TurboTrace® (SP) Sequential Parallel

Automated Solid Phase Extration System

From Sample to Vial

- Fits Every Budget
- Reduce Costs
- High Throughput Extraction and Concentration

FMS
Fluid Management Systems

TurboTrace®

SP Automated Solid Phase Extraction System

The TurboTrace Sequential Parallel (SP) Automated Solid Phase Extraction System is a One-Step Extraction and Concentration System is designed to streamline your laboratory's workflow and increase productivity by automating the manual steps in your sample preparation process. The TurboTrace Sequential Parallel Automated Solid Phase Extraction System automates existing manual SPE techniques and replaces older manual Liquid-Liquid Extraction techniques and outdated semi-automated instruments.

TurboTrace SP Automated Solid Phase Extraction Features:

- Controlled positive pressure pumping for solvent flow rates for conditioning, washing, eluting and loading samples producing the best recoveries and precision
- Built-in solvent mixer allows any solvent mix automatically
- Up to five solvents
- Vacuum pump for high-speed sample loading of clean or particulate laden samples and cartridge drying
- Nitrogen Cartridge Drying
- Modular and scalable Run up to six samples simultaneously, up to 30 samples total
- Runs up to 5 different methods/ sample matrices sequentially
- Sample Sizes from 2ml to unlimited
- Sample Bottle rinse loading
- Programmable, Automatic Sample bottle rinse
- Designed to use all standard formats/ sizes of SPE cartridges
- Separates Aqueous and organic waste
- Waste overflow alarm
- Time per step and sample elapsed time clocks
- Graphical display for each SPE step
- Deliver extracts automatically to the SuperVap for blow down to final volume in a GC vial

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

Benefits of TurboTrace SP 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 GC vial eliminating the majority of human intervention

FULLY AUTOMATED

- Hyphenates the entire sample prep process: extraction, drying and concentration step into a one-step workflow.
- Runs up to five different methods/sample matrices sequentially
- Concentrates samples up to 250 mL directly to a GC vial
- 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 six samples simultaneously, up to 30 samples total

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 6 modules
- Run a variety of cartridges with different sorbents and all cartridge sizes
- Wash with different solvents or solvent mixes
- Runs up to 5 different methods/sample matrices sequentially

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 five solvents using an HPLC pump to deliver precise volumes and flow rates for conditioning, elution and bottle rinse.

EASY DOCUMENTATION

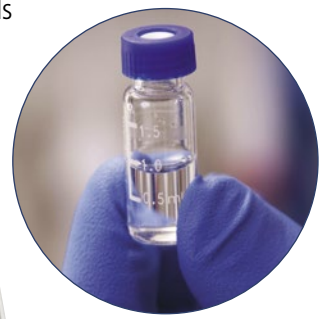
- Programs and stores an unlimited number of methods and runs
- Transfer Methods to LIMS

EASY-TO-USE SOFTWARE

- Graphical SPE step indicator icons keep users informed

DIRECT-TO-VIAL CONCENTRATION

The SuperVap-12 standalone direct-to-vial evaporation/ concentration system is the ideal solution for performing the final evaporation and concentration step. Super evaporates the extracts and delivers final extracts in GC vials ready for GC/MS analysis.



Supports EPA Methods

EPA Method 506	Phthalates and Adipate Esters
EPA Method 508.1	Chlorinated Pesticides, Herbicides, and Organohalides
EPA Method 515.2	Chlorinated Acids
EPA Method 521	Nitrosamines
EPA Method 525.2	Semi-volatiles
EPA Method 526	Semi-volatiles
EPA Method 527	Selected Pesticides and Flame Retardants
EPA Method 528	Phenols
EPA Method 529	Explosives
EPA Method 532	Phenylurea Compounds
EPA Method 533	Determination Of Per- And Polyfluoroalkyl Substances In Drinking Water By Isotope Dilution Anion Exchange Solid Phase Extraction
EPA Method 535	Chloroacetanilide and other Acetamide Herbicides
EPA Method 537.1	Determination of Selected Per- and Polyflourinated Alkyl Substances in Drinking Water by Solid Phase Extraction E
PA Method 548.1	Endothall
EPA Method 549.2	Diquat and Paraquat
EPA Method 550.1	PAH's
EPA Method 552.1	Haloacetic Acids and Dalapon
EPA Method 553	Benzidines and Nitrogen Containing Pesticides
EPA Method 608	Chlorinated Pesticides and PCB's
EPA Method 1613	Dioxin
EPA Method 1664A	Oil and Grease and SGT-HEM
EPA Method 1668A	Toxic PCB's by Isotope Dilution and GC/MS
EPA Method 1694	Pharmaceutical and Personal Care Products
EPA Method 8061	Phthalate esters
EPA Method 8081	TCLP Organochlorine pesticides
EPA Method 8082	PCB's
EPA Method 8095	Explosives
EPA Method 8141	Organophosphorus pesticides
EPA Method 8321	TCLP Phenoxyacid herbicides
EPA Method 8330	Nitroaromatics / Nitramines

Specifications

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

Weight: 65 lbs.

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

Controller: Integrated Touch Screen Control

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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