Fully automated solution

ARMEN SPOT QUAD

For

fast

and

reliable

purification





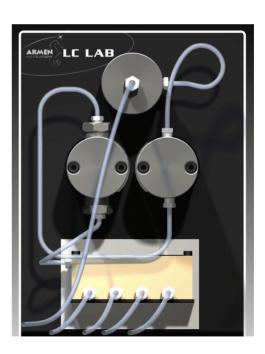
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Pre-columns (optional) Touch screen Injection Fraction valves collector Columns Pump Gradient valve

Pump:

- Flowrate : up to 100, 200 or 300 mL/min
- <u>Maximum pressure</u> : 25 bars
- <u>Gradient</u>: binary or quaternary
- ✓ High-performance serial double piston pump,
- √ Very robust,
- ✓ Leak sensor,
- ✓ Little routine maintenance.





Column:

- New cartridges for Flash chromatography : Merck Chimie SAS
- Weight of silica: from 2.5 to 600 g





- ✓ All columns with fittings can be connected,
- Broad range of cost-efficient, ready to use column cartridges made of high-purity polypropylene and compatible with all normal phase and reverse phase solvents.



Injection unit:

- Use of a 4-way valve adjustable in height to adapt to the columns previously mentioned.
- All kind of columns from any other supplier can be connected.
- Two types of injection are possible :
 - → Manual injection of liquid samples direct on column using a vertical syringe (pump stopped).
 - → Injection through a pre-column (pump running).
- + An optional manual through loop injection (6-way valve).
- No dead volume.

(very short distance between the injection valve and the column)

Detector:

Two types of UV detector are available: Knauer



- <u>Filter photometer</u>: K-2001
 - → 4 selectable wavelengths: 200, 220, 254, 280 nm
 - → Deuterium lamp.
- <u>Spectro-photometer</u>: K-2501 & K-2600*
 - \rightarrow Wavelength range : 200 740 nm (* : 2 λ simultaneously)
 - → Deuterium lamp standard, tungsten halogen lamp optional

They are equipped with a flow cell 0.5 - 1000 mL/min, 1/8".

- ✓ Dedicated for the preparative chromatography,
- ✓ Wide range of absorbance,
- ✓ Continuous flow,
- ✓ Leak sensor,
- ✓ Other cells on request.





Fraction Collector:

- 4 racks of 44 tubes
- 25 or 32 mL per tube
- ✓ Direct manual fractionation during the run : fractionation on the fly.
- ✓ Collection according to volume, time window and signal threshold.
- ✓ Local minimum mode for automatic fractionation on non separated peaks.
- ✓ 3-way valve for switching between waste and collect position.
- ✓ Additional fraction collector to increase the collect capacity (optional).
- ✓ Integrated to the system.
- ✓ Leak sensor.





Control and data processing:

- Build in industrial PC and 12" touch screen.
- Use of the software "Armen Glider Flash"
 - ✓ Direct control of all parameters during the run,
 - ✓ Compatible with Windows 2000 and XP,
 - ✓ Software language : English, French, Spanish, German,
 - ✓ One screen shows all instruments status,
 - ✓ Possibility for direct fractionation during the run,
 - ✓ Fractionation: time, level, slope ("Local minimum" available),
 - ✓ Data transfer via remote support,
 - ✓ Reports (settings, chromatograms, fraction tables with vial numbers),
 - ✓ Data import and export functions,
 - ✓ Data exportable in Excel.

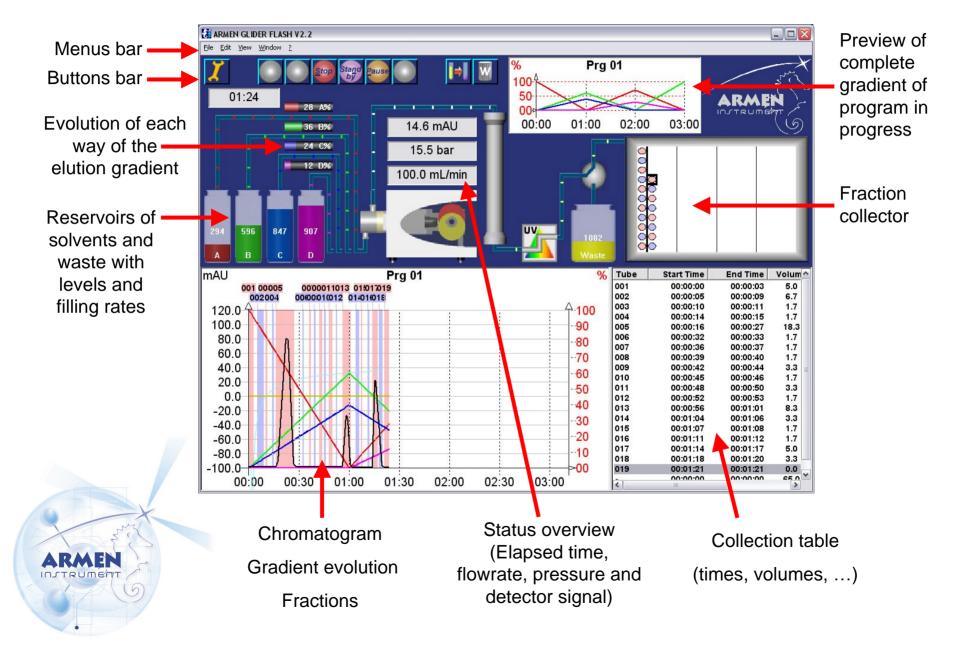
Multi-column device:

- Allow to install up to 4 columns from 2.5 to 600 grams.
- Adapted to all kind of columns from different suppliers.
 - ✓ Multi-sample automation,
 - ✓ Multi-mode injection for each column,
 - ✓ Open access to all users without waiting in line,
 - ✓ Loading new methods during the run.

→ Increase work efficiency and productivity.



Software:



Connections:

- 10-pin connector for external command cord (start, stop).
- 2 separated USB port (USB key, portable hard disk, printer, ...).

Specifications:

- > Max. pressure: 25 bar
- ➤ Max. flowrate: Up to 100 mL/min (or optionally up to 200 or 300 mL/min)
- Fraction volume: 4 racks with 44 x 25 mL (or 32 mL) tubes standard
 Others racks as option (funnel and custom racks)
- <u>Detector wavelengths</u>: 200, 220, 254, 280 nm for filter photometer
 From 190 to 740 nm for spectrophotometer
- > <u>Injection</u>: Liquid or solid sample
- > Power requirements: 220 / 240 V 50 Hz
 - > <u>Dimension</u>: Width = 675 mm (+ 410 mm for the 3 extra columns)
 - Height = 580 mm
 - Depth = 570 mm



SPOT QUAD advantages:

- ✓ Complete solution with one instrument,
- ✓ Powerful and robust equipment,
- ✓ Easy to use,
- ✓ Open system with easy access,
- ✓ Multi-sample automation,
- ✓ Installation of others columns during the purification in progress,
- ✓ Increase work efficiency and productivity,
- ✓ Wide range of columns,
- ✓ Easy column connection (luer fittings),
- ✓ Dry loading cartridge (with pre-column installation),
- ✓ No dead volume,
- ✓ Wide flowrate range,
- ✓ Powerful fractionation modes,
- ✓ Low maintenance needs,
- ✓ Only one software screen necessary,
- ✓ No keyboard or mouse on the laboratory bench.

