

Pentra XLR ●
Process efficiency in Hematology



Pentra XLR

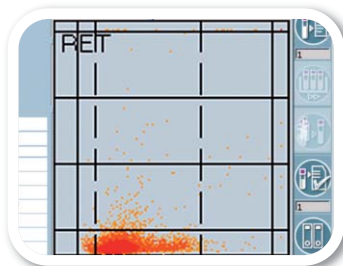
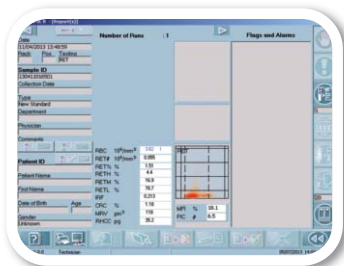
Compact and reliable hematology platform including reticulocytes by fluorescence

- 36 parameters
- 80 samples/hour
- Enhance productivity, quality, flexibility
- Increase your expertise in anaemia characterization
- Add value to your hematology lab



• More productivity

Facilitate diagnosis with full reticulocyte parameters



Save time and increase efficiency



Full synergy with HORIBA Medical high range solution : same reagent, same QC, same technology

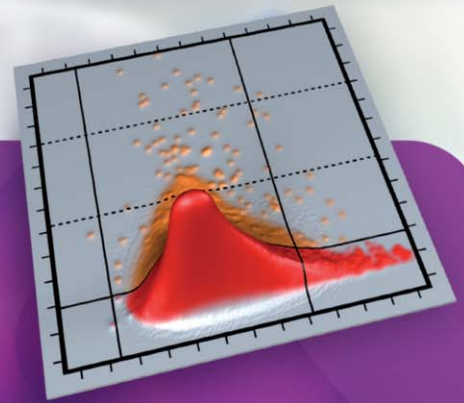
- RET# : Reticulocyte count (#).
- RET%: Reticulocyte percentage (%).
- RETH%*, RETM%*, RETL%*.
- IRF: Immature Reticulocyte Fraction.
- RHCc*: Reticulocyte Hemoglobin Cellular content (pg).
- MRV*: Mean Reticulocytes Volume (fl, μm^3).
- CRC%: Corrected Reticulocyte Count (%).

80 samples/hour instrument with large walk-away capacity

- Auto-loader with large capacity (100 tubes).
- Onboard view of reagent levels, test in progress and ratio of flagged samples.

Differential diagnosis of anaemia:

- Classification and monitoring of anaemia based on the Reticulocyte count, CRC and RDW-SD.
- Follow-up of iron-deficiency anaemia based on the MRV* and the RHCc*.
- Detection and monitoring of the erythropoietic response according to three stages of maturation: RET High*, RET Medium*, RET Low* and maturation parameters (IRF and MRV).



Erythroblasts



Reticulocytes



Red blood cells

• More quality

• More flexibility

Standardise lab processes and traceability



Easy to use platform and intuitive software

- Touch screen software.
- Direct access to interface by icons.
- Contextual toolbar and help online.



Auto-rerun and reflex with user settings

- Out of range results may be instantly confirmed with additional analyses.
- Fully programmable re-sampling according to haematology criteria, delta check, flags and limits.



Secured automatic validation

- Precise patient reports showing test results, demographics, graphs, flags, remarks.
- Data storage management (10 000 patient results) with export to USB key.

Advanced technology solutions to meet your lab's Quality needs

Optimize Quality Assurance

Traceability (1) and (2)

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



(1)



(2)

Quality control export to QCP (3)

- Comparison with pair labs in real time.
- QC result easily exported by USB (XML format).



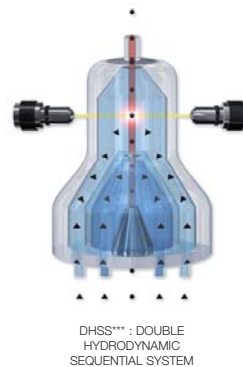
(3)

Benefit of proven technology

A concentration of technology

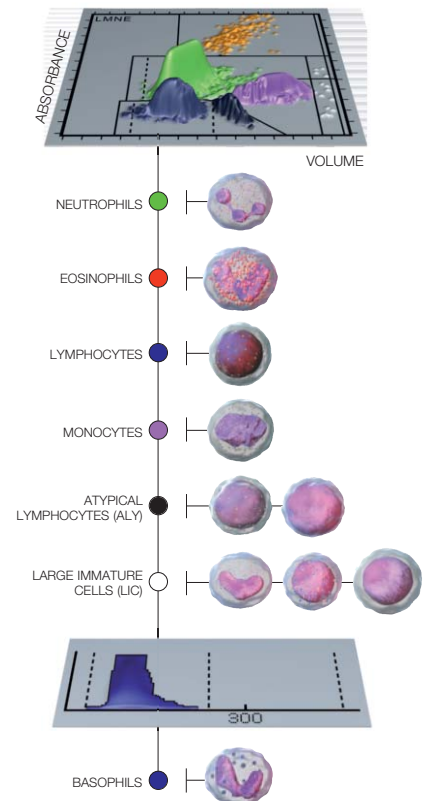
- 6 recognized measurement principles included on a single analyser.

Reference methods	CBC	DIFF	RET
Impedancemetry	○	○	○
Flow cytometry		○	○
Cytochemistry		○	
Fluorometry			○
MDSS***	○	○	○
DHSS***		○	○



DHSS*** - DOUBLE HYDRODYNAMIC SEQUENTIAL SYSTEM

Results

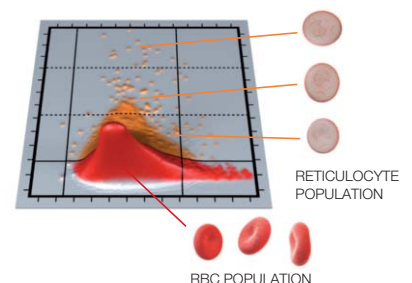


Extended linearity with CDR**

- Enables an automatic extension of linearity in case of out-of-range samples. Samples are automatically flagged, re-sampled, then diluted to generate a result within an extended linearity range.

Robust and reliable platform

- More than 1 000 Pentra XL 80 are currently successfully used throughout the world, they are particularly appreciated for their accuracy, their convenience and the efficiency of their results.



* RUO parameters (Research Use Only)

** CDR: Customized Dilution Ratio

***HORIBA Medical patents

Multi-faceted solutions to maximize your lab's Flexibility needs

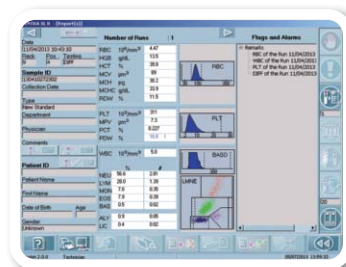
Space saving: Compact with integrated PC

Compact platform providing 36 parameters

- Continuous workload.
- Easy access to samples.
- Stat sampling on open and closed tubes.

Single screen to view all data

- 36 parameters.
- Histograms, colour matrix.
- Flags and remark.



Comprehensive settings options and secured validation

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.



Compatibility with ABX Pentra ML data management

- Complete patient hematology file.
- Standardisation of lab validation rules.
- Same expertise between core and satellite labs.



Operational efficiency

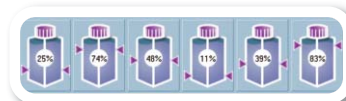
MDSS*** (Multi-Distribution Sampling System)

- Micro-sampling and complete homogenization of blood samples with reagents.
- Precise aliquot volumes.
- Only 35 µL in CBC mode and 53 µL in CBC+DIFF mode and 35 µL in RET mode.



Low reagent consumption

- Real-time status Overview.
- 10 or 20 L choice for diluent.



Pentra XLR

Haematology analyzer



PHYSICAL SPECIFICATIONS

Dimensions & Weight:

Height	Width	Depth	Weight
21.5 in	32.3 in	22.4 in	138 lb
54 cm	82 cm	57 cm	62.5 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
RET	35 µL

Power Requirements:

Power supply	from 100 V to 240 V (± 10%) 50 Hz to 60 Hz
Power consumption	Maximum 230 VA
Heat output	Maximum 670 Kj/h

Reagents:

Only 5 reagents
and 1 diluent :

ABX Diluent 10 or 20L
ABX Lysebio (cyanide free)
ABX Cleaner
ABX Eosinofix
ABX Basolyse II
ABX Fluocyte

PARAMETERS

CBC:

WBC RBC HGB HCT MCV MCH MCHC PLT MPV PCT* PDW*
RDW-CV RDW-SD

Differential Leukocytes:

NEU# & NEU% LYM# & LYM% MON# & MON% EOS# & EOS%
BAS# & BAS% ALY*# & ALY*% LIC*# & LIC*%

Reticulocytes:

RET% RET# RETH%* RETM%* RETL%* CRC% IRF% MRV* RHCC*

CERTIFICATION

98/79/EC (IVD)

cTUVus Mark

EN 61326-1

EN 61326-2-6

IEC 61000-3-2

IEC 61000-3-3

IEC 61010-1

IEC 61010-2-81

IEC 61010-2-101

UL 61010-1

CAN/CSA-C22.2 61010-1

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

PERFORMANCE DATA

Linearity:

Parameters	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 ⁶ /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
RET%	0 - 42			%
RET#	0 - 1.5			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 ⁶ /µL
HGB	< 1.0	12.0 - 18.0	g/dL
HCT	< 2.0	36 - 54	%
PLT	< 5.0	150 - 500	10 ³ /µL
RET%	< 12.0	0.5 - 3.0	%
RET#	< 20.0	0.02 - 0.10	10 ³ /µL
CRC	< 15.0	0.75 - 2.3	%

* RUO parameters (Research Use Only)

** CDR: Customized Dilution Ratio

HORIBA

Medical

FRANCE +33 (0)4 67 14 15 15 - 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 30 05 460 - USA +1 / 949 453 0500 - BRAZIL +55 / 11 2923-5439 - THAILAND +66 / 2 861 59 95 - CHINA +86 / 21 3222 1818
INDIA +91 / 11 4646 5000 - GERMANY AXON LAB AG +49 / 7153 92260 - DISTRIBUTORS NETWORK +33 (0)4 67 14 15 16

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Operating IMS

