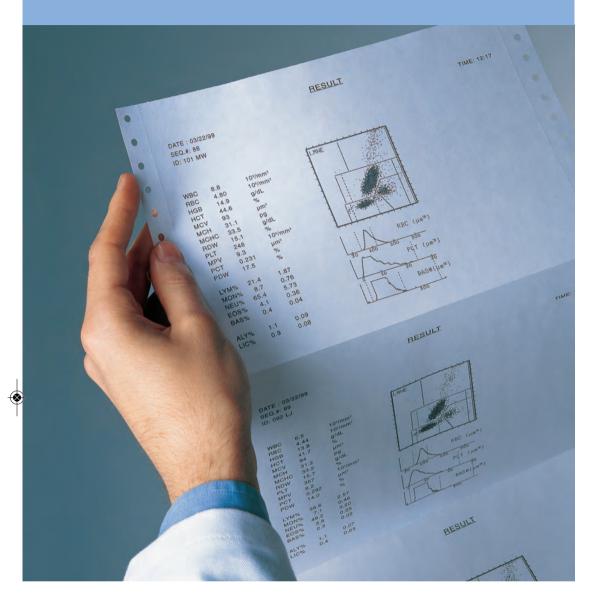
IN A SMALL, CONVENIENT, BENCH-TOP ANALYZER, PENTRA 60 PROVIDES A COMPLETE HEMATOLOGY PROFILE INCLUDING 5 PART DIFFERENTIAL ANALYSIS FOR RELIABLE DIAGNOSIS AND PATIENT MANAGEMENT.



#### Meeting your needs, immediately.

- Immediate switch from the CBC to the 5 DIFF mode in one single operation on the front panel (no additional rinsing or start-up cycle).
- Hematological status in less than one minute.
- Only 30 μL (CBC mode) or 53 μL (5 DIFF mode) of sampling volume.
- Designed for the most demanding conditions (Pediatrics, Geriatrics,...).
- Highly cost-effective analyzer.



#### ABX PENTRA 60: TECHNICAL SPECIFICATIONS

12 Parameters (CBC mode)	RBC, HGB, HCT, MCV, MCH, MCHC, RDW     PLT, MPV, PCT, PDW	Display  Data processing	
26 Parameters (5 DIFF mode)	RBC, HGB, HCT, MCV, MCH, MCHC, RDW     PLT, MPV, PCT, PDW     WBC, LYM, MON, NEU, EOS, BASO, ALY (Atypical Lymphocytes), LIC (Large Immature Cells) in % and # RBC and BASO histograms PLT histogram     High resolution LMNE matrix, including ALY and LIC populations	Printer  Report options	
Sample handling	By single button aspiration on whole blood.     Open tube mode.	Start-up cycles	
Sample volume	• 30 µL in CBC mode • 53 µL in 5 DIFF mode	Cleaning cycles Reagents	
Throughput	60 samples per hour		
Post-draw stability	Up to 48 hours		
Sample distribution	MDSS technology (HORIBA Medical Patent)		
Counting methods Sample identification	Cytochemistry     Focused Flow impedance     Light absorbance	Reagent alarm	
		Dimensions	
	Alphanumeric patient identification with patient run number and	Weight	
	sequence number  Optional barcode reading	Power supply	

Display	• 16 lines LCD screen	
Data processing	Multitask multifunction     RS 232 C     Uni-directional	
Printer	<ul> <li>EPSON LX 300</li> <li>80 column dot matrix printer,</li> <li>A4 paper format</li> </ul>	
Report options	<ul> <li>Histogram selection for 12 or 26 parameters</li> <li>User programmable parameter units</li> <li>Reference values printed on every report</li> <li>Full page graphic reports</li> </ul>	
Start-up cycles	Automatic and programmable	
Cleaning cycles	Automatic and programmable	
Reagents	<ul> <li>ABX DILUENT (20 L)</li> <li>ABX ALPHALYSE (0.4 L)</li> <li>ABX CLEANER (1 L)</li> <li>ABX EOSINOFIX (1 L)</li> <li>ABX BASOLYSE II (1 L)</li> <li>Optional CN-Free Lysis: ABX LYSEBIO (0.4 L)</li> </ul>	
Reagent alarm	• Yes	
Dimensions	• 51,6 x 44,4 x 48,1 cm (H x W x D)	
Weight	• 35 Kg	
Power supply	• 100 V to 240 V 50/60 Hz, 200 VA	

Parameters	Linearity limits*	Visible range*	Error limit**
WBC	0 – 120 x 10 <sup>3</sup> /mm <sup>3</sup>	120 -150	±0.3 7.5%
RBC	0 – 8 x 10 <sup>6</sup> /mm <sup>3</sup>	8 - 18	±0.07 3%
HGB	0 – 24 gr/dl	24 - 30	±0.3 3%
нст	0 – 67 %	67 - 80	±2 3%
PLT (WHOLE BLOOD)	0 – 1900 x 10 <sup>3</sup> /mm <sup>3</sup>	1900 - 2800	±10 12.5%
PLT (PLT CONCENTRATE)	0 – 2800 x 10 <sup>3</sup> /mm <sup>3</sup>	2800 - 3200	±10 12.5%

Parameters	Within-run precision
Lymphocytes	< 5 %
Monocytes	< 10 %
Neutrophils	< 3 %
Eosinophils	< 20 %
Basophils	< 30 %

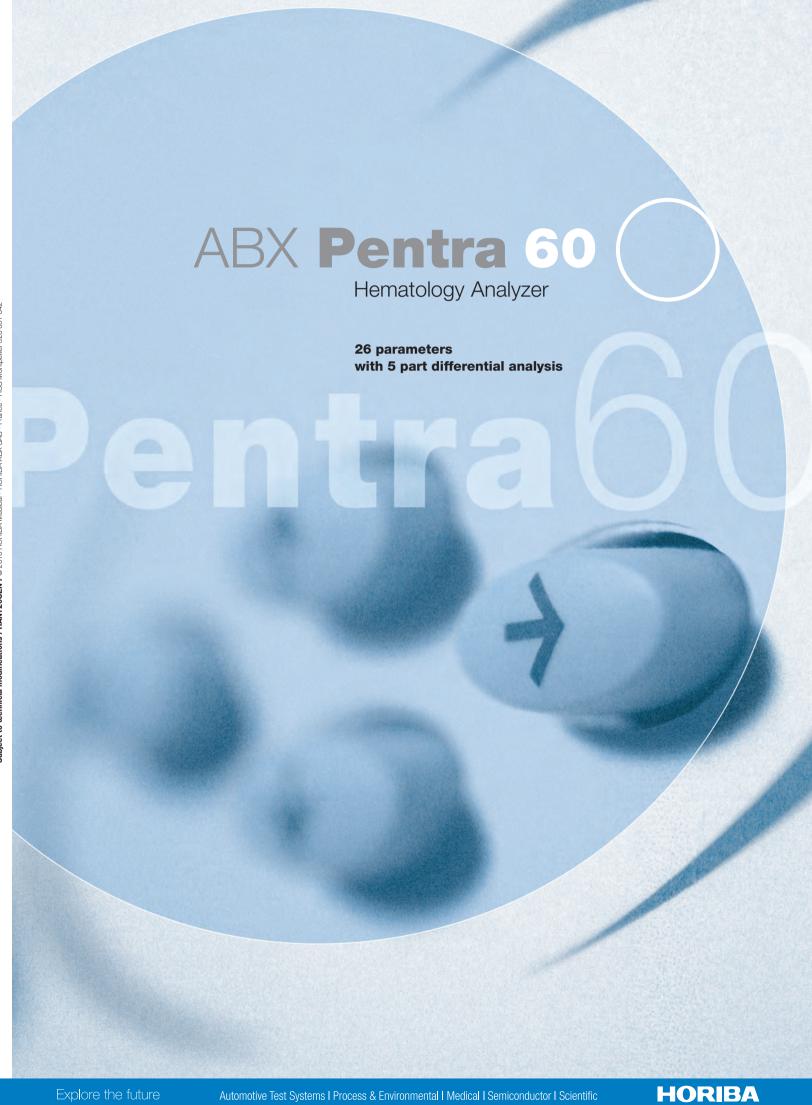
\* From software release V2.2.0 and above

\*\* Which ever is greater



FRANCE +33 (0)4 67 14 15 15 - BENELUX +32 (0)3 281 49 08 - ITALY +39 / 06 51 59 22 1 - SPAIN +34 / 91-353 30 10 - PORTUGAL +351 / 2 14 72 17 70 UK +44 (0) 1604 542650 - POLAND +48 / 22 6732022 - USA +1 / 949 453 0500 - BRAZIL +55 / 11 5545 1500 - THAILAND +66 / 2 861 59 95 CHINA +86 / 21 3222 1818 - GERMANY AXON LAB AG +49 / 7153 92260 - DISTRIBUTORS NETWORK +33 (0)4 67 14 15 16 HORIBA Medical online : http://www.horiba.com/medical





Automotive Test Systems I Process & Environmental I Medical I Semiconductor I Scientific

**HORIBA** 

Pentra 60 HAN720CEN HD 29/04/10 10:57 Page2



## ABX Pentra 60

#### **26 PARAMETERS WITH 5 PART DIFFERENTIAL ANALYSIS**

In less than a minute,
PENTRA 60 provides
a full diagnostic
access to the
hematological
status of the patient
with a full 5 partdifferential,
including Atypical
Lymphocytes (ALY)
and Large Immature
Cells (LIC).



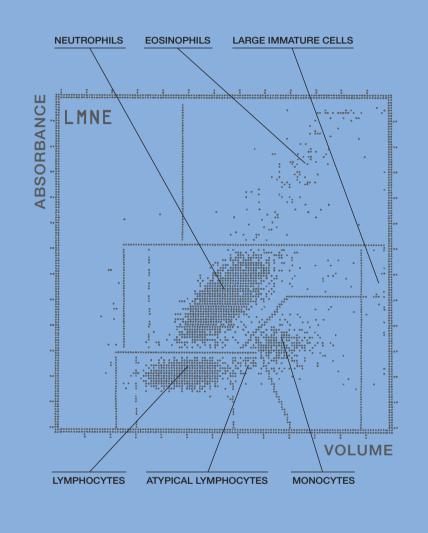
# SIMPLICITY QUALITY EFFICIENCY

- 26 Parameters fully automated hematology analyzer
- DHSS\* technology combining cytochemistry, focused flow impedance and light absorbance principles of measurement
- Full 5 part differential, including Atypical Lymphocytes (ALY) and Large Immature Cells (LIC)
- High resolution matrix
   + 3 programmable histograms
   for RBC, BASO and PLT
- 48 hours post-draw stability
- 60 samples/hour (CBC / CBC + 5 DIFF)
- Selectable CBC or CBC+5 DIFF analysis
- Only 53 µL sampling volume (5 DIFF) on primary tube (no predilution step)
- Multi Distribution Sampling System (MDSS\*)
- Optional Cyanide-free lysis

BEHIND ITS ELEGANT AND

\* HORIBA Medical patent

# Cytochemistry, Focused Flow Impedance and Light Absorbance: PENTRA 60 yields more data with increased accuracy.



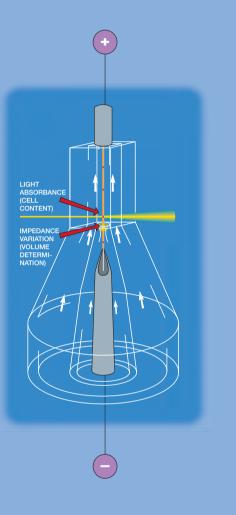
#### DHSS

#### "DOUBLE HYDRO DYNAMIC SEQUENTIAL SYSTEM"

DHSS is an ABX proprietary technology which allows for the measurement of the cell volume and for the analysis of the cell content in one unique flow cell.

DHSS offers exclusive advantages:

- A sequential system (timing device) is applied to the two measurements; the first passage of the cell through the aperture impedance system should be combined with the passage through the light beam in less than 200 microsecond time period. This timing prevents the counting of bubbles or static and will give a perfect leukocyte differential (ABX LMNE matrix).
- The DHSS technology guarantees optimum repeatability and post-draw stability of the analysis.





#### Quality: Accurate results and ease of use

- Only 30 μL (CBC mode) or 53 μL (CBC + 5 DIFF mode) sampling volume
- Alphanumeric or barcode patient identification
- Complete selective flagging
- Normal limits printed with patient results



#### Simplicity: Automatic and compact analyzer

- One button aspiration with

  probe wipe
- probe wipe12 or 26 parameters with
- histograms and matrices
  Automatic calibration
- One button auto/manual start up and shut down



#### Efficiency: Cost-effective hematology analyzer

- Only 4 on-board reagents

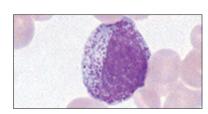
  (+ diluent)
- (+ diluent)Low reagent consumption
- Selectable CBC or CBC+5 DIFF analysis
- "Zero-maintenance" concept
- Highly cost effective analyzer



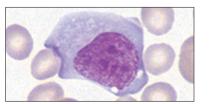
### Full 5 part differential WBC analysis

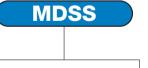
Each type of WBC is stabilized in its native form, the three measurement principals are sequentially applied:

- CYTOCHEMISTRY (Incubation with Eosinofix™).
- FOCUSED FLOW IMPEDANCE, to measure the volume.
- LIGHT ABSORBANCE, to analyze the cell content.



The high definition of the matrix allows the definition of 2 additional populations: Large Immature Cells (LIC), and Atypical Lymphocytes (ALY), in percentage and absolute count.





#### "MULTI DISTRIBUTION SAMPLING SYSTEM"



 Post-draw stability of more than 48 hours

• Only 53 μL of sampling volume (whole

blood) for a CBC+5 DIFF analysisPerfect mixing and homogenization

of the sample and the reagents
• Immediate CBC/CBC+5 DIFF selec-

tion with no rinsing cycle

 No shear-valve, no compressor, no maintenance

Following aspiration of  $30\,\mu\text{L}$  (CBC mode) or  $53\,\mu\text{L}$  (5DIFF mode) of whole blood through the sampling needle, blood is then split into appropriate aliquots in the specific chambers for dilution. The aliquots are injected in a tangential flow of pre-heated reagent, which mixes homogeneously the cell suspension and cleans, the sampling needle internally and externally.

