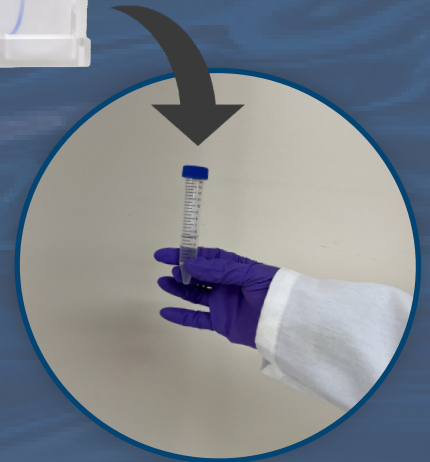
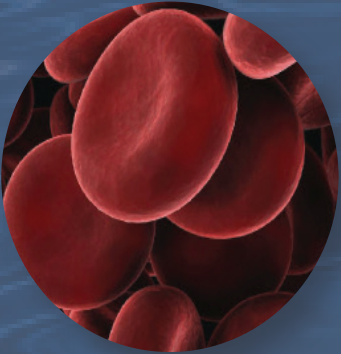


TurboTrace® PFC SPE System

Automated SPE System for EPA 533, 537.1, 1633
Drinking Water & WasteWater



From Sample to Final Extract

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

TurboTrace® PFC System

Positive Pressure and Vacuum Based Automated SPE for the Analysis of PFAS/PFOS in Waste Water

The TurboEcono PFC Parallel SPE system is a versatile powerhouse, incorporating a vacuum or positive pressure pump to load samples for compliance with all SPE methods. It uses positive pressure pumping for precise and accurate delivery of conditioning, washing, and elution solvents. Specifically designed to isolate analytes of interest from a wide variety of liquid matrices such as urine, blood, water, milk, and beverages, this system can handle sample sizes ranging from 2 mL to 8L, using the same bottle the sample was collected in. Sample loading rates are programmable, and a liquid sensor detects when the sample has been loaded, triggering the system to initiate the next steps. The TurboEcono PFC Parallel SPE system concentrates samples, delivering them directly to the SuperVap PFC Concentration system for final volume, and is designed to use all standard formats of SPE cartridges on the market today. For guaranteed results, especially when dealing with low limits of detection, we recommend FMS prepacked cartridges.



TurboTrace PFC 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
- Sample Liquid Level Sensor to detect when the Sample has finished loading
- Expandable from 1 to 4 modules, 2 samples per module

Efficient

- Uses all SPE cartridge sizes
- Positive pressure pumping for loading small volume samples and clean samples. Vacuum for 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 PFC 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 Cartridge 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-CENTRIFUGE TUBE CONCENTRATION

The SuperVap-24 standalone centrifuge tube evaporation/ concentration system is the ideal solution for performing the final evaporation and concentration step. Supervap evaporates the extracts and delivers final extracts in centrifuge tubes ready for LC/MS analysis.



Supports EPA and other Methods

EPA Method 533	Determination of Per- And Polyfluoroakyl Substances in Drinking Water By Isotope Dilution Anion Exchange Solid Phase Extraction
EPA Method 537.1	Determination of Selected Per- and Polyflourinated Alkyl Substances in Drinking Water by Solid Phase Extraction
EPA 8327 with 3512	PFAS in drinking, surface, waster water 24 compounds; no SPE; mixing 1:1 with solvent and add standards (isotope dilution); filtration; LC/MS/MS
ASTM 7968	21 PFAS sand and soil, solvent extraction and filtration, LC/MS
ISO 25101: 2009	SPE method with WAX cartridge for non-particulate or low-grade particulate water samples.
DOD QSM 5.3	PFAS in non-drinking water with SPE and isotope dilution, LC/MS/MS
EPA Method 1633	Analysis of Per-and Polyfluoroakyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS
EPA Method 1694	Pharmaceutical and Personal Care Products

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**

FMS
Fluid Management Systems