



TELEDYNE TEKMAR
Everywhereyoulook™

Product Descriptions and Offerings

Teledyne Tekmar, is the leader in analytical instrumentation for the laboratory. The Volatile Organic Compound (VOC) products are world-renown and include systems for Gas Chromatography Sample Introduction, High-Throughput Purge and Trap sample concentration, Static and Dynamic Headspace analysis, and Sample Automation. Tekmar's Total Organic Carbon (TOC) and Total Nitrogen (TN) Analyzers provide unparalleled accuracy, precision, throughput and robustness for water samples from semiconductor-grade to municipal wastewater. The Semi-Volatile Organic Compound (SVOC) analysis is addressed through the Automated QuEChERS Sample Preparation Workstation.

All of Teledyne Tekmar's pharmaceutical instruments have available 21 CFR Part 11 software tools for your compliance needs, as well as validation documentation, services and training. Tekmar provides productivity-enhancing instrumentation to all industries, including Environmental, Pharmaceutical, Food and Beverage, Forensic, Industrial/Chemical and Polymers/Plastics.



Volatile Organic Compounds (VOC) Instrumentation

Purge and Trap: In 1974, Tekmar developed an idea that revolutionized the way laboratories performed Volatile Organic Compound (VOC) testing. Since then, Tekmar has continued to build on the foundation of the initial Purge and Trap technique one innovative layer at a time.

Atomx Automated VOC Sample Prep System

The Atomx combines an Autosampler and Purge and Trap into a single instrument for the analysis of VOCs in soils and waters. This is the first of its kind and only system that employs a unique methanol extraction automation feature for high level soils in accordance with USEPA Method 5035.



Lumin Automated VOC Sample Prep System

The Lumin Purge and Trap Concentrator (PTC) is a sample preparation instrument used to remove Volatile Organic Compounds (VOCs) out of aqueous and solid sample types using Helium or Nitrogen. The VOCs are deposited onto a sorbent trap which is then heated to release the VOCs into a Gas Chromatograph (GC) system. This technique is standard for many EPA Methodologies as well as analytical options where concentration of VOCs is required. Teledyne Tekmar has been the leader in this technology since its first PTC was released in the 1980s. Tekmar has continued to improve on this technique through eight generations of systems including the Lumin PTC to meet the ever increasing analytical challenges faced by laboratories.



AQUATEk 100 Waters-only Autosampler

The AQUATEk 100 is a purge and trap autosampler that automates the sample preparation steps for the analysis of liquid samples utilizing a fixed volume sample loop filled using a pressurization gas. Two independent volume programmable internal standards are then added to the sample and the entire aliquot is transferred to the Purge and Trap for compound concentration and subsequent separation and detection using a GC/GC-MS quantification system.



Volatile Organic Compounds (VOC) Instrumentation

Headspace: Static Headspace analysis is a time-tested and robust technique for the analysis of volatile compounds in almost any matrix. The popularity of the technique is due to Headspace analysis providing a clean, reliable result.

HT3 Automated Headspace Vial Sampler

The HT3 combines Static and Dynamic Headspace analysis techniques into one easy-to-use unit, saving you time, bench space and money. Built on proven static headspace technology, the HT3 provides the following added benefits:

- Increased sensitivity from 50 to 100 times with the Dynamic Headspace option (dependant on compound)
- Accurate and precise results with electronically controlled flow and pressure
- Up to 300 °C temperature throughout the sample pathway
- Single scheduling for multiple methods and techniques



Versa Automated Headspace Vial Sampler

Static headspace is one of the most popular techniques due to its versatility for analyzing VOCs in a complex variety of matrices. This is due to the elimination of tedious sample preparation steps and prevents contamination problems that are common to other sample introduction techniques. Teledyne Tekmar draws on our experience as a leader in low-level VOC analysis with this companion autosampler to the Headspace product line. Versa is the perfect solution for applications which require all the advantages of headspace analysis but is an economical solution for any budget.



Total Organic Carbon (TOC) Analyzers

TOC is a popular analytical technique in water quality testing, as seen in many official analytical methods today. The United States Pharmacopoeia (USP), European Pharmacopoeia (EP) and Japanese Pharmacopoeia (JP), recognizes TOC as a required test for purified water and water for injection (WFI).

Fusion UV/Persulfate TOC Analyzer

The Fusion TOC Analyzer utilizes powerful Ultra Violet (UV) Persulfate oxidation allowing superior carbon liberation from even the most challenging matrixes. By implementing the patented Static Pressure Concentration (SPC) technology, the Fusion TOC Analyzer is able to achieve unprecedented low-end sensitivity from a Non-Dispersive Infrared (NDIR) detector. The Fusion TOC Analyzer is designed to offer productivity for a wide variety of applications.



Total Organic Carbon (TOC) Analyzers

Torch Combustion TOC Analyzer

The Torch Combustion TOC Analyzer utilizes patented Static Pressure Concentration (SPC) for the analysis of TOC using high temperature combustion with an optional TN module. The Torch Combustion TOC Analyzer is designed to accurately detect carbon content in aqueous matrices. It uses a high temperature combustion furnace, and a patented pressurized NDIR detector that allows a degree of sensitivity previously unattainable.



Lotix Automated High Temperature Combustion TOC Analyzer with LSS Boat

The Lotix TOC Combustion analyzer is designed to accurately measure carbon content in aqueous matrices down to the ppb level. It uses proven high temperature combustion, oxidation of carbon material into carbon dioxide, and detection using a new Non-Dispersive Infrared (NDIR) detector.



The LSS Boat Module is an ideal add-on to the Lotix Total Organic Carbon (TOC) analyzer. It uses high-temperature combustion to accurately measure carbon content in a variety of matrices: soils, sludges, sediments, particulate-laden liquids and hard-to-oxidize samples.

Compact and simple, the LSS Boat is designed to work with the Lotix making it the ultimate solution for waste water, drinking and surface water, ground water, sea water, and other hard to oxidize matrices with an economical price to fit any budget.



Semi-Volatile Organic Compounds (SVOC)

Automate-Q40 Automated QuEChERS Sample Prep Workstation

The AutoMate-Q40 is a revolutionary system specifically designed and optimized to automate the QuEChERS sample preparation workflow. The system is configured 'out of the box' to conduct two of the most popular QuEChERS sample preparation methods:



- AOAC 2007.01 (Pesticide Residues in Food by Acetonitrile Extraction and Partitioning with Magnesium Sulfate)
- EN 15662.2008 (Foods of Plant Origin—Determination of Pesticide Residues Using GC-MS and/or LC-MS/MS Following Acetonitrile Extraction/Partitioning and Clean-up by Dispersive SPE—QuEChERS Method)

The AutoMate-Q40 incorporates a unique, innovative technology called VialVision that is able to reliably identify liquid levels, differentiate between multiple aqueous layers within a vial and then validate their associated volumes.





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