

TurboTrace® SPE System

Automated SPE System
Drinking Water & WasteWater



From Sample to Vial

- Modular and Expandable from 2 to 8 Samples
- Configurable for Every Budget
- Reduce Costs, Human Error and Labor
- High Throughput Extraction and Concentration

FMS
Fluid Management Systems

TurboTrace[®] System

Positive Pressure and Vacuum Based Automated SPE for the Waste Water

The TurboTrace, Parallel SPE system, is a versatile powerhouse incorporating a vacuum or positive pressure pump to load samples for compliance with all Solid Phase Extraction methods. It uses positive pressure pumping to precisely and accurately deliver conditioning, washing, and elution solvents. Specifically designed to isolate analytes of interest from a wide variety of liquid matrices such as drinking water, groundwater, wastewater, milk, and beverages, this system can handle sample sizes ranging from 2 mL to 8L using the original sample bottle used in the field. Sample loading rates are programmable, and a liquid sensor detects when the sample has been fully loaded from the sample bottle, triggering the system to initiate the next steps. The TurboTrace, Parallel SPE system, delivers them directly to the SuperVap Concentration system for the final concentration evaporation step. The TurboTrace uses all standard formats of SPE cartridges on the market today. We recommend FMS-prepacked cartridges for guaranteed results, especially when dealing with low detection limits.



TurboTrace SPE Extraction Features:

Reduces Errors

- One-step automated SPE and concentration eliminates human error, saves labor costs, and reduces solvent usage while increasing sample throughput.

Fully Automated

- Hyphenates the entire sample prep process: extraction, drying, and concentration steps--into a one-step Sample Preparation Workflow.
- Runs up to 8 samples simultaneously
- Sample Liquid Level Sensor to detect when the Sample has finished loading
- Automatic Sample bottle rinse
- Concentrates samples directly to a centrifuge tube

High Speed

- The fastest automated sample processing available for SPE cartridges
- Run up to eight samples simultaneously.
- Vacuum for fast loading of large volume difficult sample matrices

Versatile

- Handles a wide range of sample sizes and all matrix types
- Sample Sizes 2 mL to many liters
- Expandable from 1 to 4 modules, 2 samples per module, up to 8 total

Efficient

- Uses all SPE cartridge sizes
- Positive pressure pumping for conditioning, rinse, elution solvents and loading small volume samples and clean samples. Vacuum for dirty samples
- Vacuum is used in dirty samples

Nitrogen and Vacuum drying

Compliant

- Complies with existing methods that require vacuum, positive pressure pumping for the precise delivery of sample and solvents
- Dispenses up to six solvents using an HPLC pump to deliver precise volumes and flow rates for conditioning and elution

Easy Documentation

- Programs and stores an unlimited number of methods and runs on an SD Card Easy method transfer

Easy-to-use software

From Sample to Final Extraction and Concentration for Drinking Water and Waste Water Analysis

Benefits of TurboTrace Automated Solid Phase Extraction:

REDUCES ERRORS

- One step automated SPE and concentration eliminates human error, saves labor costs and reduces solvent usage while increasing your sample throughput.
- Put the sample on the system and get the final extract automatically delivered and concentrated ready to analyze in a Centrifuge tube eliminating the majority of human intervention

FULLY AUTOMATED

- Hyphenates the entire sample prep workflow: extraction, drying and concentration step into a one-step workflow.
- Concentrates samples directly to a centrifuge tube
- Programmable, Automatic Sample bottle rinse

HIGH SPEED

- The fastest automated sample processing available for SPE cartridges and columns
- Vacuum for fast loading of large volume samples as well as samples with heavy particulates
- Modular and Scalable – Run up to 8 samples simultaneously.

VERSATILE

- Handles a wide range of sample sizes as well as clean and dirty matrix types
- Samples with heavy particulate
- Sample Sizes 2 mL to Unlimited
- Expandable from 1 to 4 modules
- Run a variety of cartridges with different sorbents and all cartridge sizes
- Wash with different solvents or solvent mixes

EFFICIENT

- Uses all SPE cartridge sizes
- Positive pressure pumping for loading small volume samples
- Vacuum for large volume, high speed sample loading
- Nitrogen or Vacuum Cartirdge drying

COMPLIANT

- Complies with existing methods that require vacuum, positive pressure pumping for the precise delivery of sample and solvents
- Dispenses up to 6 solvents using an HPLC pump to deliver precise volumes and flow rates for conditioning, elution and bottle rinse.

EASY DOCUMENTATION

- Programs and stores an unlimited number of methods and runs

EASY-TO-USE SOFTWARE

- Graphical SPE step indicator icons keep users informed

DIRECT-TO-VIAL CONCENTRATION



Supports EPA and other Methods

608 Chlorinated Pesticides and PCB's

1613 Dioxin

1664A Oil and Grease and SGT-HEM

1668A Toxic PCB's by Isotope Dilution and GC/MS

1694 Pharmaceutical and Personal Care Products

8061 Phthalate esters

8081 TCLP Organochlorine pesticides

8082 PCB's

8095 Explosives

8141 Organophosphorus pesticides

8321 TCLP Phenoxyacid herbicides

8330 Nitroaromatics / Nitramines

Specifications

Dimensions: 15" W x 18" D x 35" H

Weight: 65 lbs. Control Module and Extraction module
for 2 samples

Gas Requirements: Nitrogen - 20 PSI minimum

Vacuum Requirements: 25" Hg minimum

Pump: Piston Displacement

Flow Rate: 0.2 to 15ml/minute

Electrical Input: 110/220 Volts, 50/60 HZ

Applications

- Agricultural and Animal Health
- Food Safety and Packaging Monitoring
- Drinking Water
- Waste Water
- Blood/Serum
- Milk and Beverages
- Power Utility

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