



FULLY AUTOMATIC BIOCHEMISTRY ANALYZER



Quality, Management, Environment, Health & Safety Standards



CDSCO MD 5 License



USFDA Listed



European CE



ISO 9001: 2015
IAF



ISO 13485:2016
NABCB/IAF



ISO 45001 : 2018
IAF



7 Electric Safety
Certifications

INTRODUCTION

The **MarkEn** Fully Automatic Biochemistry Analyzer is a high-performance, intelligently automated system tailored for modern clinical laboratories. With random access, patient-prioritized diagnostics, and STAT capability, it ensures fast, accurate, and uninterrupted workflow for both routine and emergency testing. Designed for high throughput and scalable operation, the analyzer supports photometric assays and optional ISE testing, combining advanced sample handling, programmable test profiling, and integrated waste management into one comprehensive platform.



SALIENT FEATURES:

- **High Throughput:** Performs up to 200 photometric tests per hour for efficient workflow.
- **Automation Ready:** Fully random access, patient-prioritized, discrete, with programmable profiling.
- **Sample Versatility:** Accepts Minimum 10 STAT samples, blanks, calibrators, ISE solutions, and controls on the same disk.
- **Advanced Reagent Cooling:** Peltier-cooled reagent tray with >30 positions.
- **Integrated Waste Management:** Provision to handle biohazardous waste and detect vertical obstructions.
- **Dedicated Laundry System:** Integrated DI-water cuvette washing system to minimize carryover and contamination, ensuring a clean and reusable testing environment.
- **Flexible Sample Handling:** 30-position removable tray with programmable virtual sample disks; supports primary tubes (13 x 100 mm), 0.5–1.5 ml cups (with holder), and pediatric adapter, Autoloader with sample track (≥35–50 samples, continuous loading); accepts STAT, blanks, controls, standards, and ISE solutions.
- **Advanced Optical System:** Long-life halogen lamp with 8–9 selectable wavelengths (340–750 nm), dark-read capability, >1000-hour lifespan; operates at 1000 VA

ACCESSORIES

- Sample racks
- Reagent starter set
- Cuvette washing utilities

TECHNICAL SPECIFICATION

Make	MarkEn
System Type	Fully automated, random-access biochemistry analyzer
Analyzer Type	Bench-top
Operating Mode	Discrete, random access, STAT mode capable
Sample Type	Plasma
Assay Types	Kinetic, Turbidimetric & Bi-chromatic assays
Sample Capacity	≥35–50 samples per load; 1000 sample cups supplied
Throughput	≥200 photometric tests/hour (with or without ISE module)
Parameters	Glucose, Urea, Creatinine, Uric Acid, Total Protein, Albumin, Bilirubin, AST, ALT, ALP, GGT, Cholesterol, Triglycerides, HDL, Direct Bilirubin, LDH, Lipase, Amylase, CK/CK-MB, HbA1C and more
Sample Pipetting	pipetting range 2–65 µl with 0.1 µl increments and 70 µl for ISE.
Test Types	Calculated, direct tests, profile tests, and derived analyses
Onboard Test Parameters	40 test parameters at a time
Probe Range & System	2–25 µL per sample ; Separate reagent & sample probes with liquid-level, foam, bubble & clot detection
Sample Tube Compatibility	Supports racks, micro/primary/sample tubes & 5 mL evacuated tubes; processes low-volume samples ≤500 µL
Column Conditions	Operates at ambient temperature (20–30°C); no temperature optimization required
Reagent System	30 reagent positions; creatinine reagent included
Reagent Management	Refrigerated storage, volume display, traceable handling
Alarms & Alerts	Audio-visual alerts for errors, abnormal results, system fault, temperature issues
Inventory Monitoring	Real-time reagent & pressure monitoring with degassed buffer delivery
UI & Output	Touchscreen workflow + PC & laser printer
Waste Handling	Biohazard waste collection via separate container
Level Detection	Vertical obstruction sensing and capacitance-based liquid level detection
Data Storage	≥10,000 results
Cuvette Washing	Automated onboard cuvette washing system
Accuracy & Precision	CV: <3%. Interference: none from HbF ≤30% or other Hb derivatives. Detection: HbD, HbE, HbS, HbC (heterozygous).
Spectral Range	340–700 nm
Photometric Range	2 absorbance units
Calibration	Linear (one-, two-, multi-point), exponential, logit-log, spline & non-linear curve types
Incubation & Mixing System	Controlled incubation, efficient mixing, anti-carryover & precision pipetting
Worklist & Batch Processing	Customizable worklist and batch programming
Dilution	Ratio: 2–150x for sample and calibrator; reflex testing facility
System Diagnostics	Built-in self-diagnostic tests with error messages and online display.
Data Management	Full data backup, calibration control backup, patient result storage, graphical data review
Connectivity & Software	LAN-enabled; multi-format export; bi-directional LIS; Windows-based UI.
Water System	System compatible with external purified water sources (Millipore, Elga, Sartorius, etc.)
Power Backup	Online UPS; up to 2-hour backup.
Power Supply	220V, 50 Hz AC

ALL-IN-ONE SOLUTION FOR

Cold Chain Solution
Medical Equipment
Blood Bank Equipment

Hospital & Scientific Equipment
Hospital Furniture & Infrastructure
Commercial Refrigeration



25+

Years of Excellence



400+

Product Range



500+

Service center



1000+

Committed Engineers



1,00,000+

Satisfied Users

CERTIFICATION



9 products tested by a WHO-accredited laboratory



ISO 14001: IAF



WHO GMP



BIFMA Certified,
BIFMA Level 3



ASTM- Corrosion
Free Products



ISO 2409



& MANY OTHER...

OUR ESTEEMED CUSTOMERS



& MANY MORE...



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