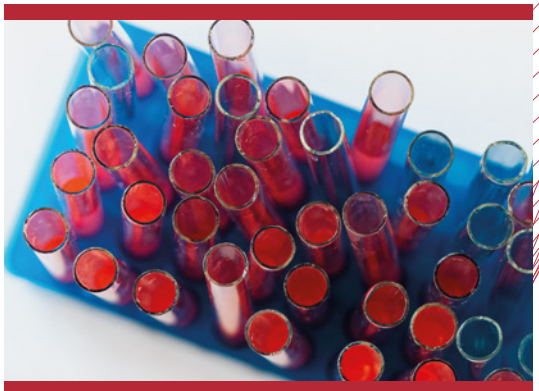
AMS Alliance

a KPM ANALYTICS brand

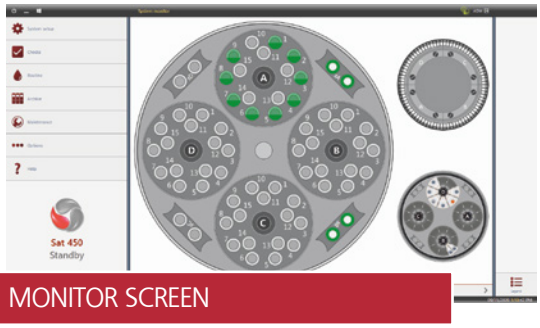


SAT 450

THE NEW GENERATION OF COMPACT RANDOM ACCESS ANALYZER

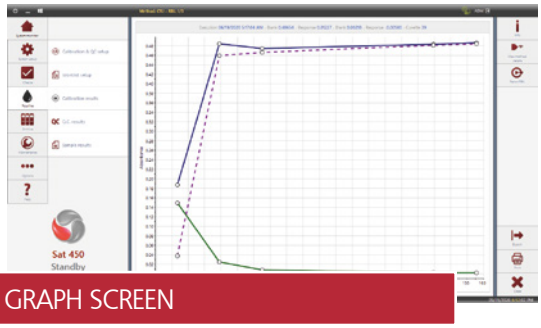
The SAT 450 is a fully automatic, random access analyzer, designed to support the modern laboratory in achieving improved cost efficiency, reduced rerun and manual handling. It provides quality results while following rigid quality system procedures and in strict compliance with regulatory agency requirements.

SIMPLICITY & TECHNOLOGY



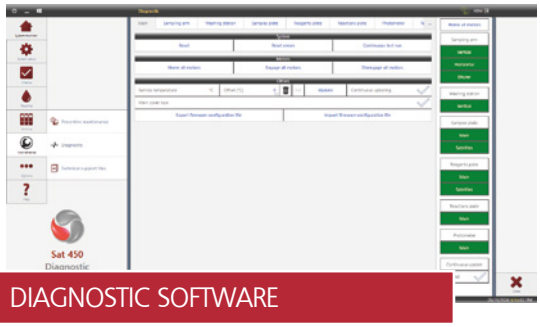
MONITOR SCREEN

- real time presentation of samples and reagents status;
- dynamic monitoring of test execution;
- analyzer detailed status with error messages, incubation temperature control, START, STOP, and PAUSE functions.



GRAPH SCREEN

- display of test reaction curves;
- display of test calibration curves;
- Levy-Jennings and Youden QC statistic.



DIAGNOSTIC SOFTWARE

- each instrument part can be singularly tested;
- remote diagnostic capability.

The SAT 450 operating software runs under multitasking Windows®.
Its bright touchscreen software simplifies routine work and offers the operator a concise guide through the operating functions.

METHODOLOGY PROGRAMMING

- all parameters are completely user programmable up to 999 methods can be memorized and all settings are user programmable;
- user selectable pre-dilution and re-dilution ratio, samples re-run option and reflex test;

AUTOMATIC DETECTION

- end point limit
- substrate depletion
- fixed time and kinetic reaction linearity

MORE FEATURES

- multilanguage files (user programmable)
- bi-directional communication compliant with ASTM and CLSI standard
- automatic transmission of patients data and results through serial port or Ethernet
- reagents data traceability and management
- westgard rules management
- sampling order with Priority management
- possibility to compare current calibration with any previous calibration
- preventive maintenance management
- automatic startup and automatic shutdown procedures

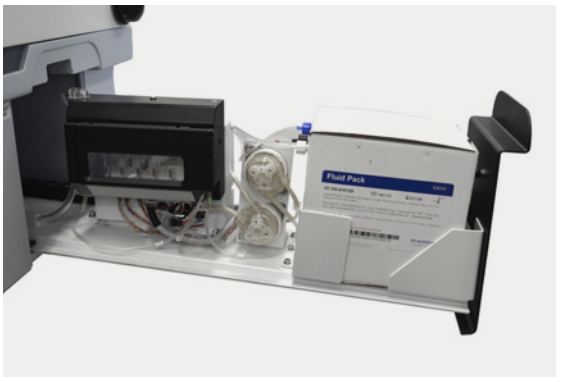
COMPACT SOLUTION

On board reagents

- Up to 64 reagents on 4 separate racks;
- additional 8 positions;
- on board storage at 8°C ÷ 12°C;
- barcode tracking of reagents (optional);
- possibility to close the system with dedicated reagents (optional).

New I.S.E. Module (OPTIONAL)

- Direct measurement of Sodium, Potassium and Chloride;
- easy access for reagents replacement;
- maintenance-free electrodes;
- low Fluids Pack consumption.



Pratical design

Advanced technology and sophisticated engineering system, allows easy access for maintenance purposes by simply lifting up the entire light-weight analytical chassis.

Simplicity, productivity, quality results

A single, heated level sensing arm with Shock Sensor minimizes mechanical complexity and rapidly moves to all positions for:

- optimized sample and reagent mixing;
- up to 4 different reagents addition to each method;
- sample pre-dilution;
- sample rerun with or without dilution;
- double probe washing between each sampling cycle;
- inner and outer probe washing after every cycle.

Cost Efficency

80 long life, 6 mm optical path, semi-disposable cuvettes (4 separate racks with 20 cuvettes each) selective cuvettes wash with 3 different liquids:

- acid, alkaline and neutral;
- low water consumption: 1.8 l/h;
- 200 µl minimum reaction volume;
- automatic cuvettes quality check.

Flexibility

- 4 universal racks for cups and primary tubes;
- continuous loading of up to 15 samples on each rack (serum, plasma, urine) thanks to dedicated lid;
- additional 8 positions;
- STAT samples loading allowed at any time;
- standards and controls can be placed on any avaible rack with no limitations;
- positive identification of samples (optional).

CLINICAL CHEMISTRY

TOXICOLOGY

IMMUNOTURBIDIMETRY

PARAMETERS

Drugs of abuse

AMPHETAMINE / METHAMPHETAMINE
BARBITURATES
BENZODIAZEPINES
CANNABINOIDS (THC)
COCAINE
ECSTASY (MDMA)
EDDP
METHADONE
OPIATES
ETHIL ALCOHOL
ETG (ETHYL GLUCORONIDE)
SYNTHETIC THC (SPICE K2)
6-ACETYLMORPHINE
BUPRENORPHINE
NORBUPRENORPHINE
COTININE

Clinical chemistry

	Method
CC AMYLASE – Liquid Stable	Enzymatic CNPG3
ALBUMIN - Liquid Stable	Colorimetric BCG
BILIRUBIN Total - Liquid Stable	Colorimetric Jendrassik-Groff
BILIRUBIN Direct - Liquid Stable	Colorimetric Jendrassik-Groff
CALCIUM ARSENAZO - Liquid Stable	Colorimetric
CALCIUM OCP - Liquid Stable	Colorimetric
CHLORIDE - Liquid Stable	Colorimetric
TOTAL CHOLESTEROL - Liquid Stable	Enzymatic colorimetric
HDL DIRECT - Liquid Stable	Direct enzymatic
LDL DIRECT - Liquid Stable	Direct enzymatic
HOMOCYSTEINE - Liquid Stable	Enzymatic
ENZYMATIC CREATININE - Liquid Stable	Enzymatic colorimetric
CREATININE - Liquid Stable	Jaffé modified
GAMMA-GT - Liquid Stable	Enzymatic
LDH - Liquid Stable	Enzymatic DGKC
PHOSPHOROUS UV - Liquid Stable	Enzymatic
GLUCOSE - Liquid Stable	Enzymatic colorimetric
MAGNESIUM XB - Liquid Stable	Colorimetric
TOTAL PROTEIN - Liquid Stable	Colorimetric (Biurel)
PYROGALLOL PROTEIN - Liquid Stable	Colorimetric
TRIGLYCERIDES - Liquid Stable	Enzymatic colorimetric
URIC ACID - Liquid Stable	Enzymatic colorimetric
IRON FERENE - Liquid Stable	Colorimetric
GOT/AST - Liquid Stable	Enzymatic IFCC-SCE
GPT /ALT - Liquid Stable	Enzymatic IFCC-SCE
ALP - Liquid Stable	Enzymatic DGKC
UREA UV - Liquid Stable	Enzymatic
CHOLINESTERASE - Liquid Stable	Enzymatic DGKC
ENZYMATIC HbA1c - Liquid Stable	Direct Enzymatic
GLICOTEST HbA1 - Liquid Stable	Direct Latex Immunoturbidimetric
CK-NAC - Liquid Stable	Enzymatic IFCC
ASO Latex - Liquid Stable	Immunoturbidimetric
CRP Latex – Liquid Stable	Immunoturbidimetric
RF Latex - Liquid Stable	Immunoturbidimetric
FERRITIN Latex - Liquid Stable	Immunoturbidimetric
MICROALBUMIN Latex - Liquid Stable	Immunoturbidimetric
IgA - Liquid Stable	Immunoturbidimetric
IgG - Liquid Stable	Immunoturbidimetric
C3 - Liquid Stable	Immunoturbidimetric
IgM - Liquid Stable	Immunoturbidimetric
C4 - Liquid Stable	Immunoturbidimetric
TRANSFERRIN - Liquid Stable	Immunoturbidimetric

TECHNICAL SPECIFICATIONS

SYSTEM DESCRIPTION	Benchtop, fully automatic, random access, open analyzer for clinical and immunoturbidimetric assays
ASSAY TYPES	- end point, Kinetic, Differential, Bichromatic, Fixed Time and Immunoturbidimetric - up to 999 tests, all user programmable
ON-BOARD REAGENTS	Up to 72 reagents can be located into the refrigerated compartment and distributed on: - 4 removable racks - 50/20/5 ml containers can be loaded - 8 extra positions for 5 ml containers
SAMPLE LOADING	- 4 universal separate racks for continuous loading of samples, calibrators and controls thanks to a dedicated lid (new Main Cover Design) - each rack contains up to 15 cups and/or tubes 10-16 mm diam., 40-100 mm height - 8 extra positions for urgent samples, calibrators and controls - STAT sample execution is allowed at any time
THROUGHPUT	- 280 photometric tests/hour + 160 ISE/hour - up to 440 tests/hour (280 photometric tests/hour + 160 ISE/hour)
READING SYSTEM	- direct reading, dual channel photometer - 200 l minimum reading volume - 9 narrow band, automatically selected interferential filters 340, 380, 405, 492, 510, 546, 577, 620, 690 - halogen lamp 6V/10W - linear from 0.0001 to 4.200 Abs - high resolution (0.0005 Abs.)
SAMPLING PROCESS	One mechanical arm performs all sampling operations with: - level sensing system (capacitive) - new sampling probe with shock sensor - new reagent pre-warming system at 37°C - automatic probe washing - sample volume range: 2.0µl÷ 99 µl (0.25 µl incr.) - reagents volume range: 0µl÷ 350 µl (1 µl incr.) - sample pre-dilution - sample post-dilution - sample post-concentration
REACTION PLATE	Holds 80 cuvettes divided into 4 racks with 20 cuvettes each and performs the following operations: - automatic cuvettes washing - continuous monitoring of cuvettes quality - incubation temperature control at 37°C ± 0.3
COMPUTER (minimum requirements)	- CPU i3 series 9 (or higher) - memory ram 8 Gb - hard disk 250 Gb - monitor 17" - communication USB and/or RS232 port - host communication RS232 or Ethernet - software Windows 10 or higher
OPTIONAL ACCESSORIES	- direct potentiometry New I.S.E. module for ^{+}Na,^{+}K ,^{-}Cl - positive barcode readers for reagents and samples (code 128, codebar, code 2 of 5 interleaved, code 39)
INSTALLATION REQUIREMENTS	- power supply 90 ÷ 250 VAC, 47 ÷ 63 Hz - electric consumption 386 Watt - water consumption 1.8 l/h
DIMENSIONS	107 x 68 x 53 cm (W x D x H)
WEIGHT	49 Kg
ENVIRONMENT	- room Temperature 18°C ÷ 30°C - relative Humidity 20% ÷ 85%

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