

FMS, Inc. Introduces an Automated Solid Phase Extraction System for ABN (Acid/Base/Neutrals), EPA Methods 8270D and 625

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Watertown, MA (August 2015) – Fluid Management Systems, Inc. (FMS, Inc.) announced the introduction of the The TurboTrace® ABN Parallel SPE system designed to streamline your laboratory's workflow and increase productivity by automating the manual steps in your sample preparation process. The TurboTrace® ABN Parallel SPE system automates existing manual techniques. ABN Methods or EPA Methods 625 and 8270D calls for the extraction for analysis of semi-volatile analytes in various matrices. Target analytes mentioned in the method cover a wide range of compound classes resulting in reporting lists that often approach 100 compounds. In aqueous samples, the combination of compound groups such as phenols, anilines, PAHs, phthalates, explosives, pesticides, n-nitrosoamines, and others results in a tedious process of multiple LLE (liquid-liquid extractions) with multiple pH adjustments to extract all the analytes. Large elution volumes (>360 mL of methylene chloride) combined with highly volatile analytes, usually result in low recoveries of target compounds and poor analytical precision.

The TurboTrace® ABN Parallel SPE system is a closed system designed and built to deliver the lowest background delivering reproducible and consistent results. It combines extraction, drying and concentration into one step -- providing a truly automated total sample prep solution for the laboratory. After loading the sample using Vacuum or Positive Pressure onto the SPE cartridge, the drying step is accomplished using Nitrogen. This drying step replaces manual techniques. The analytes of interest are then automatically fractionated into Acid and Base fractions and eluted directly to the SuperVap® Concentrator where the concentration process automatically brings the extract to final volume and places it directly into an autosampler vial, ready for final analysis. Automating these processes into one step ensures the highest quality results in the shortest amount of time and eliminates both human error and the possibility of contamination.

“By automating the entire sample prep process for the analysis of Acid/Base/Neutrals, the TurboTrace® ABN SPE system will increase a lab's sample throughput and at the same time improve the quality of their results. It is the first totally automated SPE completely automates the entire extraction and fractionation process from start to finish without user intervention that meets the regulatory requirements for the analysis of ABNs, EPA 625 and 8270. It takes a 16 hour process and completes it in two hours.” Tom Hall, Vice President of Sales and Marketing, North America said.

The TurboTrace® ABN SPE system is designed to use all SPE cartridges and column sizes and can process samples from 2 mL up to 8 L. Samples up to 250 mL can be concentrated directly into a GC vial.

About Fluid Management Systems, Inc.

The world leader in providing automated sample preparation systems for Persistent Organic Pollutant (POPs) analysis, Fluid Management Systems, Inc. designs, manufactures, and supports analytical instruments used by scientists to perform extraction, cleanup, fractionation, and concentration of samples prior to chemical analysis. Our automated systems are designed to replace outdated,

labor-intensive techniques that hinder laboratory productivity and improve both sample turn-around time and the quality and consistency of results by eliminating the variability inherent with manual sample preparation methods. All FMS, Inc. consumables are guaranteed and manufactured in Class 10,000 and Class 1,000 cleanroom environments and both our instruments and consumables are proudly made in the USA (Figure 1).



Figure 1: Fluid Management Systems, Inc.

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