

# PS ANALYTICAL

## PRODUCT SPECIFICATION

### PSA 10.055 MILLENNIUM EXCALIBUR SYSTEM

#### System Description

An automated atomic fluorescence spectrometer with integrated vapour generation for the determination of hydride forming elements to trace and ultra trace levels. The system utilises boosted hollow cathode lamps (interchangeable) as excitation source with photomultiplier detection. Single multi-reflectance filter allows facility to measure Arsenic, Bismuth, Selenium, Antimony and Tellurium. Capable of operation with both continuous flow and discrete sample injection options, the system is suitable for both routine and research applications matching throughput with sensitivity requirements.

#### General

Gas Liquid Separator	Unique design with low foaming characteristics offering virtually zero carryover
Gas Supply	An inlet pressure of 30 - 60 psi is required. Flow rates pre-set to optimum levels with automatic shutdown under software control
Perma Pure™ Cassette	Perma Pure™ continuous moisture removal system in an interchangeable cassette
System Control	Full control under PSA's Millennium software running under MS Windows™
Data Connection	Built in USB interface
Computer Specification	The Millennium software will operate with any of the following Microsoft Windows operating systems: 2000, XP, Vista and 7.  A PC with an equivalent Pentium III processor, 256 MB of memory (when using Windows 2000/XP), an SVGA graphics 800x600 pixels with 256 colours, and a minimum of 15 MB of HD space is required for program installation.

#### Sample Throughput and Analytical Performance

Limits of Detection	Se 1ppt Te 10ppt*	Sb 2ppt
	As 2ppt Bi 10ppt*	
	*performance with optimised multi-reflectance filter	
Linear Dynamic Range	Up to 10 ppm	
Sample Throughput	Up to 80 samples per hour	
Autosampler	Up to 142 sample, random access	

#### PS ANALYTICAL

UK: Arthur House, Crayfields Industrial Estate, Main Road, Orpington, Kent BR5 3HP, UK

Tel: +44 (0) 1689 891 211 Fax: +44 (0) 1689 896009 E-mail: [psa@psanalytical.com](mailto:psa@psanalytical.com)

USA: 1761 W. Hillsboro Blvd., Suite 318, Deerfield Beach, FL 33442, USA

Tel: +1 (954) 429 1577 Fax: (954) 429 1601 E-mail: [usa@psanalytical.com](mailto:usa@psanalytical.com)

[www.psanalytical.com](http://www.psanalytical.com)



Power Requirements	Voltage	230V AC at 50 Hz or 120V AC at 60 Hz
Voltage Fluctuation		±10%
Power		Total system, not including PC, 46 VA
Operating Environment		-5°C to +40°C, further details available on request.
Technical Standard		Compliant with the legal requirements of the Low Voltage Directive 73/23/EEC and the EMC directive 89/336/EEC

### The System is also Compliant with the Following Standards

Safety	Built to IEC 1010-1 (EN61010-1) Safety requirements for electrical equipment for measurement, control and laboratory use
EMC	EN50081-1 Generic emission, residential, commercial light industrial environment  EN50082-1 Generic immunity, residential, commercial light industrial environment

### System Specification

Weight	Actual:	17.5 Kg
	Packed:	29 Kg including manuals/spares and consumables kit
Dimensions	Actual:	460 H x 380 W x 350 D (mm)
	Packed:	750 H x 600 W x 500 D (mm)

### Software

The PSA Millennium Software provides instrument control and data acquisition software running under MS Windows™

### Fully Multi-Tasking

- Add a calibration, multiple samples and checks at the touch of a button
- Set the system to automatically shut down at the end of a run
- User definable results display
- Set over range criteria, such as automatically running a blank after a high sample
- Export to LIMS software
- Complete saving of all information about a particular sample
- Keep a history of all modifications made to a particular method

### As Standard the Millennium Excalibur System Comprises

Millennium Excalibur  
Random Access Multiple Tray Autosampler  
PSA Millennium Software  
All interface cabling  
Installation Kit  
Consumables Kit (up to 6 months supply depending on use)  
User Manual



#### PS ANALYTICAL

UK: Arthur House, Crayfields Industrial Estate, Main Road, Orpington, Kent BR5 3HP, UK  
Tel: +44 (0) 1689 891 211 Fax: +44 (0) 1689 896009 E-mail: [psa@psanalytical.com](mailto:psa@psanalytical.com)  
USA: 1761 W. Hillsboro Blvd., Suite 318, Deerfield Beach, FL 33442, USA  
Tel: +1 (954) 429 1577 Fax: (954) 429 1601 E-mail: [usa@psanalytical.com](mailto:usa@psanalytical.com)  
[www.psanalytical.com](http://www.psanalytical.com)

## **Optional Items**

Personal Computer (Pentium based). (Full specification available on request).  
Printer compatible with above PC

*Millennium Excalibur is a PSA Tradename. M/S Windows is a Microsoft Tradename.*



### **P S ANALYTICAL**

UK: Arthur House, Crayfields Industrial Estate, Main Road, Orpington, Kent BR5 3HP, UK

**Tel: +44 (0) 1689 891 211 Fax: +44 (0) 1689 896009 E-mail: [psa@psanalytical.com](mailto:psa@psanalytical.com)**

USA: 1761 W. Hillsboro Blvd., Suite 318, Deerfield Beach, FL 33442, USA

**Tel: +1 (954) 429 1577 Fax: (954) 429 1601 E-mail: [usa@psanalytical.com](mailto:usa@psanalytical.com)**

**[www.psanalytical.com](http://www.psanalytical.com)**