

SFC-PICLab PREP 100 / Hybrid 10-100 HT-MS...

...with Open Bed collector and MS detection

An innovative approach to Open Bed fraction collection.

- Specially designed miniature cyclones
- Up to 100 ml/min flow rates
- At-tube GLS
- No make-up solvents,
- No fraction dilution
- No fraction collection timing issues
- Automated wash sequences eliminate cross contamination.



A dual collection head system is also available which reduces potential for sample loss. As many as 242 collection tubes are available in 2 racks for collection with a sample capacity of 72 x 10 ml vials which ensure that the system runs continuously and efficiently through multiple separations.

Mass-directed collection

- Compact single quadrupole mass spectrometer
- Mass-directed collection using 4 mass values
- Collection using threshold, time and threshold or time-based collection.
- Full mass data are available post-run.

Details:

The systems are based upon the proven SFC-PICLab PREP 100 and SFC-PICLab Hybrid 10-100 systems, the latter unit allowing automated method development at the analytical scale with 9 analytical column and 6 co-solvent selection through PIC Solution's proprietary software as well as preparative capability. The units can hold up to 6 preparative columns on a software-driven selection valve.

All units are controlled by programmable logic controllers (PLCs) – a normal feature of manufacturing scale equipment – to ensure reliable, stable and consistent operation of both

the chromatograph and of the collection system. The systems are operated through PIC Solution's chromatographer-friendly software running on a personal computer which downloads the methods to the PLCs and recovers the chromatographic and collection data for local or remote storage. The software also allows off-line correlation of samples, chromatograms and fractions to track the products and to ensure that the correct fractions are efficiently identified and taken for further processing.

Features of the HT-MS systems:

- Mass directed collection
- Flow rate 100 ml/min
- 300 bar maximum pressure
- 65°C maximum temperature
- 1, 4 or 6 prep column selector
- Stacked injections
- PLC control for security and reliability in use
- Single or dual head collection
- Collection by UV or MS
- At-tube gas-liquid separators eliminate fraction dilution and cross-contamination
- Automated collection head wash (up to 2.5 ml)
- 2 racks each 121 tubes, 150 mm x 14 mm id. Other size tubes (10 mm – 25 mm id) and racks are available on request.
- Tubes filled to 90% capacity (18 ml fraction volume)
- 2 plates 36 x 10 ml vial sample capacity
- CO₂ recycle (when not collecting a peak)
- UV: 4 detection wavelengths
- Make-up pump controlled from the system software



SFC-PICLab Hybrid HT-MS

Analytical mode:

- Flow rate 10 ml/min
- Selection from 9 columns
- Software-driven method development