

CHROMATOGRAPHY INSTRUMENTS

SRI



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SRI Catalog 200

NEW PRODUCTS!

OCPTV - Our On-Column Programmable Temperature Vaporization Injector

Six Shooter Auto Injector - Automate up to six syringe injections

DGA GC - For dissolved gases in water and other liquids

TOGA GC - For dissolved gases in transformer oil

Membrane Sampler - GC sampling accessory for extracting gas from liquid samples

CryoSulfur GC - Detect trace sulfur down to 10ppb

CryoCooled Peltier Trap Accessory - Peltier-powered GC sample concentration accessory for difficult analytes such as sulfur

Preconfigured GC Systems

Choose from our preconfigured GC models for common applications



How to Build a Custom GC

The parts and processes that go into creating your custom SRI GC system

GC Chassis Options

Choose from five versatile GC chassis models: 8610C, 8610D, 310, 410 and 110

GC Detectors

Select from 16 detector types, and mount up to six per GC chassis



GC Injectors

Choose from 17 sample introduction options, and select up to five per GC chassis



GC Accessories

Hydrogen generator, methanizer, "whisper quiet" air compressor and more

[HPLC Systems](#)

Complete isocratic and binary gradient HPLC systems; Educational HPLC

[PeakSimple Chromatography Data Systems](#)

1, 4 or 6 channel data systems with PeakSimple software for Windows™

[Free Technical Support, Warranty, Service, and Training Information](#)

[Agency Approvals and Certificates](#)



Preconfigured GC Overview

At SRI Instruments, we specialize in [CUSTOM GAS CHROMATOGRAPHS](#). However, we have preconfigured a number of GCs for common applications. In some cases, the preconfigured GCs are less expensive than the identical hardware assembled "a la carte." Each of the preconfigured GCs may be further customized (except the educational GC systems).

1 [Capillary FID GC](#)

General purpose GC

2 [Narrow Bore Capillary FID GC](#)

For semi-volatiles and high boiling compounds

3 [CryoSulfur GC](#)

For trace sulfur in gas or liquid

4 [Greenhouse Gas Monitoring GC](#)

For greenhouse gases methane, carbon dioxide and nitrous oxide

5 [DGA GC](#)

For dissolved gases in water and other liquids

6 [TOGA GC](#)

For dissolved gases in transformer oil

7 [Multiple Gas Analyzer #1 GC](#)

For fixed gases and light hydrocarbons

8 [Multiple Gas Analyzer #2 GC](#)

For fixed gases, water and hydrocarbons to C₂₀

9 [Multiple Gas Analyzer + Sulfur GCs](#)

For H₂S, SO₂, fixed gases and C₁-C₂₀ hydrocarbons

10 [BTU Gas Analyzer GC](#)

For BTU content of natural gas

11 [Method 25 Methane/Nonmethane GC](#)

For methane/nonmethane hydrocarbons as per EPA Method 25

12 [Mud-Logging GC](#)

For total hydrocarbons plus detailed C₁-C₆ content

13 [Environmental and BTEX GCs](#)

For most EPA series 8000 methods

14 [TO-14 Air Monitoring GC](#)

For EPA air monitoring methods

15 [PCB GC](#)

For PCBs in soil and other solid matrices

16 [Geoprobe™ GC](#)

For continuous VOC measurement and speciation of Geoprobe purge gas

17 [Explosives GC](#)

For nitro-aromatic and nitramine explosives in the field

18 [HVROC GC](#)

For ethylene, propylene, 1,3-butadiene and butenes, which play a role in rapid ozone formation



19 [Tunable Column Selectivity \(TCS\) GC](#)

For adjustable dual column selectivity

20 [Rack Mount Mud-Logging GC](#)

For 19 inch shelf equipped racks

21 [310 Soil Gas GC](#)

For soil and gas investigation applications

22 [Gas-less™ Educational CCD GC](#)

For teaching GC without using compressed gases—right in the classroom

23 [Educational TCD GC](#)

For demonstrating gas chromatography on the same equipment students will encounter in industry

24 [Educational FID GC](#)

For teaching undergraduate gas chromatography, or for graduate research



How to Build a Custom SRI GC

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1. Pick a chassis. What is your application? If you will be injecting by gas sampling valve, purge & trap, thermal desorber, or any other injector types in addition to on-column, then choose our versatile [Model 8610C](#), which can mount up to five different injectors simultaneously.



For dual oven applications or two GCs in one, choose the [8610D](#) chassis.



If you will be injecting by syringe only, you can choose the ultra-compact [Model 310](#).

For industrial rack systems, choose our [Model 410](#) rackmount chassis.



If you want to add detectors to an existing GC, choose the [Model 110](#).



For any model GC chassis except the 110, a single channel PeakSimple data system is standard equipment. If you'll be ordering more than one detector on your GC, you will need a four or six channel data system. The one and four channel data systems connect to your Windows™ computer's serial port, and the six channel model connects to the USB port.

2. Choose your detectors. Detector types are selected depending on the particular measurement application, the required detection limit, matrix interferences, and/or regulatory guidelines. Since all five of our chassis can mount up to four detectors simultaneously (some can mount five or even six), you can perform a surprising variety of applications with one instrument.

<u>DETECTOR</u>	<u>SELECTIVITY</u>	<u>SENSITIVITY</u> (approximate)
CCD	hydrogen and hydrocarbons	500ppm
TCD	universal	200-500ppm
FID	hydrocarbons	1ppm
DELCD	chlorinated and brominated molecules	10ppb
FID/DELCD	hydrocarbons, chlorinated and brominated molecules	10ppm
HID	universal, except neon	10ppm
PID	aromatics and molecules with double carbon bonds	10ppb
NPD	nitrogen and phosphorus	10ppm
NPD/DELCD	nitrogen, phosphorus, chlorinated and brominated molecules	100ppb
TID	nitro functional groups (TNT, etc.; explosives)	1ppb, 50ppb
ECD	electronegative compounds	10ppb
RGD	reducing gases (like hydrogen and CO)	10ppb
FPD	sulfur and phosphorus	200ppb and 10ppb

FPD/FID	sulfur, phosphorus, and hydrocarbons	200ppb, 10ppb, and 100ppm
Dual FPD	sulfur and phosphorus simultaneously	200ppb and 10ppb
FID Dual FPD	hydrocarbons, sulfur and phosphorus simultaneously	100ppm, 200ppb, and 10ppb

3. Choose your injectors. [Injector types](#) are selected by the user depending on the particular measurement application, detection limit, and regulatory requirements. Each GC chassis except the 110 comes standard with an [On-Column injector](#). The [Heated Flash Vaporization](#), [Heated Split/Splitless](#), and PTV injectors are upgrades to the standard On-Column injector. There are [17 injector types](#) from which to choose. Up to five injectors may be mounted simultaneously on Models 8610C and 8610D. The Model 310 will accommodate a single On-Column, Heated Flash Vaporization, Heated Split/Splitless, or PTV injector. Rack-mountable Model 410 can accommodate a gas sampling valve and a single On-Column, Heated Flash Vaporization, Heated Split/Splitless, or PTV injector.

Sample Types and Appropriate Injectors

LIQUIDS:	On-Column, Heated Flash Vaporization, Heated Split/Splitless, PTV, Heated Static Headspace, Purge & Trap, Liquid Injection Valve, Liquid Autosamplers, or Headspace Autosampler
SOLIDS:	Thermal Desorber, Heated Static Headspace, PTV, Method 5035 Purge & Trap, or Headspace Autosampler
GASES:	On-Column, Gas Sampling Valve, Method TO-14 Air Concentrator, or Heated Static Headspace
SPME FIBERS:	Heated Flash Vaporization with Low Volume SPME Liner, or Heated Split/Splitless

4. Accessorize.



We have Gas Line Installation Kits for any type of gas required for SRI GC systems operation.



Our built-in, "whisper quiet" Air Compressor can supply air carrier or detector makeup gas.



The H2-50XRXR hydrogen generator supplies up to 50mL/minute at 30psi.



The Methanizer accessory allows FID detection of CO and CO₂ down to the ppm range.

Although multiple injectors and detectors can be built into an SRI GC chassis, there are instances where certain components would occupy the same space, or we simply run out of room. If you are not sure if everything you want will fit, call one of our knowledgeable technical support agents for help. We may be able to make your dream system, but there will be an additional custom configuration charge.

8690-CONF

Custom GC Configuration

Call

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