

LW C400

Auto Chemistry Analyzer



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Specifications and appearance are subject to change without prior notice.

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LW C400



Feature

- Fully automated, discrete, random access
- Constant 400 tests per hour
- Refrigerated reagent compartment
- Automatic probe cleaning, liquid level detection, vertical and horizontal collision protection
- Rear spectrophotometry of holographic concave flat field grating, realizing reaction solution low to 15 μ L
- 8-step auto cleaning, with consumption of 8 L water per hour
- Liquid level detection, probe depth adjustment automatically, collision protection
- Two high-polished stirrer, washed by alkaline solution to prevent carry-over

Sample tray system

- One sample disk, with five virtual sample disk
- 100 sample positions, compatible with collection tube, minimal tube, sample cup, etc
- Automatic dilution of high concentration samples
- 9999 samples can be input every day
- Pre- and post-dilution for samples
- Internal sample bar code reader(optional)

Reaction tray system

- 81 special ultraviolet transmitting plastic cuvettes
- 12 wavelengths for testing
- Minimal reaction volume to 150 μ L
- Full sealed constant temperature, heated by metal directly , fast and stable
- Maintenance free heating system



Reagent tray system

- One reagent disk, with five virtual reagent disk
- Refrigerated reagent compartment
- 70 reagent positions for R1 and R2
- 24-hour non-stop cooling with 4~12°C, compatible with reagent bottles of Hitachi and Olympus
- Open system for reagents
- Internal reagent bar code reader (optional)

Perfect and mighty washing system

- 8-step auto washing function
- Alkaline and warm water washing to prevent carry-over thoroughly
- Water consumption less than 8L per hour

Double stirrer mechanism

- Two "flat paddle" mixer, using swirl rinse
- High-polished nano material to avoid liquid suspension and reduce carry-over
- Separate mixer for individual reaction steps

Sample/reagent pipetting mechanism

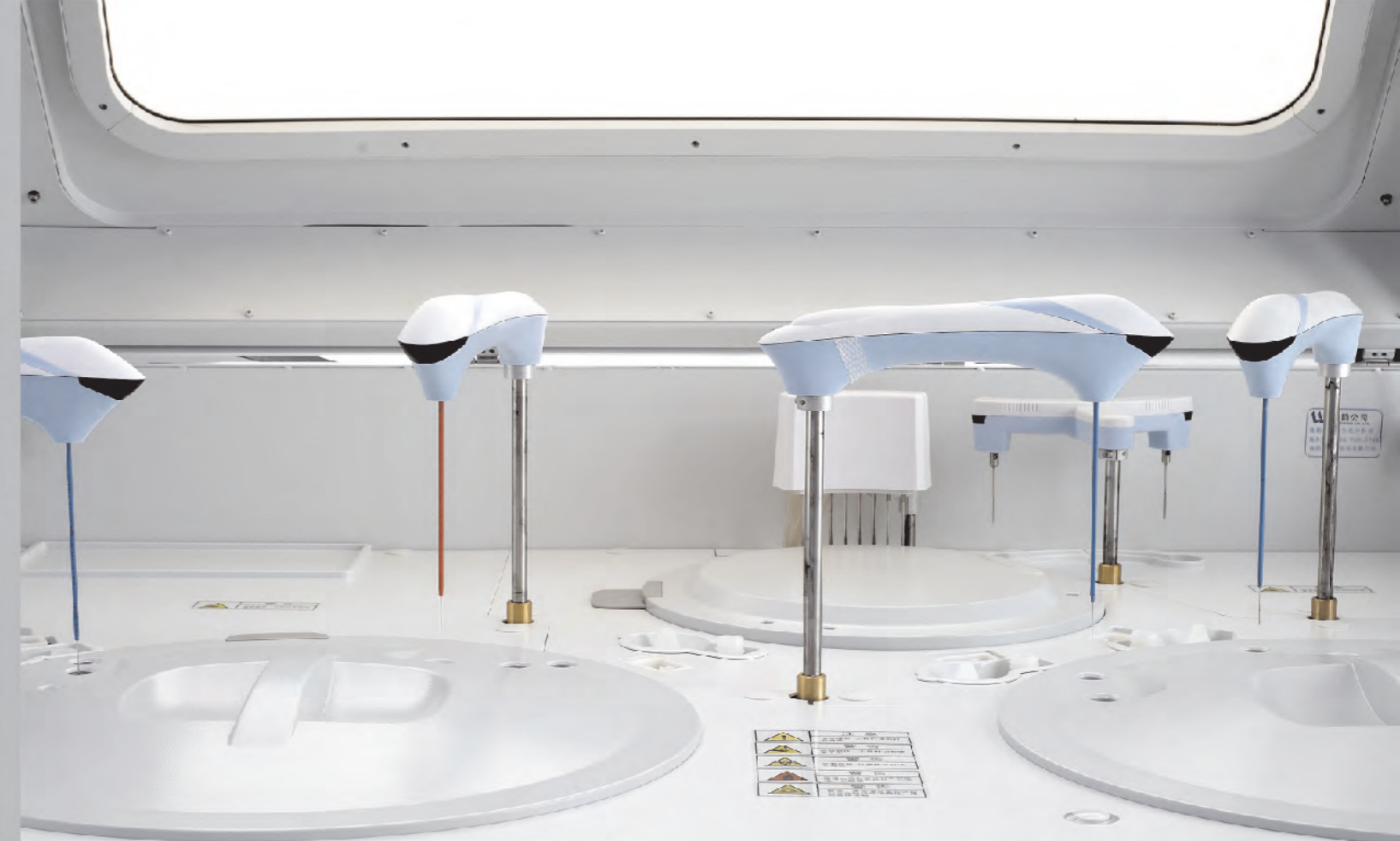
- One probe for sample and two probes for reagent
- Liquid level detection, probe depth adjustment automatically and collision protection
- Pre-heating function for reagent probe
- Interior and exterior automatic washing for sample/reagent probe

Advanced and unique optical system

- Rear spectrophotometry of holographic concave flat field grating
- 12V/20W halogen light with long life time of more than 2000 hours
- Silicon photodiode array detector

ISE Module

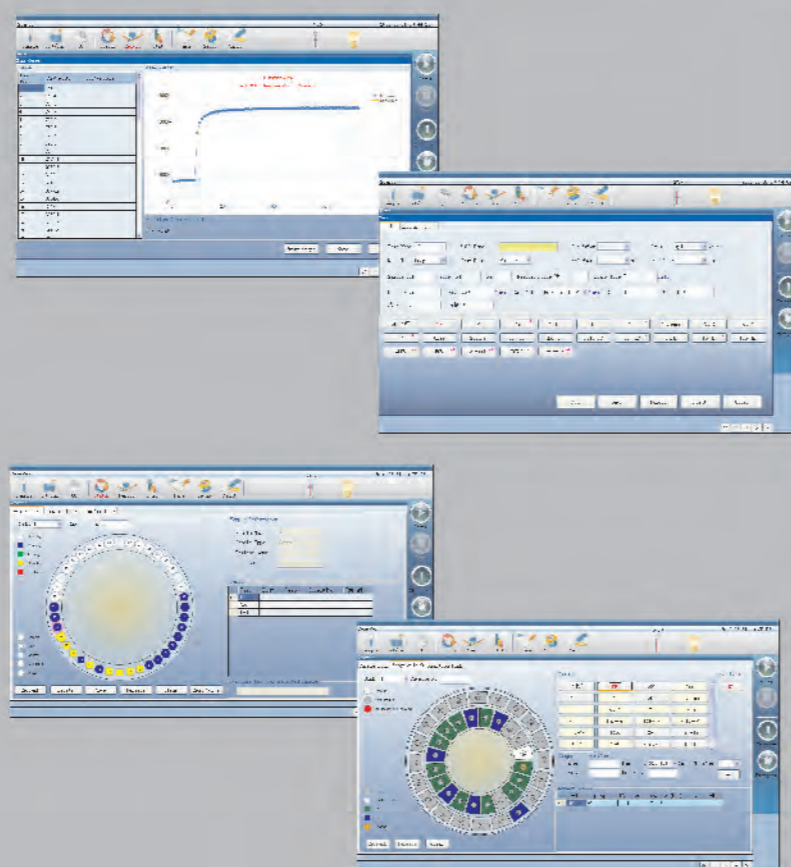
- Optional selection for K⁺, Na⁺, Cl⁻, Li⁺.
- Throughput: up to 270 tests per hour





Comprehensive software program

- Support pre- and post-dilution
- Intelligent malfunction management, self renewal and multi-protection for motorial parts
- Perfect carry-over setup to avoid contamination
- Real time monitoring of reaction curve and auto-rerun abnormal sample results
- Support graphic statistics
- Simple and user-friendly software interface makes the work-list setup possible within seconds
- Support pause function while sampling
- ISE module and barcode (optional)
- Bi-directional LIS interface (HL7)



Specification

System Function

Throughput
Test principle
Methodology

Fully automated, discrete, random access for routine, STAT, Urine And homogeneous immunoassays;
constant 400 tests per hour (with out ISE)
colorimetric, turbidimetry
End-point, Kinetics, Fixed-time, etc.
support single/dual wavelength and 1-2 multiple reagent item, linear and non-linear calibration

Sample System

Sample tray

100 positions for sample, compatible with collection tube, minimal tube, sample cup, etc

Sample volume
Sample cuvettes specification
Sample probe

2~45 μ L, step by 0.1 μ L
12 \times 70, Φ 12 \times 100, Φ 12.7 \times 75, Φ 12.7 \times 100
one probe, with liquid level detection, probe depth adjustment automatically, collision protection

Automatic sample dilution

pre-dilution and post-dilution

Reagent System

Reagent tray

70 positions for reagent, 65 mL for R1, 20 mL for R2, compatible with reagent bottles of Olympus and Hitachi

Reagent volume
Reagent probe

20~450 μ L, step by 1 μ L
two probe, with liquid level detection, probe depth adjustment automatically, collision protection

Pre-heating function

support

Reaction system

Reaction tray

81 cuvettes with automatic washing

Cuvette

optical length 5mm

Reaction volume

150 μ L~500 μ L

Reaction temperature

37 \pm 0.2 $^{\circ}$ C

Temperature fluctuation

\pm 0.1 $^{\circ}$ C

Heating system

directly heated by metal

Mixing system

two independent mixers

Optical system

Light source

12V, 20W, halogen-tungsten lamp, with life time of 2000 hours

Photometer

rear spectrophotometry with grating technology

Wavelength

12 wavelength with 340nm, 375nm, 405nm, 455nm, 505nm, 540nm, 572nm, 605nm, 670nm, 700nm, 748nm and 794nm

Absorbance range

-0.1~3.0Abs(10mm conversation)

Resolution

0.001Abs

Control & Calibration

Calibration mode

linear (one-point, two-point and multi-point), logit-log 4P, logit-log 5P, exponential, polynomial, spline

Control rules

Westgard multi-rule, Cumulative sum check, Twin plot

Operation system

Windows 2000 or Windows XP

Interface

RS-232

Working conditions

Power supply

AC110~220V, 50~60Hz

Temperature

10 $^{\circ}$ C~30 $^{\circ}$ C

Humidity

30% ~ 80%

Water consumption

\leq 8L/hour

Dimension

1200mm \times 800mm \times 1300mm

Net weight

220Kg