

Sales Proposal
Please reference this Quotation when Purchase Order is issued

Detail Product Description(s)

Product# **Description**
176001263 **Waters TQ Detector**

Waters TQ Detector

The Waters TQ Detector is a compact, benchtop tandem quadrupole API mass spectrometer. The system features new automated set-up technology and fast acquisition capability for simple, rapid LC/MS/MS.

The following items are included as part of the standard system:

Z SPRAY™ API interface...Dual orthogonal interface for robust LC/MS

IntelliStart™ fluidics...Automated tuning, calibration and method development

Electrospray (ESI) inlet probe...for efficient ionisation of a wide range of compounds

ESCITM ionisation capability...rapid switching source for both ESI and APCI in the same run.

1. ZSpray API INTERFACE

Atmospheric pressure ionisation (API) LC interface including:

One easily dismountable ion source enclosure.

Cone gas facility for chemical noise reduction.

Electronic mass flow meters for drying gas and cone gas.

Tool free cone removal

Source isolation valve

Micrometer probe positioning

The source and spraying elements are visible through a transparent enclosure and are easily accessible via a quick-release door. The source elements may be wiped clean in situ or removed for cleaning without the need for tools and without breaking vacuum. The nebulized spray is orientated orthogonally and positioned off axis for maximum source longevity and analyser protection against 'dirty' samples. The source also includes facilities for declustering ions formed at atmospheric pressure. Positive and negative capability is included. All source voltages and gases are under data system control. IntelliStart fluidics: The system comprises an on-board infusion system capable of delivering solutions from 2 built-in vial locations to aid tuning, calibration and method development. The solutions are delivered via a switching valve for direct infusion to the probe or combined into an LC flow. The valve can be programmed from the software to function as a divert valve. The fluidics can be controlled manually via the system Console or automatically as part of the IntelliStart system check software.

2. TANDEM QUADRUPOLE ANALYSER

2x High performance quadrupole analysers with inter-element beam focusing and a mass range of 2-2000 amu.

Pre-filters maximise resolution and transmission especially at high mass and also to eliminate main filter cleaning. All lens and analyser voltages are digitally controlled and recorded. Analyser parameters may be programmed with respect to mass for optimal performance.

3. T-WAVE COLLISION CELL

High efficiency gas cell for collision induced dissociation. Programmable software control of collision energy and gas pressure, including experimental record. The Travelling Wave (T-Wave) device enables rapid cell clearance and refill for fast MRM transition switching while maintaining optimum signal to noise.

4. VACUUM SYSTEM

Clean, differentially pumped, automated vacuum system comprising:

Air-cooled Pfeiffer splitflow turbomolecular drag pump evacuating both the source & analyser. Vacuum read backs and system

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vent/pump cycles are digitally monitored and controlled, to provide total software control and ensure fail-safe operation in the event of power failure. And One rotary pump for backing of the turbo pump, (to be ordered separately – see options).

5. DETECTOR

Dynolite photomultiplier detector. A High Voltage conversion dynode and phosphor are positioned at 90° off-axis to the analyser for the elimination of neutral noise. The photomultiplier is enclosed in its own vacuum envelope for long life. The detector operates in both positive and negative ion modes, and can switch rapidly under software digital control.

186003887 Assy., Vacuum Roughing Pump

Leybold Vacuum Roughing Pump
Standard Leybold Sogevac rotary backing pump.

176001255 ML 4.1 & Standard PC for TQ

ML 4.1 & Standard PC for TQ
MassLynx 4.1 Application Software
Multi-tasking suite of analytical applications and instrument management software operating in Microsoft Windows environment. MassLynx includes:

Mass Spectrometer Control Software

a) Data acquisition formats.

Scan data can be acquired to file in the following formats:

Centroided data acquisition.

Profile data acquisition.

Multi Channel Analysis (MCA) data acquisition.

b) MS and MS-MS acquisition functions.

The following data acquisition functions are available:

MS scanning.

MS selected ion recording.

MS-MS precursor ion scanning (parents).

MS-MS product ion scanning (daughters).

MS-MS neutral loss/gain scanning.

MS-MS multiple reaction monitoring.

Data directed switching (automated MS to MS-MS scan function switching).

Polarity mode switching.

Ionisation mode switching (ESCI)

External contact start/stop/events.

Analogue channel acquisition via a SATIN module.

c) Tuning Utilities.

The system features easy-to-use automated and manual tuning and calibration software tools. Tuning parameters include:

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176001255 ML 4.1 & Standard PC for TQ - Continued

Ionisation mode and polarity.
MS & MS/MS acquisition.
All ion source parameters.
All lens voltages.
MS1 and MS2 resolution.
MS1 and MS2 ion energy.
Photo-multiplier gain.

d) Inlet Control Software

Integrated control of specific Waters LC, autosampler and detector systems Third party LC and autosampler systems from specified vendors

e) Data processing and review:

Spectrum Review and Processing
Chromatogram Review and Processing
3-D Contour plotting
Spectral library search facilities (user defined or commercial libraries)
Batch processing of qualitative and quantitative sample sets:

OpenLynx Application Manager

OpenLynx Processing provides summary reports for groups of samples.
OpenLynx methods may be configured to include:
ML 4.1 & Standard PC for TQ
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OpenLynx Application Manager

OpenLynx Processing provides summary reports for groups of samples.
OpenLynx methods may be configured to include:

- 1) Analytes found/not found.
- 2) Purity,
- 3) Probable elemental composition (with Exact Mass Measurement Instrumentation),
- 4) Chromatograms,
- 5) Spectra. OpenLynx reports are portable and may be viewed (read-only) with optional Browser utility without MassLynx software.

QuanLynx Application Manager

QuanLynx provides quantification of MassLynx data. QuanLynx quickly

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processes groups of samples, providing automated peak detection, calibration and quantification. The QuanLynx Report provides facile online data review and report printing. QuanLynx operates within the MassLynx security system (where enabled); it includes tools to enable compliance with the FDA's guidelines on electronic records and electronic signatures (21 CFR Part 11). QuanLynx reports are portable and may be reviewed with optional Browser utility without MassLynx software.

The MassLynx Security Subsystem (where installed) provides a compliant-ready solution for US FDA GxP and 21 CFR 11 and other regulations.

License to operate software on one workstation.

MassLynx Security, when installed, provides a compliant-ready solution for US FDA GxP and 21 CFR 11 and other regulations.

QuanLynx & TargetLynx are compliant-ready and include tools to enable compliance with the FDA's guidelines on electronic records and electronic signatures.

Other MassLynx Application Managers are compatible with MassLynx security but are not compliant-ready.

Lenovo ThinkCentre M58p E8400 with Windows XP Professional Processor:
Intel Core 2 Duo E8400 Processor (3.0 GHz 1333 MHz FSB 6MB L2);
Operating system: Windows XP Professional; Form factor: Tower;
Motherboard: Intel Q45 Chipset; Total memory: 2 GB PC3-8500 SDRAM (2 DIMMs); Maximum memory: 8GB; Video adapter: Intel GMA 4500 (integrated);
Audio adapter: Intel Q45 (integrated); First hard drive bay: 250GB Hard Disc Drive, 7200RPM SATA; Second hard drive bay: None; Diskette drive: Floppy Disk Drive; First optical device bay: DVD Recordable; Networking: Intel PRO 100/1000 Gigabit Ethernet (integrated); Keyboard: Preferred Pro Full-size Keyboard (Stealth Black) - US Euro; Pointing device: Optical USB wheel mouse;
System Warranty: Four Years Onsite International; Warranty with Non-HDD Return; Expansion: 2 * PCI, 1 * PCI Expressx1, 1* PCI Expressx16; Ports: 1 Parallel, 1 * Serial, External microphone, External Display, Headphone, Line in, Line out, 8 USB 2.0 (2 front, 6 back); Additional Software: IBM RecordNow; Additional Network card: PCI Express 1x NetXtreme Gigabit Ethernet; National Instruments GPIB controller card;
Monitor: None; Printer: None

741000321 TQD SYSTEM INSTALLATION CERT

Waters TQ Detector MS System Installation

Includes:

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- System Set up and Specification Testing
- Product Familiarization Training
- 1 Year Manufacturers Warranty
- Insight Remote Intelligent Services

176015007 ACQUITY UPLC H-Class Core System

ACQUITY UPLC H-Class Core System.

1. Waters ACQUITY Ultra Performance LC Systems have been holistically designed to optimize the benefits of sub2 um particle chemistry delivering the efficiencies of UPLC separations to today's laboratory. The ACQUITY UPLC H-Class Core System is an integrated solvent and sample management instrument configured for quaternary solvent delivery and direct inject sample introduction. The system may be configured for a broad range of applications supported by UPLC optical and mass spectrometry detectors, with a choice of instrument control and data management software.

The following items are included as part of the core system:

- ACQUITY UPLC H-Class Quaternary Solvent Manager
- ACQUITY UPLC H-Class Sample Manager -FTN
- ACQUITY UPLC Column Heater (CH-A) Module
- ACQUITY UPLC Solvent Tray Module
- ACQUITY UPLC System Test Mix
- ACQUITY UPLC System Test Column 2.

2. Connections INSIGHT is provided at no charge during the first year.

3. Two hours application consultation with Waters Chemistry Specialist is provided at no charge