

UNICORN 100⁺



VECTOR

Random Access Clinical Chemistry Analyzer



With
System Packs



- Fully Automatic, Discrete, Random Access Clinical Chemistry Analyzer
- Continuous STAT sampling and Open system
- Compact customize design with 6 – Stop on board Laundry Mechanism
- Throughput up to 100 photometric test/hour without ISE
- 50 special plastic cuvettes, Available optional quartz cuvettes
- High speed digital transmit with Fully Sealed Matrix Spectrophotometer System (FMSS)
- On board refrigeration of reagents and sample compartment
- Available - Ready to use System Packs

TOLL FREE
1800-270-1027



www.vectorbiotekindia.com

Reaction System and Laundry Mechanism

- 50 Semi permanent rigid UV Plastic cuvettes ensures better light transmittance
- 5 – position low volume multicell cuvette design ensures system is economical to use
- Automated onboard 6 - Stop Laundry with Detergent to ensure precise wash of cuvettes
- Metal Thermostate incubator ensures stable temperature
- Auto water blank test to know individual cuvette status



Sample and Reagent Unit

- Mute water cooling design
- Maintain on board refrigeration (4-12°C) of reagent compartment to ensure of reagent long stability
- 40 reagent positions which is highest in this range of analyzers. Also available 5 virtual disks ensures widest test menu.
- Open reagent system and available system packs with 30 mL and 15 mL attractive bottle design
- On board capacity of 40 sample positions with STAT priority, positions are compatible with Test tube, Vacutainer, Sample cup and nano tube
- Detachable reagent and sample tray

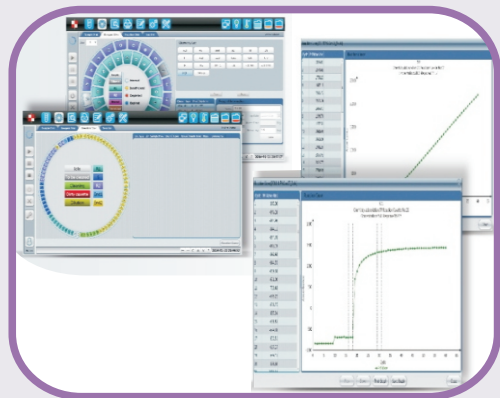
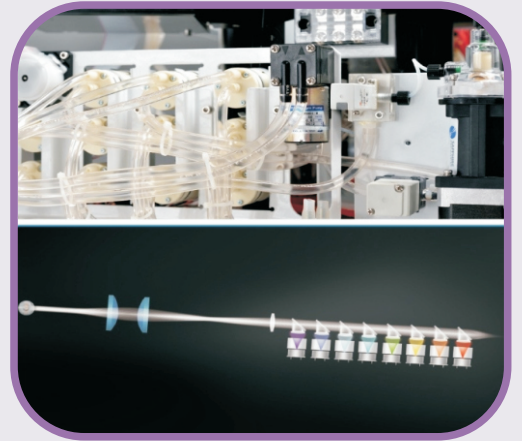
Loading unloading Mechanism

- High glossy nano material sample/ reagent which reduces adherence of any particle Liquid level detection
- Sample/reagent probes being protected from collision vertical and Horizontal
- Auto clotting removal by internal and external wash precised and accurate sample and reagent aspiration due to high accuracy ceramic syringe with the step of 0.1µl
- Unique dual vortex mixing, multiple washing steps with washing solution and automatic sample/reagent probe washing gives a complete assurance of anti contamination design.



Optical and Fluidic Unit

- High quality UV Halogen Tungsten lamp ensures 2000 hrs life
- New FMSS (Full – Sealed matrix spectrometric system) optical design for higher speed and spot photometry
- Bi chromatic testing to avoid interferences
- Increases longevity of Lamp, peltier by mute water based cooling
- Unique De-bubbling unit which reduces the bubbles in fluidic system
- Branded components like IWAKI pump, SMC valve, IDEX Ceramic syringe, THOMAS peristaltic pump, TYGON tubes, which makes remarkable performance of the fluidic system



User Friendly Software

- Iconic operation menu
- Automatic Recovery after collision protection, empty position and vacuum detection
- Reagent parameter loading by file, panel for reagent request
- Customize printing formats, calibration, QC and sample results
- Automated features for Dilution (Pre and Post), rerun
- HL7 Bi – LIS interface for speedy fetching of data
- Real time Identification of system working status
- Real time monitoring of reagent/sample tray, reaction tray and residual volume
- Tracking of every procedural step

Perfect Calibration and Control Program

- Multiple calibration modes
- More than 6 different level of calibrators can be programmed
- Powerful statistics and analysis system for daily QC
- QC plot: Westgard multirule, cumulative sum check, Twin plot



System Packs – VECSYS

- A Complete range of biochemistry reagent system packs
- Quality and Economical with ergonomic design of bottles
- Available reagents :
ALP, Albumin, Amylase, Bilirubin, Cholesterol, Creatinine, Glucose, Calcium, HDL-D, LDL-D, Lipase, Phosphorus, SGPT, SGOT, Triglycerides, Total Protein, Urea – UV, & Uric Acid.

TECHNICAL SPECIFICATIONS

System Function

Category : Random Access fully automatic chemistry analyzer
Through put : 100 tests/hour without ISE
Methodology : End point, Fixed point, Kinetic
Reagent : Open System
Reagent Position : 40
Sample Position: 40
Minimum reaction Volume: 160 μ L
Carryover : $\leq 0.005\%$
Water Consumption: 4.5 L/hour
Maximum Reaction Volume: 450 μ L
Principle : Colorimetric, Turbidimetric, Absorbance, ISE (optional)
Test Mode : Regular Mode Single & Double reagent,
Fast Mode for End point chemistry
Sample Mode : Random Access, STAT sample priority
Programming : Open system user defined chemistry, profile and calculation chemistry

Sample Reagent Mixing Probe

Sample Volume : 2-50 μ L, step by 0.1 μ L
Sample Disc : 40 position
Sample/Reagent probe : One probe for sample and reagent with liquid level detection, vertical and horizontal collision protection and reagent residual monitoring
Sample Tube : Regular sample tube (13x100 mm, 13x75 mm, 12x100 mm, 12x75 mm), vacuum tube, eppendorf tube, plastic tube etc.
Reagent Volume : R1: 150-450 μ L, R2:10-300 μ L, step by 0.1 μ L
Reagent Disc : 40 reagent positions, 24 hours water cooling (4-12°C)
Reagent Bottles : 30 mL and 15 mL
Mixing Bar : Dual Vortex mixer, High-polished nano material
Auto Dilution : Pre and Post dilution with increase and decrease in volume

REACTION DISC

Reaction Cuvettes : 50 cuvettes, semi permeable rigid UV special plastic cuvettes
Reaction Temperature : $37 \pm 0.1^\circ \text{C}$
Heating : Metal Thermalstat for reaction position

OPTICAL SYSTEM

Lamp : Halogen Tungsten Lamp, 12 V, 20 W, ≥ 2000 hours, water cycle cooling system
Filter : FMSS (Full-sealed matrix spectrometric system)
Wavelength : 340-670 nm, 8 wavelength, 800 nm optional
Resolution : 0.0001 Abs
Linear Range : 0-3.5 Abs
Accurate : 0.5 A: $\leq \pm 0.02$ Abs, 1.0 A: $\leq \pm 0.04$ Abs
Stray light : ≥ 4.5
Stability : < 0.01 Abs/Hour
CV : $< 1.5\%$
Half band accurate : $\leq \pm 2$ nm
Detector : Photodiode detector array

CALIBRATION AND QC

Calibration mode : One point linear, two point linear, multi point linear, Logit-4P, Logit-5P, Spline, exponential, Polynomial
Calibration Curve : Calibration curve auto check, auto curve fitting
QC rule : Westgard multi rule, cumulative sum check, Twin plot
QC curve : Westgard multi rule, cumulative sum check, Twin plot
Out of control : Automatic warning for items out of control, data automatic record, automatic analysis

SOFTWARE

Operating System : Win7
Data storage : Computer and hard disc memory
LIS interface : Bi-LIS interface
Print mode : Multi default formats, self defines formats
System Monitor : Real time monitoring of Sample Disc, Reagent Disc, Reaction Disc, QC status, Reaction cuvettes system, Lamp and temperature, reagent volume, Reaction curve and QC curve. Linear range limitation, Substrate exhaustion judgement and prozone detecting. Abnormal status warning.
Other Function : User permission administration, test panel function, calculated/manual parameter programming, avoid cross contamination function, sample and reagent blank auto calculation, automatic fault recover, automatic print, data statistic

OTHERS

Computer hardware requirement : CPU 2.5 GHz, Memory 2 GB, Hard Disc 500 GB, Monitor wide screen 19 inch
PC interface : RS-232C
Dimension : 720 (L) x 450 (D) x 550 (H)
Power Supply : AC 100-240 V, 50/60Hz ± 1 Hz, ≤ 350 VA
Net Weight : 60 Kgs
Optional parts : Reagent/sample barcode reader, water purification modular, PC, HP laser printer

* Product specifications are subject to change without prior notice.



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