

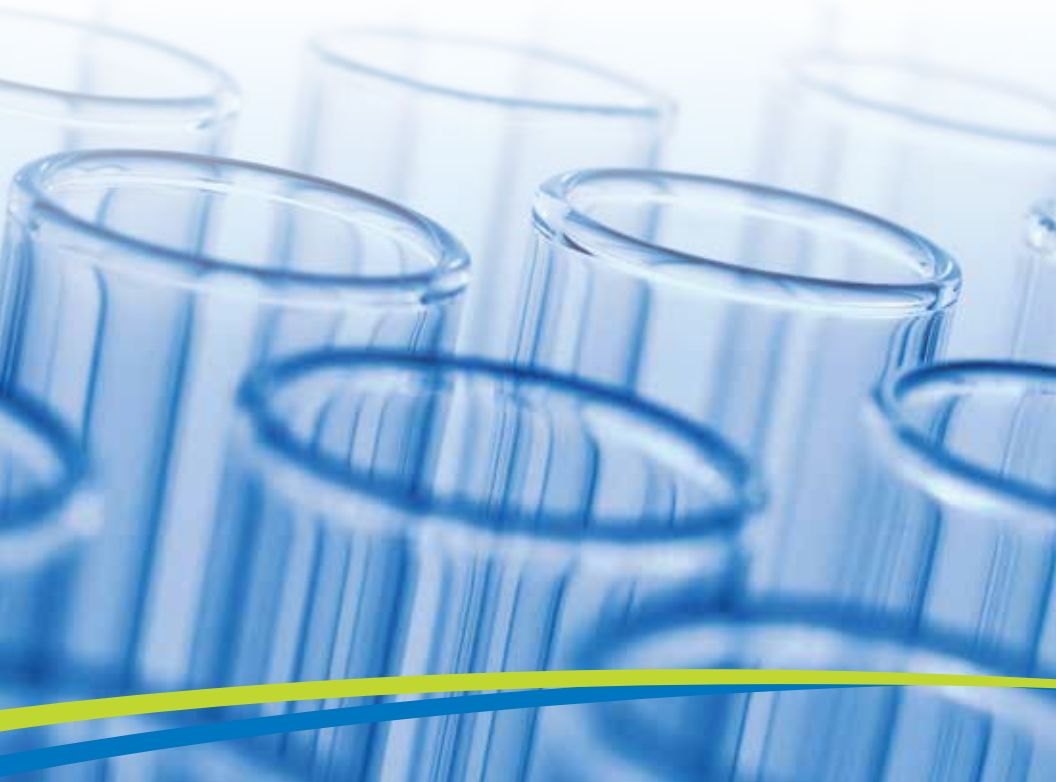


**TELEDYNE TEKMAR**  
Everywhereyoulook™

# 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.

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 XYZ Automated VOC Sample Prep System*

The Atomx XYZ is the second generation combined soil/water autosampler and purge and trap concentrator system in the Tekmar VOC product family. It is the only instrument of its kind to employ a unique automated methanol extraction feature for high level soils in accordance with USEPA Method 5035. Methanol rinsing, dilutions capability and three standard addition vessels all come standard on the Atomx XYZ. While priced competitively, the system offers unique features that cannot be found on any other sample prep system on the market today.



### *Lumin Automated VOC Sample Prep System*

The Lumin Purge and Trap Concentrator (PTC) is used to remove Volatile Organic Compounds (VOCs) out of aqueous and solid sample types using Helium or Nitrogen. 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 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 catalytic combustion with an optional TN module. The Torch Combustion TOC Analyzer is designed to accurately detect carbon content in aqueous matrices. The NDIR detector allows for a degree of sensitivity previously unattainable.



### *Lotix Automated Combustion TOC Analyzer with LSS Boat and Total Nitrogen*

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



The Lotix has two optional modules:

- The LSS Boat Module is an ideal add-on. 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.
- The TN module works in combination with the Lotix enabling analysis of aqueous samples for TOC/TN, TC/TN and TN.



## 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)





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