

SFE-PICLab 400

Supercritical fluid extraction system

- 400 ml/min flow rate
- Up to 2 x 10 L extractors
- 3 fractions plus waste
- Multiple co-solvents available
- Fully automated sequences with PLC for stability
- Pressure and co-solvent gradients
- Temperature control to 65°C
- Maximum Pressure 350 bar



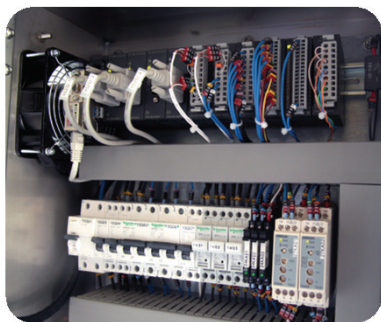
Based upon the SFC-PICLab PREP 400 supercritical fluid chromatography system, the SFE-PICLab 400 unit has a flow rate of up to 400 ml / min, ideal for use with one or two extractors up to 10 liters. A software-controlled by-pass valve allows easy removal and connection of the extractors while other valves allow selection of either of the extractors so that one can be in operation while the other is being loaded / unloaded.

The operating software can be used to run single extractions or a sequence of extraction methods. Gradients of pressure, flow and co-solvent composition can be run as part of a method with programmed collection in one or in several fraction vessels.

Temperature control of the extractor is achieved both by heating the extraction solvent and the extractor itself with a jacket.

The co-solvent can be added either before or after the extractor, the latter option allowing extraction with pure CO₂ while avoiding blocking of the collection lines with viscous extracts.

Back pressure is maintained by PIC Solution's proprietary air- controlled back pressure regulator which gives rapid, noise-free control.



Recycle of the CO₂ is standard and is built into the unit. Operating at 50 bar pressure, the system is compact and silent, giving as much as 95% CO₂ recovery.

The SFC-PICLab 400 uses PLC (programmable logic controller) technology to give unsurpassed stability of control. A regular PC is used as an operator interface, displaying the progress of the operation and being used to program the extraction methods.

The proprietary operating software is based on the well-proven and intuitive chromatography software used in PIC Solution systems. Extractions are programmed as methods in which all operating parameters, including gradients and collection, are defined. Sequences of methods can be set up, allowing unattended automated development of extraction procedures.

A co-solvent selection valve which permits the selection of co-solvent from one of four inlets is available as an option .

Specifications

Flow Rate:	400 ml/min
Max co-solvent % :	8%
Max operating pressure:	400 bar
Maximum back pressure:	350 bar
Temperature range:	20 - 65°C
Fractions:	2 or 3 + waste
Number of co-solvents:	1 or 4
Control system:	PLC
Extractors:	2 x 5 or 10 L