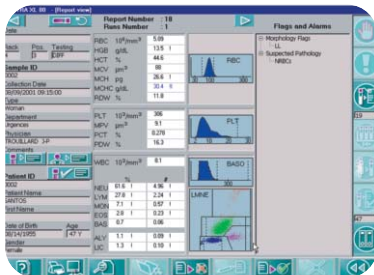


ABX **Pentra XL** 80   
Process efficiency in Hematology



# ABX Pentra XL 80

Delivering the performance you need  
from a haematology Analyzer



## Performance

- Single screen to view data.
- 27 parameters, histograms, colour matrix, flags and remark.



## Comfort

- On-screen location of test samples.
- Virtual mapping of rack location including tube position, rack number and type of analysis (CBC or CBC + DIFF).

## Cytology Platform Performance

- Up to 80 tests per hour
- Large capacity auto-loader (100 tubes)
- Stat sampling on open or closed tubes
- 27 parameters: CBC (13), DIFF (14)
- Micro-sampling on whole blood:  
35  $\mu$ L in CBC mode and 53  $\mu$ 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 haematology operations



### User Friendly

- Real-time Status Overview.
- Onboard view of reagent levels, testing progress and ratio of flagged samples.



### Ergonomics

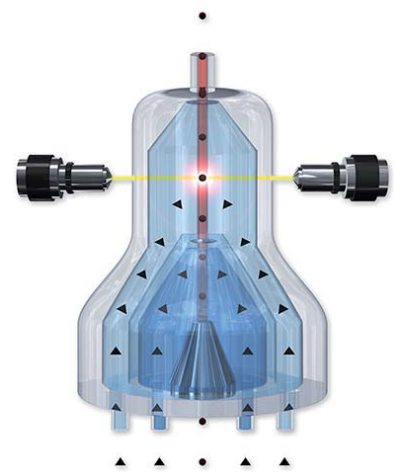
- Easy-to-use touch screen with direct interface access.
- Space saving : compact with integrated PC.
- Direct access to sub menus by pressing corresponding icons at any time.

# 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.
- Only 35  $\mu\text{L}$  in CBC mode and 53  $\mu\text{L}$  in CBC+DIFF mode are extracted.



## DHSS (Double Hydrodynamic Sequential System) for Cytochemistry and Cytometry:

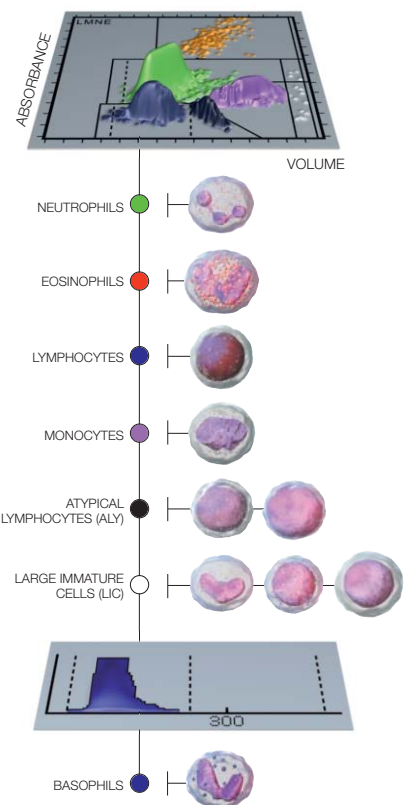
### Cytochemistry

- 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

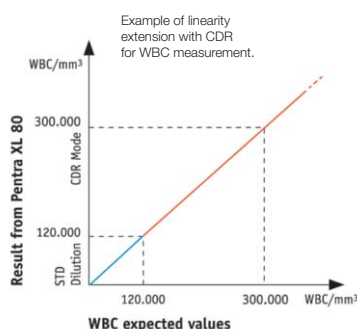
- Precise cellular identification by injecting the prepared sample into a double hydrofocusing cytometer: impedance (cell volume measurement) & optical (analysis of the internal cellular structure by measuring light absorbency).

## Results



## 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 benefit a result within an extended linearity line.





# Onboard Data Management with a Focus on Traceability

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

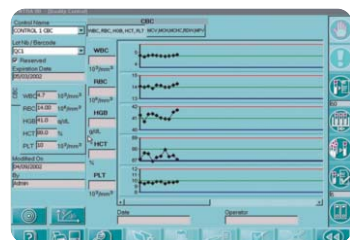
- Precise patient reports showing test results, demographics, graphs, flags, specific dilution ratios (in CDR\*\*mode) and remarks.
- User-friendly classification into validated reports, invalidated reports and reports awaiting examination.
- Data storage management with the option to export data to floppy discs.



(1)

## Quality assurance (2) and (3)

- 3 active control levels with barcode identification.
- Control results displayed in charts and Levey-Jennings graphs.
- XB results and graphs available from 100 files (20 results per file).
- Repeatability test management.
- Access to all information logs concerning instrument status (calibration, quality control, settings, maintenance, laboratory information system, patients...).



(2)



(3)

# 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 manually input data.



## 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 haematology criteria, Delta check, flags and limits.

## Sample Identification

In order to insure reliable identification of results, sample tubes are identified with external barcode scanners or internal barcode scanners which allows the identification of both the tubes and the racks in which they are placed.

\*\* CDR: Customized Dilution Ratio

# ABX Pentra XL 80

## Haematology 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	55 kg

#### 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 35 µL  
CBC + DIFF 53 µL

#### Power Requirements:

Power supply from 100 V to 240 V (± 10%)  
50 Hz to 60 Hz

Power consumption Maximum 230 VA

#### Reagents:

Only 4 reagents and 1 diluent :  
ABX Diluent  
ABX Alphalyse or cyanide free lyse (optional)  
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 & BASO 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
Injection duration	12 seconds
Dilution ratio	1/80
Incubation time	12 seconds
Reaction temperature	35°C (95°F)

#### MCV, MCH, MCHC, RDW, PCT\*, PDW\*

Calculation

### SOFTWARE SPECIFICATIONS

#### Data Processing:

Colour LCD touch screen: 12 in  
Operating System : Windows 7  
Capacity: 10 000 results + graphs  
Processor : Dual Core Intel Atom 1.46 GHz  
RAM 4 GB, Hard drive : 10 GB minimum  
External DVD/CD drive connected to instrument USB port  
RS 232, Ethernet, USB connections  
User defined flagging limits  
Transmit patient files & QC to LIS  
Uni-directional & bi-directional connections  
ASTM protocol inside

#### Quality Control Management:

36 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  
Anteriority (Matrix, curves, data)  
Manual input

### PARAMETERS & PERFORMANCE DATA

#### 27 Parameters:

WBC	RBC	PLT
NE# & NE%	HGB	MPV
LY# & LY%	HCT	PCT*
MO# & MO%	MCV	PDW*
EOS# & EOS%	MCH	
BAS# & BAS%	MCHC	
ALY# & ALY**	RDW-SD	
LIC# & LIC**	RDW-CV	

#### Linearity:

Parameters	Standard	CDR ** Mode	CDR ** Visible range	Unit
WBC	0 - 120	120 - 360	360 - 550	10 <sup>9</sup> /µL
RBC	0 - 8	0 - 8	8 - 18	10 <sup>6</sup> /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 <sup>9</sup> /µL
PLT (concentrate)	0 - 2 800	2 800 - 5 600	5 600 - 7 500	10 <sup>9</sup> /µL

#### Precision:

Parameters	CV (%)	Range	Unit
WBC	< 2.0	4.0 - 10.0	10 <sup>9</sup> /µL
RBC	< 2.0	3.6 - 6.2	10 <sup>6</sup> /µL
HGB	< 1.0	12.0 - 18.0	g/dL
HCT	< 2.0	36 - 54	%
PLT	< 5.0	150 - 500	10 <sup>9</sup> /µL

### CERTIFICATION

EN 61326-1	cTUVus Mark
EN 61326-2-6	UL 61010-1
IEC 61000-3-2	CAN/CSA-C22.2 61010-1
IEC 61000-3-3	98/79/EC (IVD)
IEC 61010-1	
IEC 61010-2-81	
IEC 61010-2-101	

\* RUO parameters (Research Use Only)

\*\* CDR: Customized Dilution Ratio



Operating IMS

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