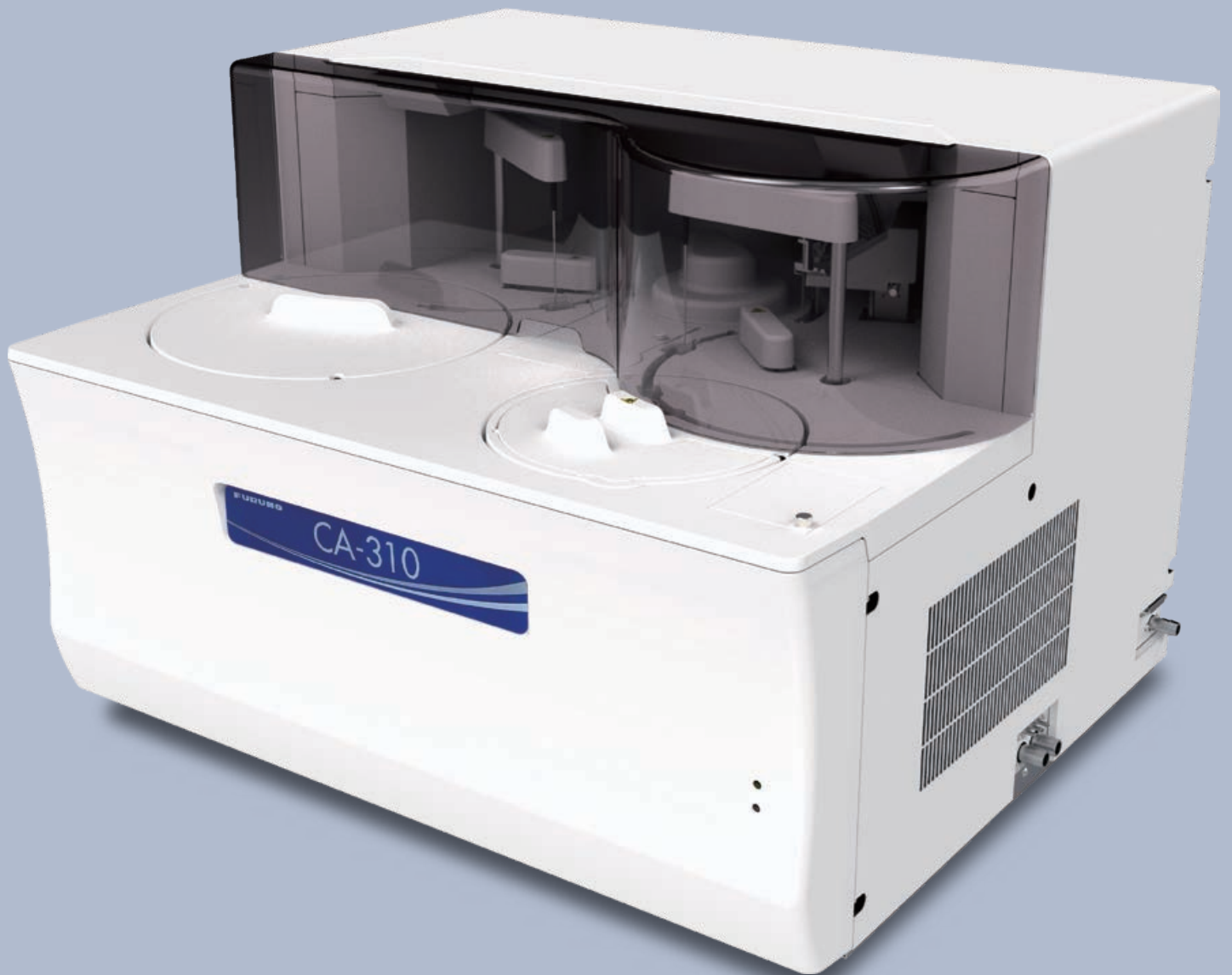


**FURUNO**

Clinical Chemistry Analyzer

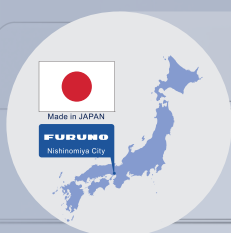
MODEL

**CA-310**



Advanced clinical chemistry analyzer  
offering reliable **precision** and **efficiency**

# CA-310



Achieving high precision and reliability  
through in-house assembly and  
production at FURUNO's domestic factory.



Building reliability since 2002,  
Driven by customer needs.



Chosen and trusted by medical  
institutions worldwide.



Providing technical support  
backed by expertise.



ISO13485 Certified  
CE (IVDR) Compliant.

Core Values  
of  
FURUNO

# Best solution for modern laboratory

Comprehensive solution to high complex demand

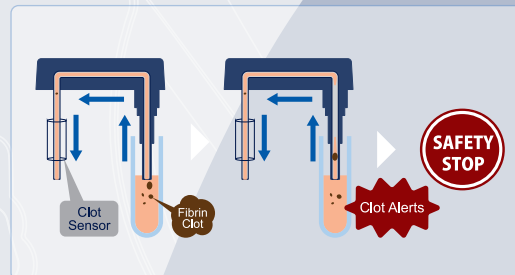


# Technologies and Systems for Precision

## High-Precision liquid Dispensing System

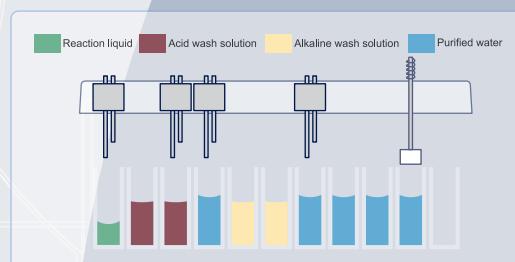
Minimum sample volume of 1.0 $\mu$ L.

Liquid-level detection, pipette collision sensor and clot detection sensor ensure reliable liquid control.



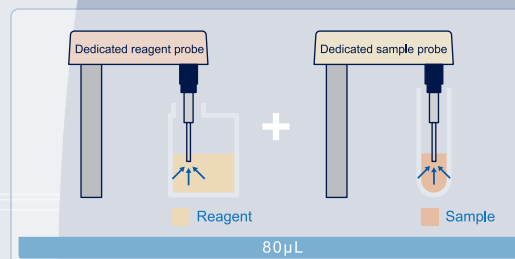
## Enhanced Wash System

Minimize carryover for accurate measurement.



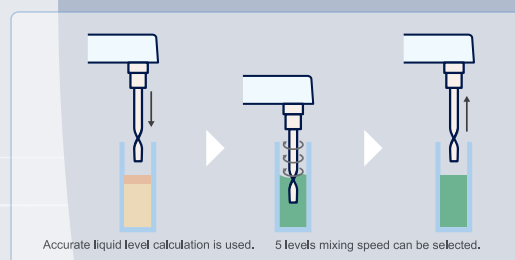
## Minimal Reaction Volume

Reaction Volume of 80 $\mu$ L significantly lowers reagent consumption and operational costs.



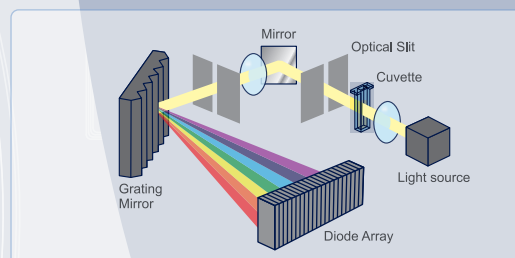
## Mixing system

An effective mixing system with flexible configuration settings.



## Comprehensive 13 Multi-Wavelength System

Optimal configuration for wide range of reagents.



## Enhanced QC and Calibration Data Traceability

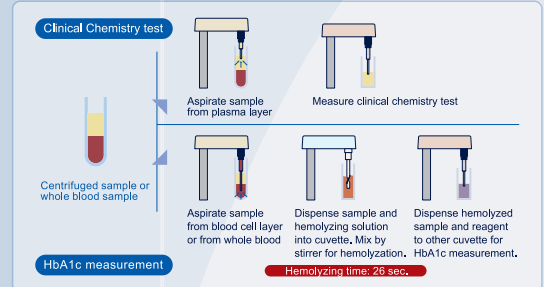
Easy access calibration history by lot based calibrator management. Both QC data and calibrator data are traceable, enhancing reliability.



# Maximized operational efficiency with multifunctionality

## One device, numerous test menu

From routine, special, ISE to automatic hemolysis HbA1c. Supports haemolytic, icteric, and lipemic (HIL) Detection.



## Safe and Easy Sample Loading

Wide-opening cover for smooth sample addition and replacement.



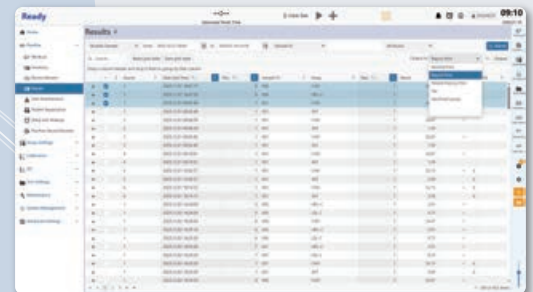
## Intuitive Operation and Status Display

User-friendly interface minimizes operational time for efficiency.



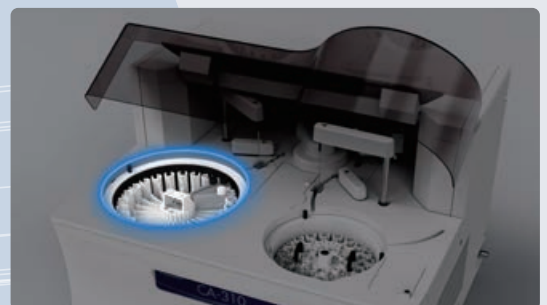
## Streamlined Test Report management

Instant result search output by real time result and history management.



## Eco-friendly power management

Automatically lowers electricity consumption with intelligent power saving mode. Reagents remain cooled inside the unit.



# Specifications

## Clinical Chemistry Analyzer CA-310



Type	Desktop fully automated clinical chemistry analyzer	
Usage	General chemistry as photometric assay	
	Immunology as photometric assay (Latex reagents available)	
Assay type	End point, 2 point end, rate, 2 point rate and ISE (Ion selective electrode)	
Throughput	270 tests per hour (Up to 450 tests per hour with optional ISE module)	
	only HbA1c:	90 tests per hour
Incubation time	10 minutes after applying sample for one-reagent assay	
	5 minutes after applying second reagent for two-reagent assays	
Sample type	Serum, plasma, urine, whole blood	
Sample input system	Type:	Removable tray with sample tube holder
	Capacity :	Up to 50 positions including 10 designated inner positions
	Sample tube size:	Diameter 12 to 16 mm, height 75 to 100 mm, made of resin or glass
Sampling pipette	Type:	Micro pipette dedicated for sample with liquid level sensor, clot detection and crash detection
	Sample dilution:	Available
	Other function:	HbA1c Automatic Pretreatment Measurement
Sampling pump	Sampling volume:	1.0 $\mu$ L ~ 25 $\mu$ L (increment by 0.1 $\mu$ L)
Reagent system	Type:	Removable tray with reagent bottle holder on a turntable
	Capacity:	50 reagent positions on a tray (25 each for 70 mL and 20 mL bottles)
	Bottle type:	70 mL bottle, 20 mL bottle
	Cooling:	Cooling with peltier element (8 degrees Celcius)
Reagent pipette	Type:	Micro pipette dedicated for reagent with liquid level sensor and crash detection
Reagent pump	R1 Volume:	20 $\mu$ L~250 $\mu$ L (increment by 1 $\mu$ L)
	R2 Volume:	5 $\mu$ L~180 $\mu$ L (increment by 1 $\mu$ L)
Reaction system	Number of cuvettes:	72 cuvettes on reaction line
	Material:	Resin (Option: Glass)
	light length:	5 mm
	Minimum volume:	80 $\mu$ L
	Maximum volume:	350 $\mu$ L in total
Measuring system	Temperature:	37 $\pm$ 0.1 $^{\circ}$ C
	Method:	Grating method
	Wavelength(nm):	(13 wavelengths) 340, 380, 415, 450, 478, 510, 546, 570, 600, 660, 700, 750, 800
Stirrer Unit	Light source:	Halogen tungsten lamp
	Stirring mechanism:	Stirrer (stirrer paddle) driven by a stepping motor (in 5 speed levels)
Dimension	870mm(W) $\times$ 748mm(D) $\times$ 635mm(H)	
Option	ISE module, glass cuvette	

## Reagents for clinical chemistry

Reagents designed for automatic chemistry analyzer and optimized chemistry parameters offer precise and reliable data to laboratories. Wide range of test reagents to meet the needs of clinical laboratories and hospitals.



**FURUNO ELECTRIC CO., LTD.**

SYSTEM PRODUCTS DIVISION

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