



CELL-DYN Emerald 22

The Information You Need
The Size You Want

CHOOSE TRANSFORMATION

Packed with Results

FULL PERFORMANCE SOLUTION FOR SMALLER LABORATORIES

COMPACT DESIGN

Conserving valuable laboratory workspace with a small footprint and only 2 reagents plus on-board cleaner

EASE OF USE

- Decreasing manual entry errors and increasing compliance by use of barcoded reagents
- Reducing hands-on time with touch-free scheduled daily maintenance, startup and shutdown

FLEXIBLE USER INTERFACE

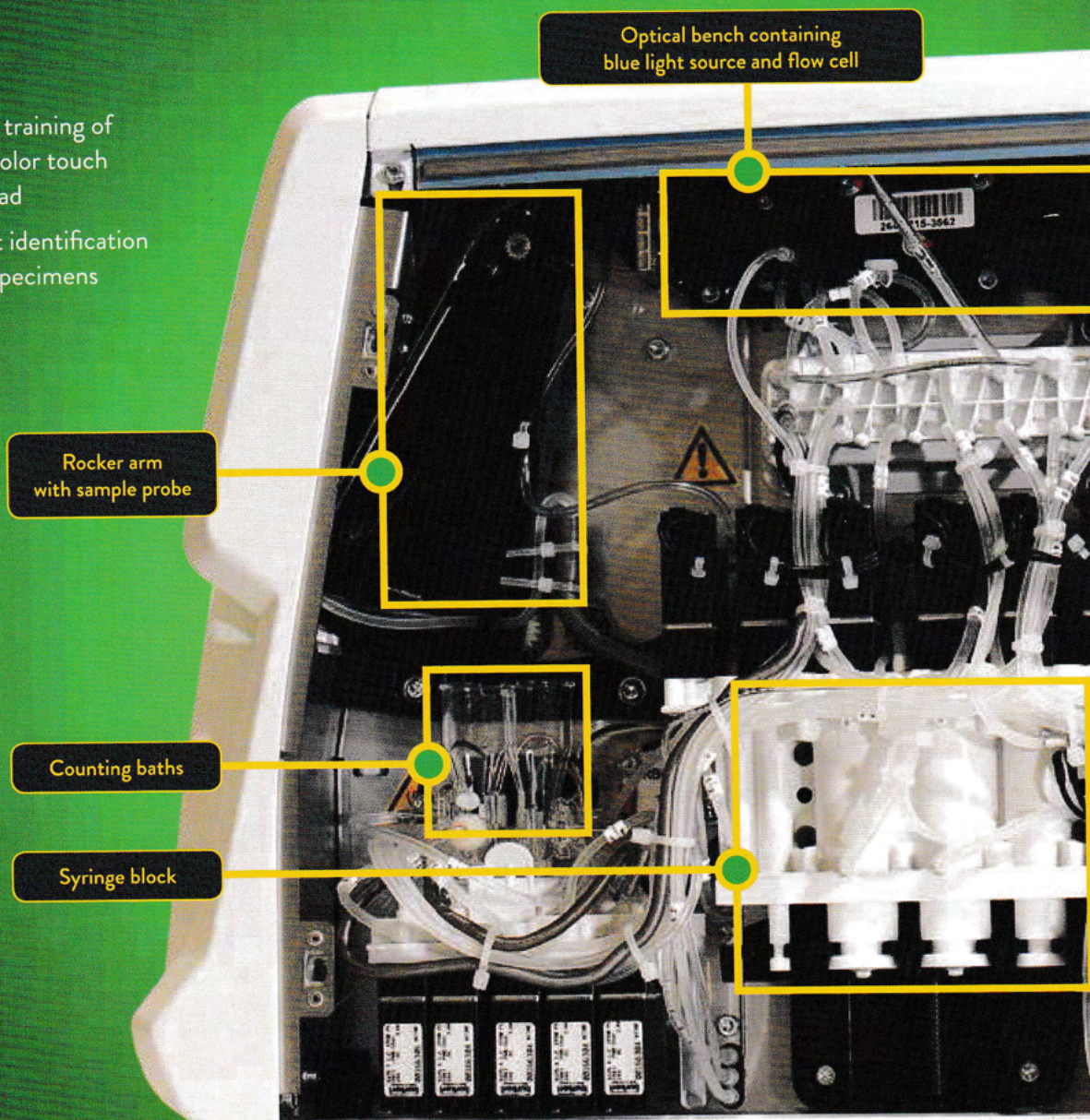
- Improving use and easing training of software functions with color touch screen and numeric keypad
- Providing positive patient identification with barcode reader for specimens

RELIABILITY

Helping you keep your commitments

OPTICAL 5-PART DIFFERENTIAL

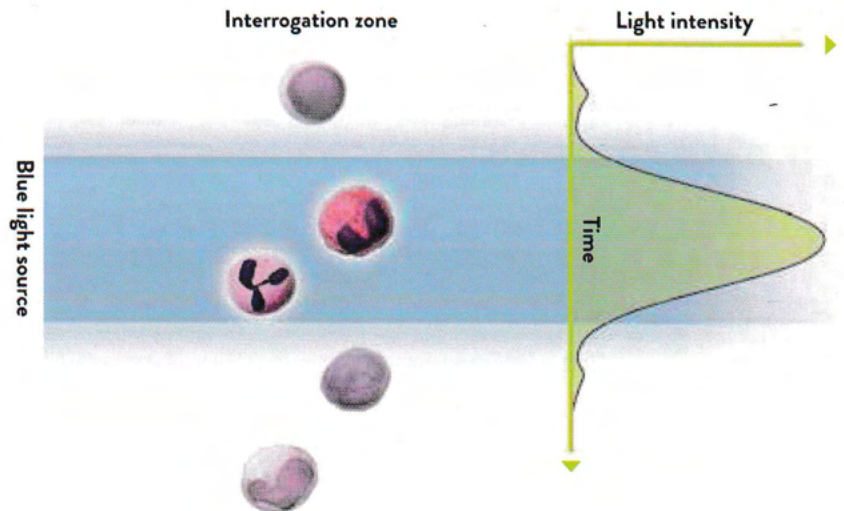
Delivering comprehensive results for your doctors and patients



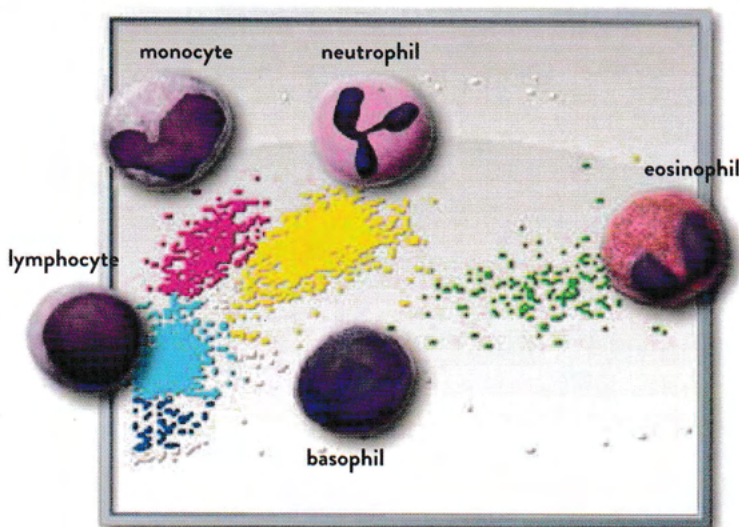
True Optical 5-Part Differential System

CELL-DYN Emerald 22 uses UNI-FLOW technology, which includes a cyanide- and formaldehyde-free Lyse, flow cell, and optical bench. The Lyse destroys the red blood cell stroma and stabilizes the white blood cells, while it creates a chromagen for hemoglobin measurement using the same dilution.

For each cell entering the optical detection area in the interrogation zone, two pulses are generated – Axial Light Loss and Forward Side Scatter measurement. The five-part differential is obtained by scattergram analysis after action of the Lyse, with no dyes, stains, or special channel measurements.



Enhanced Scattering Efficiency



The cluster separation is enhanced with the low wavelength (455 nm) blue solid state LED. This wavelength enhances differentiation of intracellular contents, improving the identification and separation of eosinophils and monocytes from neutrophils.

The unique flow cell design, enhanced LED light source, and simple optical bench provide a true five-part differential in a small, easy-to-use, and reliable analyzer.

CELL-DYN
Emerald 22

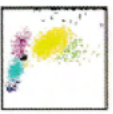
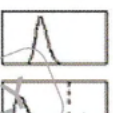
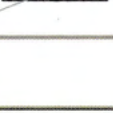
CELL-DYN Emerald 22 Specifications

PATIENT REPORT EXAMPLE

ABBOTT DIAGNOSTIC EMERALD 22			
Name :		Patient ID :	
Comments :		Sample ID :	
		Type :	
Operator ID : E22.135		Date : 07-05-2009 01:03:03PM Seq : 00009	
Result	Flags	Unit	Expected values
WBC 0.1		10 ³ /µL	4.0 / 12.0
NEUT% 53.0		%	50.0 / 80.0
LYM% 36.1		%	15.0 / 50.0
MON% 6.3		%	2.0 / 10.0
EOS% 3.1		%	0.0 / 5.0
BAS% 0.7		%	0.0 / 2.0
NEU 4.4		10 ³ /µL	2.0 / 6.0
LYM 3.9		10 ³ /µL	1.0 / 5.0
MON 0.6		10 ³ /µL	0.1 / 1.0
EOS 0.3		10 ³ /µL	0.0 / 0.4
BAS 0.1		10 ³ /µL	0.0 / 0.2
RBC 4.94		10 ⁶ /µL	4.00 / 6.20
HGB 16.0		g/dL	11.0 / 17.0
HCT 48.7		%	38.0 / 58.0
MCV 90.5		fL	90.0 / 100.0
MCH 32.0		pg	26.0 / 34.0
MCHC 35.4		g/dL	31.0 / 38.0
RDW 13.2		%	10.0 / 15.0
PLT 231		10 ³ /µL	150 / 400
MPV 0.3		fL	7.0 / 11.0

Flags:

Comments:

PARAMETERS

White Cells	Red Cells	Platelets
WBC	RBC	PLT
NEUT # %	HGB	MPV
LYM # %	HCT	
MONO # %	MCV	
EOS # %	MCH	
BASO # %	MCHC	
	RDW	

CELL-DYN EMERALD 22 REAGENTS

Reagent Description	List Number
CELL-DYN Emerald 22 Easy Cleaner	09H60-01
CELL-DYN Emerald 22 Lyse	09H61-01
CELL-DYN Emerald 22 Diluent	09H62-01

CELL-DYN EMERALD 22 CONTROLS AND CALIBRATORS

Calibrator/Control	List Number
CELL-DYN 22 Plus Calibrator	09H73-01
CELL-DYN 22 Plus Control Full-Pack (12 tubes)	09H72-01
CELL-DYN 22 Plus Control Half Pack (6 tubes)	09H72-02

TECHNOLOGY & OPTICAL METHODS

- Optical Flow Cytometry technology
- Electrical impedance
- Absorption spectrophotometry
- Electronic valves
- Cyanide-free lyse reagent
- LCD color touch screen
- RS232 and TCP/IP LIS interface
- USB ports

THROUGHPUT

- 45 samples per hour

SAMPLE SIZE

- ~ 28µL

SPECIMEN DATA MANAGEMENT

- Search by date or sequence number
- Flagging for patient limit sets
- Flagging for panic values
- 1,000 records with histograms on internal memory
- Up to 300,000 records USB external data storage
- Programmable patient limits
- Programmable report units
- Standard barcode reader (reads code 128, code 39, and interleaved 2 of 5)

QUALITY CONTROL

- 6 control files
- 100 runs per file
- Levey-Jennings graphs
- Upload/download control information

DEMOGRAPHICS

- Sequence number
- Alphanumeric specimen ID
- Date and time analyzed
- Patient name
- CBC with or without 5-part WBC differential
- Flagging and alerts

DISPERSIONAL DATA ALERT

- Operator-defined patient limits for high and panic values
- System-defined limits for reportable range and analytical measurement range
- Suspect parameter flags caused by interfering substances or sample abnormalities
- Suspect parameter flags generated when WBC data indicates possible presence of an abnormal population

STANDARDS & SAFETY COMPLIANCE

- UL 61010-1
- CAN/CSA-C22.2 No. 61010-1
- IEC 61010-1
- IEC 61326-1
- IEC 61326-2-6
- FCC part.15
- CE Mark
- ETL Mark

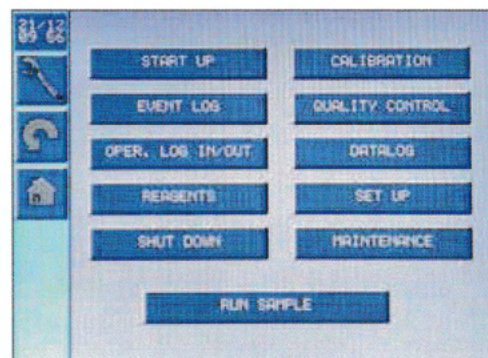
PERIPHERAL DEVICES

- Inkjet printer
- USB thumb drive
- Handheld barcode scanner

PHYSICAL DIMENSIONS

- Height 13.8" (35cm)
- Width 9.8" (25cm)
- Depth 13.8" (35cm)
- Weight ~ 24.2lbs (11kg) (without on-board reagents)

MAIN MENU



See Operations Manual for warnings, precautions, and limitations for proper use of the instrument.

Intended Use: The CELL-DYN Emerald 22 System is a quantitative multi-parameter automated hematology analyzer designed for in-vitro diagnostic use in clinical laboratories for the following parameters: WBC, LYM%, LYM #, MON%, MON #, NEU%, NEU #, EOS%, EOS #, BAS%, BAS #, RBC, HCT, MCV, RDW, HGB, MCH, MCHC, PLT, MPV in K2 EDTA anti-coagulated blood.

The CELL-DYN Emerald 22 is indicated for use to identify patients with hematology parameters within and outside of established reference ranges.

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