preference for the reason checked:**
 Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
- 3. **Application is made for 2.5% resident vendor preference for the reason checked:**
 Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
- 4. **Application is made for 5% resident vendor preference for the reason checked:**
 Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
- 5. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**
 Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
- 6. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**
 Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (*West Virginia Code*, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: _____ Signed: _____

Date: _____ Title: _____

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

STATE OF WEST VIRGINIA
Purchasing Division**PURCHASING AFFIDAVIT****VENDOR OWING A DEBT TO THE STATE:**

West Virginia Code §5A-3-10a provides that: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

West Virginia Code §21-1D-5 provides that: Any solicitation for a public improvement construction contract shall require each vendor that submits a bid for the work to submit at the same time an affidavit that the vendor has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code. A public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the West Virginia Code may take place before their work on the public improvement is begun.

ANTITRUST:

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership or person or entity submitting a bid for the same materials, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

LICENSING:

Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY:

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit www.state.wv.us/admin/purchase/privacy for the Notice of Agency Confidentiality Policies.

Under penalty of law for false swearing (*West Virginia Code* §61-5-3), it is hereby certified that the vendor acknowledges the information in this said affidavit and is in compliance with the requirements as stated.

Vendor's Name: Agilent Technologies, Inc.Authorized Signature: *Kevin C. Pinner*Date: 09/30/2008



Quotation

Mr Tim White
 State of West Virginia
 725 Jefferson Rd
 South Charleston WV 25309-1698

TEL: 3047462183 FAX: 3047462174

Quote No.	Create Date	Delivery Time	Page
779563	09/29/2008	7 Weeks	1 of 5
Contact	Phone no.	Valid to	
Mark Fashian	740-369-5475	11/28/2008	
To place an order: Call 1-800-227-9770 Option 1 For Instruments Fax : 302-633-8953 For Consumables Fax : 302-633-8901 Email : lscainstrumentsales@agilent.com For additional instructions, see last page			

*RFQ Number DPS0902

Product/Description	Qty/Unit	Unit List Price	Discount Amount	Extended Net Price
G2630B 6850 Series gas chromatograph system Includes 6-button front panel with 2-line display,built-in interface for the 7683 autoinjector,RS-232,analog out. Inlet operating pressure 0-100 psi.	1.000 EA	7,546.00 USD		7,546.00
With the following configuration:				
Ship-to Country : USA				
Split/splitless with EPC	1 EA	3,575.00 USD		3,575.00
FID with EPC	1 EA	3,575.00 USD		3,575.00
Auxiliary EPC	1 EA	2,085.00 USD		2,085.00
Installation (44K)	1 EA	609.00 USD		609.00
Familiarization at Installation (44L)	1 EA	405.00 USD		405.00
		Item Total		17,795.00



Quotation

Mr Tim White
 State of West Virginia
 725 Jefferson Rd
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TEL: 3047462183 FAX: 3047462174

Quote No.	Create Date	Delivery Time	Page
779563	09/29/2008	7 Weeks	2 of 5
Contact	Phone no.	Valid to	
Mark Fashion	740-369-5475	11/28/2008	

To place an order: Call 1-800-227-9770 Option 1
 For Instruments Fax : 302-633-8953
 For Consumables Fax : 302-633-8901
 Email : Iscainstrumentales@agilent.com
 For additional instructions, see last page

Product/Description	Qty/Unit	Unit List Price	Discount Amount	Extended Net Price
G1888A Agilent Network Headspace Sampler. 70 vial capacity.Switchable of build-in control or EPC from GC.Deactivate sample path. Control by built-in key pad or GC Chemstation,LAN,RS-232 Communication. Hub is not included.	1.000 EA	26,898.00 USD		26,898.00
With the following configuration:				
Ship-to Country : USA				
Installation (44K)	1 EA	1,114.00 USD		1,114.00
Familiarization at Installation (44L)	1 EA	405.00 USD		405.00
Item Total				28,417.00
G2922AA Integrated Headspace Cntl SW 16bit for Multi-technique ChemStation	1.000 EA	1,243.00 USD		1,243.00
With the following configuration:				
Ship-to Country : USA				
Installation (44K)	1 EA	304.00 USD		304.00
Familiarization at Installation (44L)	1 EA	203.00 USD		203.00
Item Total				1,750.00



Quotation

Mr Tim White
 State of West Virginia
 725 Jefferson Rd
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Quote No.	Create Date	Delivery Time	Page
779563	09/29/2008	7 Weeks	3 of 5
Contact	Phone no.	Valid to	
Mark Fashian	740-369-5475	11/28/2008	
To place an order: Call 1-800-227-9770 Option 1 For Instruments Fax : 302-633-8953 For Consumables Fax : 302-633-8901 Email : lscainstrumentsales@agilent.com For additional instructions, see last page			

TEL: 3047462183 FAX: 3047462174

Product/Description	Qty/Unit	Unit List Price	Discount Amount	Extended Net Price
G1875BA GC ChemStation PC Bundle 32-bit Includes GC ChemStation SW (G2070BA), CPU, Flat screen, DVD ROM/CD Writer, Printer, and Windows With the following configuration: Ship-to Country : USA Installation (44K) Familiarization at Installation (44L) 1 Year SW Upgrade/Phone Assist (44W) 1YR PC Repair Recovery Service (0TP)	1.000 EA	13,500.00 USD		13,500.00
		Item Total		13,500.00
H8983A ChemStore User Operation Course ChemStore User Operation Course with Security Pack.A two-day hands-on course that teaches the ChemStore and Security Pack user operation functions.	1.000 EA	1,001.00 USD	1,000.99-	0.01
		Item Total		0.01
Special discount of 100.00 % is applied.				



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Contact	Phone no.	Valid to	
Mark Fashion	740-369-5475	11/28/2008	
To place an order: Call 1-800-227-9770 Option 1 For Instruments Fax : 302-633-8953 For Consumables Fax : 302-633-8901 Email : lscainstrumentsales@agilent.com For additional instructions, see last page			

Product/Description	Qty/Unit	Unit List Price	Discount Amount	Extended Net Price
		Gross Amount	: \$	62,463.00
		Total Discount	: \$	1,000.99
		Total	: \$	61,462.01

Mr Tim White
 State of West Virginia
 725 Jefferson Rd
 South Charleston WV 25309-1698

Quote No.	Create Date	Delivery Time	Page
779563	09/29/2008	7 Weeks	5 of 5
Contact	Phone no.	Valid to	
Mark Fashion	740-369-5475	11/28/2008	

TEL: 3047462183 FAX: 3047462174

To place an order: Call 1-800-227-9770 Option 1
 For Instruments Fax : 302-633-8953
 For Consumables Fax : 302-633-8901
 Email : iscainstrumentsales@agilent.com
 For additional instructions, see last page

TO PLACE AN ORDER, Agilent offers several options:

- 1) Visit <http://www.agilent.com/chem/supplies> to place online orders using a purchase order or credit card.
- 2) Call 1-800-227-9770 (option 1) any weekday between 8am and 8 pm Eastern time in the U.S., Canada & Puerto Rico.
- 3) To place an order for Consumables, please fax the order to 302-633-8901.
 To place an instrument and/or software order, please fax the order to 302-633-8953.
- 4) Or you can mail your order to:
 Agilent Technologies
 North American Customer Contact Center
 2850 Centerville Road BU3-2
 Wilmington, DE 19808-1610

To place an order, the following information is required:

- Purchase order number or credit card, delivery date, ship to, invoice to, end user, and quote number.
- GSA customers please provide GSA contract #.

EXCLUSIVE OFFERS FOR NEW INSTRUMENT CUSTOMERS, go to www.agilent.com/chem/exclusiveoffers

TO CHECK THE STATUS OF AN ORDER:

- 1) Visit www.agilent.com/chem/supplies to check the status of your order.
- 2) Call 1-800-227-9770 (option 1) any weekday between 8 am and 8 pm Eastern time, in the U.S., Canada & Puerto Rico. You will need to know the purchase order or credit card number the order was placed on.

FINANCING AND LEASING - A wide range of options are available from Agilent's preferred financing partner, GE Capital Solutions. For more information or to discuss how monthly payments could suit your operational or budgetary requirements, contact your Agilent Account Manager.

TERMS AND CONDITIONS:

- Pricing: Web prices are provided only for the U.S. in U.S.dollars. All phone prices are in local currency and for end use. Applicable local taxes are applied.
- All Sales Tax is subject to change at the time of order.
- Shipping and Handling Charges: Orders with a value less than \$2000 or those requiring special services such as overnight delivery may be subject to additional shipping & handling fees. Some of these charges may be avoided by ordering via the Web
- Payment Terms: Net 30 days from invoice date, subject to credit approval.

* Quotation Validity: This quotation is valid for 60 days unless otherwise indicated.

* Warranty period for instrumentation is 1 year. The Warranty period for columns and consumables is 90 days.

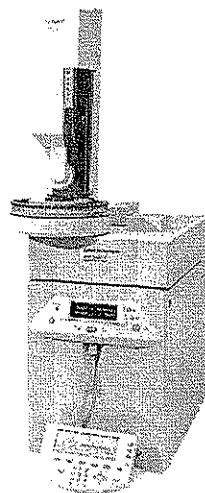
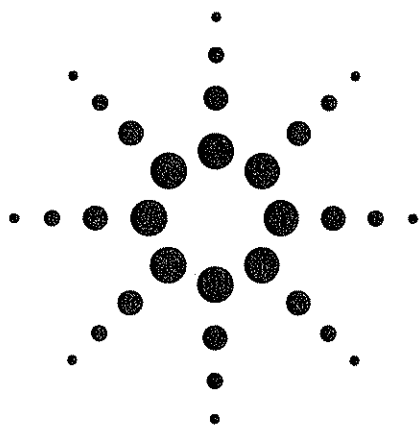
The Delivery Time reflected is based on availability at the time of quotation and is only a guideline for delivery receipt. Order specific Delivery Time will be determined at order placement and is subject to current availability.

It is Agilent Technologies intent to ship product at the earliest available date unless specified otherwise.

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Agilent 6850 Series II Network GC System Specifications



Description

The single-channel Agilent 6850 Series II Network GC system has similar state-of-the-art performance as the Agilent 6890N GC, but is only half as wide. The six-button, two-line local interface provides run control and status information. The GC is network-ready with a built-in LAN communications interface. The GC is also automatic liquid sampler (ALS)-ready with built-in controller for the G2880 autosampler or the Agilent 7683 autoinjector. A removable handheld control module is one of several options available for set-point entry and diagnostics.

Environmental Conditions

- Ambient operating temperature: 15 °C to 35 °C
- Ambient operating humidity: 5% to 95%
- Storage extremes: -40 °C to 70 °C
- Heat dissipation: 3,000 Btu/h, 0.88 kW typical (at 100–120 V)

Power Requirement

Standard Oven

- Approximately 1,440 VA (max) at 100–120 V, 2,000 VA at 230 V

- 100 V (+10%, -10%), 15 amps, 47–63 Hz
- 120 V (+10%, -10%), 12 amps, 47–63 Hz
- 230 V (+10%, -10%), 9 amps, 47–63 Hz

Fast Oven

- 120 V (+10%, -10%), 20 amps, 47–63 Hz
- 200/208 V (+10%, -10%), 12 amps, 47–63 Hz
- 230 V (+10%, -10%), 11 amps, 47–63 Hz

Certifications

- Conforms to the following safety standards:
 - Canadian Standards Association (CSA): C22.2 No. 1010
 - CSA/Nationally Recognized Test Laboratory (NRTL): UL 3101
 - International Electrotechnical Commission (IEC): 1010-1
 - EuroNorm (EN): 61010-1
- Conforms to the following regulations on Electromagnetic Compatibility (EMC) and Radio Frequency Interference (RFI):

- CISPR 11/EN 55011: Group 1 Class B
- EN 50082-2: 1996 EMC Generic Immunity Standard: Industrial Environment
- IEC68-2-27 Mechanical Shock Test Standard

- Designed and manufactured under a quality system registered to ISO 9001
- Declaration of Conformity available

Column Oven

- Dimensions: 202 × 200 × 105 mm (HWD)
- Oven power is turned off automatically when the lid is opened
- Column basket diameter: 130 mm
- Standard: 5 °C above ambient to 350 °C. With CO₂ cryo: -20 °C to 350 °C.
- Temperature setpoint resolution: 1 °C
- Column bleed compensation
- Maximum run time: 999.99 min
- Temperature programming: six ramps with seven plateaus



- Ambient rejection: <0.01 °C per 1 °C ambient change
- Automatic H₂ carrier safety turn-off when inlet gas pressure drops
- Typical cool-down rate: 350 °C to 50 °C: 5.2 min
- Cryogenic gas consumption is typically half that of dual-channel ovens

Table 1. Typical Oven Ramp Rates
(at nominal line voltage)

Temperature range in °C	Standard oven rates (°C/min)	Fast oven rates (°C/min)
50 to 75	120	240
75 to 115	95	190
115 to 175	65	130
175 to 300	45	90
300 to 350	35	70

Inlets

Inlets Available:

- Split/Splitless capillary inlet (S/SL)
- Purged packed injection port (PPIP)
- Temperature-programmable vaporizer (PTV)
- Temperature-programmable cool-on-column (PCOC)
- Electronic pneumatics control (EPC)
- When capillary column dimensions are entered, the actual flow and pressure are shown as calibrated digital readouts
- Carrier gas selection provided for: He, H₂, N₂ and Ar-CH₄
- Pressure setting range: 0 to 100 psi
- Constant pressure, constant flow modes
- Three ramps for pressure or flow
- Optional Merlin Microseal septum guarantees at least 2,000 injections
- Septum purge set automatically

Split/Splitless Capillary Inlet

- Maximum temperature: 375 °C
- Pressure range: 0–100 psi (0–150 psi optional)
- Accepts columns from 50-µm id to 530-µm id
- Pressure pulse mode
- Gas saver mode
- Total flow ranges through the inlet: He, 20 to 1,000; H₂, 26 to 1,000; N₂, 20 to 200 mL/min
- Split ratio may be adjusted electronically without affecting column flow or head pressure

Purged-Packed Injection Port

- Maximum temperature: 375 °C
- Accepts 530-µm capillary columns or 1/8-inch metal-packed columns up to 20 feet in length
- Total flow setting range: 0–100 mL/min

PTV

- Maximum temperature: 375 °C
- Three temperature program ramps
- Temperature ramp rates 0.1 to 720 °C/min
- Pressure setting range: 0–100 psi
- Total flow setting range: 0 to 200 mL/min N₂ 0 to 1,000 mL/Min H₂ or He
- Available with LCO₂ cryogenic cooling only
- Lower temperature limit without CO₂: ambient plus 10 °C
- Lower temperature with LCO₂ cryogenic cooling: –30 °C (10 °C less than oven)
- Available with Gerstel septumless head or Merlin MicroSeal septum head

PCOC

- Maximum temperature: 375 °C
- Three temperature program ramps or oven track mode

- Maximum temperature ramp rate: 350 °C/min
- Pressure setting range: 0–100 psi
- Total flow setting range: 0 to 100 mL/min
- Available with LCO₂ cryogenic cooling only
- Lower temperature limit without LCO₂ cryogenic cooling: Oven temperature plus 3 °C with oven track on, –20 °C with oven track off
- Lower temperature with LCO₂ cryogenic cooling: –17 °C with oven track on –20 °C with oven track off

Detectors

Detectors include EPC.

Flame Ionization Detector (FID)

- Maximum temperature: 375 °C
- Automatic ignition
- Flame-out detection and reignition
- Minimum detectable: <5 pg carbon/s as propane using N₂ carrier and a 0.29-mm id jet
- Linear dynamic range: 10⁷ (±10%)
- Full range auto scaling
- Data acquisition rate: up to 200 Hz
- Flows: air, 0 to 800; hydrogen, 0 to 100; make-up (He or N₂), 0 to 100 mL/min

Thermal Conductivity Detector (TCD)

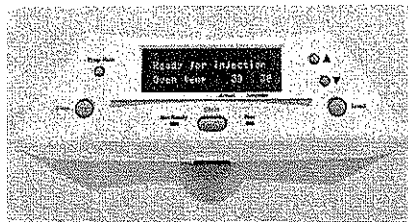
- Maximum temperature: 375 °C
- Minimum detectable: <400 pg propane/mL helium carrier (MDL can be affected by laboratory environment.)
- Linear dynamic range: 10⁶ (± 5%)
- Flows: reference gas, 0 to 100; make-up (He, H₂, N₂), 1 to 12 mL/min

FPD

- Available in single wavelength only
- 250 °C maximum operating temperature
- MDL: <20 pg S/s, <0.9 pg P/s with dodecanethiol/tributylphosphate mixture
- Selectivity: 10⁵ gS/gC, 10⁶ gP/gC
- Dynamic range: >10³ S, 10⁴ P with dodecanethiol/tributylphosphate mixture

Micro-ECD

- Equipped with hidden anode and high velocity flows for contamination resistance
- 400 °C maximum operating temperature
- Makeup gas types: argon/5% methane or nitrogen
- Radioactive source: <15 mCi⁶³ Ni
- MDL: <0.008 pg/s lindane
- Dynamic range: >5 × 10⁵ with lindane
- Data acquisition rate: up to 50 Hz



Local User Interface

- Six-button interface with two-line display:
 - Status is on the top line; lists and messages are on the bottom line.
 - ▼ ▲ buttons scroll through a list.
 - LOAD button loads a method.
 - PREP RUN button prepares the unit for manual injection.
- START/STOP buttons control the sequence or method.
- Keyboard can be locked.

General

- Clock-time programming (24 h)
- Up to five methods stored, built-in SERVICE method
- One sequence
- Run deviation log
- Contact closure (48 VAC/VDC 250 mA) with BCD input to control external multiposition valve (up to 16 positions).
- Internal valve control; 24 VDC, 200 mA
- Built-in power/control for the Agilent 7683 autoinjector

Data Communications

- RS-232-C: maximum Baud rate is 57,600
- Analog outputs (1 mV, 1 V, 10 V)
- Remote start/stop
- LAN interface

EPC

Standard

- Pressure setpoint increments: 0.01 psi
- Temperature and pressure sensors compensate for ambient variation and altitude
- All EPC setpoints are included in the method

Auxiliary (Aux) EPC

- Maximum number of modules: one
- Maximum number of channels: three
- Pressure increments: 0.01 psi
- Maximum pressure: 100 psig
- Maximum pressure ramp rate (when configured as Inlet): 150 psi/min

Valving (optional)

One 6-port gas sampling valve or one 4-port liquid sampling valve can be mounted in a heated compartment. The valve can be connected to the column either directly or via the inlet. Valves may be run-time programmed. Actuating a sampling valve will START a run.

Both the traditional actuator/rotary valves as well as piston/diaphragm valves are available. The rotary valves are suitable for most applications. The air-actuated diaphragm valves have a much longer life and are easier to maintain; however, they are not suitable for ammonia, primary and secondary amines, hydrazines, strong oxidizers, and alkaline solutions (pH >10).

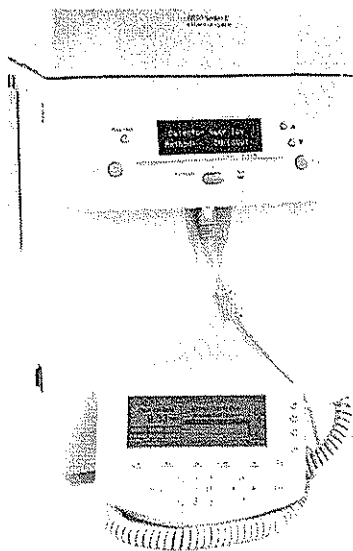
The recommended operating temperature and pressure ranges for the miniature VICI® diaphragm design are: 50 to 150 °C and 20–300 psi. The valves are actuated pneumatically and require 40 to 50 psi air pressure.

The recommended operating temperature range for the rotary 6-port gas sampling valve is 50 to 200 °C and the maximum sample pressure is 400 psi.

The operating temperature range for the rotary 4-port liquid sampling valves is 70 °C to 175 °C. At 5000 psi, the maximum temperature is 75 °C while at 1000 psi the maximum temperature is 175 °C.

The gas sampling valve, rotary or diaphragm, is supplied with a 0.25-cc loop. Other loops (0.5, 1, and 2 cc) are available separately.

Liquid sample valves have a built-in sample loop (0.5 or 1.0-μL size).



Agilent 6850 GC Handheld Control Module (optional)

- Graphical user interface
- Attaches with a coiled cable
- Permits method creation, editing, and transfer among Agilent 6850 GCs, using a flash memory card
- Provides complete programming and control of the Agilent 6850 GC, Agilent G288A autosampler, all 6850 inlets and detectors, Agilent 7683 autoinjector, and valves*
- Displays real-time signal plot, such as detector signal
- Context-sensitive Help
- Alphanumeric characters can be entered for method names
- Provides access to log book, run log, and calibration
- Provides diagnostic tools including Early Maintenance Feedback (EMF) and leak testing for PTV

*As with the 6890N GC, variable speed injection can only be controlled by PC interfaces.

Maintenance and Support

- Service method sets temperatures and flows for routine maintenance (such as septum or liner changing)
- Operating and service information on CD-ROM. Includes multimedia maintenance procedures
- Diagnostics built into the (optional) handheld controller for use by the operator:
 - Inlet (leak) test
 - Inlet vent trap (restriction) test
 - FID jet (restriction) test
- Additional diagnostic tests built in for hardware fault detection

Dimensions and Weight

- Height: 490 mm to FID cover top, and 505 mm to top of valve box
- Width: 283 mm, or 333 mm if the cryogenic option is installed
- Depth: 568 mm
- Weight: 29 kg (maximum)

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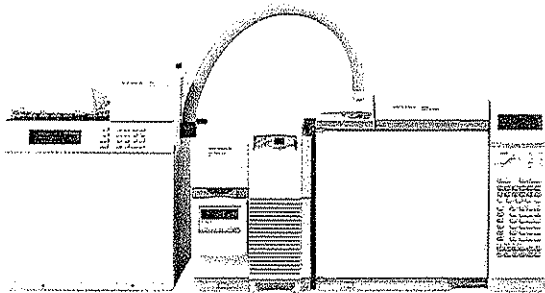
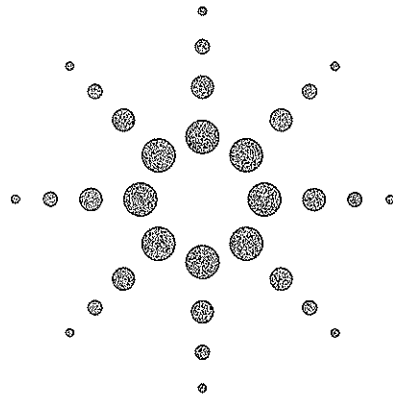
Printed in the USA
April 13, 2004
5989-0958EN





A New Horizon of Performance

Agilent



Agilent G1888 Network Headspace Sampler

- *Full system integration*
- *Extended sample capacity*
- *Built-in ease-of-use*
- *Uncompromised reliability*



Agilent Technologies

The Steps To Confidence

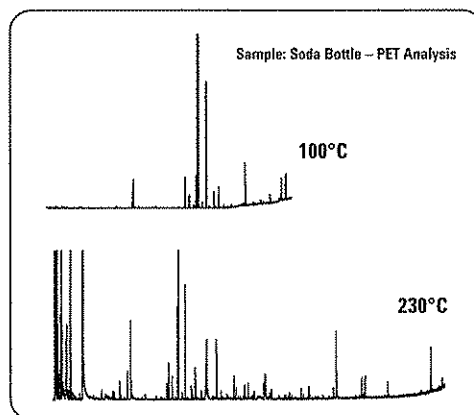
From sample introduction...

A headspace sampler allows you to introduce volatile compounds automatically – from virtually any sample matrix – directly into a GC or GC/MS. Agilent, the leader in GC and GC/MS technology, was the first to offer a full-featured automated headspace system (HSS) using the proven technology of pressurized vials with fixed volume sample loop. And now with the new G1888, headspace analysis has achieved a new level of performance.

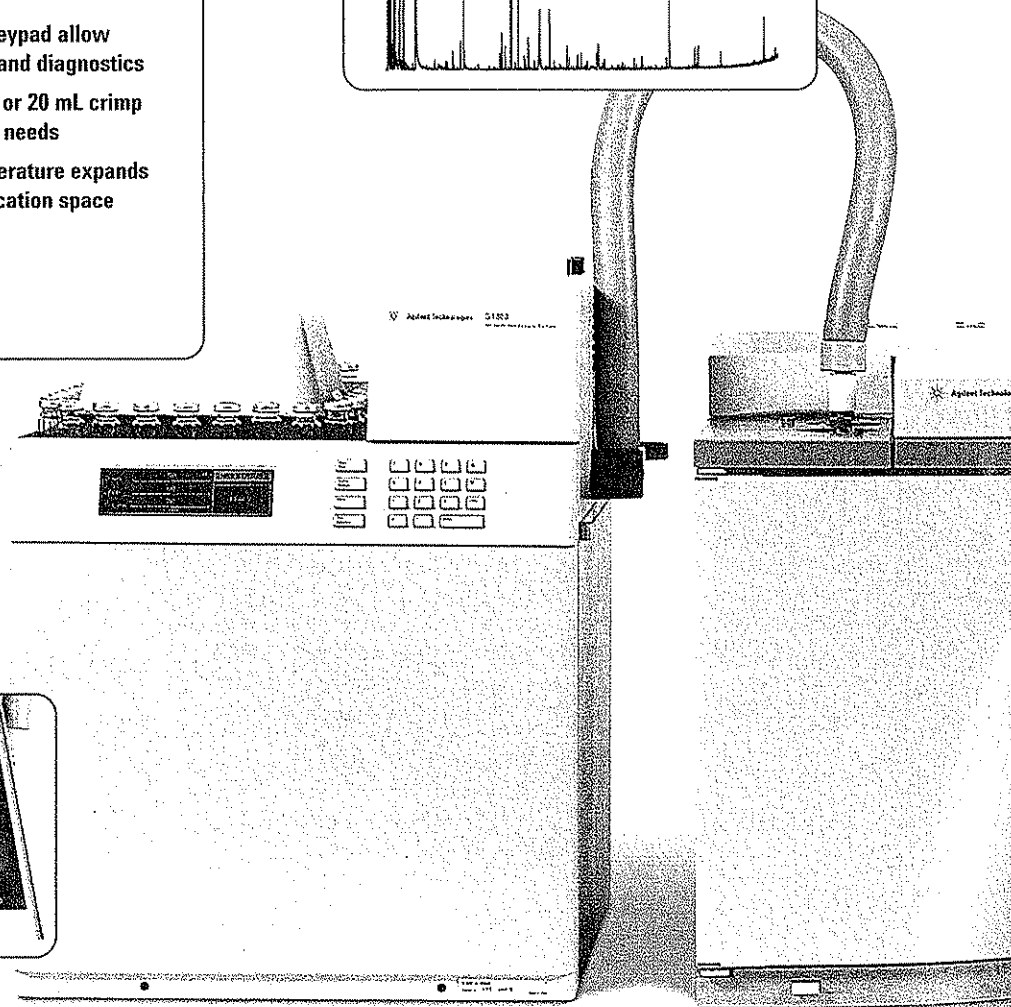
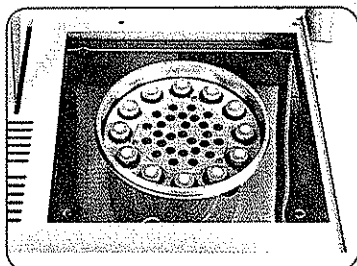
HEADSPACE SAMPLER

- Deactivated sample path provides superior analysis of active compounds
- 70-sample tray capacity and 12 heating positions for maximum throughput
- Easy switch between built-in pneumatics and GC-EPC control, to fit your GC configuration
- Multi-headspace-extraction (MHE) provides maximum sensitivity
- Multi-line display and 19-key keypad allow for easy stand-alone operation and diagnostics
- Choice of screw cap and 10 mL or 20 mL crimp top vials to meet your sampling needs
- Up to 230° C equilibration temperature expands the traditional headspace application space

EXPANDED TEMPERATURE RANGE



IMPROVED SAMPLE CAPACITY



...to data analysis

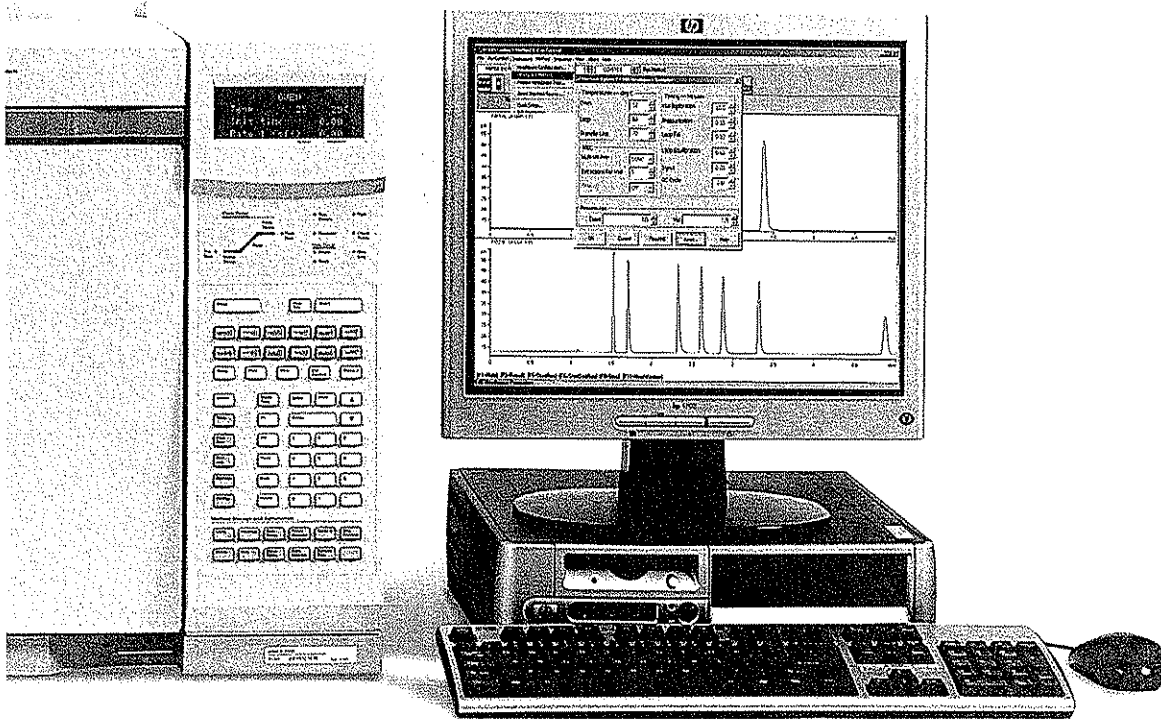
The G1888 is a fully integrated system from sampling to separation to detection to data analysis to reporting. Single-point ChemStation control of the HSS, GC, and detectors means increased automation and straightforward 21 CFR Part 11 compliance. LAN-based instrument communication ensures that you have easy access to your data. And with a familiar software interface and on-line help, learning the system is simple.

GAS CHROMATOGRAPH

- GC-EPC can be seamlessly integrated to control HSS vial pressure and flow
- Low-volume, highly inert, heated volatiles interface is optimized for HSS-GC analysis
- Cryo-PTV in conjunction with MHE concentration mode provides maximum sensitivity
- Superior flexibility results in best possible performance for any application

CONTROL/DATA SYSTEM

- ChemStation dialog box provides access to all HSS method parameters
- ChemStation sequence table ensures that vial identification information is transferred to the final report
- ChemStation controls intelligent sample overlapping to optimize sample throughput
- Event log tracks method execution and provides vial-by-vial troubleshooting information
- FDA 21 CFR Part 11 compliant



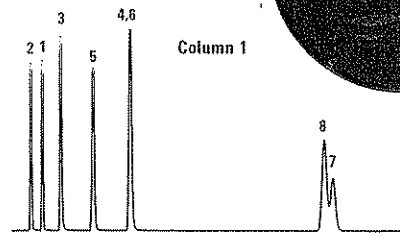
From application...

Headspace samplers save time and reduce the potential for errors that are common to other GC sample preparation techniques. The G1888 was designed for high sample capacity, sensitivity, and inertness, making it uniquely suited to meet the challenges of forensic, pharmaceutical, environmental, food safety and other analyses.

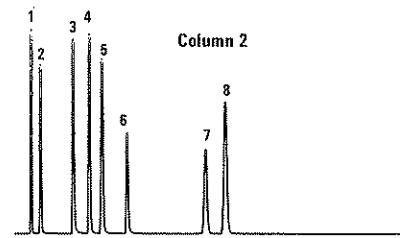
DUAL COLUMN BLOOD ALCOHOL ANALYSIS

GC Oven: 35°C isothermal
 Inlet: Split/splitless at 150°C
 A two-hole ferrule (P/N 5062-3580) was used to connect both columns to the same inlet
 Column I: DB-ALC1 (P/N 123-9134)
 30m x 0.32 mm x 1.8 µm
 Column II: DB-ALC2 (P/N 123-9234)
 30m x 0.32 mm x 1.2 µm

Headspace oven: 60°C
 Vial equilibration time: 15 min
 Sample: 5 µl of 0.08 g/dL standard mix in 10 ml vial



1. Acetaldehyde
2. Methanol
3. Ethanol
4. Acetone
5. 2-Propanol
6. Acetonitrile
7. Ethyl Acetate
8. Methyl-Ethyl Ketone

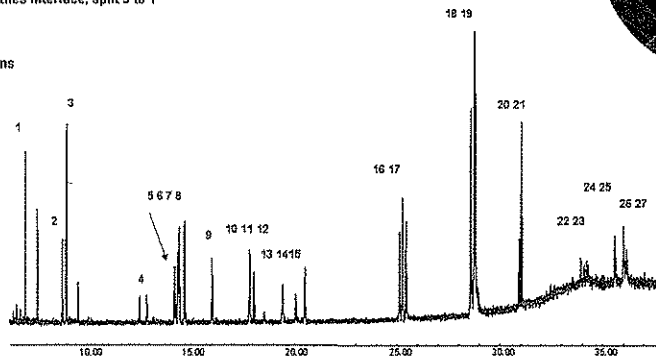


EVAPORATION HEADSPACE ANALYSIS OF PESTICIDES

Sample: 100 ng pesticide mix in acetone
 Full evaporation method, ~1 ng on column injected
 Column: 30m x 0.25 mm x 0.25 µm HP-5MS
 GC: 6890N with volatiles interface, split 5 to 1
 MSD: 5973 inert

HSS: G1888 conditions
 10 ml vial
 Temp: 225°C, 15 min

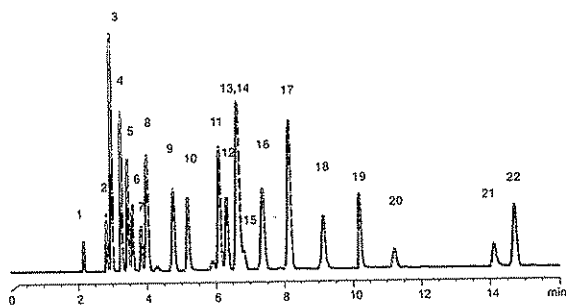
1. Dichlorvos
3. Vernolate
8. Lindane
15. Chlorpyrifos
17. P,p'-DDE
19. Propargite
21. Mirex
27. Fluvalinate



...to compliance

Fully integrated control and data analysis software tracks the sample vial from sampling to reporting. Using the ChemStation, HSS parameters are stored as part of the GC method, to ensure data integrity every time. As the worldwide leader in compliance, Agilent was the first to innovate with built-in compliance features for analytical instrumentation. Agilent offers compliance programs that enable lab managers to make one call for any or all of their needs.

ORGANIC VOLATILE IMPURITIES IN PHARMACEUTICAL PRODUCT



GC Conditions:

Column: DB-624, 30m x 0.53 mm x 3.0 μm
 Carrier: Helium, 35 cm/sec, constant flow
 Oven: 40°C (5 min) to 90°C at 2° C/min
 90°C to 260°C at 30°C/min
 Injection: Headspace, 180°C, split 7 to 1
 Detector: FID, 260°C

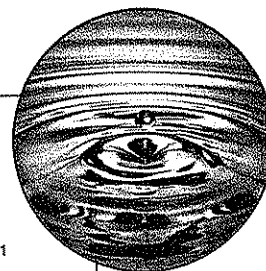
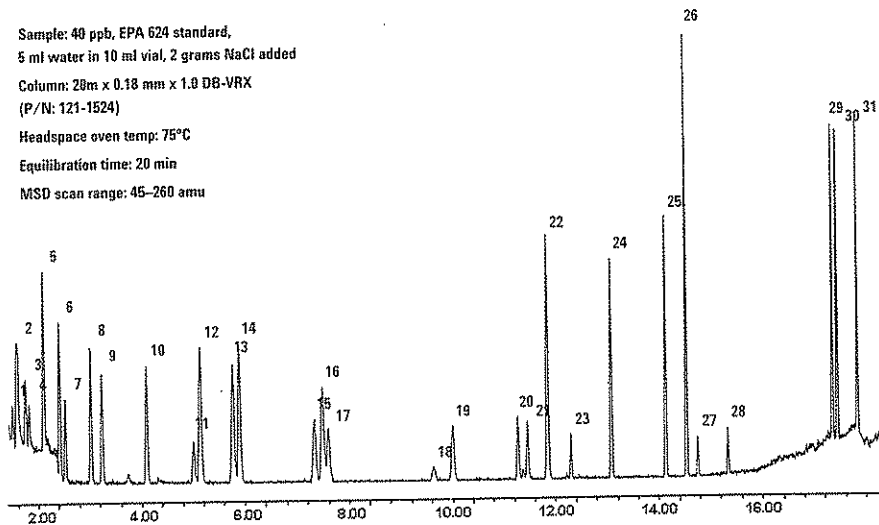
Headspace conditions:

Oven temp: 85°C
 Loop temp: 95°C
 Transfer line temp: 110°C
 Vial equilibration time: 10 min

- | | |
|-------------------------|-----------------------|
| 1. Methanol | 14. s - Butanol |
| 2. Ethanol | 15. Chloroform |
| 3. Ether | 16. Cyclohexane |
| 4. Acetone | 17. Benzene |
| 5. i - Propanol | 18. Heptane |
| 6. Acetonitrile | 19. Trichloroethylene |
| 7. Methylene Chloride | 20. 1,4 - Dioxane |
| 8. t - Butanol | 21. Pyridine |
| 9. Hexane | 22. Toluene |
| 10. Propanol | |
| 11. Methyl ethyl ketone | |
| 12. Ethylacetate | |
| 13. Tetrahydrofuran | |

VOLATILE ORGANIC COMPOUNDS IN WATER

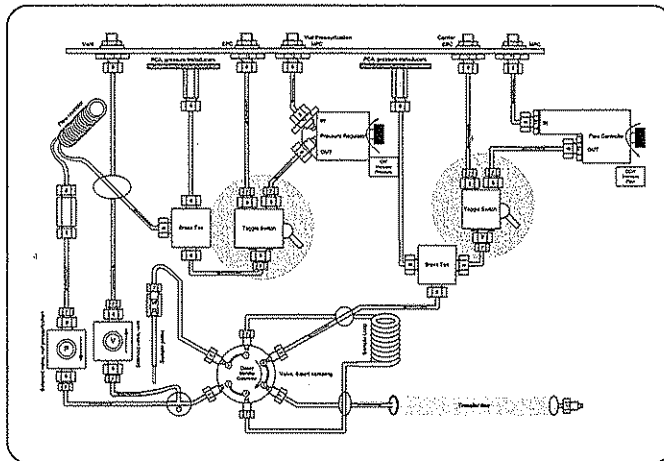
Sample: 40 ppb, EPA 624 standard,
 5 ml water in 10 ml vial, 2 grams NaCl added
 Column: 28m x 0.18 mm x 1.0 DB-VRX
 (P/N: 121-1524)
 Headspace oven temp: 75°C
 Equilibration time: 20 min
 MSD scan range: 45-260 amu



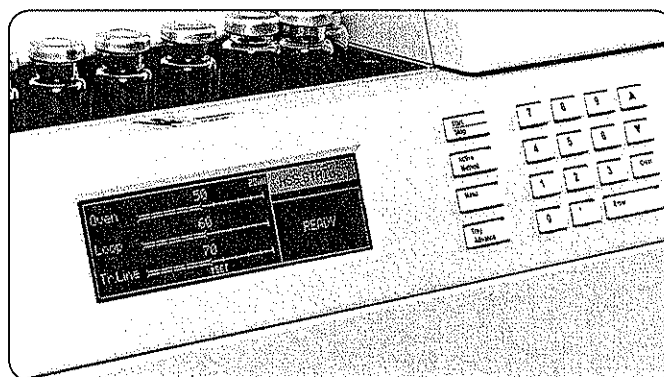
From installation...

Agilent, your trusted partner in gas chromatography technology, provides a complete, reliable, rugged headspace system. As a single-vendor solution, all system components work together by design, avoiding compatibility problems or installation delays. Site preparation and installation services guarantee that your system is installed and functioning properly. Familiarization services ensure that users are quickly running samples.

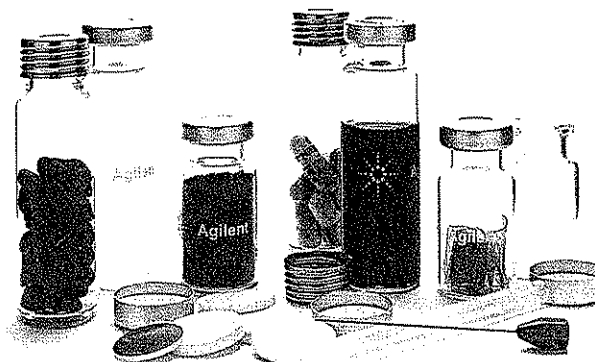
Switch easily between built-in pneumatics control and GC EPC control, for flexibility to interface with any GC in your lab.



Choose control by either Agilent's widely used ChemStation or built-in, easy-to-use multi-line display keypad.



Use either 10 mL or 20 mL crimp top headspace vials without changing hardware. Or use screw cap vials, which are ideal for field sampling.

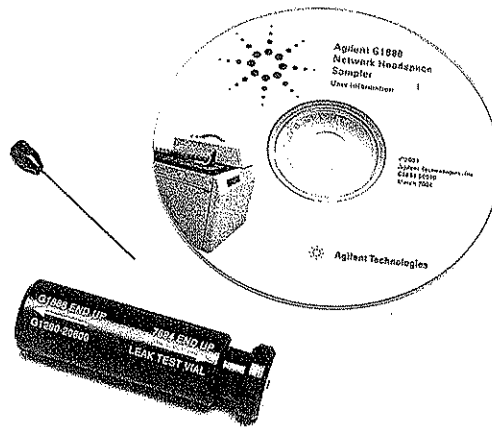


...to support

Agilent offers a wide range support services, from application support to hardware preventive maintenance. A full complement of operational qualification and performance verification (OQ/PV) services allows your company to and document the performance of your analytical instruments at any point during the instrument lifetime. All services are performed by trained and certified Agilent representatives.



Take immediate advantage of new features by updating the main micro-processor firmware over the Internet



Get started right away by accessing pre-stored common chemical test methods from the keypad. Use detailed power-on self-tests and the semi-automatic leak test to ensure that your system is always working properly.

Headspace Job Log: Agilent G1888 Headspace Sampler

Line	Vial#	Sample	Method	#Inj	Loaded	Prep'ing	Injecting	Finished	Analyzed	Time	Event
1	2	Sample	Method	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2	3	Sample	Method	7/4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4:57:29 PM	Event 1
										4:57:29 PM	Event 2
										4:57:29 PM	Event 3
3	4	Sample			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4:57:29 PM	

Injecting...

	Set	Act.
Oven Temp (°C)	52	52
Loop Temp (°C)	60	60
Tr. Line Temp (°C)	70	70
Carrier Pressure (kPa)	0	
Vial Pressure (kPa)	0	

Not Ready GC Ready Run

Consult the event log for added confidence. This log tracks every headspace sampler operation, and reports any temperature and pressure deviations from setpoints.

Agilent: Trusted Solutions Time After Time

The G1888 Network Headspace Sampler, integrated with the industry-standard Agilent 6890N GC and 5973 inert MSD, gives you uncompromised performance and reliability. For the confidence of consistent results every time, choose Agilent, the world's largest supplier of gas chromatographs and related products.

The Agilent Value Promise – 10 years of guaranteed value

The G1888 Network Headspace Sampler is backed by the Agilent Value Promise. This promise guarantees you at least ten years use of your HSS from the date of purchase, or Agilent will credit you with the residual value of the system when you upgrade to an Agilent replacement system.

Information at your fingertips

Stay up-to-date on the G1888 and other Agilent products. Register at www.agilent.com/chem/registration to receive exclusive benefits, such as:

- Personalized email notifications that reflect your specialized interests
- Access to how-to videos, chromatogram libraries, application notes, and more
- Free firmware and software updates
- Faster registration for free e-Seminars and other training

For more information

For more information about the Agilent G1888 Network Headspace Sampler or other Agilent products and services, visit us online or call toll free:

<http://www.agilent.com/chem>

1-800-227-9770 (in the U.S. and Canada)

Outside the U.S. and Canada, please call your local Agilent Technologies analytical sales office or authorized Agilent Technologies distributor.

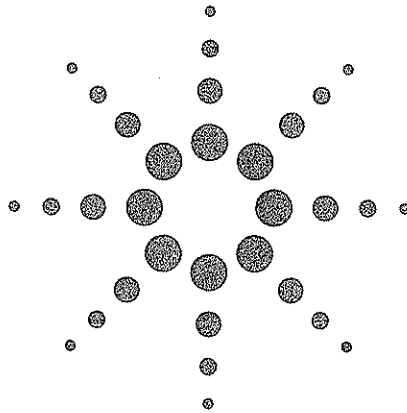
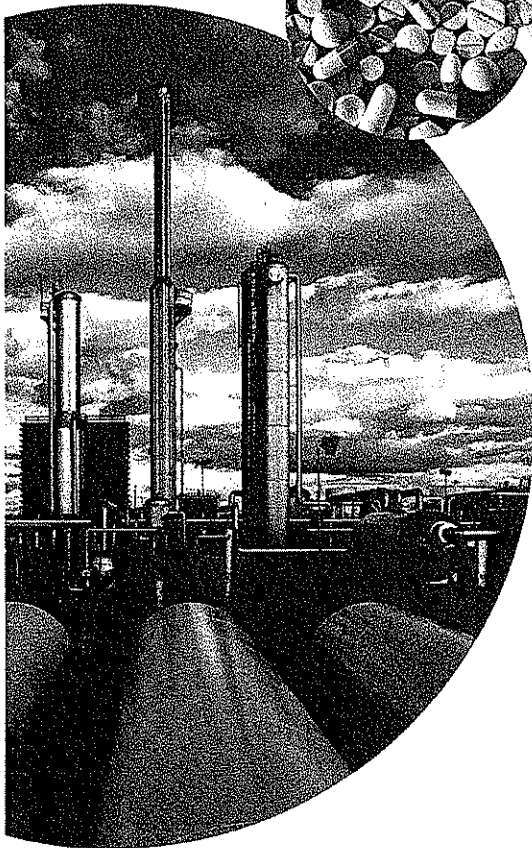
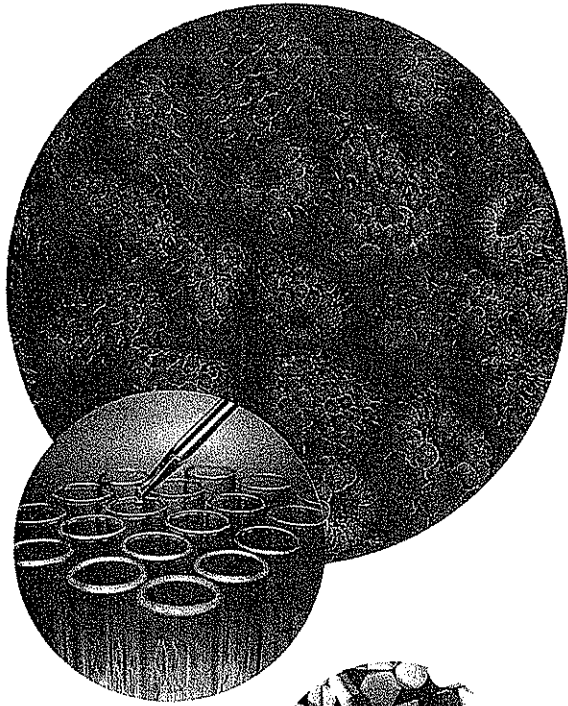
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5989-0415EN



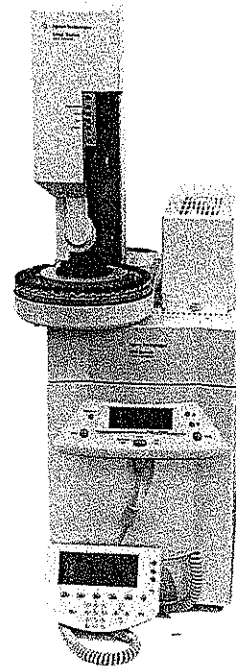
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Smaller, faster, easier.

Agilent 6850 Series II Networked GC System

- *Multiple injector detector options*
- *Full system integration*
- *Built-in ease-of-use*
- *Uncompromised reliability*
- *Compact for at-line and online use*



Agilent Technologies

Big Possibilities in a very small size

The advantages of Agilent technology have never been so big— or so small. Presenting the Agilent 6850 Series II, a networked GC system that brings outstanding performance and ease-of-use in a very compact size.

Consider this. Two 6850 Series II GCs side-by-side use the same footprint as one larger GC instrument— and produce virtually identical results. Successfully implemented in labs from process chemical companies and offshore oil rigs to flavor and fragrance labs and pharmaceutical giants, the Agilent 6850 has proven to be the GC when size and ease of use are critical.

Take advantage of...

High productivity and low cost of ownership. The 6850 is designed to help you get samples through your laboratory quickly.

Improved laboratory efficiency thanks to sample-centric software that works the way you do.

The performance of an Agilent 6890 GC performance-in half the footprint.

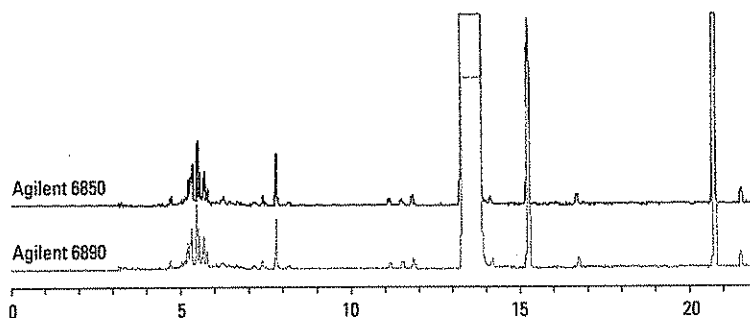
More than double the analytical capacity and sample throughput-without doubling your laboratory space.

Unprecedented uptime from a GC that sets a new standard for reliability and ease of maintenance.

An absolute minimum of GC system training time and cost.

A GC system so easy to use, every lab technician can be comfortable operating it.

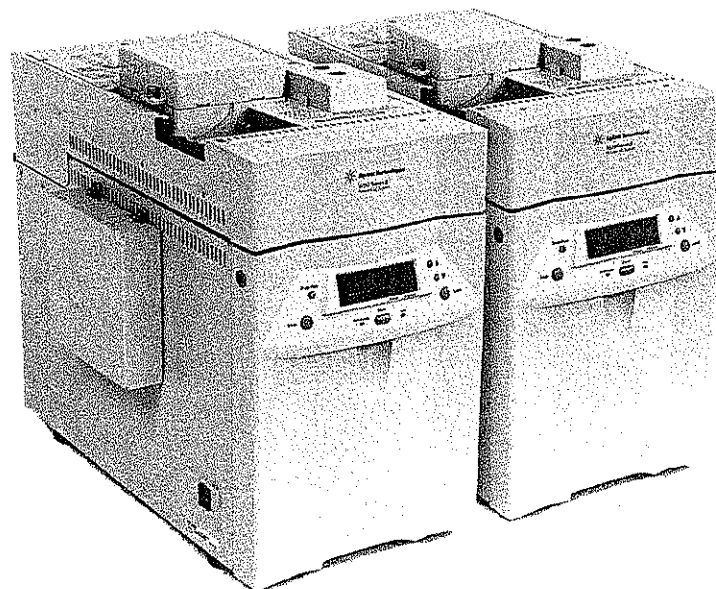
Analytical measurements that can be closer to your chemical production processes.



GC	Weight Percent	
	Total Impurities	Cumene
6850	0.0664	99.934
6890	0.0650	99.935

Virtually Identical Results

The Agilent 6850 Series II GC uses many of the same proven components as the Agilent 6890N GC. Both GCs provide state-of-the-art performance for unsurpassed retention time and quantitation repeatability. You can also use the same method parameters on either platform.

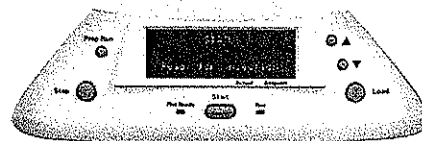


Create more efficiency in less space

With this single-channel 6850 Series II GC, you get all the capability you need for routine GC analyses in an instrument less than half the width of an Agilent 6890 GC. Installing two 6850 Series II GC's side-by-side enables you to simultaneously reconfigure or perform maintenance on one channel while the other runs samples.

For critical analyses, when you can not afford to lose any time, having two of these GCs running the same or different methods means that you are always ready to go.

And this GC is small enough, rugged enough, and simple enough to operate close to process areas. Plant operators can collect samples more frequently and get results quickly. This is an efficient and economical way to monitor your production processes more often and without interruption. You can have higher yields at the same cost. Or the same yield at lower cost.



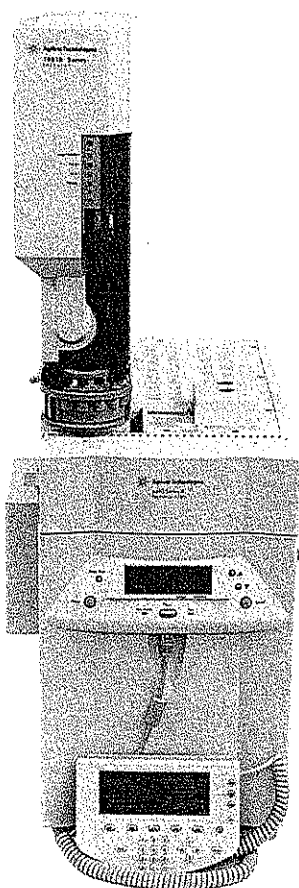
The most advanced pressure and flow control

Agilent's electronic pneumatics control (EPC) allows all pressures and flows to be programmed into the method. Once set, they remain constant. Agilent was the first to develop this technology. Our EPC is now in its fourth generation and enables Agilent's exclusive Retention Time Locking (RTL).

Unsurpassed uptime even in rugged environments

You get all the ruggedness and reliability you expect from Agilent chemical analysis instruments. This GC meets the EN 50082-2 standard for industrial use, which means less susceptibility to radio-frequency interference and transient voltage drops. The Agilent 6850 Series II GC is the only high-performance GC to meet this strict standard.

You can choose either a rotary valve or a diaphragm valve depending upon your analytical needs. The durable diaphragm sampling valve extends valve life by a factor of 10 or more compared with rotary valves. The rotary valves used in the 6890 are now available when particulates or other aspects of the sample matrix are not amenable to using the diaphragm valve.



**Perfect for
routine GC analyses
in any type of
laboratory setting**

Simple maintenance

Agilent's unique top-opening lid provides easy routine liner maintenance for the 6850 Series II GC. Compared to other systems, replacing a liner takes a fraction of the time-which means greater efficiency from this feature alone.

Incredible ease of use and fewer mistakes

You get a choice of control options:

- For the ultimate in simple operation, there are just six buttons on the front panel. The operator merely selects a predefined method and starts or stops a run.
- For extended capabilities, you can use the GC's hand-held controller.
- Another option is the Agilent Certity networked data system for chemical QA/QC. This software, designed for the production environment, maximizes productivity by keeping analyses centered on the sample and not laboratory instruments.
- A third option is the Agilent GC ChemStation with Companion. The operator can select from pre-set choices that you provide.

Agilent 6850 Series II: Smaller, faster, easier.

Huge features in a little footprint

Detectors for a wide range of applications

You have your choice of a flame ionization, thermal conductivity, flame photometric, micro-electron capture, or mass selective detector to measure a wide range of samples. These rugged detectors are the same detectors used in Agilent 6890N GCs, so they offer the same performance and can be used on either GC.

An option of split/splitless, cool-on-column, or programmable temperature vaporizing (PTV) inlets

You can use capillary columns for fast, high-resolution results or most current methods that call for packed metal columns. An option of split/splitless, purged packed, cool-on-column is also available. These are the same inlets used with Agilent 6890N GCs.

Fast GC

A small oven allows fast temperature ramps and short cool-down times without requiring a higher-voltage power source. For special application, our even faster ramping oven is available.

Extremely simple operation

It doesn't take extensive training to operate this GC. Merely select among six buttons on the front panel to view instrument status, choose one of five methods, and start or stop the analysis.

Easy column replacement

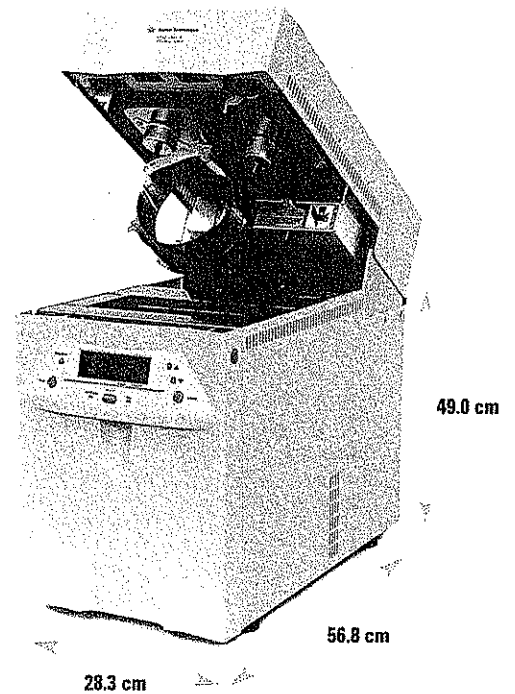
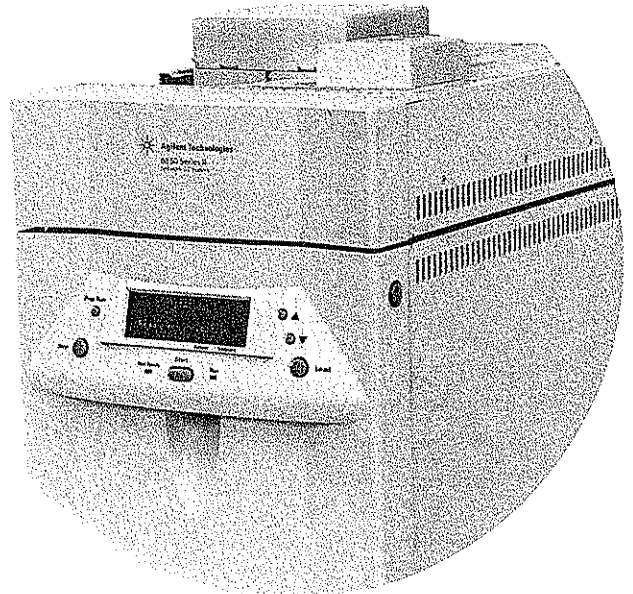
When you open the unique top-opening lid, the column is lifted out of the oven. This gives you safe, unobstructed access to column connections at the inlet and detector.

Extended application range

Cryogenic cooling to -20°C allows you to perform a broad range of applications. The small oven size consumes about half the carbon dioxide of full-sized GCs, leading to lower operational costs.

A small footprint

Weighing less than 29 kilograms and only 28.3 cm wide, the Agilent 6850 GC can fit easily on your laboratory bench or conveniently close to your production process.



The ideal combination

of high performance, small size, and ease of use

Agilent 6850 Series II: Smaller, faster, easier.

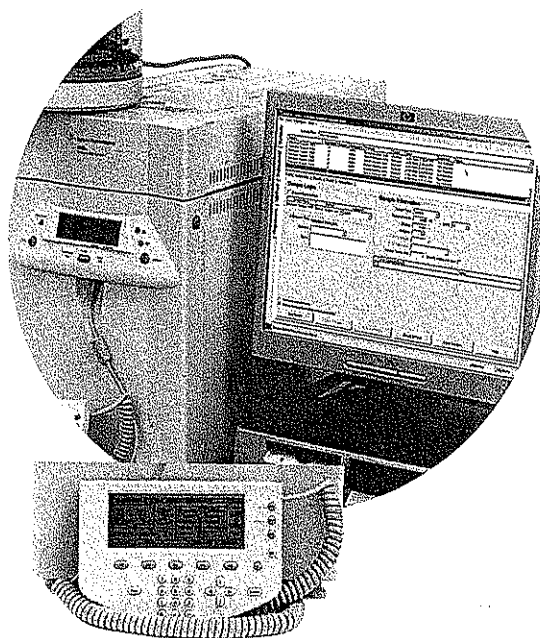
Amazingly easy sample-centric software interface

The Agilent Cerity networked data system for chemical QA/QC was designed for laboratories in the chemical/HPI industries. Operators merely enter the sample name, and the method and GC are set automatically. From a single screen, you can control up to eight Agilent 6850 GCs simultaneously, or eight Agilent 6850, 6890, and 5890 GC channels.

The 6850 GC is network-ready with a built-in local area network (LAN) communication interface. LAN communication lets you control and monitor laboratory instruments from any networked PC. You can also access and send information on the Internet.

From its flat navigation features to its availability in nine languages, the chromatography data system sets the standard for ease of use.

You can also choose the Agilent ChemStation, which offers comprehensive, multi-technique control of four different instruments. If you add Agilent's retention time locking software, you can reproduce retention times within thousandths of a minute on any Agilent 6850 or Agilent 6890 GC system (old or new).



Absolute security

A detachable, hand-held controller lets you program the GC then remove the controller, which is not needed for routine GC operation.

Flexible sample introduction choices

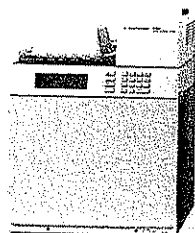
Agilent's 6850 Series II GC system offers a variety of automated sample introduction products to maximize system flexibility and productivity.

Unattended operation for greater productivity

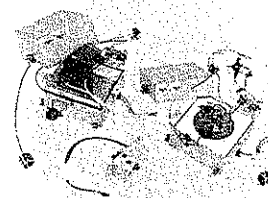
For increased productivity, the 6850 automatic liquid sampler allows unattended operation for up to 27 2-mL vials or up to 22 4-mL vials. Agilent's unique solvent saving mode enables you to get up to four times the syringe cleansing from each milliliter of solvent. Save on solvent purchase and waste disposal expenses.



6850 ALS or 7683 Autoinjector: accurate and repeatable injections



G1888 (Headspace): reliable, inert, fully integrated system



Rotary or diaphragm valve: reliable valve designs for gas and liquid sampling

Software specifically designed for routine QA/QC

Efficiency found right on screen

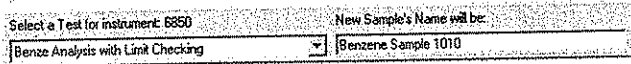
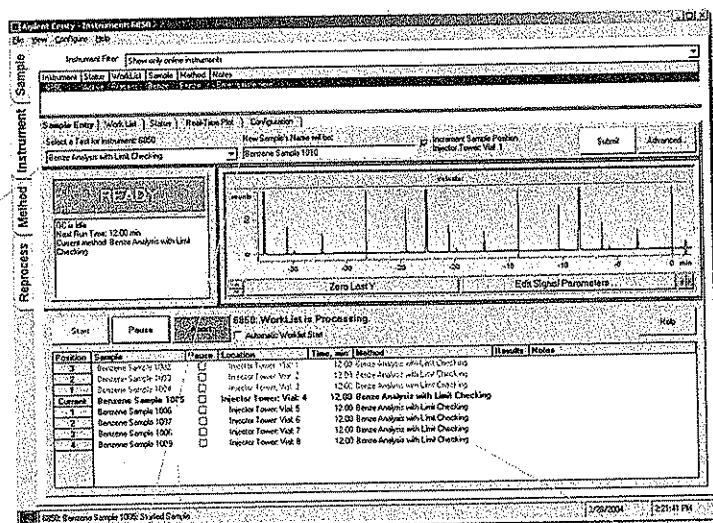
The Certy NDS for Chemical QA/QC software for routine tasks provides a sample-centric user interface designed for operators to make analyses simple and accurate. The system mirrors the way operators work-with the sample at the heart of the analysis.

This software is based on Microsoft® Windows® 2000 and XP 32-bit architecture and uses worldwide-standard LAN communications. You can control up to eight instruments simultaneously at maximum data acquisition rates. The Certy NDS for chemical QA/QC supports all current Agilent GCs, including the 6850 Series II.

To ensure data integrity and system reliability, a relational database stores together everything that relates to an analysis. Nothing is ever overwritten.

One easy-to-use screen for everything

One intuitive, easy-to-navigate screen provides access to up to eight Agilent 6850 GCs simultaneously— supporting laboratory efficiency and productivity. You can even see a real-time plot from any of the eight instruments. And the software comes in nine languages, so operators can easily understand what they see.



1	Benzene Sample 1011	<input type="checkbox"/>	Injector Tower Val: 3	12.00	Benzene Analysis with Limit Checking		
2	Benzene Sample 1012	<input type="checkbox"/>	Injector Tower Val: 3	12.00	Benzene Analysis with Limit Checking		High
3	Benzene Sample 1013	<input type="checkbox"/>	Injector Tower Val: 3	12.00	Benzene Analysis with Limit Checking		

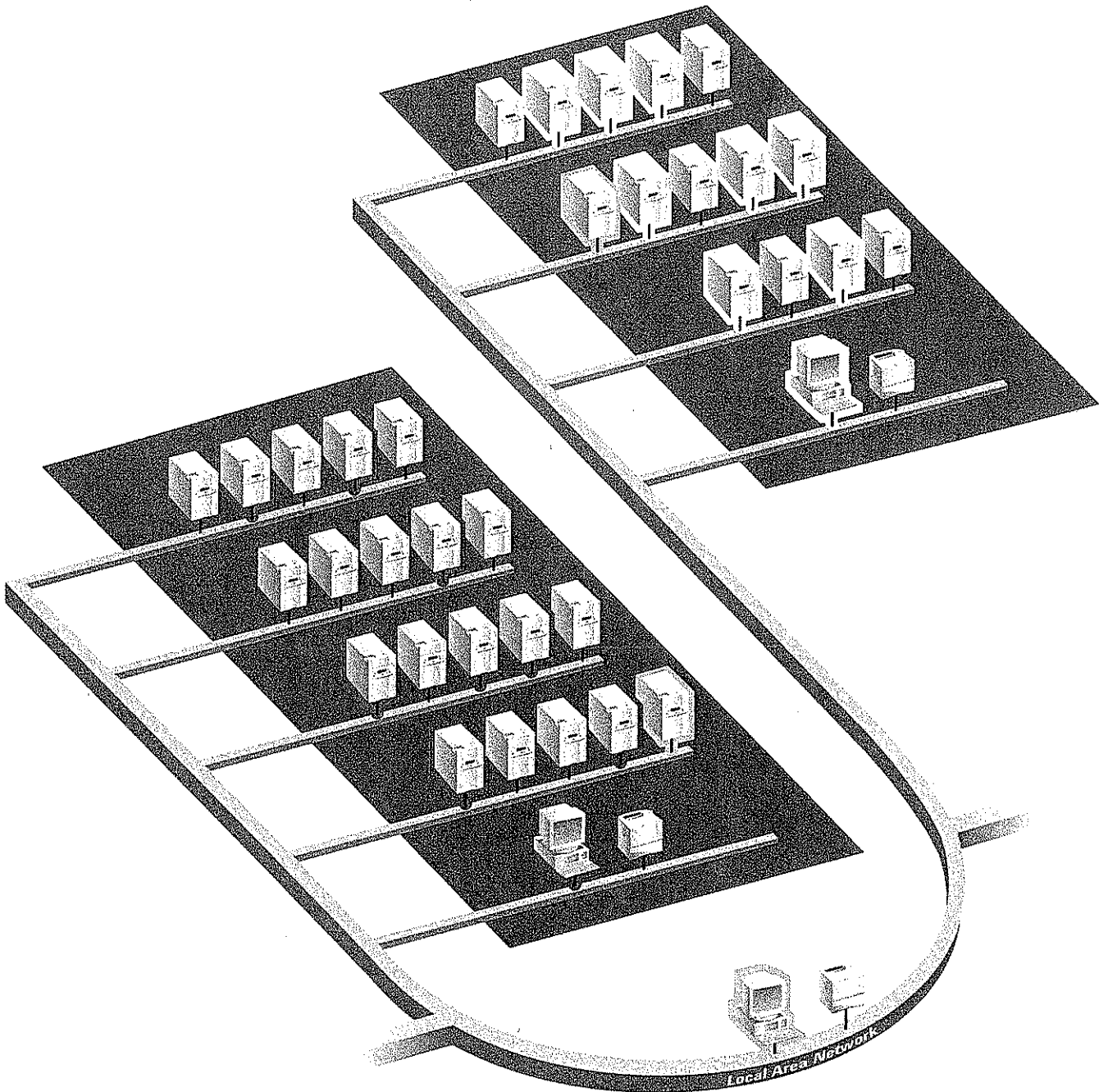
The least possible effort

All the operator needs to do is enter the test to be performed on the sample. A drop-down box offers a list from which to choose. The software then fills in the appropriate information, taking over laborious routine tasks, and minimizing the chance of errors. Then the operator merely clicks "start." Or you can set up a method to start automatically when the GC is ready.

Samples 'Out of Limit' automatically highlighted

You can set up the software to automatically check if the concentrations of selected compounds are either too high or too low. The operator merely has to look at the screen to see which samples need further examination.

Agilent 6850 Series II. Smaller, faster, easier.



Efficient instrument control and data management

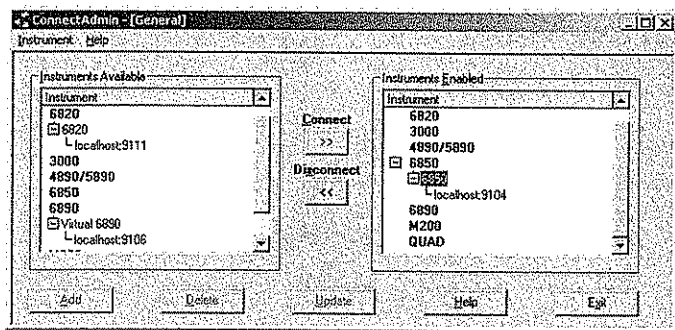
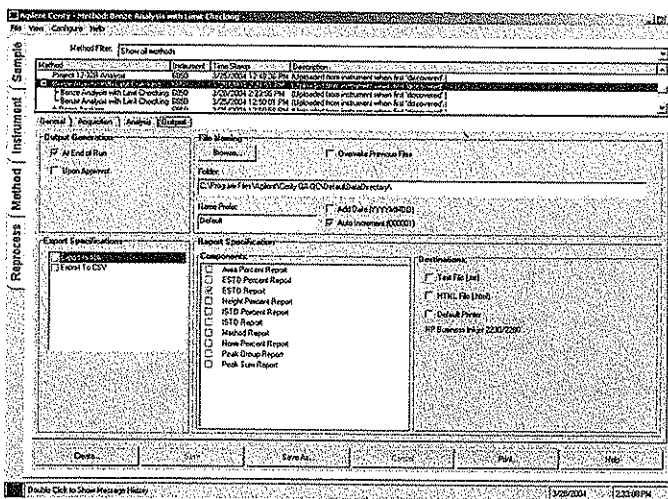
You can store up to 32 instrument network addresses and connect with up to eight instruments simultaneously, quickly and efficiently.

Choose the software that best suits your needs.

The GC ChemStation is the first choice for non-routine laboratories that require the full breadth of method development capability.

Tools to ensure accurate results

Using the sample-centric software's Internet Explorer viewer, you can present graphics and text in any compatible file format (such as HTML, Java™, Word for Windows, Excel, PowerPoint, or ASCII text). With the click of a mouse you can access detailed instructions, standard operating procedures, and reference chromatograms for each sample. This reduces the possibility of errors and gives you a standard reference to ensure that your results are accurate.



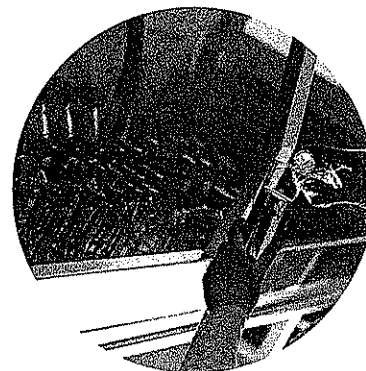
Instant connection with up to eight GCs

The ConnectAdmin utility lets you connect dynamically with up to eight GCs not controlled by another computer-without shutting down your software. You can see, immediately and easily, what is happening on any of the eight instruments.

Agilent Cerity networked data systems

Designed on Microsoft's 32-bit operating system, the Cerity networked data system offers a base platform with sophisticated yet easy-to-use capabilities for all laboratory steps, from sample entry to data review and approval to final reporting.

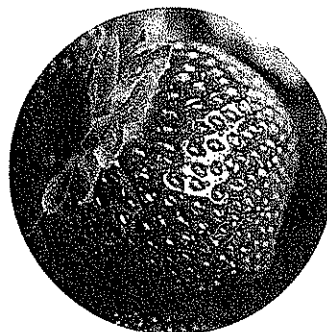
Cerity NDS for Chemical QA/QC consists of specific software applications that model the way analysts work within their particular laboratory environment. The software applications increase laboratory productivity by fully supporting the everyday tasks of laboratory professionals.



Flexibility with the multitechnique Agilent ChemStation

If you are currently using an Agilent ChemStation, you can migrate your methods and data directly to the Agilent Cerity networked data system.

Or, you can continue using the Agilent ChemStation, which offers the versatility of controlling different Agilent chemical analysis instruments and techniques simultaneously. The ChemStation also provides more extensive built-in compliance features.



Immediate productivity through networking technology

Both the Cerity networked data system and Agilent ChemStation software offer industry-standard LAN communications based on Transmission Control Protocol/Internet Protocol (TCP/IP). You can change method parameters, load new methods, determine the status of an analysis, and check results from any PC on your network-as easily as using networked printers.

With no link boxes. No terminal server. And no additional software.

This does away with outdated cabling that forces the PC to be near the analytical instrument. Operator safety and efficiency increase. Fast, error-free data collection improves accuracy and enables full confidence in results. Laboratories quickly become more productive.

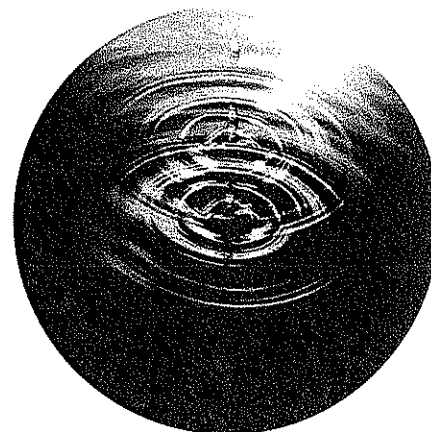
Minimal impact on your LAN

Your network administrator may ask about the amount of network traffic the 6850 GC system will generate. We have anticipated this possibility and performed tests to help answer some common questions.

The following network performance was observed using eight 6850 GCs generating 200 Hz* data and several PCs networked together on a 10BaseT Ethernet LAN:

- Average network utilization of about 4% (400 packets/sec) with peak utilization of about 10% (1,000 packets/sec)
- No collisions
- No network errors

*This represents the maximum data collection rate for the Agilent 6850 GC. Network utilization decreases proportionately with decreasing data collection rates (for example, by a factor of 10 at typical data rates of 20 Hz).



Agilent 6850 Series GC: Smaller, faster, easier.

The most rugged and reliable GC Agilent has ever built

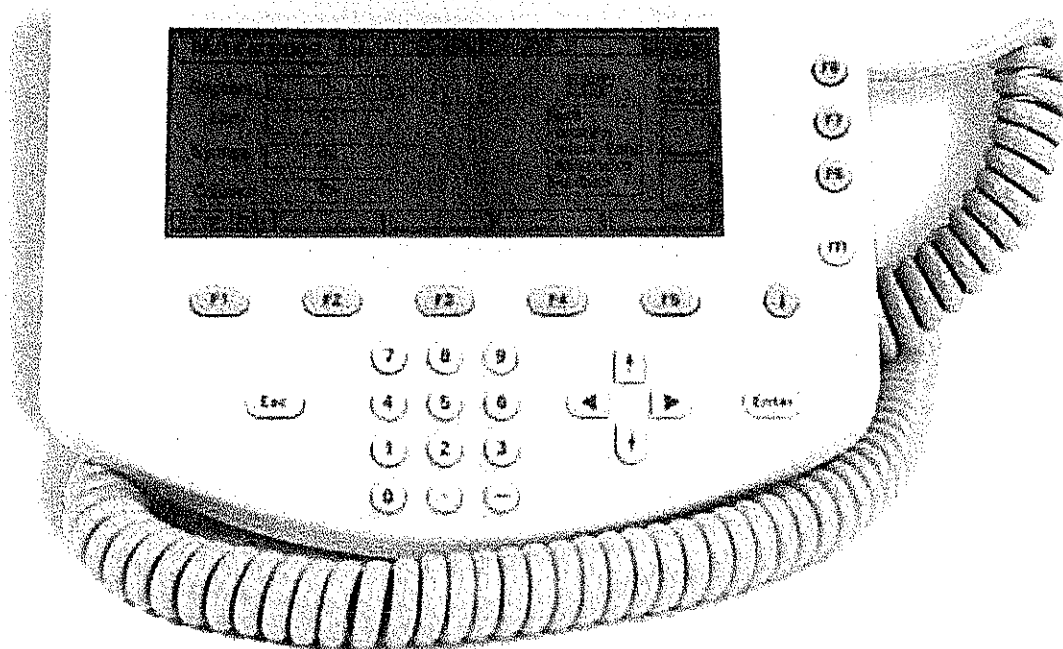
The Agilent 6850 Series II GC hand-held controller

With our optional hand-held controller, you can program the parameters or edit methods through a simple graphical user interface. Using the controller for all of your Agilent 6850 GCs is much easier and more flexible than working on the GC keyboard. You can store more than 100 methods on a removable flash memory card and transfer them to any 6850 GC quickly and with ease. For complete security, you can remove the controller from the GC to prevent any change in your methods.

The controller also contains common diagnostics that let you confirm quickly and easily that maintenance procedures were performed correctly.

Time-saving maintenance tool

A unique early maintenance feedback (EMF) tool alerts you when maintenance is due-in enough time to take action without losing uptime. You merely set the service interval for each maintenance item using the 6850 GC handheld controller. The GC records the time and date for each of these maintenance items. You can review these maintenance settings at any time using the handheld controller.



Simple checking for leaks.

The controller lets you check for leaks quickly and easily after routine maintenance such as changing a liner or column.

All your supplies and support from one source

Agilent has products and experience to help you get the results you need. When you buy columns and supplies from Agilent, you're buying more than just products. Agilent has GC, LC, and MS instrument design experience, and the consistent consumables quality and expertise to help you get the reproducible results you need. On the web, on the phone, or in person, Agilent has the columns and supplies and technical information to help you avoid problems and address challenges you may face in your lab.

Agilent 6850 Series HPLC Stationary Phase Columns: faster, easier

Ordering is easy

To get the Agilent supplies you need, simply contact your supplier, an Agilent authorized distributor, or visit us online at www.agilent.com/chem.

Popular Agilent 6850 GC columns

- **Agilent HP-PLOT and GS columns** provide a comprehensive line for analysis of fixed gases, and volatile polar compounds with exceptional baseline resolution.
- **HP-PONA and DB-MTBE** are among Agilent's application-specific stationary phase columns, with unique characteristics to solve the most difficult separation problems of a given method.
- **DB-1, HP-1 and DB-1ms, HP-1ms** are well suited for analysis of amines, hydrocarbons, phenols and well as flavors and fragrances.
- **DB-5, HP-5 and DB-5ms, HP-5ms** are excellent general-purpose columns with a very wide range of applications including semi volatiles, drugs, FAMES, pesticides and herbicides.
- **HP-INNOWax columns** have the highest upper temperature range of bonded PEG phases.
- **HP Fast GC Residual Solvents column** is equivalent to USP Phase G43, yet has a thinner film that reduces run time 2.5 times and increases MDL by a factor of two.
- **Custom capillary columns** are available from Agilent. Please contact your Agilent sales office or authorized distributor if you can not find the column for which you are looking.

Agilent's flexible support options

Support services for Agilent chemical analysis instruments offer flexible choices so that you can have precisely the level of assistance that you want. In configuring your own support package, you can purchase only what you need for maximum flexibility in satisfying your performance and budget objectives.

Agilent support services cover all of your Agilent chemical analysis hardware and software maintenance, troubleshooting, repair, and compliance needs.

We also offer cost-effective service bundles designed to meet the support needs of specific industries. These bundles are an economical alternative to purchasing each service individually.

Agilent Technologies provides carefully planned, effective training courses in using and maintaining Agilent chemical analysis hardware and software products. You can obtain more information, see course schedules and enroll by visiting www.agilent.com/chem/education and clicking on the education link under chemical/biochemical.

Chemical and hydrocarbon processing service bundle

For the specific needs of the chemical, petroleum, petrochemical and other industries not subject to pharmaceutical regulatory compliance.

- Telephone support to isolate and resolve hardware problems
- At-your-site service with consumables used during repair
- All off-site instrument repair services, including replacement with an identical instrument or return to Agilent for repair.
- Annual on-site preventive maintenance



A Sizable Promise

For nearly two decades, Agilent Technologies has been improving the way laboratories get results, perform their processes, and enhance their businesses. And the Agilent 6850 Series II GC is no exception. With exemplary performance and outstanding ease-of-use packed into its compact frame, the 6850 will help improve the efficiency and productivity of your lab.

The Agilent Value Promise-10 years of guaranteed value

In addition to continually evolving products, we offer something else unique to the industry-our 10-year value guarantee. The Agilent Value Promise guarantees you at least 10 years of instrument use from your date of purchase, or we will credit you with the residual value of that system toward an upgraded model. Not only does Agilent ensure a safe purchase now, we help ensure your investment is as valuable to you in the long run.

Information at your fingertips

Stay up-to-date on the 6850 Series II GC and other Agilent products. Register at www.agilent.com/chem to receive exclusive benefits, such as:

- Personalized email notifications that reflect your selected interests
- Access to how-to videos, chromatogram libraries, application notes, and more
- Free firmware and software updates
- Fast enrollment for e-Seminars and other training

Find out more today

For more information about how you can benefit from the Agilent 6850 Series GC system, Agilent's support services, or Agilent training courses, visit us online or call toll free:

<http://www.agilent.com/chem>

1-800-227-9770 (in the U.S. and Canada)

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