

# REFER CBC3P

## 3 Part Auto Hematology Analyzer



# Product Features



## Reliable Results

- Multiple research parameters
- Accurate hardware
- High accuracy and precision
- Minimum sample consumption



## Easy Operation

- User friendly software
- Multiple external interfaces
- Real-Time display of reaction curve
- Up to 60 samples per hour



## Easy Maintenance

- Automatic and manual maintenance
- Multiple self-checking maintenance
- Modular-design structure
- Anti-blocking and blockage removal design

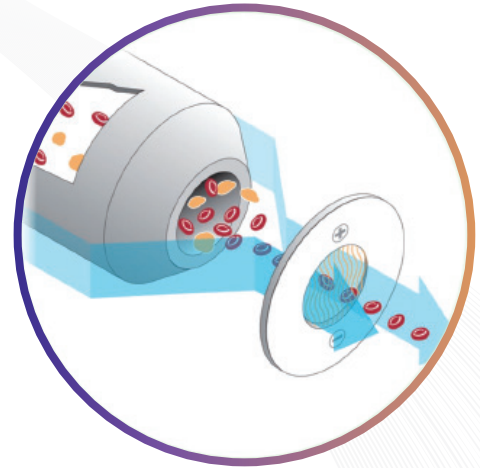


## Compact Design

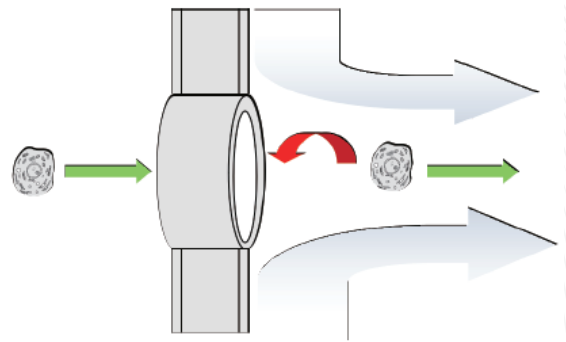
- Suitable for various detection sites
- Integrated design, no need for additional auxiliary instruments

# Flow Cytometry – Hydrodynamic Focusing

- The sheath flow impedance method is used to separate and align the particles in the sample. It works by surrounding the sample, with a fluid stream that directs the particles in a single file through the laser beam.
- This ensures that cells pass through the center of the small hole one by one, and each particle is measured individually and accurately, leading to more precise results.



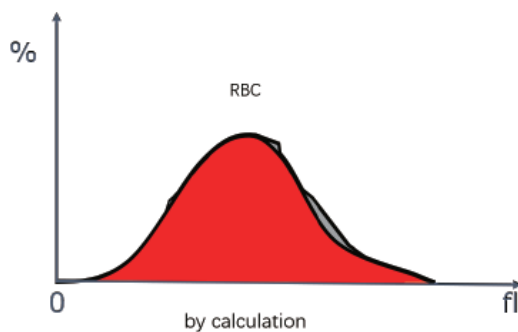
- Analyzer uses Coulter principle to detect number of Leukocyte, Erythrocytes and platelets as well as their volume distribution.
- Each blood cell passing through the gem hole generates a pulse signal.



## Software Algorithm – Intelligent and Accurate Results

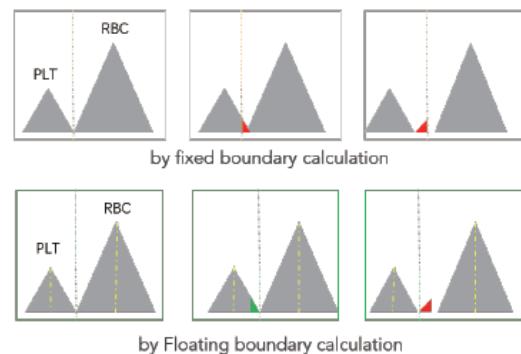
### Digital filtering algorithm

- Automatically identify interference signal, correct the symmetry of RBC histogram, therefore enhance the accuracy of RDW\MCV.



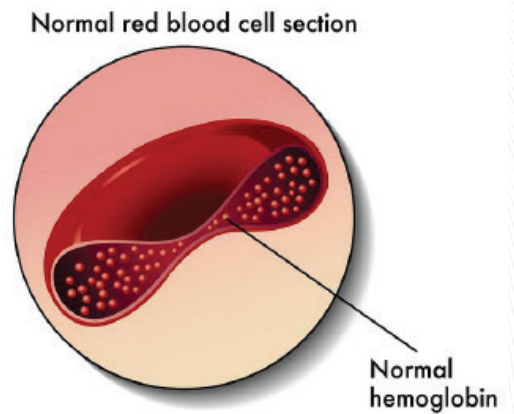
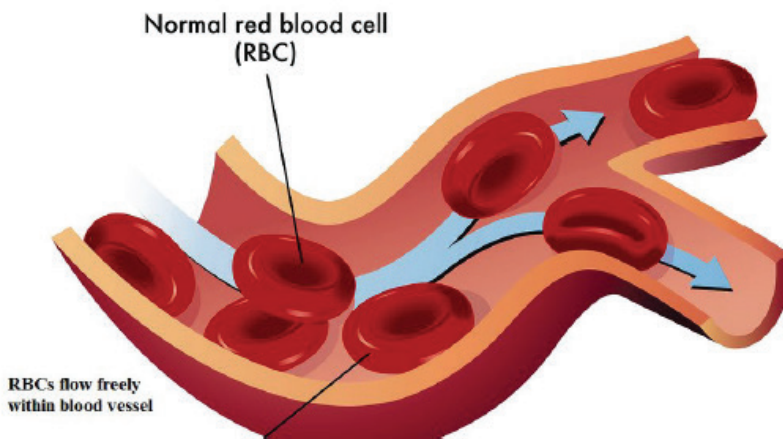
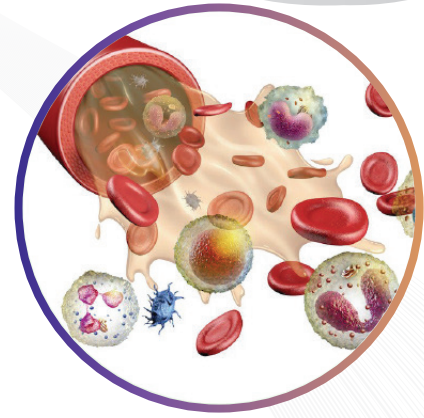
### Floating boundary technology

- A method that can identify the boundary between RBC and PLT flexibly, and excludes the interference of small red blood cells.



# Colorimetric Test – Hemoglobin Concentration

- Hemoglobin is the main component of red blood cells and serves as the transporter for oxygen and carbon dioxide in the blood. Hemoglobin concentration (Hb) is usually reported as grams of hemoglobin per deciliter of blood (g/dL).
- Colorimetric is used to measure hemoglobin concentration. Non-cyanide lyse reagent secures researchers' health.



## Test Parameters

22

Parameters

### WBC group (7)

WBC, Lym%, Lym#, Mid%, Mid#, Gran%, Gran#

### RBC group (8)

RBC, HGB, HCT, MCV, MCH, MCHC, RDW-SD, RDW-CV

### PLT group (7)

PLT, MPV, PDW-CV, PDW-SD, PCT, P-LCC, P-LCR

# Reliable Results

Parameter	Linearity Range	Repeatability	Carryover
WBC	$(1.0\sim 200)\times 10^9/L$	$\leq 2.5\%$ $(3.5\sim 15.0)\times 10^9/L$	$\leq 0.5\%$
RBC	$(0.00\sim 8.00)\times 10^{12}/L$	$\leq 1.5\%$ $(3.50\sim 6.00)\times 10^{12}/L$	$\leq 0.5\%$
HGB	20 g/L ~ 250g/L	$\leq 1.5\%$ (110 g /L~180g/L)	$\leq 0.6\%$
PLT	$(20\sim 5000)\times 10^9 /L$	$\leq 6.0\%$ $(100\sim 149)\times 10^9/L$ $\leq 4.0\%$ $(150\sim 500)\times 10^9/L$	$\leq 1.0\%$
MCV	-	$\leq 1.0\%$ (80fL ~ 110fL)	-

## Reliable Results

Parameter	Electric impedance, Colorimetry
Quality Control	X-B floating mean, L-J Quality control
Throughput	60 samples/h
Storage	600,000 test records
Sample Volume	9 $\mu$ L (Whole blood mode), 20 $\mu$ L (Pre-diluted mode)
Sample Type	Capillary whole blood, Venous whole blood, Pre-diluted blood
Calibration	Manual and Auto-calibration
Graphic Parameters	22 Parameters + 3 Histograms
Dimensions	280 mm (L) * 460 mm (W) * 400 mm (H)
Weight	18.0 KG
Hematology Reagents	Diluent, Lyse, Probe cleaner

Manufactured By :

**REFERENCE BIO SOLUTIONS PRIVATE LIMITED**

#3-8-273, Plot No. 1A, Road No. 2B, Chandrapuri Colony, L B Nagar, Hyderabad-500074.

☎ 040-35831195 / 8977922917 / 9676388399

✉ info@referencebio.com | 🌐 www.referencebio.com

**RBS**  
REFERENCE BIO SOLUTIONS  
Reference to Novel Diagnostics