

Chemistry Analyzer

Fully Automatic & Semi-Auto
Chemistry Analyzer



Biovopeak

TEL: +86-531-88982330

FAX: +86-531-88983691

Website: Biovopeak.com

Email: info@biovopeak.com

Service: support@biovopeak.com

Address: 17th Floor, Mingsheng Building, High-tech Zone, Jinan City

Chemistry Analyzer Fully Automatic

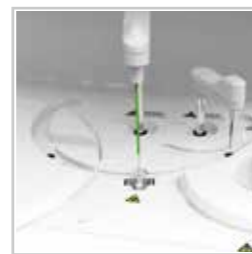
BA-A-120



- ◆ Constant 120 test / hour with double reagent
- ◆ Up to 80 reagent positions
- ◆ Automatic liquid level sensing, anti-collision protection
- ◆ Integrated full closed optical system, multi wavelength simultaneous detection
- ◆ New amorphous optical plastics reaction cups, perfect transmittance
- ◆ Maintenance-free semiconductor solid-state refrigeration.
- ◆ Friendly surface and easy to operation

Multifunctional precision sampling probe

- ◆ External & internal mirror polish, external & internal probe washing
- ◆ Equipped with sensitive liquid sensor, which can provide timely feedback of reagent & sample residuals.
- ◆ Anti-collision protection, automatic adjustment of probe depth.



Excellent mixer design

- ◆ Teflon coating mixer. No water dropping (reducing carry-over)
- ◆ Excellent mixing effect with standard mixing procedure



High precision ceramic syringe

- ◆ Permanent ceramic piston
- ◆ Accurate dispensing as low as 0.1 μ l



Reaction tray

- ◆ 50 disposable cuvettes
- ◆ Reaction volume as low as 150 μ l
- ◆ Stable & accurate temperature (37 ± 0.1 °C) for reaction



Reagent & sample tray

- ◆ 80 reagent positions (40 for R1, 40 for R2)
- ◆ 40 sample positions, micro cup & test tube can be used
- ◆ Non-stop cooling system with peltier pad inside, 24 hours 2°C-14°C
- ◆ Bar code reader (optional)



Advanced operating system

- ◆ User friendly software interface simple, easy-to-operation
- ◆ Automatic sample dilution (decrease, increase, normal).
- ◆ Automatic reaction result checking and warning, automatic calibration result checking, with warning log.
- ◆ Linear & nonlinear calibration, Multi-points calibration up to 8 points
- ◆ Quality control apply to westgard, L-T plot, cumulative



Technical specifications

General information	
Machine type	Random access, open reagent & locked reagent (optional)
Test speed	Constant 120 tests/hour (Mono reagent or double reagent)
Test principle	Colorimetric method, turbidimetry
Test method	1 point end, 2 point end, Fixed-Time, Kinetics
Calibration type	Linear & nonlinear

Sample unit	
Sample tray	40 sample positions
Sample tube	Micro cup & test tube & blood collection tube can be used. (ϕ 12 -13)mm *(25-100)mm
Sample volume	2-30 μ l step by 0.1 μ l
Sample probe	Liquid surface detection, timely tracking for liquid volume. Collision avoidance
Sample barcode	Sample barcode reader (optional)

Reagent unit	
Reagent tray	80 reagent positions (40 for R1 & 40 for R2), Non-stop cooling system with peltier pad inside, 24 hours 2°C-14°C, open system, could accept any reagent.
Reagent volume	20-300 μ l, step by 1 μ l
Reagent needle	Liquid surface detection, timely tracking for liquid volume. Collision avoidance.
Reagent barcode	Reagent barcode reader (optional)

Reaction unit	
Reaction tray	50 reaction cuvettes, new amorphous optical plastics reaction cups, perfect transmittance.
Reaction volume	150 μ l-330 μ l
Reaction time	10 minutes
Temperature	Peltier pad incubation system, reaction temperature (37°C \pm 0.1 °C)

Mixing system	
Mixer	paddle-type mixing, effective reducing of carry-over

Optical system	
Light source	Halogen lamp
Wavelength	340nm; 405nm; 450nm; 505nm; 546nm; 578nm; 630nm;700nm (4 more options)
Absorbance range	0-4.0 Abs
Resolution	0.0001 Abs

Operating system	
Operation system	Windows XPZ Windows 7, Windows 8, Windows 10
Data processing	Automatic calibration, test combination, effective time management of reagents, serum index, whole process detection, linear expansion of enzyme, blank deduction, dirty cuvette memory, cross infection prevention, patient information memory and association input, automatic report audit, data fuzzy query, report statistics and printing, reference range grading, alarm information classification, user operation privilege classification management.
Report printing	6 formats optional, support custom pattern
Interface	TCP/IP network interface

Working conditions	
Language	Chinese, English, Russian, French, Spanish, Portuguese. Other language is optional.
Power supply	AC 110/220V \pm 10%, 50/60 Hz, 650W
Water consumption	6L/hour(maximum)
Dimension	750mm \times 550mm \times 490mm(L \times W \times H)
Weight	70kg

Chemistry Analyzer Fully Automatic

BA-A-160



- ◆ Constant 150 test / hour with double reagent
- ◆ Up to 80 reagent positions
- ◆ Automatic liquid level sensing, anti-collision protection.
- ◆ Integrated full closed optical system, multi wavelength simultaneous detection.
- ◆ New amorphous optical plastics reaction cups, perfect transmittance.
- ◆ Maintenance-free semiconductor solid-state refrigeration.
- ◆ Friendly surface and easy to operation

Multifunctional precision sampling probe

- ◆ External & internal mirror polish, external & internal probe washing
- ◆ Equipped with sensitive liquid sensor, which can provide timely feedback of reagent & sample residuals.
- ◆ Anti-collision protection, automatic adjustment of probe depth.



Excellent mixer design

- ◆ Teflon coating mixer. No water dropping (reducing carry-over)
- ◆ Excellent mixing effect with standard mixing procedure



High precision ceramic syringe

- ◆ Permanent ceramic piston
- ◆ Accurate dispensing as low as 0.1 μ l



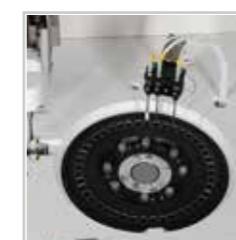
Reagent & sample tray

- ◆ 80 reagent positions (40 for R1, 40 for R2)
- ◆ 40 sample positions, micro cup & test tube can be used
- ◆ Non-stop cooling system with peltier pad inside, 24 hours 2°C-14°C
- ◆ Bar code reader(optional)



Reaction tray

- ◆ 44 cuvettes
- ◆ Reaction volume as low as 150 μ l
- ◆ Stable & accurate temperature(37 \pm 0.1 °C) for reaction



Advanced operating system

- ◆ User friendly software interface simple, easy-to-operation
- ◆ Automatic sample dilution(decrease, increase, normal).
- ◆ Automatic reaction result checking and warning, automatic calibration result checking, with warning log.
- ◆ Linear & nonlinear calibration, Multi-points calibration up to 8 points
- ◆ Quality control apply to westgard, L-T plot, cumulative



Technical specifications

General information	
Machine type	Random access, open reagent & locked reagent (optional)
Test speed	Constant 150 tests/hour (Mono reagent or double reagent)
Test principle	Colorimetric method, turbidimetry
Test method	1 point end, 2 point end, Fixed-Time, Kinetics
Calibration type	Linear & nonlinear

Sample unit	
Sample tray	40 sample positions
Sample tube	Micro cup & test tube & blood collection tube can be used. (ϕ 12 -13)mm *(25-100)mm
Sample volume	2-30 μ l step by0.1 μ l
Sample probe	Liquid surface detection, timely tracking for liquid volume. Collision avoidance
Sample barcode	Sample barcode reader (optional)

Reagent unit	
Reagent tray	80 reagent positions (40 for R1 & 40 for R2), Non-stop cooling system with peltier pad inside, 24 hours 2°C-14°C, open system, could accept any reagent.
Reagent volume	20-300 μ l, step by 1 μ l
Reagent needle	Liquid surface detection, timely tracking for liquid volume. Collision avoidance.
Reagent barcode	Reagent barcode reader (optional)

Reaction unit	
Reaction tray	44 reaction cuvettes, new amorphous optical plastics reaction cups, perfect transmittance.
Reaction volume	150 μ l-330 μ l
Reaction time	10 minutes
Temperature	Peltier pad incubation system, reaction temperature (37°C \pm 0.1 °C)

Mixing system	
Mixer	paddle-type mixing, effective reducing of carry-over

Optical system	
Light source	Halogen lamp
Wavelength	340nm; 405nm; 450nm; 505nm; 546nm; 578nm; 630nm;700nm (4 more options)
Absorbance range	0-4.0 Abs
Resolution	0.0001 Abs

Operating system	
Operation system	Windows XP, Windows 7, Windows 8, Windows 10
Data processing	Automatic calibration, test combination, effective time management of reagents, serum index, whole process detection, linear expansion of enzyme, blank deduction,dirty cuvette memory, cross infection prevention, patient information memory and association input, automatic report audit, data fuzzy query, report statistics and printing, reference range grading, alarm information classification, user operation privilege classification management.
Report printing	6 formats optional, support custom pattern
Interface	TCP/IP network interface

Working conditions	
Language	Chinese, English, Russian, French, Spanish, Portuguese.Other language is optional.
Power supply	AC 110/220V \pm 10%, 50/60 Hz, 650W
Water consumption	6L/hour(maximum)
Dimension	750mm \times 475mm \times 535mm(L \times W \times H)
Weight	80kg

Chemistry Analyzer Fully Automatic

BA-A-200



- ◆ Discrete, random access, fully automated
- ◆ Up to constant 180 tests per hour
- ◆ Optional for external bar code reader
- ◆ 30 positions for samples and 60 positions for reagents
- ◆ Automatic probe cleaning, liquid level detection, collision protection
- ◆ Reversed optic system with 8 wavelengths
- ◆ Refrigerated reagent and sample compartment



Specifications

Analysis system	
Working mode	Discrete/random access
Test speed	test speed 180T/H (without ISE)
Test principle	Absorbance photometry, Turbidimetry
Methodology	End-point, Fixed-time, Kinetic, Single/Dual reagent chemistries, monochromatic/bichromatic Linear/non-linear multi-point calibration
The longest reaction time	15 minutes
Minimum reaction volume	150 μ l
Cuvettes material	plastics (quartz glass can be selected), 81 cuvettes have the function of automatically deducting reagent and sample blanks
Linear range of absorbance	0-3.8Abs
Halogen light source using time	\geq 2000 hours
Wavelength	340nm、405nm、450nm、510nm、546nm、578nm、630nm、670nm
Refrigeration system	water medium uniform refrigeration technology
Reagent storehouse temperature	4-16 $^{\circ}$ C
Reaction temperature	37 \pm 0.2 $^{\circ}$ C
Temperature fluctuation	\pm 0.1 $^{\circ}$ C
Packing size	834*643*756
Gross weight	97Kg
Language	Chinese、English

Sampling and mixing system

Sample capacity	2-30 μ l, 0.1 μ l increasing
Sample probe	Sharing with the reagent probe, the inner and outer walls are highly polished, with the function of liquid level detection, tracking and collision protection, sample probe matching special cleaning liquid, prevent cross contamination
Reagent capacity	20-300 μ l, 0.1 μ l increasing
Reagent probe	Sharing with the sample probe
Reagent bottle	Reagent bottles with volume of 15ml、20ml、30ml、50ml、60ml、70ml can be used, the dead volume is less than 1ml
Mixing bar	Independent mixing bar, special material, surface treatment using Teflon, not hanging liquid, thoroughly clean before and after mixing to prevent cross contamination

Reagent/sample Handling

Reagent/sample tray	60 positions for reagents and 30 positions for samples in refrigerated compartment (4-16 $^{\circ}$ C)
Reagent volume	20-500 μ l, step by 1 μ l
Sample volume	2-100 μ l, step by 0.1 μ l
Reagent/Sample probe	Liquid level detection, collision protection and inventory checking
Probe cleaning	Automatic washing for both interior and exterior Carry-over < 0.1%

Calibration and quality control

Quality control type	real time quality control, daily quality control, day to day quality control
Quality control charts	L-J, Cumulative, Twin Plot
The quality control rules	arbitrarily formulated by default to Westguard multiple rules
The calibration type	linear and nonlinear. Logit-4P, Logit-5P, Spline, exponent, polynomial, factor method
Calibration	Automatically check the calibration curve and select the best calibration type of the fitting degree automatically

Operating System

English operating system	Windows2000、windows XP、windows7、windows8、windows10
Report printing	Make print format and content freely, provide several common formats
user management	Special user management password, rational distribution of user operation permissions
Interface	RS-232 standard interface, support for intranet, remote print report
Databases	Optional various databases, autosave, automatic backup, save all kinds of data permanently Real-time monitoring of sample tray、reagents tray、reacting tray; Real-time display of reaction temperature, reagent allowance, reaction curve, calibration curve and quality control chart Check and judge reaction endpoint, reaction linear interval, substrate exhaustion, reagent blank absorbance, etc.

Chemistry Analyzer Fully Automatic

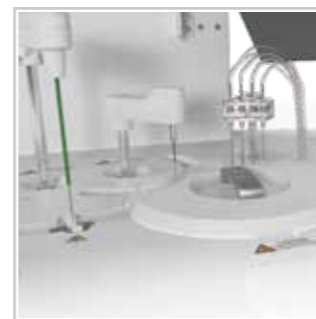
BA-A-220



- ◆ Constant 200 test / hour with double reagent
- ◆ Up to 80 reagent positions
- ◆ Automatic liquid level sensing, anti-collision protection.
- ◆ Integrated full closed optical system, multi wavelength simultaneous detection.
- ◆ New amorphous optical plastics reaction cups, perfect transmittance.
- ◆ Maintenance-free semiconductor solid-state refrigeration.
- ◆ Friendly surface and easy to operation

Multifunctional precision sampling probe

- ◆ External & internal mirror polish, external & internal probe washing
- ◆ Dedicated sampling probe equipped with sensitive liquid sensor, timely feedback of reagent & sample residuals.
- ◆ Anti-collision protection, automatic adjustment of probe depth.



Excellent mixer design

- ◆ Teflon coating mixer. No water dropping (reducing carry-over)
- ◆ Excellent mixing effect with standard mixing procedure



High precision ceramic syringe

- ◆ Permanent ceramic piston
- ◆ Accurate dispensing as low as 0.1 μ l



Reagent & sample tray

- ◆ 80 reagent positions (40 for R1, 40 for R2)
- ◆ 40 sample positions, micro cup & test tube can be used
- ◆ Non-stop cooling system with peltier pad inside, 24 hours 2°C-14°C
- ◆ Bar code reader (optional)



Reaction tray

- ◆ 44 reaction cuvettes
- ◆ Reaction volume as low as 150 μ l
- ◆ Stable & accurate temperature ($37 \pm 0.1^\circ\text{C}$) for reaction



Advanced operating system

- ◆ User friendly software interface simple, easy-to-operation
- ◆ Automatic sample dilution (decrease, increase, normal).
- ◆ Automatic reaction result checking and warning, automatic calibration result checking, with warning log.
- ◆ Linear & nonlinear calibration, Multi-points calibration up to 8 points
- ◆ Quality control apply to westgard, L-T plot, cumulative



Technical specifications

General information	
Machine type	Random access, open reagent & locked reagent (optional)
Test speed	Constant 200 tests/hour (Mono reagent or double reagent)
Test principle	Colorimetric method, turbidimetry
Test method	1 point end, 2 point end, Fixed-Time, Kinetics
Calibration type	Linear & nonlinear

Sample unit	
Sample tray	40 sample positions
Sample tube	Micro cup & test tube & blood collection tube can be used. (ϕ 12-13)mm × (25-100)mm
Sample volume	2-30 μ l step by 0.1 μ l
Sample probe	Liquid surface detection, timely tracking for liquid volume. Collision avoidance
Sample barcode	Sample barcode reader (optional)

Reagent unit	
Reagent tray	80 reagent positions (40 for R1 & 40 for R2), Non-stop cooling system with peltier pad inside, 24 hours 2°C-14°C, open system, could accept any reagent.
Reagent volume	20-300 μ l, step by 1 μ l
Reagent needle	Liquid surface detection, timely tracking for liquid volume. Collision avoidance.
Reagent barcode	Reagent barcode reader (optional)

Reaction unit	
Reaction tray	44 reaction cuvettes, new amorphous optical plastics reaction cups, perfect transmittance.
Reaction volume	150 μ l-330 μ l
Reaction time	10 minutes
Temperature	Peltier pad incubation system, reaction temperature(37°C \pm 0.1 °C)

Mixing system	
Mixer	paddle-type mixing, effective reducing of carry-over

Optical system	
Light source	Halogen lamp
Wavelength	340nm; 405nm; 450nm; 505nm; 546nm; 578nm; 630nm;700nm(4 more options)
Absorbance range	0-4.0 Abs
Resolution	0.0001 Abs

Operating system	
Operation system	Windows XP, Windows 7, Windows 8, Windows 10
Data processing	Automatic calibration, test combination, effective time management of reagents, serum index, whole process detection, linear expansion of enzyme, blank deduction, dirty cuvette memory, cross infection prevention, patient information memory and association input, automatic report audit, data fuzzy query, report statistics and printing, reference range grading, alarm information classification, user operation privilege classification management.
Report printing	6 formats optional, support custom pattern
Interface	TCP/IP network interface

Working conditions	
Language	Chinese, English, Russian, French, Spanish, Portuguese. Other language is optional.
Power supply	AC 110/220V \pm 10%, 50/60 Hz, 650W
Water consumption	8L/hour(maximum)
Dimension	780mm×565mm ×1120mm(L×W×H)
Weight	140kg

Chemistry Analyzer Fully Automatic

BA-A-280

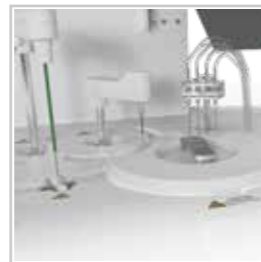


- ◆ Constant speed 200 tests/hour
- ◆ Independent probe
- ◆ Independent stirrer
- ◆ Reagent tray contains 80 reagent positions
- ◆ Sample tray contains 40 sample positions
- ◆ The reaction tray contains 44 UV Plastic reaction cuvettes
- ◆ 4-stage , 3 times automatic washing system



Multifunctional precision sampling probe

- ◆ External & internal mirror polish,external & internal probe washing
- ◆ Equipped with sensitive liquid sensor, which can provide timely feedback of reagent & sample residuals. Anti-collision protection, automatic adjustment of probe depth.



Excellent mixer design

- ◆ Teflon coating mixer. No water dropping (reducing carry-over)
- ◆ Excellent mixing effect with standard mixing procedure



High precision ceramic syringe

- ◆ Permanent ceramic piston
- ◆ Accurate dispensing as low as 0.1 μ l



Reagent & sample tray

- ◆ 80 reagent positions,40 sample positions
- ◆ Non-stop cooling system with peltier pad inside,24 hours 2°C-14°C
- ◆ Bar code reader(optional)



Reaction tray

- ◆ 44 reaction cuvettes
- ◆ Reaction volume as low as 150 μ l
- ◆ Stable & accurate temperature (37 \pm 0.1°C) for reaction



Advanced operating system

- ◆ User friendly software interface simple, easy-to-operation
- ◆ Automatic sample dilution(decrease, increase, normal).
- ◆ Automatic reaction result checking and warning, automatic calibration result checking, with warning log.
- ◆ Linear & nonlinear calibration,Multi-points calibration up to 8 points
- ◆ Quality control apply to westgard, L-T plot, cumulative



Technical specifications

General information	
Machine type	Random access, open reagent & locked reagent (optional)
Test speed	Constant 200 tests/hour (Mono reagent or double reagent)
Test principle	Colorimetric method, turbidimetry
Test method	1 point end, 2 point end, Fixed-Time, Kinetics
Calibration type	Linear & nonlinear

Sample unit	
Sample tray	40 sample positions
Sample tube	Micro cup & test tube & blood collection tube can be used. (ϕ 12 -13)mm ×(25-100)mm
Sample volume	2-30 μ l step by 0.1 μ l
Sample probe	Liquid surface detection, timely tracking for liquid volume. Collision avoidance
Sample barcode	Sample barcode reader (optional)

Reagent unit	
Reagent tray	80 reagent positions (40 for R1 & 40 for R2), Non-stop cooling system with peltier pad inside, 24 hours 2°C-14°C, open system, could accept any reagent.
Reagent volume	20-300 μ l, step by 1 μ l
Reagent needle	Liquid surface detection, timely tracking for liquid volume. Collision avoidance.
Reagent barcode	Reagent barcode reader (optional)

Reaction unit	
Reaction tray	44 reaction cuvettes, new amorphous optical plastics reaction cups, perfect transmittance.
Reaction volume	150 μ l-330 μ l
Reaction time	10 minutes
Temperature	Peltier pad incubation system, reaction temperature(37°C \pm 0.1 °C)

Mixing system	
Mixer	paddle-type mixing, effective reducing of carry-over

Optical system	
Light source	Halogen lamp
Wavelength	340nm; 405nm; 450nm; 505nm; 546nm; 578nm; 630nm;700nm(4 more options)
Absorbance range	0-4.0 Abs
Resolution	0.0001 Abs

Operating system	
Operation system	Windows XP, Windows 7, Windows 8, Windows 10
Data processing	Automatic calibration, test combination, effective time management of reagents, serum index, whole process detection, linear expansion of enzyme, blank deduction,dirty cuvette memory, cross infection prevention, patient information memory and association input, automatic report audit, data fuzzy query, report statistics and printing, reference range grading, alarm information classification, user operation privilege classification management.
Report printing	6 formats optional, support custom pattern
Interface	TCP/IP network interface

Working conditions	
Language	Chinese, English, Russian, French, Spanish, Portuguese.Other language is optional.
Power supply	AC 110/220V \pm 10%, 50/60 Hz, 650W
Water consumption	8L/hour(maximum)
Dimension	870mm×690mm ×740mm(L×W×H)
Weight	80kg

Chemistry Analyzer Fully Automatic

BA-A-300



- ◆ Discrete, random access, fully automated
- ◆ Up to constant 300 tests per hour
- ◆ Optional for external bar code reader
- ◆ 120 positions for samples and 80 positions for reagents
- ◆ Automatic probe cleaning, liquid level detection, collision protection
- ◆ Reversed optic system with 8 wavelengths
- ◆ Refrigerated reagent and sample compartment



Specifications

Analysis system	
Working mode	Discrete/random access
Test speed	test speed 300T/H (without ISE)
Test principle	Absorbance photometry, Turbidimetry
Methodology	End-point, Fixed-time, Kinetic, Single/Dual reagent chemistries, monochromatic/bichromatic Linear/non-linear multi-point calibration
The longest reaction time	15 minutes
Minimum reaction volume	150 μ l
Cuvettes material	plastics (quartz glass can be selected), 81 cuvettes have the function of automatically deducting reagent and sample blanks
Linear range of absorbance	0-3.8Abs
Halogen light source using time	\geq 2000 hours
Wavelength	340nm、405nm、450nm、510nm、546nm、578nm、630nm、670nm
Refrigeration system	water medium uniform refrigeration technology
Reagent storehouse temperature	4-16 $^{\circ}$ C
Reaction temperature	37 \pm 0.2 $^{\circ}$ C
Temperature fluctuation	\pm 0.1 $^{\circ}$ C
Packing size	978*784*773
Gross wight	129Kg
Language	Chinese、 English

Sampling and mixing system

Sample capacity	2-30 μ l, 0.1 μ l increasing
Sample probe	The inner and outer walls are highly polished, with the function of liquid level detection, tracking and collision protection, sample probe matching special cleaning liquid, prevent cross contamination
Reagent capacity	2-300 μ l, 0.1 μ l increasing
Reagent probe	The inner and outer walls are highly polished, with the function of liquid level detection, tracking and collision protection
Reagent bottle	Reagent bottle Reagent bottles with volume of 15ml, 20ml, 30ml, 50ml, 60ml and 70ml can be used, and the dead volume is less than 1ml
Mixing bar	Double mixing bar, S and R2 independent mixing bar to reduce cross contamination. The mixing bar is made of special material, surface treatment using Teflon, not hanging liquid, thoroughly clean before and after mixing to prevent cross contamination

Reagent Handling

Reagent tray	80 positions in refrigerated compartment(4-16 $^{\circ}$ C)
Reagent volume	R1:150~300 μ l, R2: 20~150 μ l
Reagent probe	Liquid level detection, collision protection and inventory check
Probe cleaning	Interior and exterior automatic probe washing

Sample Handling

Sample tray	120 positions for sample primary or secondary tubes and sample cups
Sample volume	2~100 μ l, step by 0.1 μ l
Sample probe	Liquid level detection, clot detection and collision protection
Probe cleaning	interior and exterior automatic probe washing carry-over<0.05%

Calibration and quality control

Quality control type	real time quality control, daily quality control, day to day quality control
Quality control charts	L-J, Cumulative, Twin Plot
The quality control rules	arbitrarily formulated by default to Westguard multiple rules
The calibration type	linear and nonlinear. Logit-4P, Logit-5P, Spline, exponent, polynomial, factor method
Calibration	Automatically check the calibration curve and select the best calibration type of the fitting degree automatically

Operating System

English operating system	Windows2000、 windows XP、 windows7、 windows8、 windows10
Report printing	Make print format and content freely, provide several common formats
user management	Special user management password, rational distribution of user operation permissions
Interface	RS-232 standard interface, support for intranet, remote print report
Databases	Optional various databases, autosave, automatic backup, save all kinds of data permanently Real-time monitoring of sample tray、 reagents tray、 reacting tray; Real-time display of reaction temperature, reagent allowance, reaction curve, calibration curve and quality control chart Check and judge reaction endpoint, reaction linear interval, substrate exhaustion, reagent blank absorbance, etc.

Chemistry Analyzer Fully Automatic

BA-A-380



- ◆ Constant 300 test / hour with double reagent
- ◆ Up to 70 reagent positions
- ◆ Automatic liquid level sensing, anti-collision protection.
- ◆ Integrated full closed optical system, multi wavelength simultaneous detection.
- ◆ New amorphous optical plastics reaction cups, perfect transmittance.
- ◆ Maintenance-free semiconductor solid-state refrigeration.
- ◆ Friendly surface and easy to operation

Multifunctional precision sampling probe

- ◆ External & internal mirror polish, external & internal probe washing
- ◆ Equipped with sensitive liquid sensor, which can provide timely feedback of reagent & sample residuals.
- ◆ Anti-collision protection, automatic adjustment of probe depth.



Excellent mixer design

- ◆ Teflon coating mixer. No water dropping (reducing carry-over)
- ◆ Excellent mixing effect with standard mixing procedure



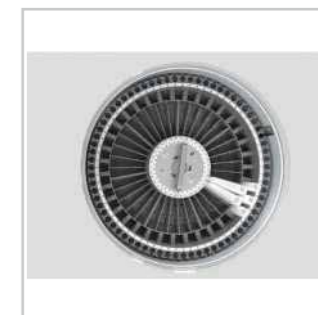
High precision ceramic syringe

- ◆ Permanent ceramic piston
- ◆ Accurate dispensing as low as 0.1 μ l



Reagent & sample tray

- ◆ 70 reagent positions
- ◆ 70 sample positions, micro cup & test tube can be used
- ◆ Non-stop cooling system with peltier pad inside, 24 hours 2°C-14°C
- ◆ Bar code reader(optional)



Reaction tray

- ◆ 90 reaction cuvettes
- ◆ Reaction volume as low as 150 μ l
- ◆ Stable & accurate temperature (37 \pm 0.1°C) for reaction



Advanced operating system

- ◆ User friendly software interface simple, easy-to-operation
- ◆ Automatic sample dilution(decrease, increase, normal).
- ◆ Automatic reaction result checking and warning, automatic calibration result checking, with warning log.
- ◆ Linear & nonlinear calibration, Multi-points calibration up to 8 points
- ◆ Quality control apply to westgard, L-T plot, cumulative



Technical specifications

General information	
Machine type	Random access, open reagent & locked reagent (optional)
Test speed	Constant 300 tests/hour (Mono reagent or double reagent)
Test principle	Colorimetric method, turbidimetry
Test method	1 point end, 2 point end, Fixed-Time, Kinetics
Calibration type	Linear & nonlinear

Sample unit	
Sample tray	70 sample positions
Sample tube	Micro cup & test tube & blood collection tube can be used. (ϕ 12-13)mm × (25-100)mm
Sample volume	2-30 μ l step by 0.1 μ l
Sample probe	Liquid surface detection, timely tracking for liquid volume. Collision avoidance
Sample barcode	Sample barcode reader (optional)

Reagent unit	
Reagent tray	70 reagent positions (40 for R1 & 40 for R2), Non-stop cooling system with peltier pad inside, 24 hours 2°C-14°C, open system, could accept any reagent.
Reagent volume	20-300 μ l, step by 1 μ l
Reagent needle	Liquid surface detection, timely tracking for liquid volume. Collision avoidance.
Reagent barcode	Reagent barcode reader (optional)

Reaction unit	
Reaction tray	90reaction cuvettes, new amorphous optical plastics reaction cups, perfect transmittance.
Reaction volume	150 μ l-330 μ l
Reaction time	10 minutes
Temperature	Peltier pad incubation system, reaction temperature(37°C \pm 0.1 °C)

Mixing system	
Mixer	paddle-type mixing, effective reducing of carry-over

Optical system	
Light source	Halogen lamp
Wavelength	340nm; 405nm; 450nm; 505nm; 546nm; 578nm; 630nm;700nm(4 more options)
Absorbance range	0-4.0 Abs
Resolution	0.0001 Abs

Operating system	
Operation system	Windows XP, Windows 7, Windows 8, Windows 10
Data processing	Automatic calibration, test combination, effective time management of reagents, serum index, whole process detection, linear expansion of enzyme, blank deduction, dirty cuvette memory, cross infection prevention, patient information memory and association input, automatic report audit, data fuzzy query, report statistics and printing, reference range grading, alarm information classification, user operation privilege classification management.
Report printing	6 formats optional, support custom pattern
Interface	TCP/IP network interface

Working conditions	
Language	Chinese, English, Russian, French, Spanish, Portuguese. Other language is optional.
Power supply	AC 110/220V \pm 10%, 50/60 Hz, 650W
Water consumption	12L/hour(maximum)
Dimension	920mm×650mm ×1120mm(L×W×H)
Weight	170kg

Chemistry Analyzer Fully Automatic

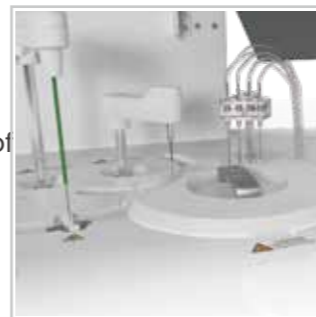
BA-A-480



- ◆ Constant 400 test / hour with double reagent
- ◆ Up to 90 reagent positions
- ◆ Automatic liquid level sensing, anti-collision protection.
- ◆ Integrated full closed optical system, multi wavelength simultaneous detection.
- ◆ New amorphous optical plastics reaction cups, perfect transmittance.
- ◆ Maintenance-free semiconductor solid-state refrigeration.
- ◆ Friendly surface and easy to operation

Multifunctional precision sampling probe

- ◆ External & internal mirror polish, external & internal probe washing
- ◆ Equipped with sensitive liquid sensor, which can provide timely feedback of reagent & sample residuals.
- ◆ Anti-collision protection, automatic adjustment of probe depth.



Excellent mixer design

- ◆ Teflon coating mixer. No water dropping (reducing carry-over)
- ◆ Excellent mixing effect with standard mixing procedure



High precision ceramic syringe

- ◆ Permanent ceramic piston
- ◆ Accurate dispensing as low as 0.1 μ l



Reagent & sample tray

- ◆ 90 reagent positions
- ◆ 120 sample positions, micro cup & test tube can be used
- ◆ Non-stop cooling system with peltier pad inside, 24 hours 2°C-14°C
- ◆ Bar code reader (optional)



Reaction tray

- ◆ 90 reaction cuvettes
- ◆ Reaction volume as low as 150 μ l
- ◆ Stable & accurate temperature ($37 \pm 0.1^\circ\text{C}$) for reaction



Advanced operating system

- ◆ User friendly software interface simple, easy-to-operation
- ◆ Automatic sample dilution (decrease, increase, normal).
- ◆ Automatic reaction result checking and warning, automatic calibration result checking, with warning log.
- ◆ Linear & nonlinear calibration, Multi-points calibration up to 8 points
- ◆ Quality control apply to westgard, L-T plot, cumulative



Technical specifications

General information	
Machine type	Random access, open reagent & locked reagent (optional)
Test speed	Constant 400 tests/hour (Mono reagent or double reagent)
Test principle	Colorimetric method, turbidimetry
Test method	1 point end, 2 point end, Fixed-Time, Kinetics
Calibration type	Linear & nonlinear

Sample unit	
Sample tray	120 sample positions
Sample tube	Micro cup & test tube & blood collection tube can be used. (ϕ 12 -13)mm ×(25-100)mm
Sample volume	2-30 μ l step by 0.1 μ l
Sample probe	Liquid surface detection, timely tracking for liquid volume. Collision avoidance
Sample barcode	Sample barcode reader (optional)

Reagent unit	
Reagent tray	90 reagent positions (40 for R1 & 40 for R2), Non-stop cooling system with peltier pad inside, 24 hours 2°C-14°C, open system, could accept any reagent.
Reagent volume	20-300 μ l, step by 1 μ l
Reagent needle	Liquid surface detection, timely tracking for liquid volume. Collision avoidance.
Reagent barcode	Reagent barcode reader (optional)

Reaction unit	
Reaction tray	90 reaction cuvettes, new amorphous optical plastics reaction cups, perfect transmittance.
Reaction volume	150 μ l-330 μ l
Reaction time	10 minutes
Temperature	Peltier pad incubation system, reaction temperature(37°C \pm 0.1 °C)

Mixing system	
Mixer	paddle-type mixing, effective reducing of carry-over

Optical system	
Light source	Halogen lamp
Wavelength	340nm; 405nm; 450nm; 505nm; 546nm; 578nm; 630nm;700nm(4 more options)
Absorbance range	0-4.0 Abs
Resolution	0.0001 Abs

Operating system	
Operation system	Windows XP, Windows 7, Windows 8, Windows 10
Data processing	Automatic calibration, test combination, effective time management of reagents, serum index, whole process detection, linear expansion of enzyme, blank deduction,dirty cuvette memory, cross infection prevention, patient information memory and association input, automatic report audit, data fuzzy query, report statistics and printing, reference range grading, alarm information classification, user operation privilege classification management.
Report printing	6 formats optional, support custom pattern
Interface	TCP/IP network interface

Working conditions	
Language	Chinese, English, Russian, French, Spanish, Portuguese.Other language is optional.
Power supply	AC 110/220V \pm 10%, 50/60 Hz, 650W
Water consumption	15L/hour(maximum)
Dimension	1110mm×765mm ×1150mm(L×W×H)
Weight	200kg

Chemistry Analyzer Fully Automatic

BA-A-S120Mini



Description

- The biochemistry analyzer is fast, easy to use, and has a very friendly user interface. It is widely used in hospitals at all levels, epidemic prevention stations, and family planning service stations.



Features

- Up to constant 120 tests/h
- One button to test
- All-in-one machine
- Direct print report



Features

- Up to constant 120 tests/h
- Discrete/random access
- STAT sample priority
- Easy to use
- User friendly interface
- No computer
- Internal thermal printer
- Direct print report
- All-in-one machine



Specifications

Model	BA-A-S120Mini
Sample	27 positions for sample
Reagent	54 positions for reagent
Volume	27 bottles with volume of 8ml
	27 bottles with volume of 20ml
Function	Liquid level detection
	Collision protection
	High pressure water flush interior the probe
Carry-over	< 0.1%
Packing size	390*680*440
Gross wight	27Kg

Fully Automated Biochemistry Analyzer (POCT)

BA-PA-120

Description

- BA-PA-120 auto dry biochemistry analyzer is a biochemical analysis system that integrates conventional biochemistry, coagulation, electrolyte and immunoassay items. It is widely used in primary health, emergency diagnostic testing, field rescue and other fields.



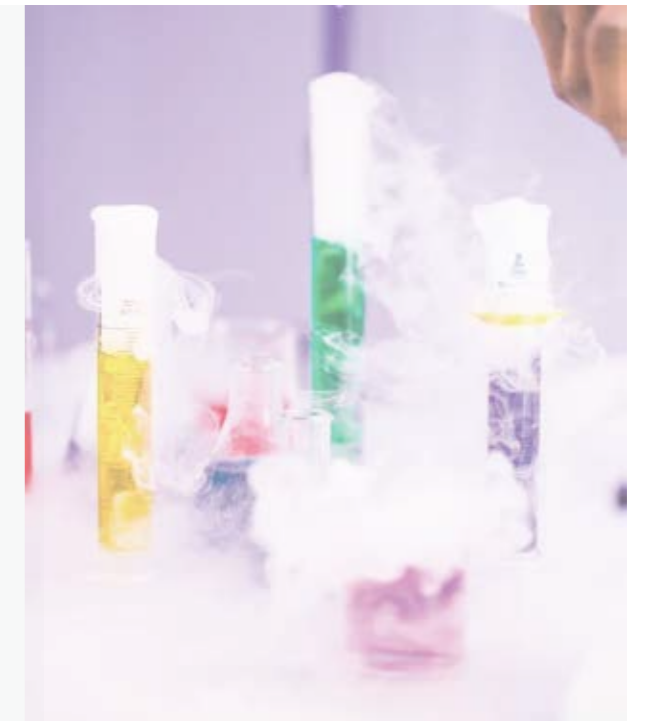
Features

- Test results in 12 minutes
- 3-step simple operation
- Build results database (LIS System)
- Test up to 34 parameters in total



Features

- **Low Sample Consumption**
Sample volume is 1/10- 1/20 of conventional chemistry analyzer.
- **Easy to Use**
No professional skill required.
- **Maintenance Free**
Robust analyzer, no consumables needed, such as tubes, pumps and valves.
- **Accurate Result**
Using the photoelectric colorimetric principle, the BA-PA-120 analyzer has many advantages versus conventional dry biochemistry analyzer using the light reflection method. Dilution of test sample is guaranteed without random errors or cross contamination.



Specifications

Model	BA-PA-120
Sample volume	90-120µl
Bar code	Two-dimensional bar code
Testing time	12minutes/sample
Temperature	37°C ±0.3°C
Resolution	0.001Abs
Absorbance	0-3.0Abs
Sample type	Anti-coagulated whole blood, serum, plasma
QC&Calibrate	Real time full-auto finish
Operational environment	Temperature:10-32°C ; Humidity: <85%
Testing principle	Absorption spectroscopy , transmission turbidimetry
Testing method	End point, kinetic , fixed time and turbidimetry
Light source	12V/20W,halogen tungsten lamp's life span is over 2500 hours
Electricity	AC100V-240V , 50-60Hz
Display	Android 6.5 inch 800*480 , multi-point capacitive touch screen
Storage	500000 results
Printer	Built-in thermal printer
Connector	4 USB ports, 1 LAN port
Dimensions (W×D×H)	315×375×475mm
Net Weight	4.2 Kg

Semi-Auto Chemistry Analyzer

BA-SA-100



Semi-Auto Chemistry Analyzer

- ◆ Windows embedded compact 7 smart operation system
- ◆ 7" inch true color touch screen(800×480 pixels)
- ◆ 5 USB ports & 1 ethernet port
- ◆ Flow cell & cuvette testing mode
- ◆ Huge storage of more than 300 programs & 200000 sample results



Specifications

Technical specifications	
Test method	1 point end, 2 point end(Sample blank), Kinetics, Fixed-time
Optics	7 standard filters: 340nm, 405nm, 450nm, 505nm, 546nm, 578nm, 630nm. 2 more for optional.
Lamp house	Long-life tungsten halogen lamp(6V/10W), auto-sleep function.
Display	7.0" TFT LCD with touch screen, 800*480 pixels.
Printer	Build-in thermal printer, 57mm printer paper.
Temperature	25/ 30, 37°C and Room temperature. By means of Peltier elements.
Flow cell capacity & optical path	32μl, 10mm.
Resolution	0.0001 Abs.
Photometric range	0.0000-4.0000 Abs.
CPU	ARM Cortex-A8, 720M Hz
Memory	DDR2 SDRAM: 1G bit;
Flash	256 MB; Over 300 programs, 200000 results can be stored.
Interface	4 USB Hosts, 1 USB Slave, 1 Ethernet port. USB port(host) for keyboard, mouse, printer, U disk, bar code reader etc. USB port(slave) for PC connection(support PC software control function).
Operational environment	Temperature: 10°C~30°C, Humidity: 30%~80%.
Power requirement	Wide power supply AC 100-240V, 50/60 Hz.
Dimension	400×300×160mm(L×W×H).
Language	Russian、English、Portuguese、Spanish、Chinese

Semi-Auto Chemistry Analyzer

BA-SA-100C



Semi-Auto Chemistry Analyzer

- ◆ Windows embedded compact 7 smart operation system
- ◆ 7" inch true color touch screen(800×480 pixels)
- ◆ 5 USB ports & 1 ethernet port
- ◆ Flow cell & cuvette testing mode
- ◆ Multifunctional incubator & blood coagulation function
- ◆ Blood coagulation function: The instrument can perform blood coagulation routine tests: PT, APTT, TT and can measure blood coagulation time
- ◆ Different vacancies on the multifunctional incubator can be used for different sizes of test tubes, cuvettes, etc
- ◆ Huge storage of more than 300 programs & 200000 sample results



Specifications

Technical specifications	
Test method	1 point end, 2 point end(Sample blank), Kinetics, Fixed-time, Coagulation
Optics	7 standard filters: 340nm, 405nm, 450nm, 505nm, 546nm, 578nm, 630nm. 2 more for optional.
Lamp house	Long-life tungsten halogen lamp(6V/10W), auto-sleep function.
Display	7.0" TFT LCD with touch screen, 800*480 pixels.
Printer	Build-in thermal printer, 57mm printer paper.
Temperature	25/ 30, 37°C and Room temperature. By means of Peltier elements.
Flow cell capacity & optical path	32μl, 10mm.
Resolution	0.0001 Abs.
Photometric range	0.0000-4.0000 Abs.
CPU	ARM Cortex-A8, 720M Hz
Memory	DDR2 SDRAM: 1G bit;
Flash	256 MB; Over 300 programs, 200000 results can be stored.
Interface	4 USB Hosts, 1 USB Slave, 1 Ethernet port. USB port(host) for keyboard, mouse, printer, U disk, bar code reader etc. USB port(slave) for PC connection(support PC software control function).
Operational environment	Temperature: 10°C~30°C, Humidity: 30%~80%.
Power requirement	Wide power supply AC 100-240V, 50/60 Hz.
Dimension	400×300×160mm(L×W×H).
Language	Russian、English、Portuguese、Spanish、Chinese

Semi-Auto Chemistry Analyzer

BA-SA-120



Performance



- ◆ Back spectro photometry, 7 hard membrane filters, separate signal process circuit for each wavelength, filters select completed electronically, no mechanical movement
- ◆ Hermetic solid-state optical system, low contamination of dust and dampness, long life time of hard membrane filters
- ◆ Titanium alloy flow cell with small capacity and minimize cross-contamination
- ◆ 200000 patients test data and 300 test programs can be saved
- ◆ Adopt 7" touch screen, 800×480 pixels



Technical Specifications

Model	BA-SA-120
Analysis method	kinetics, end point, two point
Light source	halogen lamp 6V/10W
Optical system	340-800nm
7 standard filter	340, 405, 492, 510, 546, 578, 630nm wavelength, accuracy:±2nm
Abs range	0.000-4.000Abs, resolution: 0.001Abs
Flow cell	titanium quartz alloy, 32uL; optical path: 10mm
Temperature	PELTIER elements, 37°C, Room, ±0.1°C
Precision	error<1%, drift<5mAbs/hr
Printer	thermal printer, 57mm width paper
Display	7" touch screen, 800×480 pixels
CPU	Samsung S5PV210, Cortex TM-A8, 1GHz
Memory	DDR2 SDRAM, 256MB Flash: 4GB
Interface	3 USB ports, 1 RS232 serial port
Dimensions	400(L)*290(W)*165(H)mm
Package Size	490(L)*410(W)*300(H)mm
Temperature	10°C-30°C
Humidity	30%-80%
Power supply	AC100-240V 50/60Hz
Language	English
Net weight	5kg
Gross weight	6kg

Main test items list											
Liver Function	ALT	AST	ALP	T-BIL	D-BIL	TP	ALB	TTT	CHE	Nh3	γ-GT
Renal Function	BUN		CRE		UA		CO2-CP				
Lipids	T-CHO		TG		HDL-C		LDL-C				
Cardiac function	CK		CK-MB		LDH		HDBH				
Others	GLU		K		Na		Cl		Ca		

Veterinary Chemistry Analyzer

BA-VA-120



◆ It is a completely new chemistry, electrolyte, immunoassay and coagulation analyzer for animal health diagnosis producing accurate reference laboratory quality results.



multi-point capacitive touch screen



Built-in thermal printer



Reagent tray



Reagent tray

Features



◆ **Small sample volume**
Sample volume required for analysis is only 1/10-1/20 when compared to traditional chemistry analyzers.

◆ **Easy to Carry**
5kg. The analyzer was designed to be portable and have a small footprint, ensuring that it can be used anywhere at any time.



◆ **Less Maintenance**
No maintenance consumables, such as tubing, pumps or valves required, which saves on maintenance expense.

◆ **Accurate Results**
The analyzer utilizes the photometric colorimetric principle, which is superior to the dry chemistry analyzer using a light reflection principle. The accurate rotor mould guarantees consistent test sample and dilution volumes, eliminating random error and cross contamination.

Specification

Model	BA-VA-120
Sample volume	90-120 μ L
Bar code	Two-dimensional bar code
Testing time	12minutes/sample
Temperature	37 $^{\circ}$ C \pm 0.2 $^{\circ}$ C
Resolution	0.001Abs
Absorbance	0-3.0Abs
Sample type	Anti-coagulated whole blood, serum, plasma
QC&Calibrate	Real time full-auto finish
Operational environment	Temperature:10-32 $^{\circ}$ C; Humidity: <85%
Testing principle	Absorption spectroscopy, transmission turbidimetry
Testing method	End point, kinetic, fixed time and turbidmetry
Light source	12V/20W,halogen tungsten lamp's life span is over 2500 hours
Electricity	AC100V-240V, 50-60Hz
Display	Android 6.5 inch 800*480, multi-point capacitive touch screen
Storage	4G, > 100.000 results
Printer	Built-in thermal printer
Connector	2 USB ports
Dimensions (W×D×H)	345×315×405
Weight	5 Kg
Language	English, German, Portuguese, Spanish, Italian, Russian

Semi Auto Biochemistry Analyzer

BA-SA-100B



Adopt 7 inch color LCD touch screen

Wavelength precision: ± 2 nm, width ≤ 10 nm

7 wavelength ,

80 test item pre-programmed



ARM series high speed micro CPU



Built-in thermal sensitive printer



7 standard filters



Flow cell and cuvette test mode compatible



Real time curve showing



Memory for 10,000 sample results and 150 test items



Light source hibernate function making lamp life longer



RS232 interface, PC connecting

Specifications

Model	BA-SA-100B
Test mode	Kinetic, End point, Two point, Absorbance
Wavelength	7 standard filters, 340, 405, 492, 510, 546, 578, 630 nm, 1 free position
Wavelength precision	± 2 nm, width ≤ 10 nm
Absorbance range	0~4.500 Abs
Absorbance precision	Outside 0.0001 Abs , inside 0.00001 Abs
Carry over	< 1%
Repeatability CV	< 1%
Sample volume	0~3000 μ L (≥ 500 μ L recommend)
Data Storage	≥ 10000
Quality control curve	、 SD、 CV%、 L-J quality control curve for every test item
Flow cell	32 μ L quartz glass, 10 mm
Lamp	Philips 6V 10W Halogen Lamp with long life
Screen	7 inches color LCD
CPU	ARM series high speed micro CPU
Printer	Built-in thermal sensitive printer
Work environment	Temperature 0 C ~ 40 C , Humidity: $\leq 80\%$
Electricity	100~240VAC , 50~60Hz, 100VA
Dimension(L*W*H)	360*270*180 mm
Packing dimension (L*W*H)	500*460*290mm
Net weight	5 kg
Gross weight	7.5kg
Optional language	English; French; Spanish; Portuguese; Indonesian
Usual test list	Liver function:
	ALT AST ALP T-BIL D-BIL TP ALB TTT CHE Nh3
	Renal function :
	BUN CRE UA URE CO2-CP γ -GT
	Lipids:
	T-CHO TG HDL-C LDL-C
	Cardiac function:
	CK CK-MB LDH
	Immune proteins:
	IGA IGG IGM C3
Others:	
GLU HGB AMS	

Description

- Semi auto biochemistry analyzer is widely used in medical institutions to quantitatively analyze the clinical chemical components of serum, plasma and other samples, such as the detection of liver function, kidney function, blood lipids, myocardial enzymes, inorganic ions and other biochemical items.