

**AGAPPE**  
YOUR BEST PARTNER IN DIAGNOSTICS



**MISPA clinia<sup>Plus</sup>**  
Fully Automatic Clinical Chemistry Analyser

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# MISPA Clinia<sup>Plus</sup>

Fully Automatic Clinical Chemistry Analyser

## SYSTEM OVERVIEW

### REAGENTS CAROUSEL

- 60 reagent positions for 20ml, 50ml and 100ml bottles, all cooled between 8 - 15°C. Our smart reagent inventory management system with barcode functionality ensures instant recognition of reagents. Agappe offers a wide range of dedicated system reagents.

### DUAL STIRRERS

- Dual 5 speed rotating stirrers rinsed with purified water. The option of different mixing speed ensure that each reagent and sample are at optimum viscosity to enable accurate and precise measurement.

### WASH STATION

- 8-step washing process with acid, alkali and pure water ensures cuvettes are thoroughly cleaned before each test.

### SAMPLE CAROUSEL

- The emergency loading port allows run interruption for STAT sample processing. 72 positions are contained within the outer ring of the carousel for normal and STAT samples with 20 positions available in the inner ring for QC and calibrators. Barcode sample identification ensures accurate matching of patient identification to specimen.

### PERMANENT CUVETTES

- With 90 permanent Pyrex cuvettes, Mispa Clinia Plus reduces downtime and ongoing consumable costs associated with changing disposable or semi-disposable cuvettes. Permanent cuvettes offer a lifetime assurance and ensuring stability and accuracy of patient results.

## ACCURATE IN RESULTS

- Dual reagent probes with liquid level sensors minimize carry over increasing accuracy. Serum indices check the integrity of patient samples, flagging of samples are icteric, hemolytic or lipemic. Dual 5 speed stirrers are optimized for each assay to ensure highly accurate results

## FLEXIBILITY & VERSATILITY

- 12 wavelengths generated via diffraction grating (340-800nm) ensure a multitude of chemistries are possible on one system. Mispa Clinia Plus can run monochromatic, bi-chromatic, endpoint, kinetic, sample blanking and reagent blanking assays. A cooled reagent carousel, with 60 positions, allows on-board storage without compromising stability.

## UNRIVALLED PERFORMANCE

- 90 Hard Glass cuvettes with cuvette check function ensures only clean and viable reaction vessels are used. 5 speed mixing arms eliminate foaming and ensure adequate mixing of latex enhanced immunoturbidimetric assays. The continuous STAT loading hatch allows emergency samples to be analysed quickly and easily at any time.

## BENEFITS

## COMPACT AND EFFICIENT

# RELIABILITY COUNTS ... FEEL THE CLASS

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## REACTION TRAY.

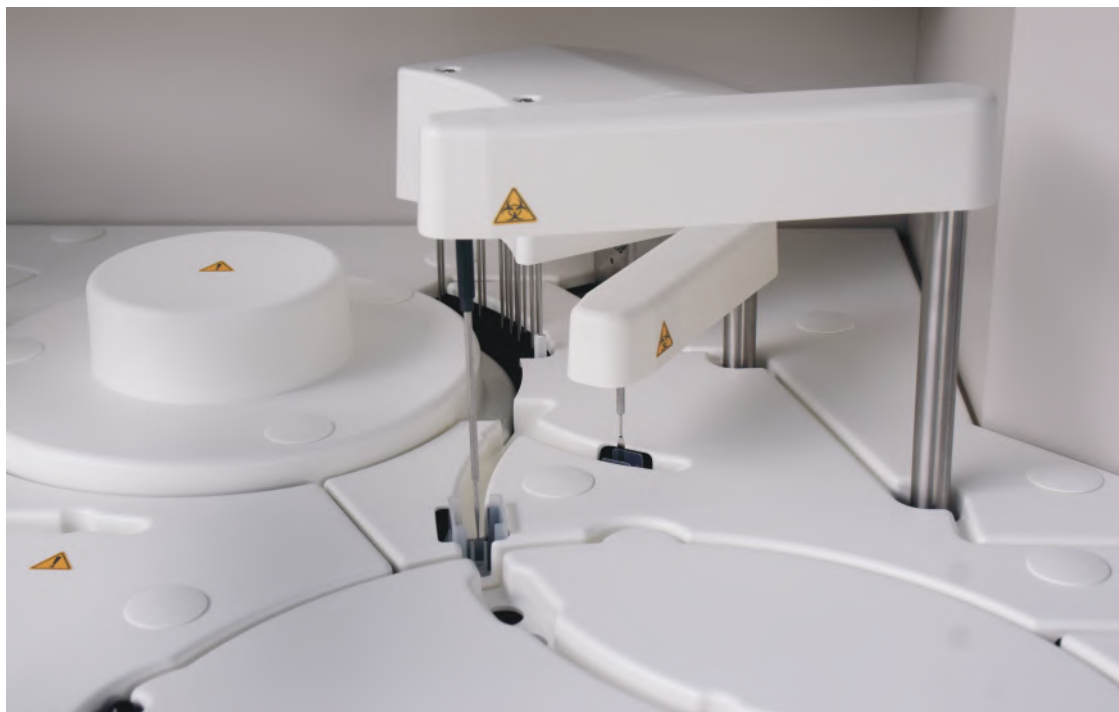
- 90 permanent Pyrex cuvettes with cuvette check function ensures only clean and viable reaction cuvettes are used. Mispa Clinia Plus reduces downtime and ongoing consumable cost associated with changing disposable or semi-disposable cuvettes.



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## HIGHLY-PRECISE SAMPLE PIPETTING SYSTEM



Low sample volume of just 2.0  $\mu\text{l}$ (min). Capable of processing various sample types.  
Liquid level, clot & crash detection.

72 positions for samples + 20 positions for controls and standards.  
Capable of holding primary tubes, sample cups and pediatric cups

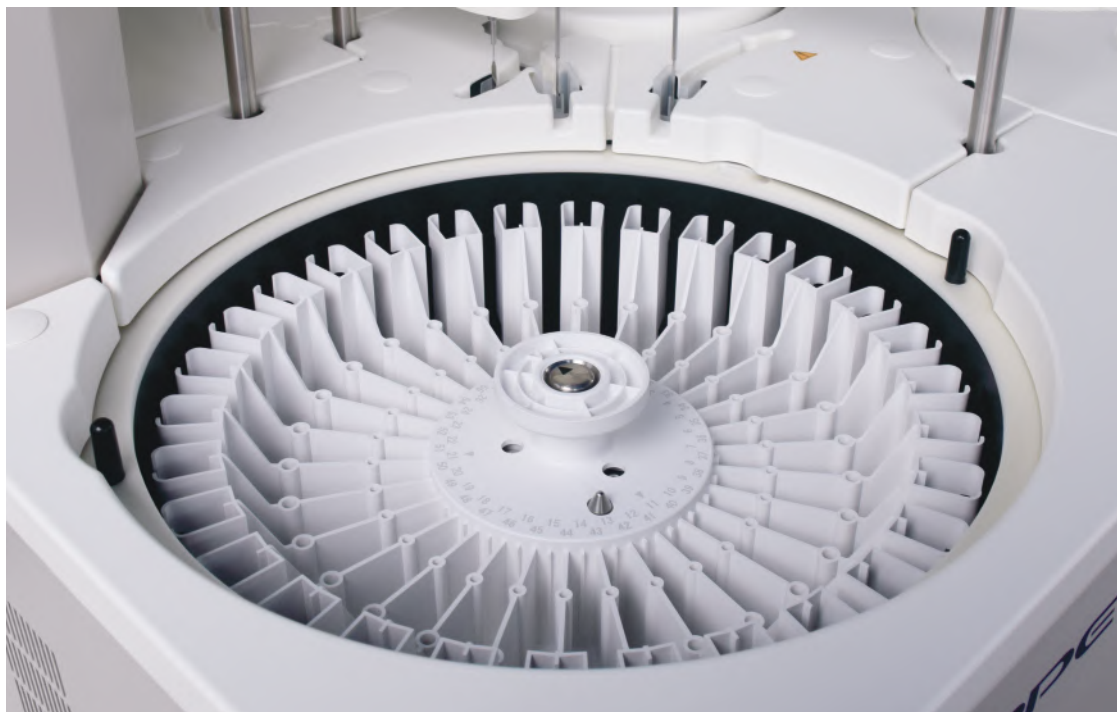


## MULTI-FUNCTION SAMPLE TRAY



# MISPA<sup>Plus</sup> clinia

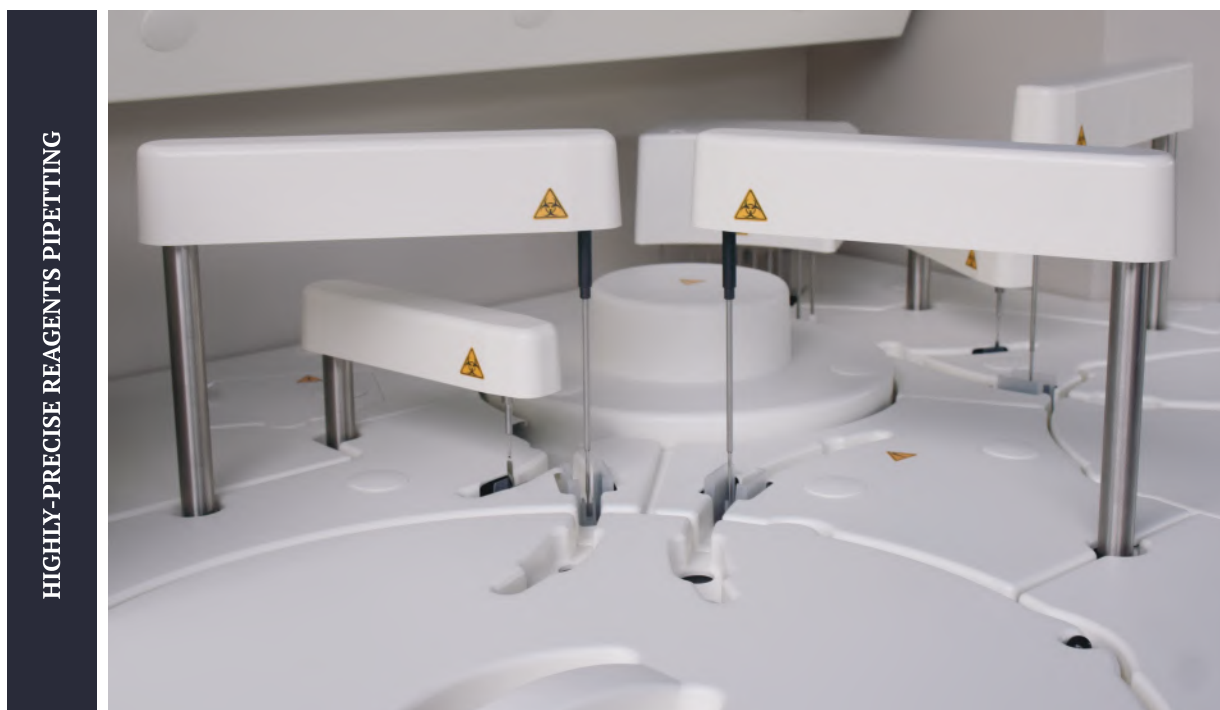
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HIGHLY-STABLE REFRIGERATED REAGENTS TRAY

Removable carousel for easy loading, 60 cooled positions to enhance reagents stability.

2 pipetes for R1 and R2. Low reagents volume. R1: 20 to 350  $\mu$ l. R2: 20 to 250  $\mu$ l.  
Liquid level & crash detection facility.



HIGHLY-PRECISE REAGENTS PIPETTING

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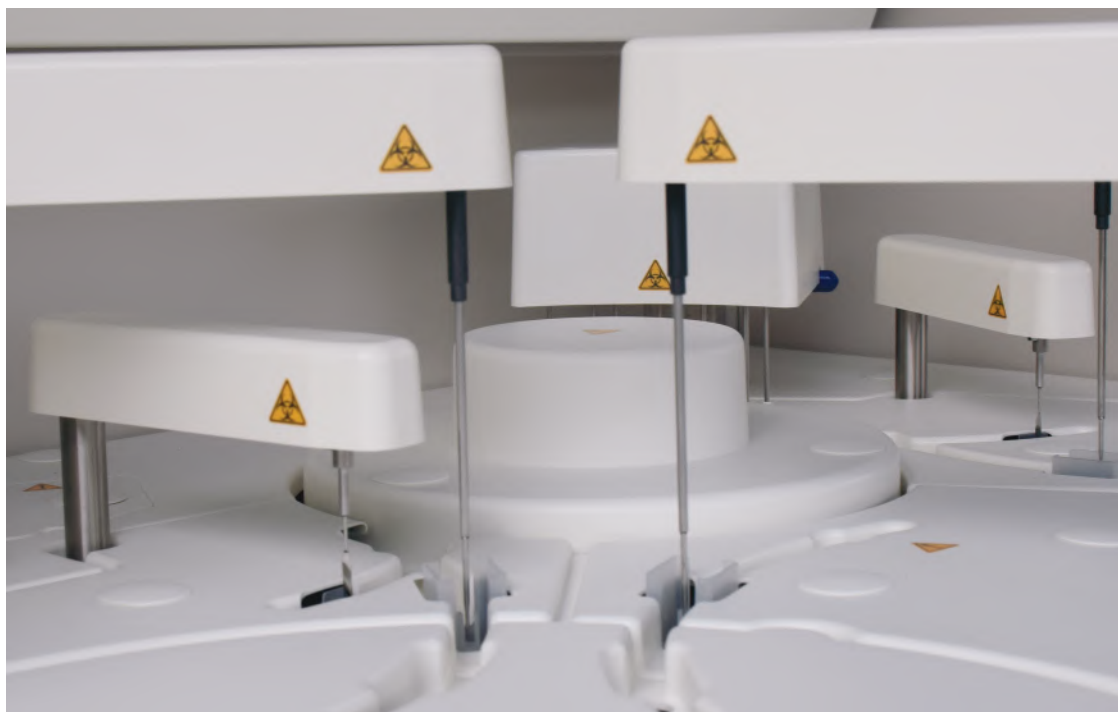
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## AUTOMATIC WASHING SYSTEM



Effective cleaning method minimizes carry over and contamination

Dual stirrer with 5 speed mixing technology is highly efficient for latex based assays.  
The specially designed mixer ensure homogeneous mixing of reagents and sample.



## VARIABLE SPEED STIRRING SYSTEM.

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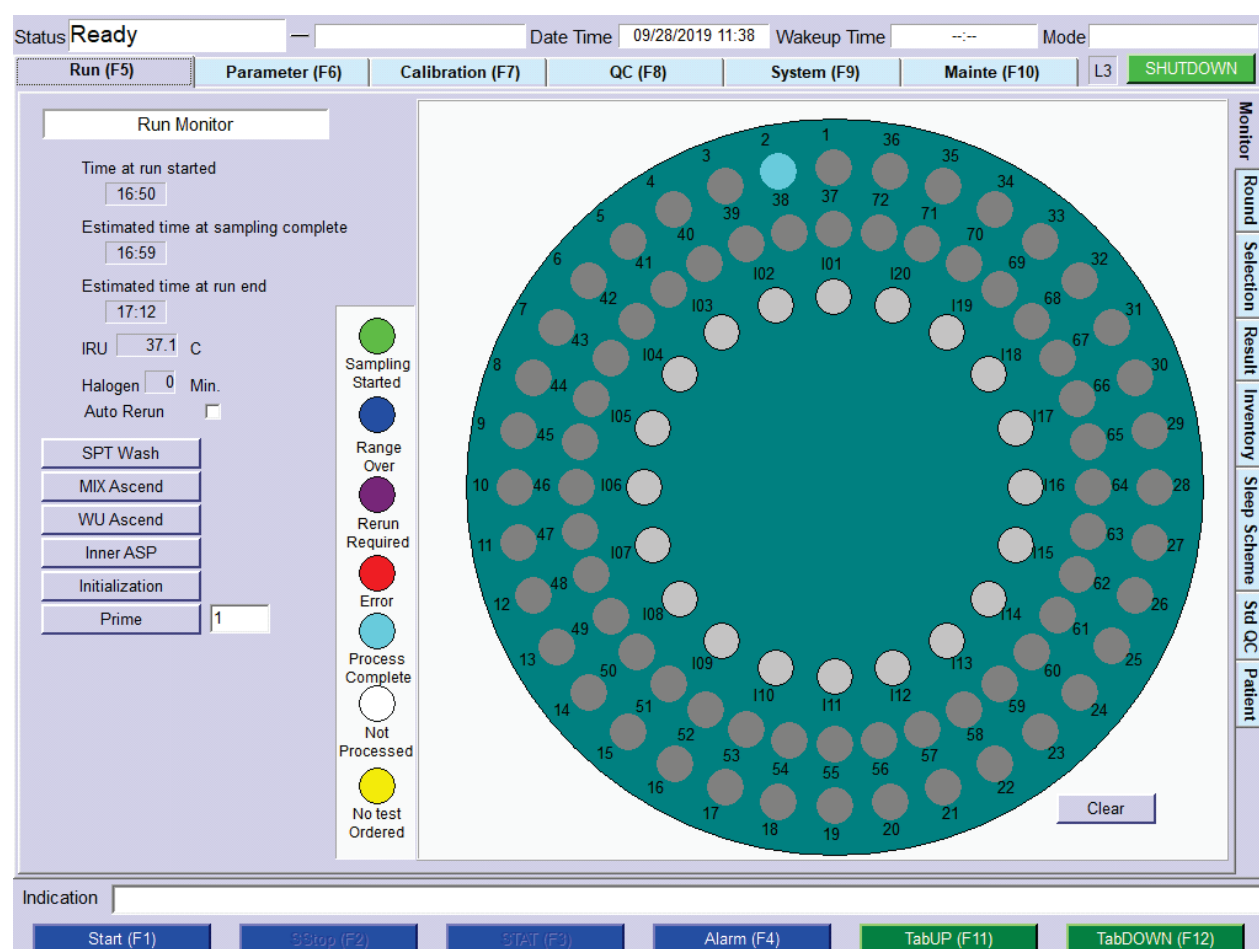
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## WINDOWS® BASED SOFTWARE

- Mispa Clinia Plus incorporates Windows® 10 based software. This intuitive software is easy for users to navigate, enhancing productivity requiring minimal training. The main screen links to several tabs including: Quality Control, Parameter, Calibration and Maintenance, allowing for simple access to information and straight forward selection of the operations required. Secure remote diagnostics saves money and time by allowing access to expert technical and applications staff anytime, anywhere.

SOFTWARE

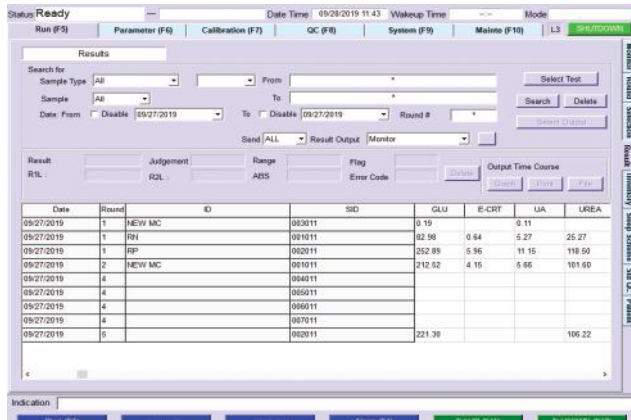


A STEP AHEAD



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**REPORTS:** The operator can search for previous reports and view real time results status, including time left until completion. Mispa Clinia Plus has a high capacity storage of up to 10,00,000 results.



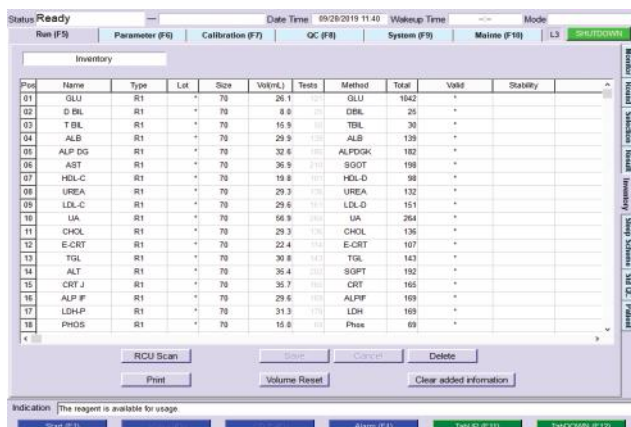
**CHEMISTRY PARAMETERS:** Chemistry parameters screen enables pre-sample dilution to be set up and re-running of assays as required. User Can set up to 20 different tests and define the order of analysis.



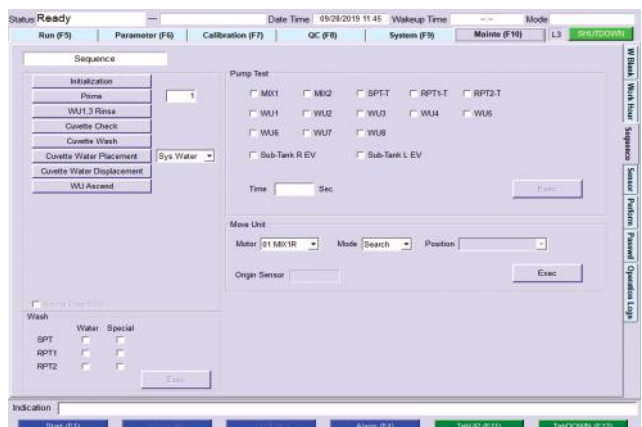
**CALIBRATION:** Software displays the current valid calibration for each assay, reagent blank, absorbance and the calibration check interval.



**QUALITY CONTROL:** QC screen generates L-J charts allowing an easy visual inspection to assess and identify the QC errors. QC multi rules can be applied to ensure high error detection and minimal false rejection.



**REAGENT INVENTORY:** Remaining reagents volume is automatically calculated onboard alongside the number of tests available and the stability of the reagents.



**MAINTENANCE:** Easy Maintenance through automated self maintenance on demand option, Less than 5 minutes daily maintenance is required.

Product Code	Product Name	Pack	No. of tests
12023001	Albumin	4x65mL	1100
12023002	Alkaline Phosphatase - DGKC	3x63/3x20mL	972
12023003	Alkaline Phosphatase - IFCC	3x63/3x20mL	972
12023004	Amylase	2x55mL	618
12023005	Bilirubin Direct	3x63/3x8mL	540
12023006	Bilirubin Total TAB	3x63/3x8mL	540
12023007	Calcium (Arsenazo)	2x40mL	330
12023008	Cholesterol	5x65 mL	1400
12023009	Creatinine	3x60/3x18mL	804
12023010	CK-NAC	2x20/2x7mL	160
12023011	Enzymatic Creatinine	3x52/3x20 mL	726
12023012	Gamma GT	1x65/1x20mL	280
12023013	Glucose	5x65mL	1390
12023014	Glucose Hexokinase	3x63/3x20mL	816
12023015	HDL-C Direct	3x53/3x20mL	738
12023016	Inorganic Phosphorous	2x65 mL	560
12023017	LDH-P	1x65/1x20mL	330
12023018	LDL-C Direct	3x30/3x11mL	366
12023019	Lipase	1x40/1x13mL	205
12023020	Magnesium	2x30mL	236
12023021	SGPT	3x63/3x20mL	972
12023022	SGOT	3x63/3x20mL	972
12023023	Triglycerides	5x65mL	1400
12023024	Total Protein	2x50mL	420
12023025	Uric Acid	4x60mL	1020
12023026	Urea U.V	3x65/3x20mL	840
12023027	ASO	2x20/2x8mL	136
12023028	Apo A1	2x20/2x5mL	150
12023029	Apo B	2x20/2x5mL	150
12023030	CRP	1x50/1x20mL	230
12023031	C3	2x19/2x5 mL	130
12023032	C4	2x19/2x5 mL	130
12023033	Ceruloplasmin	2x20/2x5mL	120
12023034	Cystatin C	2x20/2x6mL	140
12023035	CRP Ultra	2x20/2x11mL	176
12023036	Ferritin	2x20/2x8mL	136
12023037	HbA1c Direct	1x50/1x20mL	230
12023038	RF	2x20/2x9mL	136
12023039	IgA	2x20/2x8mL	158
12023040	IgE	2x20/2x6mL	136
12023041	IgG	2x15/2x15mL	126
12023042	IgM	2x20/2x9mL	156
12023043	Lp(a)	2x20/2x6mL	140
12023044	Microalbumin	2x20/2x6mL	140
12023045	Prealbumin	2x20/2x4mL	140

WIDE RANGE OF  
BIOCHEMISTRY  
PARAMETERS IN  
ONE EFFICIENT  
PLATFORM  
OFFERING  
CONSOLIDATION &  
COST SAVINGS



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# Technical Specifications

## PERFORMANCE

Throughput	400 photometric tests per hour
Analyser type	Discrete fully automated random access clinical chemistry analyser
Assay tests	Endpoint, kinetic, biochromatic, turbidimetric, sample blanking, reagents blanking
Data management	Sample measurement results 10,00,000 tests, search facility, test counter
Test channels	60 photometric channels
Sleep mode	User defined sleep mode capabilities with automatic wash and instrument preparation

## REAGENTS & SAMPLE SYSTEM

Reagents capacity	Removable tray with 60 cooled positions (30 positions for 100 or 50ml bottles and 30 positions for 20ml bottles)
Reagents cooling	8-15°C
Reagents identification	Through barcode reagents identification
Reagents inventory	Calculation of remaining reagents volume and tests available, alert for shortage, expired reagent and expired calibration
Reagents pipette	Separate probe for R1 and R2 with liquid level sensor and crash detection, rinsed inside and outside with purified water
Sample addition	Immediate sampling interruption for addition of samples via removable panel
Sample capacity	Removable tray with 72 positions for samples and 20 positions for controls and calibrators
Sample dead volume	150µl in standard or primary tubes, 100µl in paediatric cups
Sample dilution	Pre-dilution and automatic re-assay with diluted, reduced or increased sample volume. Dilution mixture 100 -350µl consisting of 2 - 35µl of sample and 20 -350µl of diluent.
Sample identification	Postive sample ID with Barcode available
Sample pipette	Dedicated sample micropipette with liquid level sensor, crash detection and clot detection. Rinsed inside and outside with purified water

## REACTION SYSTEM

Minimum reaction volume	150µl
Stirrer speed	Dual 5- speed rotating stirrers rinsed with purified water
Stirrer system	Paddle type rotating stirrer cleaned with purified water
Cuvettes	90 permeant Pyrex cuvettes, min volume 150µl, Max volume 450µl, 8-stage cuvette washing system
Water consumption	18L per hour
Water requirements	NCCLS type 1 or 2 purified water supply at pressure [0.15-0.34Mpa]

## OPTICAL SYSTEM

Detector method	Direct absorbance in cuvette (biochromatic and monochromatic)
Detection principle	Grating photometry with 12 selectable wavelengths: 340, 380, 415, 450, 510, 546, 570, 600, 660, 700, 750 and 800 nm
Light source	Halogen tungsten lamp (air -cooled)

## CALIBRATION & QC

Quality control	Interactive Levey- Jennings Charts, Daily, Monthly and Batch QC with data archiving, Automatic QC and calibration
Calibration principle	Factor, Linear, point to point, spline, log-logit and exponential. Up to 7 calibrators per test

## POWER & CONNECTIVITY

Input voltage	100 - 240 Vac
Power consumption	<900 VA
UPS requirements	1230 W (analyser and PC)
HIS/LIS connectivity	Bi - directional; ASTM standard (RS232 connection)

ISO 9001:2015  
EN ISO 13485:2016



Toll Free No: 1800 425 7151

**AGAPPE DIAGNOSTICS LTD.**

“Agappe Hills”, Pattimattom (PO), Dist. Ernakulam, Kerala - 683 562, India.

TEL: + 91 484 2867000 | productcorp@agappe.in | www.agappe.com

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