

# Pentra 60 C+

## Hematology Analyzer Specifications



### PHYSICAL SPECIFICATIONS

#### • DIMENSIONS & WEIGHT:

	Height	Width	Depth	Weight
Analyzer	22.3 in	17.5 in	19 in	77 lbs
	51,6 cm	44,4 cm	48,1 cm	35 Kg

#### • PRINTER:

Okidata B4250 laser

#### • THROUGHPUT:

Up to 60 samples/hour

#### • SOUND PRESSURE LEVEL:

< 60 dBA

#### • OPERATING TEMPERATURE & HUMIDITY:

16 – 34°C (61 – 93°F) room temperature  
Maximum relative humidity 80% for temperature up to 31°C (88°F) decreasing linearity humidity at 40°C (104°F).

#### • SPECIMEN VOLUME:

CBC Mode 30 µL  
CBC + DIFF 53 µL

#### • POWER REQUIREMENTS:

Power supply from 100 Vac to 240 Vac ± 10%  
50 Hz to 60 Hz  
Power consumption Analyzer and computer 400 VA

#### • REAGENTS:

5 reagents only:  
Diluent  
Alphalyse  
Cyanide-free lyse (currently not available in USA)  
Cleaner  
Eosinofix  
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 2 x 5 seconds  
Dilution ratio 1/10 000  
Reaction temperature 35°C

#### • HGB MEASUREMENT

Method Photometry  
Wavelength 555 nm  
Dilution ratio 1/250  
Reaction temperature 35°C

#### • HCT MEASUREMENT

Method Numeric integration

#### • WBC & BASO COUNT

Method Impedance  
Aperture diameter 80 µm  
Counting depression 200 mb  
Counting duration 2 x 6 seconds  
Dilution ratio 1/200  
Reaction temperature 35°C

#### • LEUKOCYTE DIFFERENTIATION

Method Focused-flow impedance  
Cytochemistry  
Aperture diameter 60 µm  
Diameter of the flow 42 µm  
Injection duration 12 seconds  
Dilution ratio 1/80  
Incubation duration 12 seconds  
Reaction temperature 35°C

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

Calculation parameters

### SOFTWARE SPECIFICATIONS

#### • DATA PROCESSING:

15" Flat Screen LCD  
Motherboard: Intel Processor w/ SIS Chipset, On Board audio & video  
Capacity: 10,000 results + graphics  
OS: Windows NT 4.0 w/Service Pack 6A  
PC: Intel Celeron 1.8 GHz (min.)  
RAM: 256M min., Hard Disk (40 Gb) min.  
Floppy Disk and CD ROM Drive  
RS232C  
User defined flagging Limits  
Transmit patient and QC to LIS connection  
Uni & Bi-directional connections  
ABX and ASTM interfacing protocol  
HemaLink Data Management ready

#### • QUALITY CONTROL MANAGEMENT:

12 selectable QC files  
XB: 60 operator selectable files with statistics (20 samples per file)  
Within run  
Levey-Jennings graphs  
Unlimited QC results storage with HemaLink™

#### • LOGS:

Reagents, calibration, maintenance, errors, blank cycle

### PARAMETERS & PERFORMANCE DATA

#### • 26 PARAMETERS:

WBC	RBC	PLT
N# & N%	HGB	MPV
L# & L%	HCT	PCT*
M# & M%	MCV	PDW*
EOS# & EOS%	MCH	
BAS# & BAS%	MCHC	
ALY*# & ALY*%	RDW	LIC*# & LIC*%

#### • LINEARITY: (VERSION V2.3)

Parameters	Linearity range	Visible range**	Units
WBC	0 - 120	120 - 150	10 <sup>3</sup> /µL
RBC	0 - 8	8 - 18	10 <sup>12</sup> /µL
HGB	0 - 24	24 - 30	G/dL
HCT	0 - 67	67 - 80	%
PLT (whole blood)	0 - 1900	1900 - 2800	10 <sup>9</sup> /µL
PLT (plt concentrate mode)	0 - 2800	2800 - 3200	10 <sup>9</sup> /µL

#### • PRECISION:

Parameters	%CV	Range
WBC	< 1.5	4.0 - 11.0 x 10 <sup>3</sup> /µL
RBC	< 1.5	4.0 - 6.0 x 10 <sup>12</sup> /µL
HGB	< 1.0	11.0 - 18.0 g/dL
HCT	< 1.5	35 - 55 %
RDW	< 2.0	80 - 100
PLT	< 5.0	150 - 400 x 10 <sup>9</sup> /µL
MPV	< 3.0	7.6 - 10.9

#### • ACCURACY:

Parameters	Mean % Difference	Mean Difference
WBC	< 3	± 0.2
RBC	< 3	± 0.10
HGB	< 3	± 0.3
HCT	< 4	± 1.5
PLT	< 5	± 10

\* RUO parameters (For Laboratory Use Only)

\*\* From software release V2.3.0

**HORIBA**ABX  
Diagnostics

HORIBA ABX INTERNATIONAL (33 / 4 67 14 15 16) - HORIBA ABX - FRANCE (33 / 4 67 14 15 15) - HORIBA ABX - BENELUX (32 / 3 281 49 08) - HORIBA ABX - ITALY (39 / 06 51 59 22 1)

HORIBA ABX - SPAIN (34 / 91 353 3010) - HORIBA ABX - PORTUGAL (351 / 2 14 72 17 70) - HORIBA ABX - U.K. (44 / 1462 8144 00) - HORIBA ABX - POLAND (48 / 22 673 20 22)

HORIBA ABX - USA (1 / 949 453 0500) - HORIBA ABX - BRAZIL (55 / 11 55 45 1500) - AUSTRIA AXON LAB AG (43 / 1 718 78 44 00) - GERMANY AXON LAB AG (49 / 7153 92260)

ABX ONLINE : <http://www.horiba-abx.com>

# ABX Pentra 60 C+

## Hematology Analyzer

5-Part Differential analysis  
Closed tube sampling  
Workstation included

HAN 638A

Subject to technical modifications

# Pentra 60 C+

Small size. Big impression.



Microsampling of 30  $\mu\text{L}$  (CBC) or 53  $\mu\text{L}$  (CBC+DIFF)  
 (Exceptional results with all sample types,  
 even very small volumes Pediatric, Oncology, etc.)

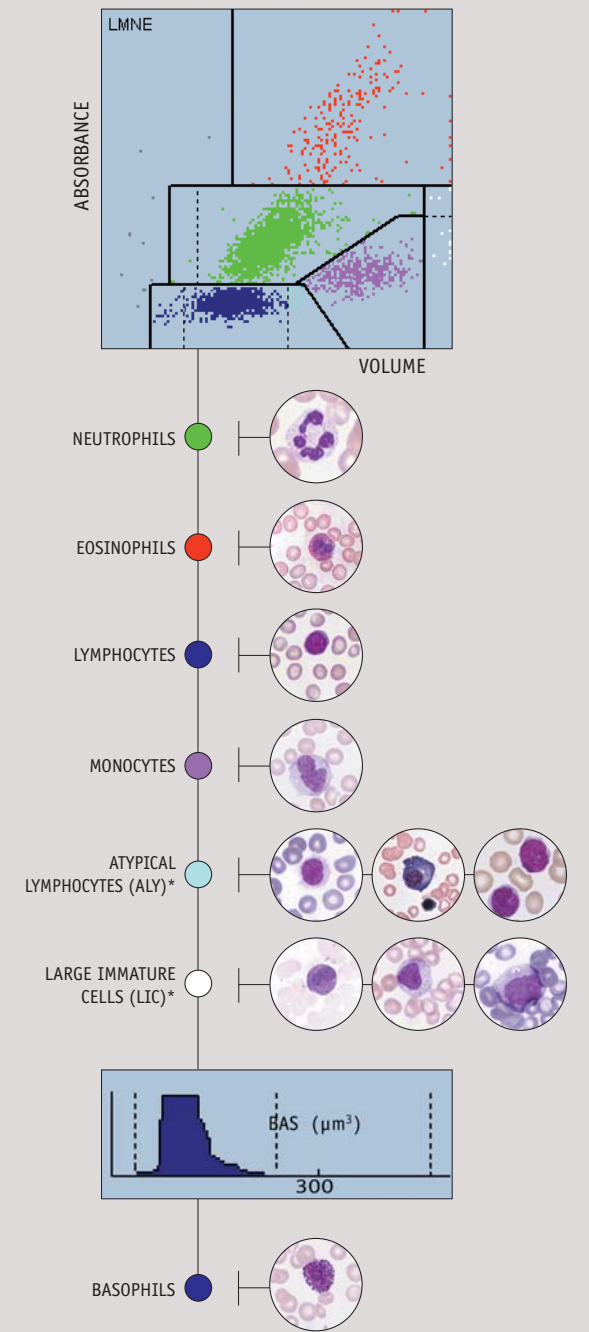
Data management on external PC  
 Stand alone capability

Windows Platform  
 Easy to use

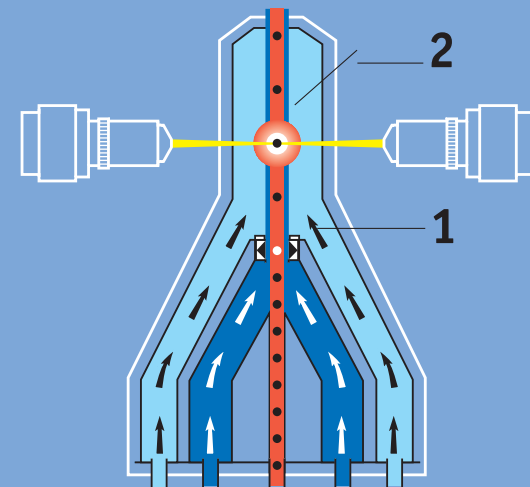
Closed tube sampling  
 Reduces biohazard risk

External barcode reader  
 100% secure sample identification

## Results



## DHSS Double Hydrodynamic Sequential System\*



### Cytochemistry

Sample incubation in a temperature-controlled chamber and enzymatic staining with Chlorazol Black. This reagent specifically stains leukocyte nuclei, granules and membranes.

### Cytometry

Injection of the prepared sample into a double hydrofocus cytometer (ABX patent) and analysis of cell complexity with a polychromatic light source.

- 1) Measurement of cell volume by impedance.
- 2) Measurement of cell content by cytochemistry and optical absorbance.

- 26 parameters.
- WBC, RBC and Platelet histograms
- Color matrix for WBC Differential.
- Pathological and morphological alarms.
- WBC Differential performed by DHSS technology.
- Basophil measurement performed in a specific channel
- Percentage and absolute value of neutrophils, eosinophils, basophils, lymphocytes and monocytes.
- Determination of 2 additional sub-populations (% and #):
  - Atypical lymphocytes (ALY)\*,
  - Large immature cells (LIC)\*.

\* For Laboratory Use only (not FDA approved)

## Concept and Technology

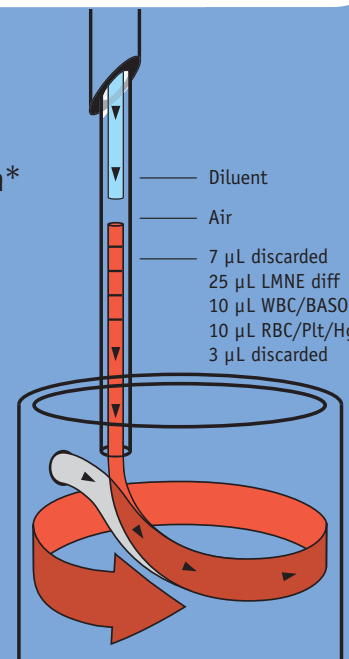
- MDSS\*
- DHSS\*
- No compressor
- No shear valve, less maintenance

\* ABX Patents

## MDSS Multi Distribution Sampling System\*

### MDSS Microsampling

- Sampling : only 30  $\mu\text{L}$  whole blood for CBC (53  $\mu\text{L}$  for CBC + DIFF).
- Sample dispensed into pre-heated analysis chamber for highly reproducible results.
- Tangential flow reagent dilution for optimal sample mixing.



\* ABX Patents