

thermo scientific

# Confident Quantitation

A new level of confidence



Thermo Scientific TSQ Fortis  
triple quadrupole mass spectrometer

**ThermoFisher**  
SCIENTIFIC

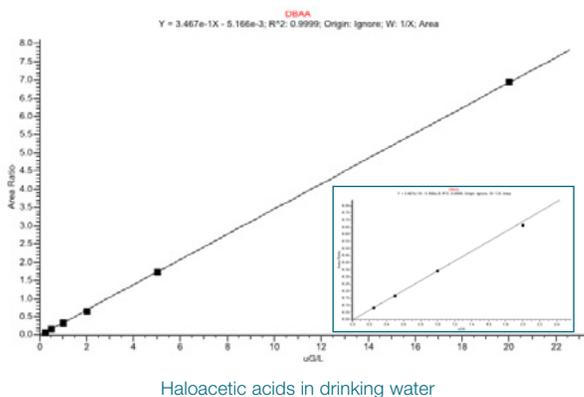
# Fast and robust quantitation for every Environmental and Food Safety workflow



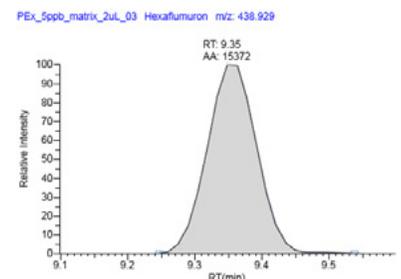
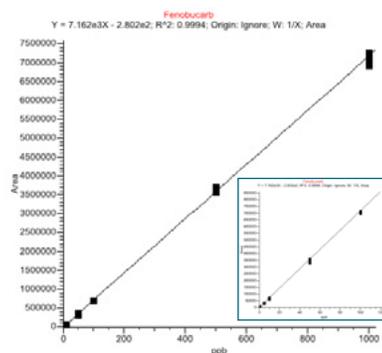
With evolving challenges in environmental and food safety applications, it's important to have the right platform for performing confident quantitation of multiple analytes in a complex mixture. The Thermo Scientific™ TSQ Fortis™ triple quadrupole mass spectrometer provides superior robustness—enabling round-the-clock operation and the ability to report reliable results, rapidly.

- **Increased robustness**—Active Ion Management Plus (AIM+) includes the Matrix Separator Ion Guide (MSIG)—ensures extended system uptime by keeping the ion path clean
- **Maximum productivity**—fast turnaround times while ensuring excellent quantitative results for extended lists of contaminants
- **Designed for more ease**—comprehensive workflows enabled by software that ensure confident analysis

Quantitation of contaminants in environmental samples at regulatory levels



Quantitation of pesticides in food samples at regulatory levels



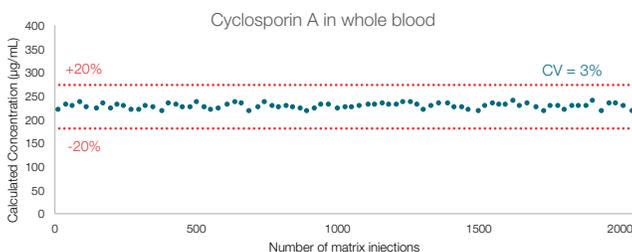
# High throughput with ease of use for Clinical Research and Forensic Toxicology



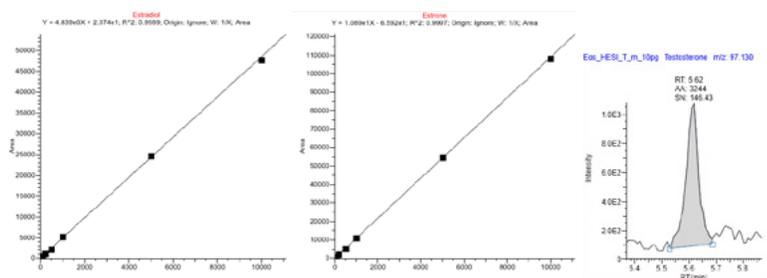
The TSQ Fortis MS provides a seamless user experience for clinical research laboratories that focus on processing and analyzing a large number of samples. Designed for ease, the TSQ Fortis MS platform enables confident quantitation of hundreds of samples in complex matrices, every day.

- **Enhanced robustness**—AIM+ and the MSIG enable throughput by extending system uptime
- **Usability**—simplified user maintenance and intuitive software experience
- **High throughput**—analyze hundreds of samples and numerous compounds with short turnaround times

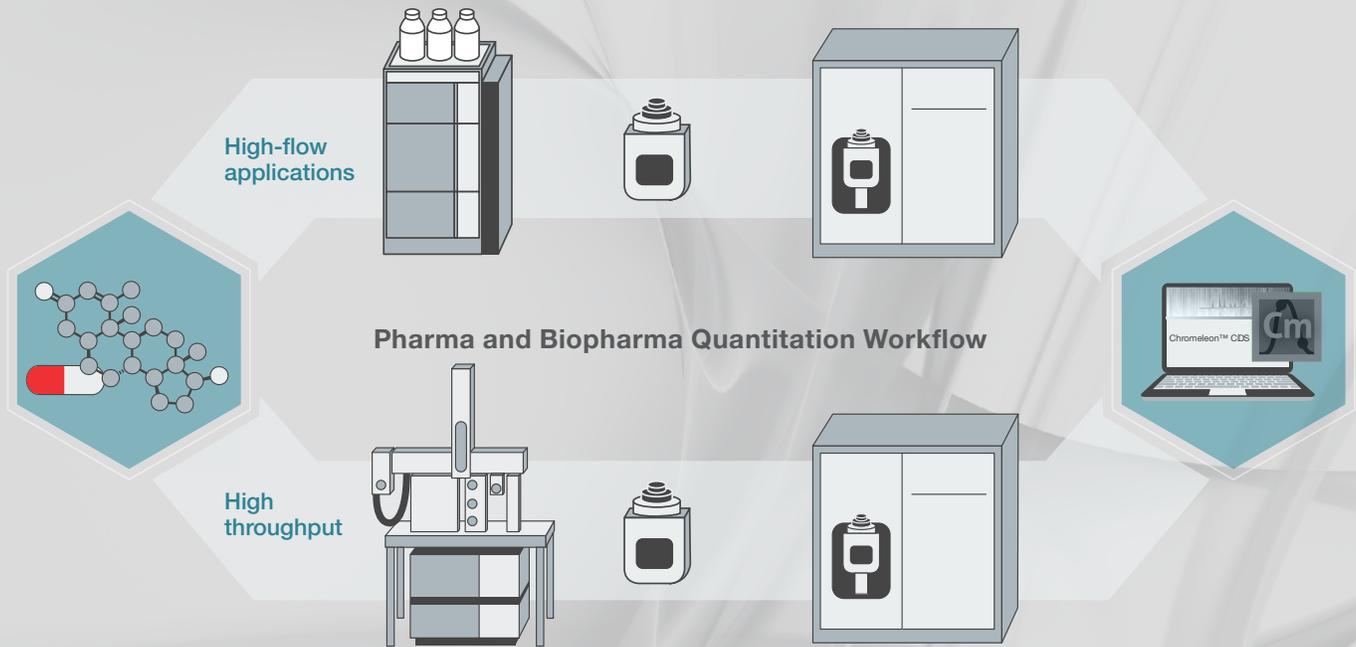
## Consistent performance under challenging conditions



## Precision, accuracy and sensitivity for demanding applications



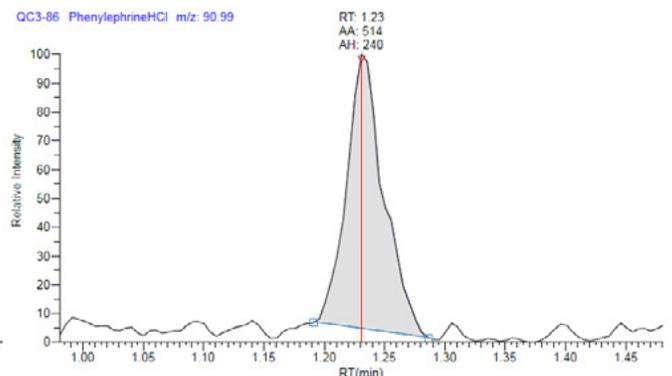
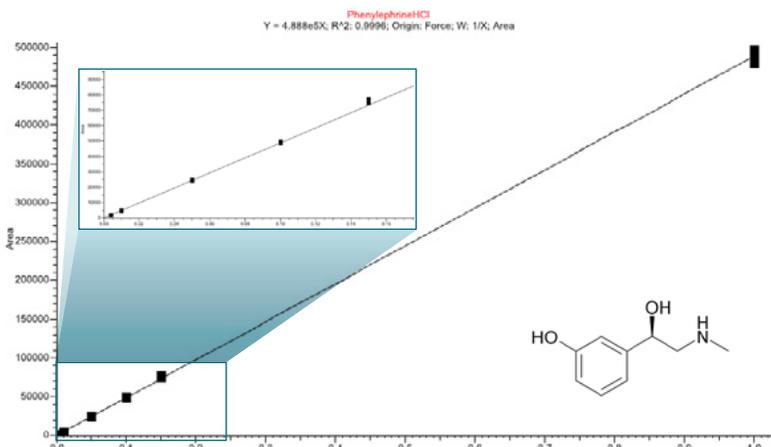
# Reliability and sensitivity to meet **Pharmaceutical** requirements



Pharmaceutical laboratories require ultimate reliability and the ability to achieve desired sensitivity to meet analytical demands. The TSQ Fortis MS provides more ease and comprehensive workflows empowering the daily quantitative requirements of pharmaceutical labs.

- **Outstanding reliability**—robust and reproducible data for all molecule types provided by AIM+ and the MSIG
- **Sensitivity to meet demands**—segmented quadrupoles facilitate ion transmission with system-to-system reproducibility
- **High-throughput quantitation**—multiple liquid chromatography (LC) options combined with the speed of the TSQ Fortis MS help analyze hundreds of samples every day

## Ultimate productivity for QA/QC workflows



# Companion solutions for the TSQ Fortis mass spectrometer

## Workflow-driven software, solutions, and support streamline your applications

Integrated workflow-driven software and solutions streamline everyday tasks from instrument optimization and troubleshooting to routine method development and results reporting.



### Thermo Scientific™ TraceFinder™ software

Comprehensive quantitative workflows for all applications— from method development to report generation



### AppsLab method library

A comprehensive repository for application methods, data sets, and application notes



### Thermo Scientific™ Chromeleon™ software

Offers enterprise instrument control, data processing, and ability to address regulatory requirements



### Thermo Scientific™ LCQUAN™ software

Compliant-ready software to address regulatory requirements of every good laboratory practice (GLP)— compliant laboratory

## Chromatography solutions for MS

The TSQ Fortis mass spectrometer can be paired with a range of high-performance Thermo Scientific™ inlet systems.

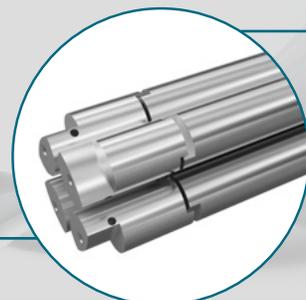
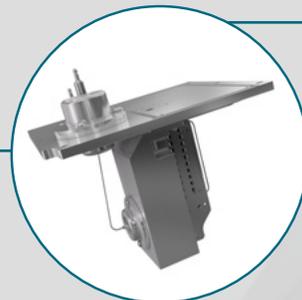
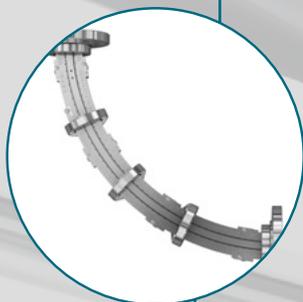
- Thermo Scientific™ Vanquish™ Flex Binary and Quaternary UHPLC systems
- Thermo Scientific™ Transcend™ II system with Multi-channel and TurboFlow™ technology
- Thermo Scientific™ Prelude SPLC™ system with Multiplexing and TurboFlow™ technology
- Thermo Scientific™ Dionex™ Integron™ HPLC™ system



# Experience confident quantitation: TSQ Fortis MS with **AIM+** Technology

## Active collision cell with axial DC field

Enables ultra-fast selected reaction monitoring (SRM).



## Matrix Separator Ion Guide (MSIG)

Maximizes robustness while minimizing ion loss.

## Robust, innovative design

### Benefits of the TSQ Fortis mass spectrometer

#### More samples, more compound classes

The reliable instrument design, intuitive software, and comprehensive workflow solutions developed with the TSQ Fortis triple quadrupole mass spectrometer help ensure superior productivity for quantifying hundreds of compounds of all types—in any matrix, by any user.

#### Robust quantitative productivity

The TSQ Fortis triple quadrupole mass spectrometer is designed to meet demands day after day, for every sample type in a variety of matrices. In addition to robustness and reproducibility, the TSQ Fortis mass spectrometer provides unprecedented ease of use.

## Active Ion Management Plus (AIM+)

The next step in precision design delivers the ultimate in ion management, inception to detection, from the Thermo Scientific™ OptaMax™ NG ion source housing to the enhanced electron multiplier. AIM+ incorporates segmented quadrupoles and enhanced RF electronics to further optimize ion management precision, reliability, speed, and reproducibility.

## Robustness by design

The TSQ Fortis triple quadrupole mass spectrometer is designed with robustness in mind. Regardless of your application, the TSQ Fortis mass spectrometer will deliver results reliably and consistently, day after day.

### Enhanced dual-mode discrete-dynode electron multiplier detector

Extends multiplier lifetime with increased surface area. Maintains excellent linearity and dynamic range.

### Segmented quadrupoles

Simplifies day-to-day operation by ensuring consistent performance and reproducible results across instruments and over time for increased productivity.

### Ion beam guide with neutral blocker

Provides robust performance and maximum sensitivity by blocking neutrals and efficiently transmitting ions.



### Ion transfer tube and sweep cone

Provides maximum robustness and tool-free maintenance.



### OptaMax NG ion source APCI ready

Automates all gas and voltage connections for ease of use. Provides optimizable spray position for ultimate performance in HESI or APCI mode.

### Confident data: technology translated to results

The TSQ Fortis mass spectrometer equipped with the neutral blocker, ion beam guide, and segmented quadrupoles is designed to deliver robust performance.

### Speed with selectivity and sensitivity

The TSQ Fortis mass spectrometer delivers excellent quantitative performance in both selected reaction monitoring (SRM) and high-resolution SRM (H-SRM) modes, even when operated at short dwell times.

### Your everyday partner for confident quantitation

The TSQ Fortis MS system software is an intuitive package designed to ensure ultimate productivity.

- **Simple maintenance**—easy clean-up of ion transfer tube without breaking vacuum
- **High speed and automation**—address hundreds of samples per day, or hundreds of transitions per sample
- **Intuitive drag-and-drop method editor**—software with application-based templates helps simplify method development and operation

# Transforming triple quadrupole mass spectrometers

The TSO Fortis mass spectrometer is one in a family of latest-generation Thermo Scientific™ triple quadrupole mass spectrometers that offer confident quantitation every day, for every lab and every user.

These instruments are built on a foundation of shared, state-of-the-art hardware and software components. This makes it easier to transfer methods from one instrument to another when methods progress from single, sample-based experiments to validation and routine high-volume screening and quantitation.



**Thermo Fisher Cloud**

Monitor your system, access your data and system remotely and securely from anywhere in the world. Leverage real-time monitoring of your instrument with automatic email notifications anytime, anywhere. Store data in secure accounts and share with colleagues and collaborators around the world.

## Technical support: peak performance for your instruments

Helping you keep your instruments running at peak performance is our goal. Whether you're looking for an instrument manual or spare parts or want to submit a repair request or check on the status of your warranty or service contract, we have every support option you're looking for.

## Protecting your investments: unparalleled laboratory services

Unity™ Lab Services provides a single source for integrated lab service, support, and supply management. Our customized service offerings and world-class service experts have the flexibility and experience to effectively address your laboratory's business needs. We provide a complete portfolio of services and support solutions designed to help you improve productivity, reduce total cost of ownership, and ensure performance throughout your laboratory—from instrument and equipment acquisition to disposition.

Find out more at [thermofisher.com/Fortis](https://thermofisher.com/Fortis)

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