



P **LC 2050/2250/2500**

Personal Liquid Chromatography



HIGHEST CAPACITY

HIGHEST VERSATILITY

SMALLEST FOOTPRINT

 GILSON®

Preparative LC and FLASH in one compact purification system!



All the features you need in a compact footprint

Gilson integrates all preparative chromatography equipment in one module to propose the ultimate purification tool with the largest specifications ever seen for more flexible, automated and safe purifications.

A complete solution - Flash and HPLC in a stand-alone product with numerous abilities!

Safe storage : up to 5 bottles of 2.5 litres in 2 stainless steel trays (optional).

10.4" Panel PC with touch screen and new Gilson Glider Prep software.

Dual reciprocating pump technology. 50 mL/min, 250 mL/min or 500 mL/min pump heads. (Inert system available)

Four-wavelength UV-Vis, or PDA (available for up to 200-840 nm).

Fits FLASH cartridges from 2,5 g up to 600 g and more.

Fits HPLC columns from 10 mm to 100 mm.

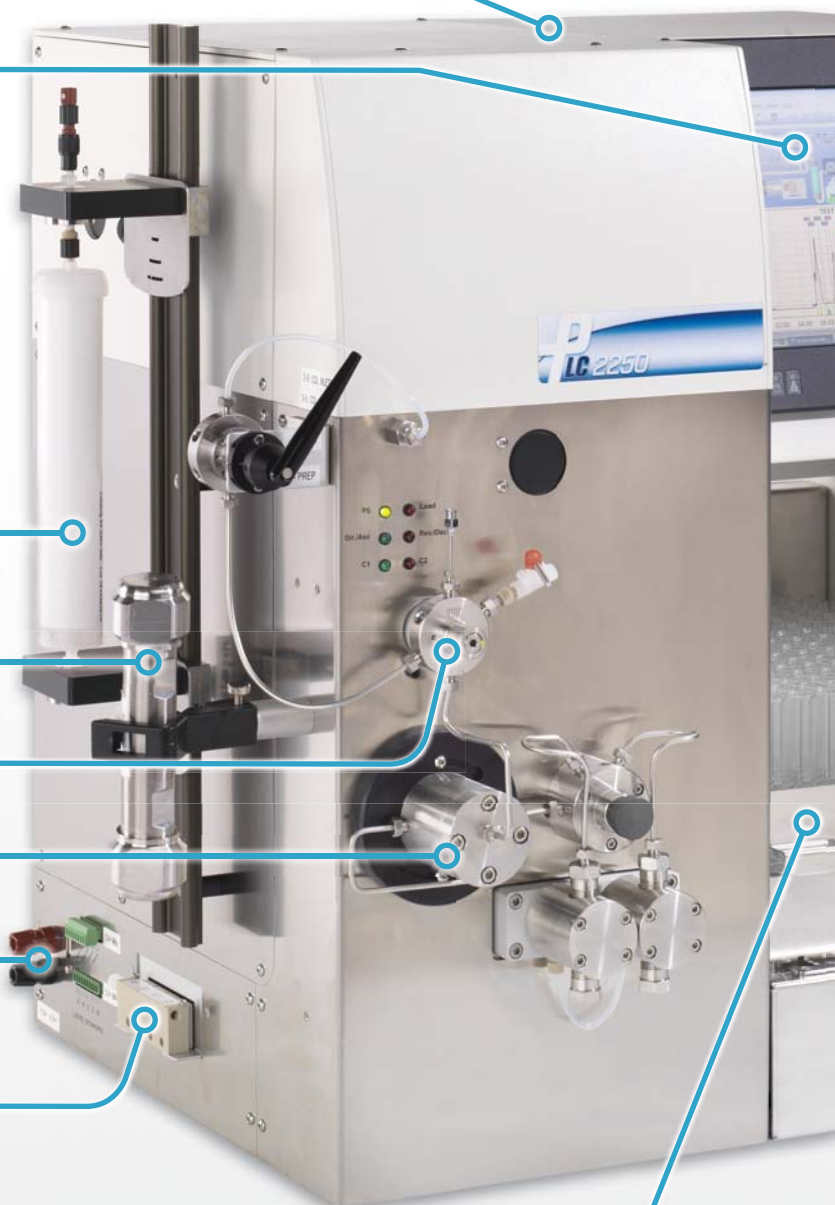
Built-in electronic injection valve.

Variable dynamic mixing chamber.

Built-in acquisition channel for ELS, RI, or any other detectors.

Two or four independent solvent inlets for true binary or quaternary gradients.

Three rack fraction collector capacity - with unlimited collection cycles.





Detector options - Seek out!

The PLC System comes with factory installed options for detection including UV-VIS or DAD with the ability to connect 3rd party detectors such as ELSD, RI, fluorescence or MS.

The base detector model has single wavelength UV detection at 254 nm and offers a low cost solution for the basic needs of most analyses.

Upgrade the PLC with one of the advanced options like one of the UV/VIS detectors - from single to four wavelengths simultaneously.

Or choose one diode array detector model available with a wide range up to 840 nm for monitoring multiple wavelengths and get real time spectrums for immediate purity checks.

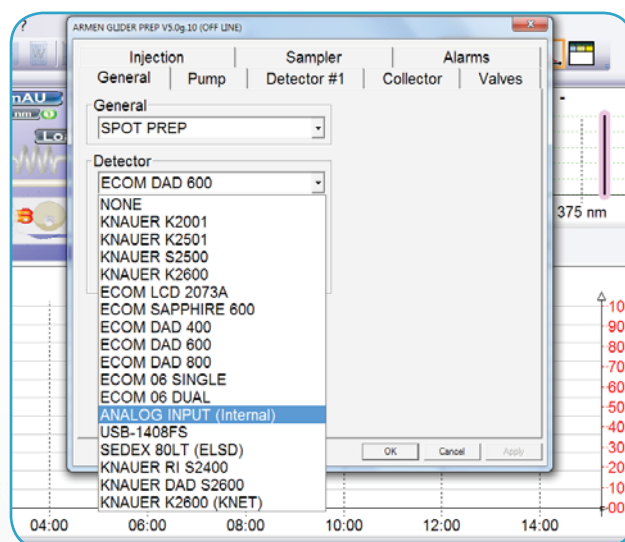
Extend the capabilities of the PLC and connect a second detector!

Preinstalled detector extensions

Numerous external detectors are already created in the Glider Prep software and make it very easy to connect and use an external detector such as RI or ELS.

prepELS™ II Detector

The Gilson evaporative light scattering (ELS) detector, PREP-ELS™ II: provides capabilities on the analytical-scale and a unique filtering technology removes baseline noise.



Connect the Gilson Verity 1900 MS, a very compact single quad mass spectrometer:

- Based on MEMS (chip based) technology
- Mass range 50-800 m/z (option up to 1400 m/z)
- Mass accuracy +/- 0.5 Da
- Mass resolution 0.7 FWHM
- Integrated PC with remote operation
- Low power consumption
- No air condition or sound-proofing required
- Very compact: 55 cm x 35 cm x 25 cm (L x W x H)
- Only 30 minutes to start-up
- 99.5% N2 purity



Start seeing what you've missed in your purification!



External Fraction Collectors - for bigger quantities and numerous fractions

Gilson offers advanced solutions for fraction collection with a complete line of stand-alone and software-controlled fraction collectors ranging from small footprint to large vessel capacity models and everything in between.

Collect fractions by time, drop or peak, accomodating all LC applications. All models accept a wide variety of collection vessels including tubes, vials and microplates.

Fraction Collector Models

	FC 203B	FC 204
		
Capacity	small quantities	semi-prep/ prep
Flow Rate	20 mL/min	20 or 200 mL/min

Easy integration of GX-241 - Injector/ Liquid Handler

The GX-241 Liquid Handler provides large or small volume injection using tubes, vials, or microplates in a small footprint, taking up less than 39 cm (16") of bench space.

- Compact GX-syringe pump: 100 μ L - 10 mL
- Re-injections possible
- Up to 4 shallow or deep well plates
- Two transfer ports for delivering liquids to off-bed devices
- Variety of 500 different racks available
- Septum piercing
- Large volume fraction collection





Create the most advanced purification tool: PLC plus CPC

The ultimate solution is to connect a Centrifugal Partition Chromatography (CPC) column to the PLC system - controlled with the Gilson Glider Prep Software - to obtain a complete automated system in two modules and to perform prep HPLC and CPC runs by switching from one column to the other.

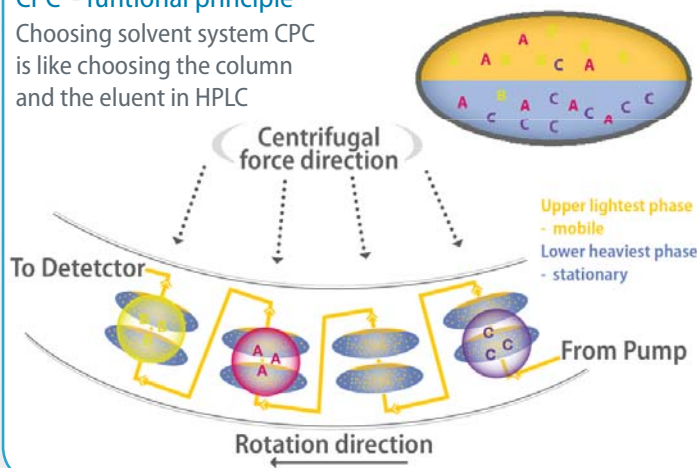
"FULL" Range

- Basic CPC column (1 or 2) + PLC system
- System '50 mL/min - 300 bar' for small columns
- System '250 mL/min - 230 bar' for 1 L column
- System '500 mL/min - 110 bar' for up to 5 L columns
- Binary (or quaternary) gradient
- Purge valve & Cleaning discs
- Automated loop injection valve (option)
- Automated ASC/DSC (= 'backflush') valve (option)
- Automated column switching valve (option)
- Detector with preparative flow cell
- Large scale fraction collector
- Speed control with 'Gilson Glider CPC' software installed on built-in computer (digital touch screen)



CPC - functional principle

Choosing solvent system CPC is like choosing the column and the eluent in HPLC



CPC - Advantages

- No column to replace, no silica to recycle
- Low solvent consumption
- High flow rate for low run time
- High performances. Purity > 99%, recovery > 90%
- No sample loss
- No denaturation, no irreversible adsorption of the sample
- Huge application fields from petroleum extract to proteins

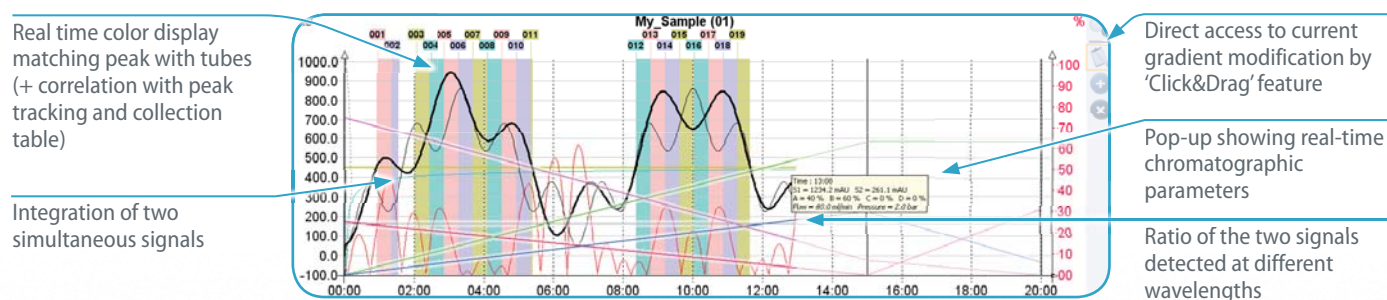


Gilson Glider Prep Software

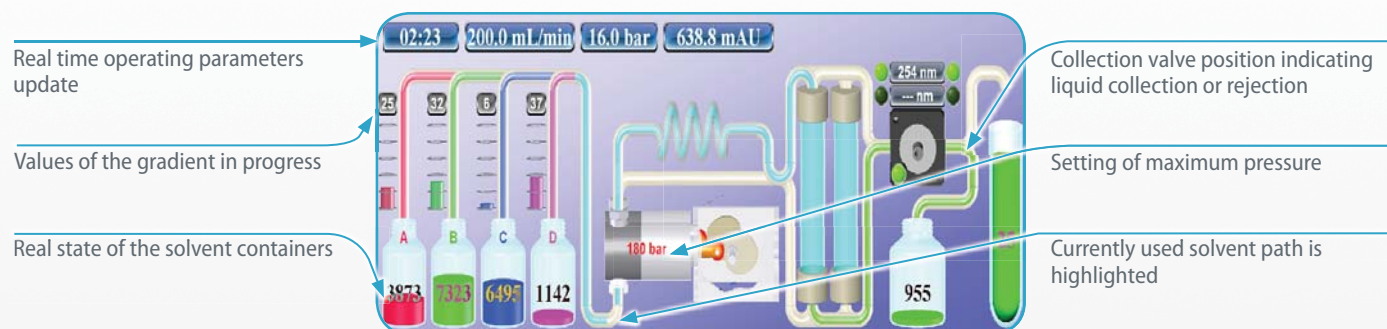
- interactive and customizable user interface

The combination of the PLC 2050 / 2250 / 2500 systems with Gilson Glider Prep software creates an advanced purification tool for all types of applications, providing outstanding performance and efficiency for process development, as well as pure molecule purification up to tens of grams.

The software screenshot shows the chromatogram, with colored fraction positions overlaid for easy identification.



Take a closer look at the "synoptic view" - clicking on any part of the diagram brings up a dialog box allowing the user to quickly see and modify system parameters.



The tab based method editor allows for easy editing of the configuration and settings.

- Users can specify solvents, columns, gradient conditions, detector settings, and more!
- Methods can be pre-programmed, or written as needed and saved for later use
- Selectable language: English, French, German, Spanish, and Italian

Four USB ports on the instrument make it easy to print reports, export or save them as PDF files.



Extend! - Create your suitable system!

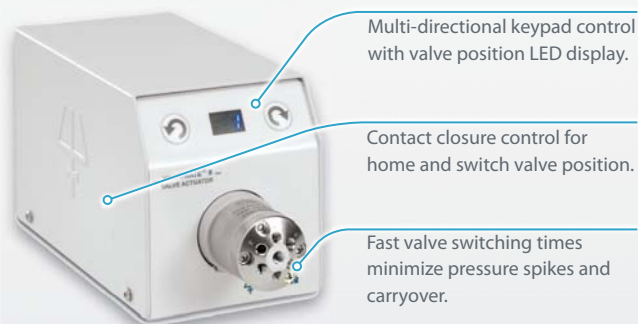
Because all our users have different needs and constraints, we built specific solutions that answer current and future needs of our users. Some of our solutions that can be offered are shown here. Contact us to create your suitable system!



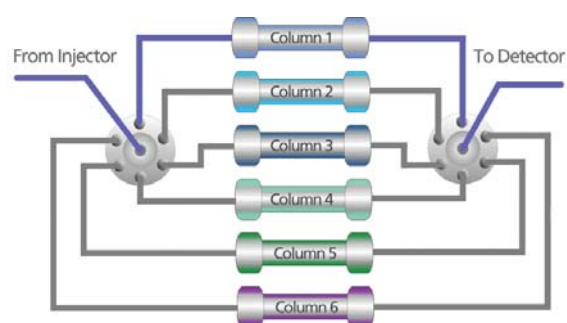
VALVEMATE® II valve actuator

The VALVEMATE® II valve actuator increases the PLC system flexibility, saves time and increases throughput.

- Solvent selection and column switching
- Multiple valve and column configurations



Six column plumbing schemes



Application ready out of the box without sacrificing the flexibility!



Specifications

PLC 2050 / 2250 / 2500 Purification Systems

Flow Rate / Max Pressure	PLC 2050: 50 mL/min, with pressure up to 300 bar (4351 psi) PLC 2250: 250 mL/min, with pressure up to 230 bar (3336 psi) PLC 2500: 500 mL/min, with pressure up to 110 bar (1595 psi)
Flow Rate Performance	2% accuracy (with H ₂ O degassed at 20°C) Repeatability better than 0.5%
Binary Gradient (Standard) or Quaternary (Optional) Injection	Automatic or manual injection through sample loop with injection valve (optional) Additional injection pump (optional)
Gradient Former	Linear response from 2 to 98%
System Protection	Software with minimum and maximum pressures adjustable
Control	Via computer software "Gilson Glider Prep"
Storage	Up to 32 methods in software memory and 80 GB of hard disk memory
AC Mains Supply Voltage	110 V and 240 V; 50/60 Hz (wattage: 350 W max.)
Electrical Protection	Delayed action fuses T 6.3A H 250 V
Power Distribution	TT or TN power system only, transient over-voltages according to installation category II, Class 1 equipment, requires mains socket plug with protective earth terminal
Column Size with Optional Column Holder Kit	Maximum height: 300 mm Maximum diameter: 115 mm
Detector Options	Ultraviolet (UV) single wavelength detector, 254 nm filter UV dual wavelength detector, 254 and 280 nm filters (optional) UV detector 4-wavelength diode array detector (DAD) 200-400 nm (optional) UV/VIS detector 4-wavelength DAD 200-600 nm (or 200-840 nm) (optional)
Fraction Collector	Several rack options available. See the Fraction Collector Parts section on page 71 of User's Guide. Backflush valve (automatic) Column switching valve (automatic or manual) Fraction collector cover

