Service Beyond Your Imagination





VEC-300[†]

Fully Auto Random Access Biochemistry Analyzer

With System Packs



SALIENT FEATURES

- Fully Automated Random Access Clinical Chemistry Analyzer
- Throughput 300 photometric test/hr and 450 test/hr with ISE (Optional)
- Onboard 8 stop 14 steps laundry mechanism
- Two separate probes for reagents and sample
- Maintenance free Ceramic piston syringes for sample and reagent
- 40 reagent positions and 60 sample positions
- Online real time monitoring of reaction curve
- Liquid level detection through capacitance
- Online inventory management system





Laundry Mechanism & Reaction System

- 8 stop 14 Steps automatic washing of reaction cuvettes
- 2 step dryer to dry the reaction cuvettes
- Each cuvette washes with alkaline detergent and high pressure warm water
- Vacuum draining to ensure the precise washing of cuvettes
- Check water blank of cuvettes with all filters to ensure the accuracy of result
- Auto escalates facility if cuvette blank absorbence is high
- High quality UV passed pyruve material cuvettes
- Individuals cuvettes can be replaced

Reagent and Sample Disk

- 40 Reagent position compatible with 45ml & 18 ml reagent bottles type
- 60 sample position STAT on priority compatible with test tube, vacutainer, sample cup and nano tube etc.
- Onboard refrigeration of reagent and sample disk to ensure reagent and longer QC and calibration stability
- All sample positions are flexible for STAT, QC and calibrator
- Low dead volume adjustments





Reagent and Sample Mechanism

- Separate probes for reagent and sample
- Probe polished with nano processing technology to reduce cross contamination
- Capacitance liquid level sensing technology to detect accurate liquid level
- 2 separate maintenance free long life ceramic piston syringe for sample and reagent which precise sample of reagent/sample
- Liquid level detection and collision protection





Ceramic Syringe



- Maintenance free long life ceramic piston syringe with precision of 0.1 steps
- High grade air displacement syringe to ensure precise sampling of reagent / sample
- Made from high grade acrylic material with trouble free operation
- Breakage, crack and leakage proof
- Life spans more than 10 million

Calibration & QC Function

- Multipoint calibration mode, linear and non linear with flexible calibration method
- 9 types of calibration method can be programmed with 3 different level of Q.C
- Real time daily Q.C function to ensure the system is working at best analysis conditions
- Westgard multi Q.C program can be defined at different level of control
- QC plot: westgard multi rule, Cumulative sum check, Twin plot

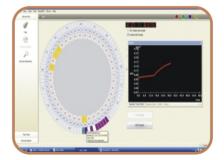


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Real Time Monitoring

- Real time monitoring of reaction curve of individual cuvettes
- Real time monitoring of calibration and quality control
- Real time monitoring reagent/ sample status and residual volume
- Real time monitoring Lamp intensity, distilled water tank and waste tank status
- Real time monitoring of Reaction disk temprature etc.



VECSYS

- A complete range of biochemistry reagent system
- Fully compatible with all biochemistry analyzers
- Highly economic and affordable with superior quality
- Highly stable ready to use reagents with long shelf life
 (ALP, Albumin, Amylase, ADA, Bilirubin, Cholesterol, Creatinine,
 Creatinine (Enz.), Calcium, CK-MB, CK-Nac, Glucose, GGT, HbA1c,
 HDL-D, LDL-D, Lipase, LDH, Phosphorus, SGPT, SGOT, Triglycerides,
 Total Protein, Urea-UV & Uric Acid



TECHNICAL SPECIFICATION

System Function

System Type : Automated, Discrete, Random Access Clinical Chemistry Analyzer with STAT Priority

Measuring Principles : Absorbance, Photometry and Turbidimetry.

Analysis Mode : End Point, Initial Rate, Kinetic with single/double reagent chemistry.

Onboard Parameter : 40 Photometry items and 3 ISE (Optional)

Sample/Reagent Mechanism

Sample Probe : Nano polished separate sample probe
Reagent Probe : Nano polished separate Reagent probe
Mixer Probe : Nano polished Separate Mixer probe

Sample Position : 60 Flexible sample, calibrator, Q.C. position including STAT on priority

Sample Container : Regular sample tube, sample cup and vacuum tube etc

Sample Volume : 1-100 μl with step of 0.1 μl

Sampling Technology : Liquid level detection and collision detection

Probe Cleaning : Automatic cleaning of warm water internally and externally with high pressure jet wash

Onboard Laundry Mechanism

Reaction Cuvettes : 90 optical Pyruve material cuvettes

Wash Station : 8 stop 14 steps washing with alkaline detergent and warm water

Dryer : 2 steps Dryer

Minimum reading Volume : $200 \mu l$ Recommended Reading volume : $300 \mu l$

Reaction time Setting : Random setting with 3-16 minutes

Reaction Temperature : $37^{\circ}\text{C} \pm 0.1^{\circ}\text{C}$ Reaction Disk constant Temperature : By heating coil

Optical System

Light Source : 20w, 12v halogen lamp (life more than 3000 hrs)

Monochromator : High quality filter based optics system

Wavelength : 12 wavelengths 340, 376,405, 415, 450, 510, 546, 578, 620, 670,

750, 800nm

Detector : Photoelectric LED array

Absorbance Range : 0 - 3 Abs

Calibration & Control System

Calibration Mode : Linear, non linear, one point, two point, multipoint and K factor

Q.C Rule Curve : Westgard multi rule, day to day Q.CQ.C Alarm : Auto warning for out of control results

Operating System (Optional)

PC Configuration : CPU ≥ 2.2 Ghz, RAM ≥ 1 GB Hard disk ≥ 160 GB, Color Display (Monitor)

Inkjet or Laser Printer (optional)

PC Operating System : Window XP and Window 7

System Connection : RS 232, 2 serial ports (1 for Analyzer and 1 for Host)

Working Conditions

Room Temperature : 25°C - 30°C

Relative Humidity : 85%

Dimension : 85cm X 72cm X 53cm

Weight : 90 kg





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