

New Prep SFC System: **SFC-PICLAB HYBRID**

The **SFC-PICLAB HYBRID** is state of the art method development and preparative station using CO2 as the main eluent in order to perform chiral and non chiral separations. On the same unit, you can develop and optimize you separation, and then proceed to the purification of your sample.



System Specifications

	SFC-PICLAB Hybrid	
	Preparative mode	Analytical mode
Production Capacity	5-30 g/day	-
Max Flow Rate	150 ml/min	10 ml/min
Column Size	20 and 30 mm I.D	4,6 mm I.D
Column Switching Valve	Yes Up to 4 columns	Yes Up to 10 columns
Co-Solvent	Max 50 ml/min (30%)	Max 10 ml/min (100%)
Co-solvent Switching Valve	Yes Up to 6 solvents	Yes Up to 6 solvents
Max Pressure	300 bar	300 bar
Temperature	15 to 60 °C	15 to 60 °C
Collection	4 to 6 fractions	-
CO2 Recycling	Yes	No
Dimensions (cm)	185(l) x 80(w) x 166(h)	

Hybrid System key features

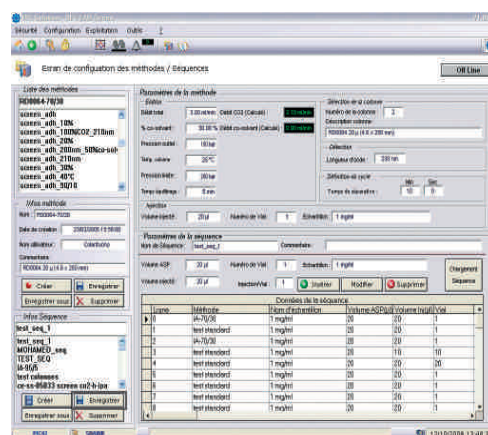
- Method development and preparative station on the same unit (patented technology).
- User friendly software.
- Automatic switch from method development to preparative mode.
- Easy scale up from analytical to Preparative separation.

Preparative station:

- Includes all features of a preparative station: **see SFC-PICLAB Series data sheet.**

Method Development Station:

- Auto sampler 110 vials for automatic sample screening.
- Automatic switching valve for column screening (6 to 10 column).
- Automatic switching valve for modifier screening (up to 6 modifiers).
- Sequence mode for multiple injections by auto sampler.
- Data acquisition and processing (manual and automatic peak integration, peak performances calculation, area%, etc...).
- Automatic report.

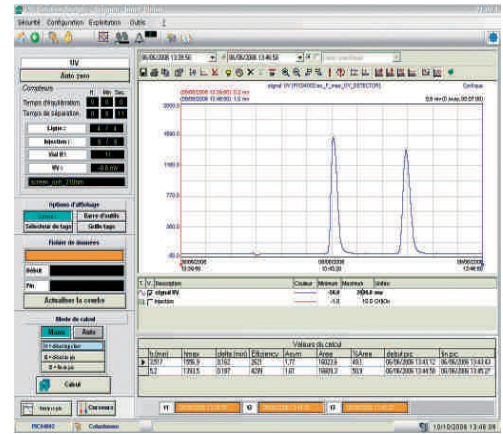


Example of method and sequence in method development mode

Cost and Lab Space Saving

- Two stations in one common unit results in system reduction cost.
- Mobile system fits in small lab space compared to 2 separate units: foot print required 185 (l) x 80 (w) cm.
- Common CO₂ supply for the preparative and the method development station.
- One single unit results in easier maintenance.

Chiral resolution on analytical column (4,6 x 250 mm) with peak performances displayed in method development mode.



Our Process Advantages

Proprietary CO₂ Recycling

- Highly efficient gas-liquid separator: Sample recovery > 95%.
- 85 to 90% CO₂ recycled in-line after cleaning.
- Automatic adjustment of modifier ratio in the eluent to maintain retention time stability.
- Avoid concentrating CO₂ impurities on column when recycling is used.

CO₂ Supply to Run Unattended 24h/day.

- Automatic CO₂ change-Over system to allow 24 hours operation.
- Pumping of the CO₂ gas phase with lower impurities ratio compared to liquid phase.

- No need for special CO₂ supply system. Standard commercial CO₂ tanks (30-35 Kg) are used to feed the system.

Proprietary Modifier addition

- Modifier addition at the same constant pressure independent of operating conditions.
- More reliable because the modifier pump works always at the same pressure.
- Better reproducibility of modifier ratio from a separation to another.

