

ABX Pentra **XL80**

Hematology Analyzer

26 Parameters
Autoloader
Integrated Validation Station



ABX Pentra **XL80**

Delivering the performance you need
from a hematology analyzer



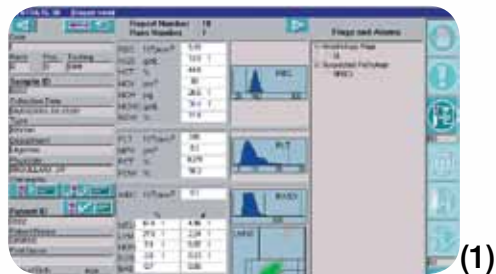
Cytology Platform Performance

- > **80 test per hour**
- > **Large capacity auto-loader (100 tubes)**
- > **Stat sampling on open or closed tubes**
- > **26 parameters: CBC (12), DIFF (14)**
- > **Micro-sampling on whole blood:
30 μ L in CBC mode and 53 μ L in CBC+DIFF mode**
- > **Customized Dilution Ratio (CDR)**
- > **Automatic Sample Re-run**
- > **Integrated Validation Station**
- > **Compatible with ABX Pentra ML (Multilink System)
to centralize hematology operations**

Easy Access to Information

Single screen to view data (1)

- > ID number, name, age, profile...
- > Patient information: department, requesting clinician, remarks...
- > Type of test (CBC or CBC+DIFF)
- > Test Results: 26 parameters, histograms, color matrix, flags and remarks.



On-screen location of test samples (2)

Virtual mapping of cassette location including tube position, rack number and type of analysis (CBC or CBC+DIFF) for optimal traceability and post-analysis tube placement



Real-time Status Overview (3)

Onboard view of reagent levels, testing progress and rate of flagged samples



Ergonomic, Safe and Convenient to use

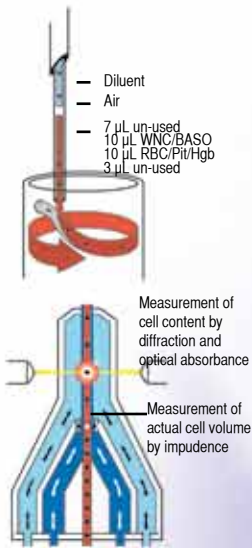
- > Easy-to-use touch screen with practical user interface
- > Flexible connectivity: uni-directional, bi-directional or autonomous
- > Internal and external barcode readers
- > Space saving: compact with integrated PC
- > Reduced noise volume: less than 60 dBA
- > Only 4 reagents and 1 diluent
- > No daily maintenance

Serving the Patient with the Best Technologies

Precise, reliable results from DHSS and MDSS technologies *

Micro-sampling MDSS (Multi-Distribution Sampling System)

Micro-sampling and complete homogenization of blood samples with reagents
 Precise aliquot volumes with patented control valve system.
 Requires only **30 µL in CBC** mode and **53 µL in CBC+DIFF** mode for sampling volumes.



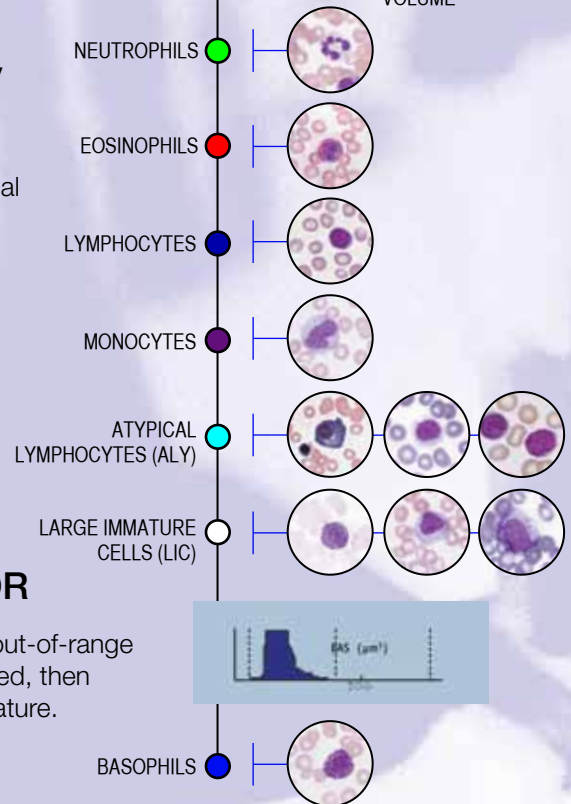
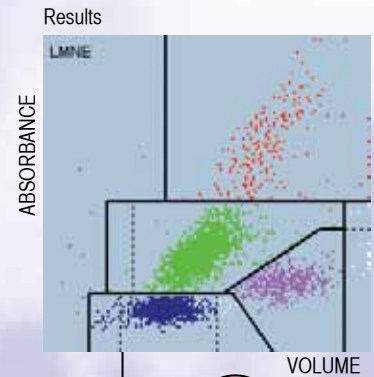
DHSS (Double Hydrodynamic Sequential System) for Cytochemistry and Cytometry

Cytochemistry

Produces excellent cell differentiation by regulating the temperature during the cytochemical staining of internal cellular components using Chlorazol Black. 48 hours post-draw stability.

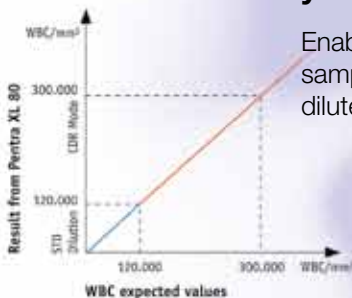
Flow Cytometry

Precise cellular identification by injecting the prepared sample into a double hydrofocusing cytometer: **impedance** (cell volume measurement) & **optical** (analysis of the internal cellular structure by measuring light absorbency).



Efficiency with Customized Dilution Ratio CDR

Enables an automatic extension of linearity in case of out-of-range samples. Samples are automatically flagged, re-sampled, then diluted to obtain results using the extended linearity feature.



Onboard Data Management with a Focus on Traceability

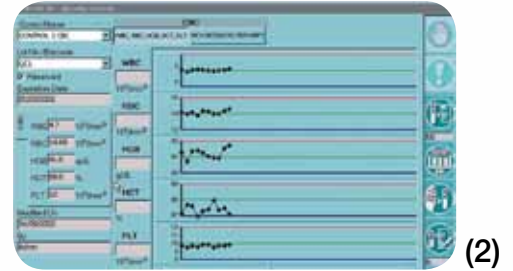
System memory stores up to 10,000 patient results (1)

- > Precise patient reports showing test results, demographics, graphs, flags, specific dilution ratios (in CDR* mode) and remarks
- > User-friendly classification of validated reports, and reports to review.
- > Data storage management with the option to export archival data



Quality assurance (2) and (3)

- > 3 active control levels identified by bar-code scanner
- > Control results displayed in charts and Levey-Jennings graphs
- > XB results and graphs available for 100 files (20 results per file)
- > Precision test management
- > Access to all information logs concerning instrument status for calibration, quality control, settings, maintenance, laboratory information system, patients...
- > Compliant with accreditation standards.



Process and Manage Results Securely and Easily

Validate results with confidence using the Integrated Validation Station

- > Automatic and customizable validation to meet your laboratory requirements
- > Focus on abnormal results
- > Programmable Delta check flags for accurate patient follow-up
- > Automatic calculation of Wintrobe constants according to manual data input

Automatic Sample Re-run Mode to Confirm Results

Out of range results may be instantly confirmed with additional analyses automatically performed with user-defined criteria. This mode is fully programmable according to hematology criteria, delta check, flags and limits.

Sample Identification

To ensure reliable identification sample tubes and racks on the autoloader are scanned with an internal scanner. And sample tubes processed through the Stat mode are scanned with the external scanner.

* CDR: Customized Dilution Ratio

ABX Pentra XL80

Hematology Analyzer



PHYSICAL SPECIFICATIONS

Dimensions & Weight:

Height	Width	Depth	Weight
21.5 in	32.3 in	22.4 in	122 lb
54 cm	82 cm	57 cm	55kg

Printer:

Laser

Throughput:

Up to 80 samples/hour in automatic mode
Up to 80 samples/hour in stat mode

Sound Pressure Level:

< 60 dBa

Operating Temperature:

16 to 34°C (61 to 93°F) room temperature.

Specimen Volume:

CBC 30µL
CBC + DIFF 53µL

Power Requirements:

Power supply from 100 V to 240 V (+/- 10%)
50 Hz to 60 Hz
Maximum 230 VA

Power consumption

Reagents:

Only 4 reagents
and 1 diluent :

ABX Diluent
ABX Lysebio (a cyanide free lyse)
ABX Cleaner
ABX Eosinofix
ABX Basolyse II

METHODS & TECHNOLOGIES

Multi Distribution Sampling System (MDSS)

RBC & PLT Detection Principles

Method	Impedance
Aperture diameter	50 µm
Counting depression	200 mb
Counting duration	2x6 seconds
Dilution ratio	1/10,000
Reaction temperature	35°C (95°F)

HGB Measurement

Method	Photometry
Wavelength	550 nm
Dilution ratio	1/250
Reaction temperature	35°C (95°F)

HCT Measurement

Method	Numeric integration
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WBC & BAS Detection Principles

Method	Impedance
Aperture diameter	80 µm
Counting depression	200 mb
Counting duration	2x6 seconds
Dilution ratio	1/200
Reaction temperature	35°C (95°F)

Differentiation

Method	Double Hydrodynamic Sequential System DHSS) Cytometry & Cytochemical association
Aperture diameter	60 µm
Hydrofocusing flow diameter	42 µm
Dilution ratio	1/80
Injection duration	12 seconds
Reaction temperature	35°C (95°F)

MCV, MCH, MCHC, RDW, PCT* PDW*
Calculation

SOFTWARE SPECIFICATIONS

Data Processing:

Color LCD touch screen: 12 in
Capacity: 10,000 results + graphs
Industrial PC board Windows XP
Celeron 566 MHz
RAM (256 Mo), Hard disk (10 Go min)
DVD / CD ROM reader
RS232C, TCP/IP, 2 X USB1
User defined flagging limits
Transmit patient files & QC to LIS
Uni-directional & bi-directional connections
ASTM protocol inside

Quality Control Management:

24 selectable QC files
XB: 100 operator selectable files with statistics (20 results per file)
With-in run
Levey-Jennings graphs

Logs:

Reagents, quality controls, calibration, blank cycle, maintenance,
data handling, settings, communication, errors, by date

Patient reports management:

Delta check
History (Matrix, curves, data)
Manual input

PARAMETERS & PERFORMANCE DATA

26 Parameters:

WBC	RBC	PLT
NE# & NE%	HGB	MPV
LY# & LY%	HCT	PCT*
EOS# & EOS%	MCH	
BAS# & BAS%	MCHC	
ALY* # & %		
LIC* # & %		

Linearity:	Standard	CDR** Mode	CDR** Visible Range	Unit
WBC	0 - 120	120 - 360	360 - 550	10 ³ /µL
RBC	0 - 8	0 - 8	8 - 18	10 ³ /µL
HGB	0 - 24	0 - 24	24 - 30	g/dL
HCT	0 - 67	0 - 67	67 - 80	%
PLT (whole blood)	0 - 1 900	1 900 - 3 800	3 800 - 5 500	10 ³ /µL
PLT (concentrate)	0 - 2 800	2 800 - 5 600	5 600 - 7 500	10 ³ /µL

Precision:

Parameters	CV (%)	Range	Unit
WBC	< 2.0	4.0 - 10.0	10 ³ /µL
RBC	< 2.0	3.6 - 6.2	10 ³ /µL
HGB	< 1.0	12.0 - 18.0	g/dL
HCT	< 2.0	36 - 54	%
PLT	< 5.0	150 - 500	10 ³ /µL

CERTIFICATION

EN 61326 B	cULus LISTED
IEC 61000-3-2	UL 3101-1
IEC 61000-3-3	C22.2 m ¹ 1010-1 - 92
IEC 61010-1	CE IVD
IEC 61010-2-81	
IEC 61010-2-101	

* RUO parameters (Research Use Only)

** CDR (Customized Dilution Ratio)

Valid for version 1.8.0 of ABX Pentra XL80

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