

CS-T240

Auto-Chemistry Analyzer

Overall performance

Equipment type	Fully automatic, discrete, STAT priority
Analysis rate	Colorimetry speed 240T/H (single/double reagent)
Test principle	Colorimetry, turbidimetry
Analysis method	End-point, kinetics, fixed-time, etc. Support single/double wavelength and 1-2 multiple reagent item, linear and non-linear calibration

Sample reagent unit

Sample reagent position	The reagent and sample share one disk, totally 67 positions. Continuously cooling at all positions to keep 5-15°C within 24 hours
Sample cuvettes specification	Standard cup, original blood tube, multi-specification tube available (Φ12-16)mm×(25-100)mm
Sample volume	3μl-35μl 0.1μl stepping
Reagent volume	R1:10μl-350μl, R2:10μl-200μl, 1μl stepping
Sample reagent probe	1, with the function of liquid level detection and collision detection
Sample reagent probe cleaning	Automatic warm water cleaning. Carrying rate $\leq 0.1\%$
Automatic sample dilution	3-115

Reaction unit

Reaction cuvette	120 positions optical plastic cup, optical diameter is 6 mm
Total volume of reaction liquid	150μl - 550μl
Reaction temperature	37°C, ±0.1°C
Reactor fix constant temperature	Circulating water
Mixer	1, after joining reagent, blending immediately
Reaction cuvette cleaning	8 steps 12 steps by warm water rinsing
Wastewater treatment	With the function of concentrated waste liquid level alarming

Optical system

Light source	20W/12V halogen lamps.
Monochromator	Grating photometry

Photoelectron road	After spectrophotometry
Wavelengths	340nm, 380nm, 405nm, 450nm, 480nm, 505nm, 546nm, 570nm, 600nm, 660nm, 700nm, 750nm or 800nm
Detector	Photodiode LED array
OD linear range	0 - 3.3Abs

Calibration and QC

Calibration method	1 point linear method, 2 point linear method, multiple point linear method, non-linear method
Calibration tracking	Automatic description calibration K-value trends
QC method	Real-time QC, individual QC and monthly QC
Out of control processing	Alarming for out of control sample, record lost control reason

Operating system

PC operating system	Windows XP
Analysis control software	Graphical operating software english version
Main function of software	Automatic calibration, automatic barcode scanning, item compounding test, reagent info management, serum index, whole reaction process monitoring, dirty cup memory evading, prevent cross-contamination procedure, patient information memory and association input, automatic report audit, data multiple parameter query, report format statistic and printing, reference range classification, alarming information classification, user operating right classification, automatic dormancy and wake, real-time online help
Report printing	Report formats support the user-defined mode. QC and state information etc.
PC configuration	CPU ≥2.2GHz(dual-core processor); Memory ≥1G; Harddisk ≥160G, 17 inch LCD display; Stylus, inkjet or laser printer (optional)
System connection	TCP/IP network connection, standard RS-232C

Others

Volume	996mm×752mm×517mm
Weight	120kg
Power supply	Voltage AC 220V±22V, 50/60Hz, power 650VA



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Certified to
ISO 9001:2008 and ISO 13485:2003

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CS-T240

Auto-Chemistry Analyzer

- Discrete, colorimetry speed 240T/H (single/double reagent).
- Rear spectrophotometry of holographic concave flat field grating, cluster-optical path, enables micro volume detection of reaction solution.
- 60nm polished probe, liquid level detection and collision protection.
- Automatic digital liquid level detection, ensures stable performance, and reduces contamination carried by probe surface.
- Multiple function sample & reagent disk, sample position and reagent position, users defined
- User-defined combined batch input of patient information, applicable to all customers' laboratories. proportion according to the requirement, supporting various tubes and standard sample cuvettes.
- LIS/HIS interface, also supports remote maintenance.



Sample/reagent pipeting mechanism

- Polished with nano processing technology, the probes reduce cross-contamination effectively
- Automatic liquid level detection: the probe automatically detects the liquid level, ensuring the minimum touch of the probe and liquid and reduction of contamination carried by probe surface
- Made of long life high-precision ceramic piston, the syringes ensure high precision of sampling and low maintenance
- Collision protection, self-resetting, re-pipeting sample and reagent automatically for probes
- Capability for diluting sample automatically for 3 ~ 115 times
- Water degassing technology: the analyzer has special degassing device to remove the air dissolved in the tube system, ensuring fast, accurate and trace pipetting
- Automatically detect sample volume, reagent remaining volume and available testing times. It alarms when there are inadequate volumes to ensure continuous analysis
- Probe washing: high-pressure washing for inside, and water fall washing for outside



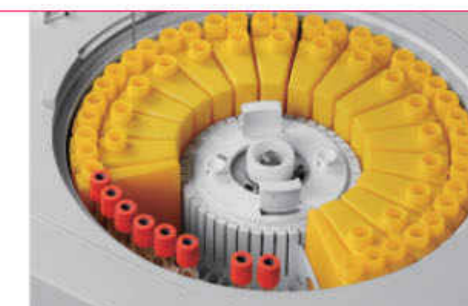
Multi-function sample & reagent disk with refrigerator

- The reagent and sample share one disk, totally 67 positions. User-defined proportion of reagent position and sample position
- Reagent position can load 20ml, 70ml or 100ml reagent cuvettes
- 24-hour continuous cooling condition secures the quality of reagent control and calibrator
- Single/double reagent testing
- Supporting various tubes and sample cups, specification (Φ12~16)mm×(25~100)mm



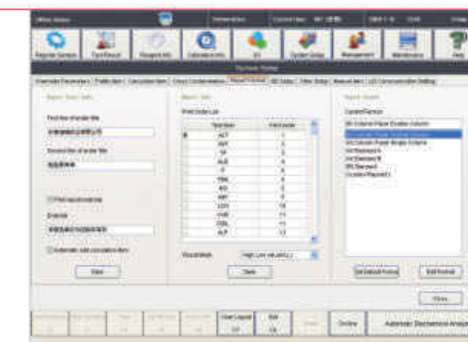
Stirring system

- The surface of the stirrer is teflon coated to avoid liquid suspension and reduce cross-contamination
- The stirrer adopts the "flat paddle" design. It stirs immediately after the reagent is added to mix the reaction solution evenly, by using swirl rinsing which ensures the best cleaning effect



Constant temperature device of reaction cuvettes

- Adopts a recycling water constant temperature device, automatically changing water and adding defoamer. Reaction cuvette is immersed in warm water which heats cups evenly and reduces the influence of ambient temperature
- PID thermostat technology ensures temperature is 37°C (±0.1°C)



Reaction cuvette automatic rinsing

- Adopting 8 steps, 12 steps, 2 time recycling detergent and warm water rinsing ensures complete cleanliness
- Vacuum draining liquid and warm water rinsing further enhances the cleanliness



Calibration and QC

- Linear and non-linear calibration
- 9 types of calibration curves fitting formula to satisfy different analysis demands
- 6 different levels' calibrator for each item available
- Calibration tracing possibility, depicting calibration K value variation trends, helps reduce system error
- QC interval and monthly QC ensure that the instrument is working at the best analysis condition
- QC rule: default as Westgard multirules
QC plot: automatically depict and print relevant QC plot, L-J, Cumulative
- Automatic error reporting compliant with the lab QC management

