

IET | International Equipment Trading, Ltd. www.IetLtd.com | Proudly serving laboratories worldwide since 1979 CALL +847.913.0777 for Refurbished & Certified Lab Equipment

## Waters Xevo G2-S Tof Performance Specifications

Xevo® G2-S Tof incorporates StepWave<sup>™</sup> ion optics for unsurpassed levels of durable sensitivity and proven quantitative time-of-flight (QuanTof<sup>™</sup>) and UPLC®/MSE technologies to deliver superior UPLC-compatible mass resolution\*, matrix-tolerant dynamic range, quantitative performance, mass accuracy and speed of analysis – simultaneously.

UPLC/MSE provides a comprehensive digital record of your sample. The system incorporates IntelliStart<sup>™</sup> Technology, for automated system optimization and status monitoring, ensuring that the highest quality data is routinely available to all levels of operator.

# High performance ZSpray<sup>™</sup> dual-orthogonal API sources: **API** sources 1) Multi mode source – ESI/APCI/ESCi® (optional) and ionization modes

## **System Hardware Specifications**

|                    | NB – Dedicated APCI requires an additional probe (optional)                      |
|--------------------|--|
|                    | 2) APCI IonSABRE II probe (optional)   |
|                    | 3) Dual mode APPI/APCI source (optional)   |
|                    | 4) nanoFlow ESI source (optional)  |
|                    | 5) ASAP ion probe (optional)   |
|                    | 6) APGC ion source (optional)  |
|                    |  |
|                    | 7) TRIZAIC <sup>™</sup> ion source (optional)                                    |
|                    | Tool-free source exchange  |
|                    | Vacuum isolation valve   |
|                    | Tool free access to customer serviceable elements                                |
|                    | Plug and play probes   |
|                    | De-clustering cone gas   |
|                    | Software control of gas flows and heating elements                               |
|                    |  |
| Mass analyzer      | The instrument is equipped with a high resolution, high stability quadrupole ion |
| What is an an yzer | guide and a high performance oaTof mass analyzer with a mass range up to $m/z$   |
|                    |  |
|                    | 100,000 and a resolving power of >32,500 FWHM.                                   |
|                    | The quadrupole ion guide is upgradable on-site to a high performance resolving   |
|                    | mass analyzer.   |
|                    |  |
| Collision cell     | T-Wave enabled for optimal UPLC/MSE performance at high data acquisition         |
|                    | rates; Software programmable collision energy control.                           |
|                    | IET - Used Lab Equipment - Refurbished Analytical Laboratory Instruments         |
|                    |  |

| Detector                                 | Ultra-fast electron multiplier and hybrid ADC detector electronics to provide outstanding sensitivity and quantitative performance.   |
|--|---|
| Vacuum system                            | Differentially pumped, automated vacuum system comprising air-cooled<br>turbomolecular pumps and one backing pump (either one rotary pump or one oil<br>free pump). Vacuum read backs and system vent/pump cycles are digitally<br>monitored and controlled, to provide total software control and ensure fail-safe<br>operation in the event of power failure. |
| Dimensions                               | Width: 69.2 cm (27.2 in.)<br>Height: 152.0 cm (59.8 in.)<br>Depth: 101.8 cm (40.1 in.)  |
| Regulatory approvals System Software Spe | CE and NRTL<br>cifications  |
| Software                                 | Systems supported on MassLynx <sup>™</sup> version 4.1 or later and on UNIFI <sup>™</sup> Scientific Information System version 1.6 or later.   |
| IntelliStart Technology                  | System parameter checking and alerts<br>Integrated sample/calibrant delivery system + programmable divert valve<br>Automated mass calibration<br>LC/MS System Check – automated on-column performance test  |
| Performance Specific                     | cations   |
| Acquisition modes                        | MS scanning<br>UPLC/MSE<br>Ionization mode switching (ESCi)<br>External contact start/stop/events<br>Analogue channel acquisition via an e-SAT/IN module  |
| Mass range                               | The TOF mass range is m/z 20 to 100,000. The quadrupole ion guide has a high mass cutoff of m/z 16,000. An optional high-mass quadrupole ion guide is available with a high mass cutoff of m/z 100,000.   |
| Mass measurement<br>Accuracy             | The mass measurement accuracy of the instrument, in resolution mode, will be<br>better than 1 ppm RMS, based on 10 consecutive repeat measurements of the [M<br>+ Na]+ ion of raffinose (m/z 527.1588), using a suitable choice of lock mass.   |
| Dynamic range                            | The dynamic range, defined as the range of peak intensities that will give better than 3 ppm RMS for 10 sec of data, is at least four orders of magnitude when measured on the m/z 556.2771 peak from leucine enkephalin. This can be   |
| Ι  | ET - Used Lab Equipment - Refurbished Analytical Laboratory Instruments   |

increased with use of programmable dynamic range enhancement (pDRE) technology.

#### Mass resolution

>32,500 FWHM measured on the (M + 6H)6+ isotope cluster from bovine insulin (m/z 956) MS sensitivity (ESI+) The peak at m/z 556 from a solution of 50 pg/µL leucine enkephalin in 50/50 acetonitrile/water + 0.1% formic acid, will have an intensity of greater than 6,400 counts per sec. The instrument will be tuned to >32,500 FWHM resolution (as demonstrated on bovine insulin) and the mass range will be set to m/z 1200. The peak at m/z 556 from a solution of 50 pg/µL leucine enkephalin in 50/50 acetonitrile/water + 0.1% formic acid, will have an intensity of greater than 32,000 counts per sec. The instrument will be tuned to >22,500 FWHM resolution (as demonstrated on bovine insulin) and the mass range will be set to m/z 1200.

#### MS sensitivity

(ESI-) The peak at m/z 503 from a solution of 500 pg/ $\mu$ L raffinose in 70/30 acetonitrile/water (no additives), will have an intensity of greater than 7,200 counts per second. The instrument will be tuned to >32,500 FWHM resolution (as demonstrated on bovine insulin), and the mass range will be set to m/z 1200. The peak at m/z 503 from a solution of 500 pg/ $\mu$ L raffinose in 70/30 acetonitrile/water (no additives), will have an intensity of greater than 36,000 counts per second. The instrument will be tuned to > 25,000 FWHM resolution (as demonstrated on bovine insulin), and the mass range will be set to m/z 1200.

(as demonstrated on bovine insulin) and the mass range will be set to m/z 1200.





### IET | International Equipment Trading Ltd.

www.IetLtd.com | Proudly serving laboratories worldwide since 1979 CALL +847.913.0777 for Refurbished & Certified Lab Equipment

IET - Used Lab Equipment - Refurbished Analytical Laboratory Instruments