

How to Build a Custom SRI GC

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.



If you want to add detectors to an existing GC, choose the Model 110.



For industrial rack systems, choose our 410 rack mount chassis.



For any model chassis except the 110, you must specify the data system model you want. A single channel 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 computer's serial port, while 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 (sometimes five or six) detectors simultaneously, you can perform a surprising variety of applications with one instrument.

DETECTOR	SELECTIVITY	SENSITIVITY (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.), chlorinated phenols at slightly less sensitivity	1ppb, 50ppb
ECD	electronegative compounds (esp. chlorinated, fluorinated, or brominated molecules)	10ppb
RGD	reducing gases (like H ₂ 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

How to Build a Custom SRI GC *continued*

3. Choose your injectors.

Injector types are selected by the user depending on the particular measurement application, detection limit, and regulatory requirements. Twelve injector types are available for installation on SRI GCs. Up to five injectors may be mounted simultaneously on the Model 8610C or 8610D. The Model 310 will accommodate a single On-column, Heated Flash Vaporization, Heated Split/Splitless, or PTV Injector. The On-Column Injector is standard equipment on every 8610C, 8610D, and 310 GC. Heated Flash Vaporization, Heated Split/Splitless, and PTV Injectors are all upgrades to the On-Column Injector.

Sample Types and Appropriate Injectors

LIQUIDS:	On-column, Heated Split/Splitless, Heated Flash Vaporization, PTV, Heated Static Headspace, Purge & Trap, Liquid Injection Valve, Liquid Autosamplers, or Headspace Autosampler
SOLIDS:	Thermal Desorber, Heated Static Headspace, PTV, 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.



Our built-in, “whisper quiet” air compressor can supply air carrier gas or detector makeup gas.

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



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



The H₂-50 hydrogen generator supplies up to 50mL/min at 35psi.



The H₂-50 Extended Run Upgrade Kit allows the H₂-50 to produce hydrogen gas continuously for 1 month or more! Ideal for remote locations.

Although many injectors and detectors can be built into every GC chassis, there are instances where certain components would occupy the same space, or we just 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 work, but there will be an additional custom configuration charge.

8690-CONF

Custom configuration

Call