

PS ANALYTICAL

PRODUCT SPECIFICATION

PSA 10.025 MILLENNIUM MERLIN SYSTEM

System Description

Automated atomic fluorescence spectrometer with integrated vapour generation for the determination of mercury to trace and ultra trace levels. Low-pressure Hg lamp excitation source with detection by photomultiplier. Capable of operation with both continuous flow and discrete sample injection options. 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 (250ml ¹ /min) with automatic shutdown under software control
Pump Speed/Flow rates	Computer controlled variable pump speeds; flow rates at 100% sample/blank 8ml/min reductant 4ml/min pump speed drops to 10% when idle mode selected.
Perma Pure™ Cassette	Perma Pure™ continuous moisture removal system in an interchangeable cassette
System Control	Full control with PSA's Millennium software running under MS Windows™
Data Connection	Built in USB interface
Computer Specification	The Minimum specification of the PC needed to run the software is Intel Pentium processor, 64 MB RAM., 50 MB free HD space, SVGA graphics 800 x 600, 256 colours, Windows 95, 98, NT, 2000 or XP operating system

Sample Throughput and Analytical Performance

Limit of Detection	0.1 ppt (without pre-concentration)
Linear Dynamic Range	0.1 ppt to 10 ppm
Sample Throughput	Up to 60 samples per hour
Autosampler	Up to 200 sample, random access (4 versions available)
Power Requirements	Voltage 230V AC at 50 Hz or Voltage 120V AC at 60 Hz

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Voltage Fluctuation	±10%
Power	Total system, not including PC, 29 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
Weight	Actual: 14 Kg Packed: 25 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)
Optional Accessories	Atomic Absorption Module for Hg determinations to meet local regulations Galahad gold amalgamation pre-concentration for ultra-trace (low ppq) determinations

Software

The PSA Millennium Software provides instrument control and data acquisition 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



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As Standard the Millennium Merlin System Comprises

Millennium Merlin

PSA Millennium Software

All interface cabling

Installation Kit

*Consumables Kit (up to 6 months supply depending on use)

User Manual

**Note: Consumables kit is not supplied on "X" models, e.g. 10.025X.

Optional Items

Personal Computer (Pentium based). (Full specification available on request)

Printer compatible with above PC

Autosampler

Millennium Merlin is a PSA Tradename. M/S Windows is a Microsoft Tradename.



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