

## Unstoppable productivity for pesticide residue testing



## Simplify complex pesticide methods

The Thermo Scientific™ TSQ™ 8000 Evo Pesticide Analyzer is a comprehensive solution designed to ease the implementation and management of multi-residue pesticide methodologies regardless of the method complexity and experience level of the user.

Introducing the TSQ 8000 Evo triple quadrupole GC-MS/MS system into your pesticides workflow brings a compelling productivity opportunity for your laboratory. This tailored solution comprised of hardware, software, consumables, methods, and additional tools allows for more efficient lab workflows, which accelerate sample turnaround times and minimize cost per sample. This is achieved through increased selectivity and sensitivity leading to highly efficient consolidated methods with rapid data processing and universal "just enough" sample preparation upstream of the system.

This solution takes advantage of the high performance selected reaction monitoring (SRM) unstoppable productivity, and uncompromised MS/MS simplicity of the TSQ 8000 Evo system to deliver high performance results in routine environments, whether you are already an experienced user or new to GC-MS/MS analysis.



Thermo

# Hit the Ground Running with your analysis



## Create powerful,

## high efficiency pesticide methods regardless of your starting point...

The TSQ 8000 Evo Pesticide Analyzer employs a unique workflow that enables powerful pesticide methods to be implemented quickly into routine result production. This workflow enables the user to configure a pesticide method to meet their own personal lab requirements. To ensure best possible performance, the methods configured using the workflow are auto-optimized by the system. It's a truly self-tailored pesticide solution regardless of your starting point.

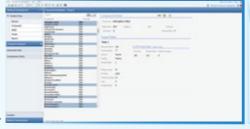
## From the very beginning

- Utilize pre-loaded pesticide methods
- Alternatively, use the CDB and create your own method from the bottom up

## From your existing GC separation or GC/MS method

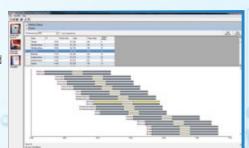
- Select your compounds from the CDB
- Update for retention times
- Data processing methods are created
- Acquisition methods are optimized automatically

Simply select your compounds from the Pesticides CDB for methods to be constructed automatically

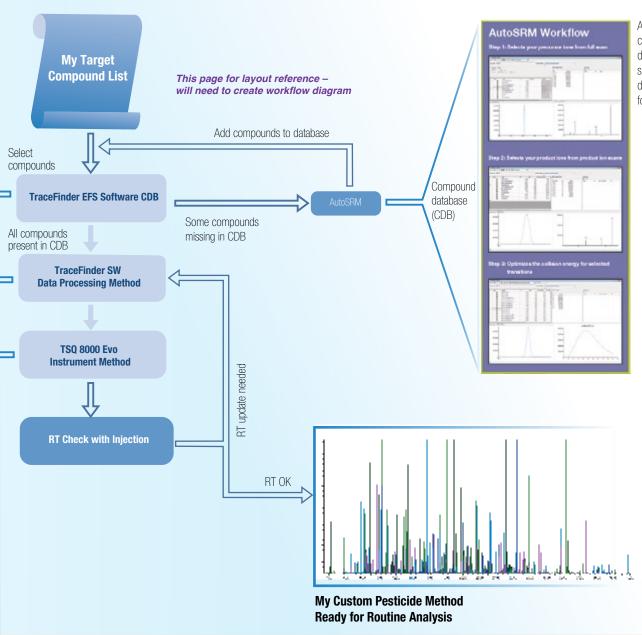


Thermo Scientific™
TraceFinder™ EFS
software optimized for
environmental and food
safety analysis and the
TSQ 8000 Evo
instrument methods are
linked to allow easy
creation, optimization, and
maintenance of complex
pesticide methods.





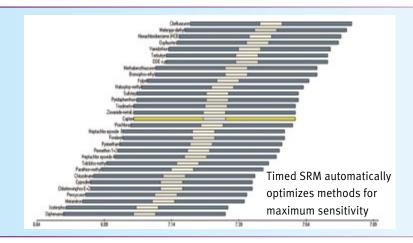




AutoSRM provides a simple and comprehensive SRM method development workflow. This software allows the user to develop fully optimized SRMs for compounds like an expert.

## You don't have to be an expert to report results like one

The TSQ 8000 Evo Pesticide Analyzer delivers high productivity, routine-grade performance for multi-residue pesticides analysis, and enables high confidence regulatory reporting. This is achieved through the integration of software and hardware designed with this application in mind and for the types of labs performing this analysis. Whether food safety or environmental monitoring is your priority, the TSQ 8000 Evo Pesticide Analyzer is designed to become an essential part of your pesticide testing workflow.

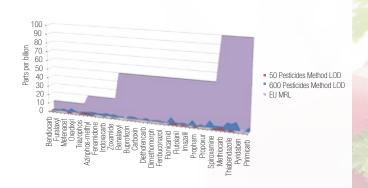


## Less Method Maintenance, More Uptime Retention-Timed SRM (t-SRM)

As more compounds are added to a single run, more complexity arises with the management of acquisition windows. The TSQ 8000 Evo GC-MS/MS system dramatically reduces this complexity by automatically optimizing the targeting of a particular compound. Simply enter the retention time and the time required to capture the peak, and t-SRM takes care of the rest. This ensures that compound detection is optimized for maximum sensitivity, and more compounds can be added to the method without compromising the excellent sensitivity of each individual analyte. The mass spectrometer is not consuming valuable resources scanning for compounds at the times when those compounds are not eluting.

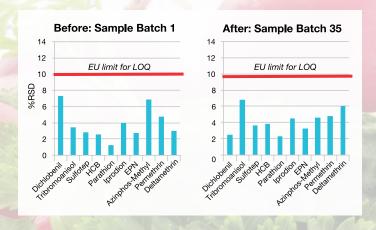
## **Build Methods with as Much Capacity as you Need**

The TSQ 8000 Evo Pesticide Analyzer generates methods comparing performance of a set of pesticides in cucumber extracts when analyzing for 50 residues and > 600 residues simultaneously. In both cases, t-SRM ensures LOD performance below regulated concentrations by optimizing the instrument duty cycle.



## **More Robustness, More Conforming Results**

The TSQ 8000 Evo GC-MS/MS system combines high sensitivity with system robustness to ensure that your results stay within regulatory limits. Less maintenance intervention is needed, and the instrument can remain in production to report results for longer periods.



## Powering your pesticide analysis productivity

## Configured TSQ 8000 Evo Triple Quadrupole GC-MS/MS System

## The Tools You Need for Success

The TSQ 8000 Evo Pesticide Analyzer contains all the tools needed to successfully install your pesticide quantitation method.



## **TraceFinder Software Optimized for Environnmental** and Food Safety

Designed specifically for environmental and food safety testing, Thermo Scientific™ TraceFinder™ EFS software makes daily GC/MS pesticide quantitation and confirmation easy and efficient.

## **Pesticide Compound Database**

The Pesticide CDB is a collection of more than 600 pesticides, each with multiple transitions for quantitation and confirmation. Integrated with TraceFinder EFS software and the TSQ 8000 Evo instrument method, the CDB makes creating your target list as easy as clicking on your pesticides of interest.

#### **Optimized Instrument Method**

Included with the analyzer is a TSQ 8000 Evo instrument method optimized for pesticide analysis. Compound retention times stored in the Pesticide CDB were determined using this instrument method and the included GC column, minimizing the need for retention time determination when installing your analyzer.

### **Tailored GC Consumables**

Both the GC column and a package of the injector liners used in the development of the TSQ 8000 Evo Pesticide Analyzer are included with the system. These consumables have been determined by applications experts to give the best performance for comprehensive pesticide analysis.

#### **AutoSRM Software Capability**

AutoSRM software is designed to make the addition of unknowns to your targeted compound list fast and easy by automating many of the tedious steps in developing SRM transitions.

#### **Installation Guide**

The Installation Guide brings it all together in a step-by-step instruction booklet detailing the installation of the system. In addition to the steps needed to create your target list from the Pesticide CDB, the installation guide describes how to use AutoSRM to develop and add additional targets to your method.





### **Unstoppable Pesticide Productivity**

The TSQ 8000 Evo Pesticide Analyzer not only brings high productivity to pesticide method development, implementation and management, it also ensures maximum productivity in system maintenance and data processing.

#### **Ultimate Flexibility with GC Modularity**

Do not allow injector maintenance get in the way of result production. The TRACE 1300 Series GC brings ground-breaking plug-and-play modularity to pesticides analysis. Instant Connect injectors allow the user to exchange the entire injector in less time than it takes to change a column. This means that for the first time, injector maintenance can be an offline process while you are still acquiring data.

### Remove the Source of your Downtime

The TSQ 8000 Evo Pesticide Analyzer utilizes dual independently-heated zones that allow for thousands of injections of the dirtiest matrices before source cleaning is required. When that time comes, it also allows full source removal without venting the MS, including ion guide surface. No wire connections are necessary, and venting is never necessary to clean your instrument.

## **The Perfect Partner for Optimal Performance** in Pesticides

From sample preparation to separation and analysis, discover the most comprehensive array of chromatography consumables to help you achieve repeatable, predictable pesticide results – separation after separation. Our comprehensive portfolio and experience in application and method development will guide you through any challenge.

#### HyperSep Dispersive SPE (QuEChERS)

A comprehensive range of QuEChERS products designed to provide optimum extraction, clean-up and separation of pesticides from complex matrices, such as food, is available QuEChERS products are offered in a wide variety of sorbents and formats to meet our customer requirements.

### Comprehensive Portfolio of GC Columns

Offering you a leap forward in GC column performance, Thermo Scientific™ TraceGOLD™ columns deliver ultra low bleed, high levels of inertness and excellent reproducibility, giving you confidence in your pesticide analysis. Our comprehensive range of TraceGOLD columns will meet the needs of today's complex and challenging pesticide separations.











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