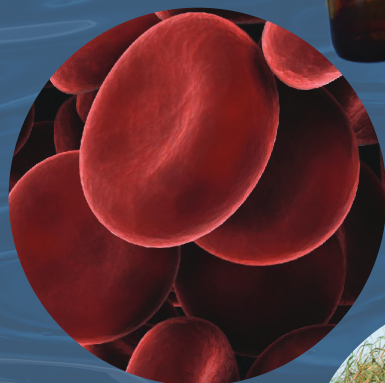


# TurboTrace<sup>®</sup> PFC Parallel Sequential Automated Solid Phase Extraction System for WasteWater



*From Sample to Final Extract*

- Modular and Expandable
- Configurable for Every Budget
- Reduce Costs, Human Error and Labor
- High Throughput Extraction and Concentration

**FMS**  
Fluid Management Systems

# TurboTrace® PFC Parallel Sequential

## Automated Solid Phase Extraction System for the Analysis of PFAS/PFOS in Drinking Water and Wastewater

The TurboTrace PFC Parallel Sequential Automated Solid Phase Extract System is a One-Step Extraction and Concentration System for PFAS/PFOS in Drinking Water and Wastewater. It is designed to streamline your laboratory's workflow and increase productivity by automating the manual steps in your sample preparation process. The TurboTrace PFC Parallel Sequential Automated Solid Phase Extraction System automates existing manual SPE techniques and replaces older manual Liquid-Liquid Extraction techniques and outdated Automated instruments.



### TurboTrace PFC Automated Solid Phase Extraction for Wastewater

- Closed System once the sample bottle is attached the system is never exposed to the outside laboratory, Eliminating Background Contamination.
- Programmable Positive Pressure pumping for solvent selection, flow rates, conditioning, washing, eluting, and loading samples to produce consistent, reproducible results.
- Automatic Programmable Sample Bottle rinse and loading
- Solvent mixing
- Up to five solvents
- Vacuum pump for high-speed sample loading of clean or dirty particulate laden samples
- Vacuum Cartridge Drying
- Components are Delrin, Peek, Stainless steel, LLDPE, Medical Grade PP, HDPE
- Nitrogen Cartridge Drying
- Modular and scalable Run 1 to 6 samples simultaneously, up to a total of 30 samples sequentially
- Runs up to 5 different methods/sample matrices sequentially
- Sample Sizes from 2ml to unlimited
- Uses sample bottle caps from your lab, no custom bottle caps or adapters required.
- Designed to use all SPE cartridges formats/sizes
- Separates Aqueous and Organic Waste
- Waste overflow alarm
- Graphical display for each SPE step
- Touchscreen display for operating the system
- Deliver extracts automatically and directly to the SuperVap PFC 24 Concentrator for final blow down into a 15ml Centrifuge tube

# From Sample to Vial Extraction and Concentration for the Analysis of PFAS/PFOS in Drinking Water and Waste Water

## Benefits of TurboTrace PFC Parallel Sequential 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 on the LC/MS eliminating the majority of human intervention

### FULLY AUTOMATED

- Hyphenates the entire sample prep process: extraction, drying and concentration step into a One-Step Sample Prep workflow.
- Runs up to five different methods/sample matrices sequentially
- Concentrates Extractions delivered directly in a 15ml Centrifuge Tube
- Programmable, Automatic Sample Bottle Rinse

### HIGH SPEED

- The fastest automated sample processing available
- Vacuum for fast loading of large volume samples as well as samples with heavy particulates
- Modular and Scalable – Run 1 to 6 samples simultaneously, up to 30 samples total

### VERSATILE

- Handles a wide range of sample sizes as well as clean and dirty matrix types
- Runs dirty Samples with heavy particulate
- Sample Sizes 2 mL to Unlimited
- Expandable from 1 to 6 modules to fit any budget
- 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 Cartridge 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 on an SD card
- Transfer Methods to LIMS

### EASY-TO-USE SOFTWARE

- Graphical SPE step indicator icons keep users informed

### DIRECT-TO-VIAL CONCENTRATION

The SuperVap PFC 24 standalone direct-to-vial evaporation/concentration system is the ideal solution for performing the final evaporation and concentration step. SuperVap PFC evaporates the extracts and delivers final extracts in 15ml Centrifuge tubes ready for LC/MS analysis.



## Supports EPA and other Methods

EPA Method 533	Determination Of Per- And Polyfluoroalkyl Substances In Drinking Water By Isotope Dilution Anion Exchange Solid Phase Extraction
EPA Method 537.1	Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction
EPA 8327 with 3512	PFAS in drinking, surface, wastewater 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 Polyfluoroalkyl 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.

**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**

**FMS**  
Fluid Management Systems