



PowerPrep GPC System

High Speed Automated Sample Prep

Power-Prep™ GPC System

The Power-Prep/GPC™ system is a low cost automated Gel Permeation Chromatography system capable of separating synthetic macromolecules such as pesticides, PCBs, PAHs etc. from interfering compounds. It uses glass or polypropylene columns packed with styrene-divinylbenzene resin beads, and can process from 1 to 30 samples sequentially. The samples are sequentially loaded into the column, then washed and collected in the appropriate fraction vessels.

The Power-Prep/GPC™ system greatly simplifies sample cleanup through its unattended operation, increased speed and precision. Options such as different types of columns, a fraction collector, UV detector and a PC allow versatility in a sample type, automatic monitoring, data recording and programmable control over all aspects of the separation procedure.

Automated Sample Cleanup

The GPC-Prep System can automate pesticide sample cleanup procedures specified by the US EPA and FDA methods. The modularity and expansion features of the GPC-Prep allow the user to expand the system for use in other applications such as the separation of Dioxins and PCBs from environmental and biological samples.

The multi-column configuration (SPE option) allows automation of applications which require silica gel, alumina, florisil, C18 columns and other cartridges.

Cost Effective Expandable Systems

The GPC-Prep System fits into the smallest budget. With its modular design, you can cost-effectively automate your sample clean-up procedure by purchasing a 5-sample system and expand it up to 10, 15 or 30 samples as needed.

The GPC-Prep provides major savings in solvents and glassware as compared with the amounts typically required in manual procedures. With FMS's patented pre-packed disposable Teflon columns (10 cm ID) the savings become more substantial.

Reliable Automation of Separation Procedures

- Computer control of the entire separation procedure.
- Individual programs for sample settings.
- Virtually unlimited program storage capacity.
- Real-time plotting and display of elution profiles.
- Automatic documentation of separation data.

GPC System Hardware

This multi-purpose liquid chromatography system has been designed for automating Gel Permeation Chromatography (GPC) using size exclusion techniques for sample cleanup procedures. The basic GPC-Prep system includes:

- Main Controller With Pump
- Management Module
- Sample Processing Module
- Pressure Gauge
- Standard Glass Column

Optional upgrades include a PC, UV monitor, fraction collector, SPE module, additional column types, 5-sample expansion modules and a variety of DMS software packages.

Easy Monitoring With The UV Option

The optional UV detector with a 254 nm flow cell is used for easy column calibration and monitoring the elution profile.

DMS-4000 Software

Enhanced Monitoring & Control with PC Option

The optional Real Time DMS-4000 software package controls all the fluid-handling modules, including the pump, valves and columns. The entire separation procedure, including sample loading, column washing, elution and peak separation, is coordinated by the DMS-4000 software package. The Editor function allows the operator to create, review and run various separation protocols. The DMS-4000 also plots, displays and stores the separation data.

Column Calibration

Flow: 5ml/min

Detector: UV, 254 nm

Column: 450 x 25 mm

Sample: CLP Calibration Standard

CLP Calibration Standard

- Corn oil (125mg)
- Diethyl phthalate (5mg)
- Methoxychlor (1mg)
- Perylene (0.1mg)
- Sulfur (0.4mg)

System Configuration

The GPC-Prep basic system can process up to five samples automatically and unattended. By Upgrading with cost-effective 5-sample expansion modules, you can expand the system's capability to 10 or 15 samples. The addition of an auxiliary fraction collector will expand its capability to 30 samples. Samples are processed sequentially, and FMS's patented fluid delivery module ensures that all the samples are processed with the highest precision and accuracy. The addition of the SPE module to the system allows the automation of multi-column and SPE applications.

Columns

Glass Columns

These columns are packed with SDVB resin beads. The innovative design of these glass columns allows you to adjust the gel bed height for better reliability and turbulence-free applications.

Teflon Columns

FMS's pre-packed disposable Teflon columns employ a proprietary design that allows the reduction of solvent consumption up to 70%. These columns are easy to use and dramatically reduce elution time.

(SPE) Solid Phase Extraction Columns

FMS's Solid Phase Extraction Columns are designed for rapid pre-analysis sample preparation by selective absorption and elution. High quality Teflon and polypropylene column bodies and many different sorbent bed packings such as Silica, Alumina, Florisil, and C18 are available in sizes ranging from 0.5 to 20 grams.

Contact Us

FMS ,Inc
580 Pleasant Street
Watertown, MA 02472
P: 617-393-2396
F: 617-393-0194
E: sales@fms-inc.com
www.fmsenvironmental.com

