



THE TRIPLE QUAD
THAT KNOWS THE
VALUE OF TIME



QSite Triple Quadrupole LC/MS/MS



THE IDEAL SYSTEM
FOR WHATEVER ANALYSIS
YOU PERFORM



BETTER LC/MS/MS FOR FOOD AND ENVIRONMENTAL APPLICATIONS



FOOD

Pesticide residue testing, simultaneous multi-mycotoxin detection, veterinary drug analysis, allergen detection, nutritional component analysis: These applications and more are where the QSight triple quad shines. And with the Food Safety Modernization Act being rolled out by the U.S. Food and Drug Administration, and with the China Food and Drug Administration and the European Food Safety Authority enforcing stricter regulations, the QSight system can help ensure food safety in a changing world.



ENVIRONMENTAL

The QSight triple quad, combined with our UHPLC system, is the perfect tool for a wide range of LC/MS/MS environmental applications, which include extremely difficult matrices such as soil and sludge.

WHAT COULD YOU DO WITH AN EXTRA 35 DAYS OF SAMPLE TESTING?

Whether you're a lab manager or a bench chemist, you know firsthand how things are changing quickly in food and environmental analysis. And your lab needs to change to keep pace. For one thing, regulatory agencies in each of these industries are imposing tight new standards and strictures on organizations charged with protecting the public. At the same time, there's increased market pressure to analyze more – and more complex – samples with fewer resources and skilled personnel. Sounds like a scenario in which 15% more uptime might come in handy.

That's what the QSight™ triple quadrupole LC/MS/MS system is designed to give you.

More productivity, more samples

For example, the system's self-cleaning source means you don't have to shut down the system for scheduled cleaning and maintenance. This means up to 35 days more sample testing per year than competitors' systems. The dual-source design also reduces complexity for multiplexing, with shorter run times and fewer wash cycles – and that's a productivity boost as well. And the flow-based pressure differential pulls ions for better sensitivity and increased reliability – and with fewer sample preparation requirements, you get less variability from sample to sample.

What's more, the system is easy for everyone in your lab – including novice technicians – to learn and use, with software that streamlines everything from method development to results processing and reporting. And it requires absolutely no instrument-to-instrument method optimization.

The QSight LC/MS/MS: Finally, a triple quad that gives you more of what you need most: time.

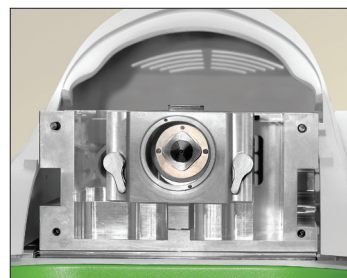


INNOVATIONS COME TOGETHER TO SET THIS SYSTEM APART

An exceptional solution for a wide range of applications in food safety and environmental testing, the QSight LC/MS/MS delivers the key technologies you count on in a triple quadrupole solution. And it all comes together in a compact, easy-to-use design.

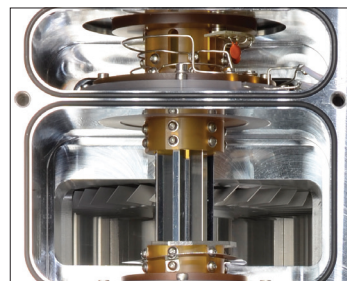
High sensitivity, even higher productivity

Unique StayClean™ technology employs hot-surface induced desolvation (HSID™), a multi-orthogonal sampling interface that can significantly increase your uptime. A continuous flow of hot gas forms a barrier that prevents most of the ions or clusters from hitting the side walls. It also acts as a constant cleaning agent that will flush away any potential deposits. Plus, solvated charged species are entrained and desolvated in the hot flow of gas, reducing chemical noise and delivering a higher signal-to-noise ratio.



Go with the flow

Ions are transferred from the HSID interface to the system's Laminar Flow Ion Guide™, then moved to the analyzing region by a flow of background gas – no axial electrical fields are necessary. This means the system is not susceptible to field fluctuations and delivers consistently high levels of performance. Instrument drift and frequent reoptimization and cleaning are eliminated, for better productivity.



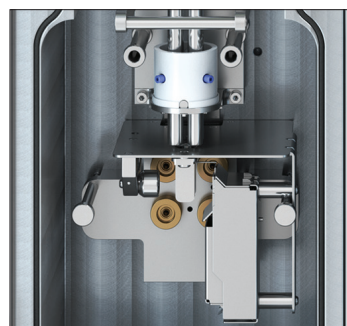
Two sources are better than one

The system's dual-source technology has two separate ion inlets that operate independently and can be set in ESI or APCI modes, enabling combinations such as ESI/ESI, ESI/APCI, and APCI/APCI – with the same or opposite polarities. Unlike single-source instruments, our dual-source technology enables you to collect data in two complementary modes, maximizing the output from a single injection. Plus, it enables you to employ one probe for tuning and another probe for high flow analysis, giving you the capabilities of two MS systems in one.



See how easy it is to switch

With its high-energy dynode to attract positive ions, the QSight system's UniField Detector™ causes positive ions to collide with the dynode to form electrons (which cascade into the detector) while negative ions are detected as usual for pulse counting. What you get is near-simultaneous detection of positive and negative ions without the need for high-voltage switching. Polarity switching happens in microseconds, limited only by the ion source and ion path polarity switching – not by the detector.



Inside and Out, It's LC/MS/MS Done Right

Dual Source Two independent probes provide true multiplexing flexibility

StayClean Source Self-cleaning design delivers maximum sensitivity and exceptional uptime

Mass Filters High-quality precision rods provide highly stable, precise mass filtering

UniField Detector Patented technology counts positive and negative ions without high-voltage switching

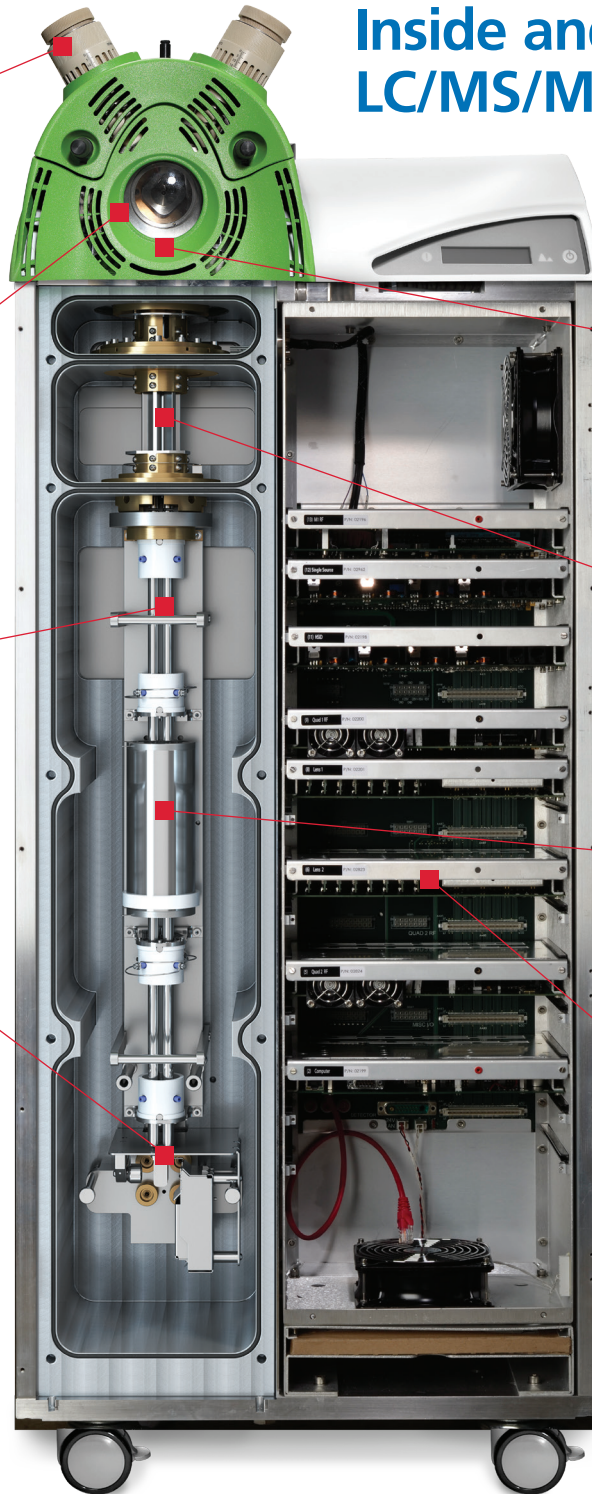
HSID Interface Provides low background and reliable results day after day, with equal response at any flow rate

Laminar Flow Ion Guide Highly efficient field-free transmission

Collision Cell Fast, efficient fragmentation (fast MRMs) shortens cycle time with zero crosstalk

Modular Plug-and-play design for ease of service

Small Footprint, Vertical Design Compact 50 cm x 50 cm x 110 cm – no benchtop needed



| PERKINELMER PATENTS | US | CA | UK |
|--|--|------------|--------------------|
| MASS SPECTROMETER INTERFACE | 7,091,477 7,405,398 8,546,750 8,946,622 | 2,470,452* | |
| MASS SPECTROMETER ION GUIDE PROVIDING AXIAL FIELD, AND METHOD | 7,868,289 | | |
| METHOD AND APPARATUS FOR DETECTING POSITIVELY CHARGED AND NEGATIVELY CHARGED IONIZED PARTICLES | 7,728,292 | | |
| MULTI-PRESSURE STAGE MASS SPECTROMETER AND METHODS | 9,343,280 | | 2466156 2489623 |

*Pending application

WE'RE DELIVERING SOFTWARE AND SYSTEMS THAT ARE SIMPLICITY ITSELF



With Simplicity 3Q™ software, it's all about making the QSight simple and easy to use. This modular software suite is designed for intuitive, straightforward operation, with wizards guiding you through the workflow, from method development to results processing and reporting.

Simplicity 3Q Acquire Module

A great solution for data acquisition, Simplicity 3Q Acquire streamlines acquisition method development and batch acquisition, with the highest levels of automation. It's capable of real-time acquisition of more than one thousand MRMs and provides a real-time simultaneous display of large numbers of transitions. And for batch acquisition, it delivers a simple sample editor with an integrated concentration table, and easy table controls.

Simplicity 3Q Quant Module

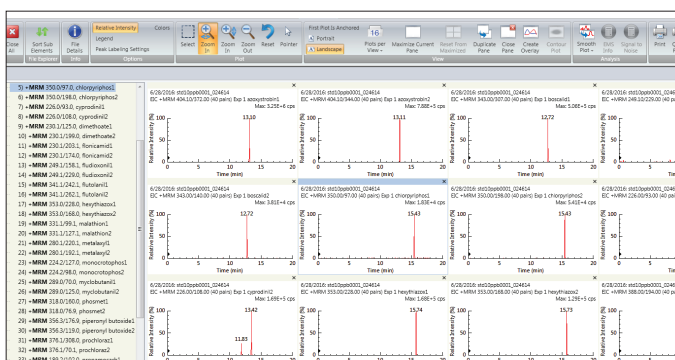
For data analysis and reporting, Simplicity 3Q Quant software uses autopopulation from data acquisition files for an exceptionally fast, smooth, streamlined workflow for high-throughput situations. And with a full-on view of all navigation data, the software's RapidView Heads-up Display™ lets you concentrate on your data – and your results.

Simplicity 3Q View Module

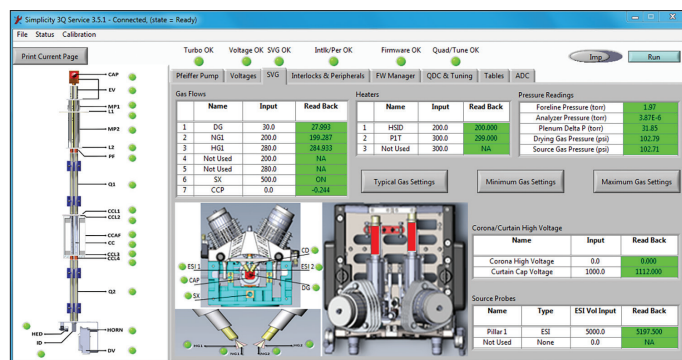
Simplicity 3Q View delivers flexible multi-analyte viewing, overlay plotting, and signal-to-noise analysis. Plus, it provides total ion currents (TICs) and extracting ion currents (XICs) for data exploration and evaluation.

Simplicity 3Q Service Module

The Simplicity 3Q Service module uses AdvIO™ Electronics to review all settings and feedback, quickly diagnosing or ruling out hardware concerns. And because diagnostics are extremely accurate, downtime is vastly diminished, while repairs are done efficiently and effectively – without return calls.



Simultaneous review of several analyte MRMs.



Intuitive, real-time read-back facilitates instrument troubleshooting.

LC technology that delivers a whole new level of confidence

For the QSight triple quad LC/MS/MS, we've paired the industry's most flexible mass spectrometer with the equally capable QSight LX50 UHPLC system, delivering all the sensitivity and specificity you need for demanding applications such as pesticide-residue and nutritional-component analysis. And with its robust design and carryover-elimination capabilities, the system is perfect for a host of other applications in the food and environmental arenas.

The system delivers three key technologies that help optimize your workflow and enable even higher levels of productivity:

- **Precision Sampling Module** With the most advanced fluidics technology in the business, the system's Precision Sampling Module protects your samples from degradation and precipitation, with a precise temperature that ensures stability, and uniform cooling as well. And with its injection-to-injection reproducibility and zero carryover or contamination, you get outstanding analytical performance and column life.
- **Solvent Deliver Module** The self-cleaning Solvent Delivery Module uses a rugged linear drive to deliver ultraprecise UHPLC gradient flows of more than 18,000 psi. Each pump head is individually motor-driven and controlled, generating maximum flow control and pulse reductions. And the system is self-priming and can purge itself in minutes – freeing your scientists to handle other important tasks.
- **Column Stability Module** The system's Column Stability Module maintains a precise, consistent temperature for the column and mobile phases for reproducible retention times, along with enhanced selectivity, improved peak shape, and shorter analysis times. And elevated temperatures reduce column back pressure, allowing for higher solvent flow rates regardless of column and particle size.



The Newest Member of an Elite Team

The QSight LC/MS/MS is the latest entry in our innovative line of mass spec detection instrumentation. These systems span a broad spectrum of mass spec capabilities, from the most powerful and sensitive ICP systems to the fastest portable systems in the business.



NEXION 2000 ICP-MS

Triple quad power meets single quad versatility: The NexION® 2000 ICP-MS makes it easy to handle any sample matrix, any and all interferences, and any particle size.



CLARUS SQ 8 GC/MS

With the flexibility to choose your level of sensitivity and dynamic range, the Clarus® SQ 8 eliminates background noise, maximizes analyte signals, and enables you to virtually reconfigure between EI and CI, simply and quickly.



TORION PORTABLE GC/MS

With the Torion® T-9, first responders test samples "on the ground," so there's no sample transportation or degradation, and no processing, packaging, and prep time. So you can go from response to remedial action 70 times faster than conventional lab analysis.

EVERYTHING YOU NEED UNDER ONE ROOF



The right accessories, consumables, and methods

We have the consumables and accessories for applications in atomic spectroscopy, materials characterization, and chromatography and mass spectrometry, and our comprehensive portfolio of solutions is designed to ensure you receive accurate, repeatable results throughout the lifetime of your instrument.



Nothing beats good preparation

QuEChERS is the platform of choice for sample prep because it eliminates complex liquid extraction methods, improving productivity and accuracy. Plus, our QuEChERS extraction and cleanup kits include preprepared products for simple, error-free use, and a certificate of quality is included in each kit to ensure high-quality extractions.

OneSource[®]
Laboratory Services

Driving your science and your business

With our OneSource[®] organization, you're benefiting from multivendor service and support from the absolute best in the business. That means thousands of certified technicians in the field who are familiar with all the techniques you employ. A broad portfolio of services, plus a deep-seated knowledge of the business requirements of our customers, uniquely qualifies us to help empower your science and drive your business.

For more information about the QSight Triple Quadrupole LC/MS/MS, go to www.perkinelmer.com/QSight

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