

# Sys 680 ci

Where Integration Meets Innovation

**POWERFUL PEAK  
PRODUCTIVITY & EFFICIENCY**



**DiaSys**

Diagnostic Systems

**Fully Automated Clinical Chemistry Analyzer**

**CHOOSING QUALITY.**



# Sys 680 ci

## Fully Automated Clinical Chemistry Analyzer

Designed for high-volume laboratories, the **Sys 680 ci** combines advanced automation with exceptional efficiency and reliability.

### Size and Dimensions

**Compact Footprint:** Approximately 1380mm (L) x 860mm (D) x 1200mm (H)

**Weight:** Around 350kg for easy installation and maintenance

## KEY FEATURES



### Throughput and Capacity

**High Performance:** Processes up to 600 tests per hour.

**Versatile Handling:**

Accommodates serum, plasma, urine, and cerebrospinal fluid.



### Analytical Methodologies

**Precision:** Employs photometric and potentiometric techniques.

**Flexibility:** Supports endpoint, kinetic, and turbidimetric assays.



### Reagent Management

**Advanced System:** Includes refrigerated compartments for reagent stability.

**Efficiency:** Compatible with single-use and multi-use reagents.



### Environmental Considerations

**Eco-Friendly:** Designed for low power consumption and minimal environmental impact.

**Standards Compliance:** Meets international safety and environmental regulations.

# CLINICAL UTILITY

## Comprehensive Test Menu:

The **Sys 680 ci** covers routine and specialized tests, including chemistry panels, liver and renal function tests, lipid profiles, specific proteins, and toxicology screens.

## Accuracy and Reliability:

Advanced detection systems and robust methodologies ensure precise, reliable results, crucial for critical diagnostics and enhanced patient care.

## Efficiency and Productivity:

High throughput and automation improve laboratory efficiency, reduce turnaround times, and support quicker clinical decisions for better patient outcomes.

## Flexibility in Sample Management for Sys 680 ci



### Continuous Sample Loading:

Enables seamless processing of urgent samples without disrupting ongoing tests.



### Diverse Sample Types:

Accommodates serum, plasma, urine, and cerebrospinal fluid.



### High-Capacity Trays:

Features ample trays and racks for efficient handling of large sample volumes.



### STAT Sample Priority:

Prioritizes urgent tests for fast turnaround.



### Barcode Scanning:

Ensures precise sample identification and tracking with integrated barcode technology.

## Elevate Your Lab's Performance with Sys 680 ci

The **Sys 680 ci**'s intuitive interface, advanced automation, and seamless system integration enhance operational efficiency while reducing manual errors. Its extensive test menu and dependable results drive better patient care and clinical outcomes. With cost-effectiveness and eco-friendly features, it offers a sustainable solution for labs of all sizes.

In essence, the **Sys 680 ci** combines cutting-edge technology with practical design to meet the demands of modern diagnostics, ensuring accuracy, efficiency, and reliability in every test.

# Test Menu of Clinical Chemistry

A wide and specialized test menu in clinical chemistry is vital for accurate and comprehensive diagnosis, allowing for detailed patient assessments. It enhances operational efficiency by consolidating tests in one place, reduces outsourcing, and provides a competitive edge by addressing diverse diagnostic needs.

<b>Liver Function test (LFT)</b> Albumin FS Alkaline Phosphatase FS IFCC ALAT (SGPT) FS IFCC ASAT (SGOT) FS IFCC <b>Ammonia</b> Bilirubin Auto Direct FS Bilirubin Auto Total FS Cholinesterase FS Gamma GT FS (Szaaz method) LDH 21 FS IFCC Total protein FS <b>Total Bile Acids 21 FS</b>	<b>Lipids (Arteriosclerotic risk)</b> <b>Apolipoprotein A1 FS</b> <b>Apolipoprotein B FS</b> Cholesterol FS CRP U-hs FS <b>Homocysteine</b> HDL-C Direct FS LDL-C Direct FS Lp(a) 21 FS <b>Lp-PLA2 FS</b> <b>Non-esterified fatty acids (NEFA) FS</b> Triglycerides FS	<b>Iron metabolism, Anemia</b> Ferritin FS Iron FS Ferene Transferrin FS UIBC FS <b>Glucose-6-phosphate dehydrogenase (G6PDH)</b>
<b>Renal Function</b> <b>Albumin in urine/CSF FS (Microalbumin)</b> Calcium P FS Calcium AS FS Creatinine Jaffe FS <b>Creatinine PAP FS</b> <b>Cystatin C FS</b> Glucose Hexokinase FS Magnesium XL FS One HbA1c FS Phosphate FS Total Protein UC FS (Urine & CSF) Uric Acid FS TBHBA Urea	<b>Cardiac</b> <b>Angiotensin Converting Enzyme (ACE)</b> <b>Apolipoprotein A1 FS</b> <b>Apolipoprotein B FS</b> CK-NAC FS CK-MB FS CRP U-hs FS <b>Homocysteine</b> Lp(a) 21 FS <b>Lp-PLA2 FS</b> Myoglobin	<b>Metabolic parameters</b> Bicarbonate FS Chloride 21 FS Lactate FS Potassium FS Sodium FS
<b>Diabetes</b> <b>Albumin in urine/CSF FS (Microalbumin)</b> <b>β-Hydroxybutyrate 21 FS</b> Glucose Hexokinase FS Glucose GOD FS <b>Non-esterified fatty acids (NEFA) FS</b> One HbA1c FS	<b>Pancreas</b> Alpha-Amylase CC FS Lipase DC FS Pancreatic amylase FS	<b>Infection Panel</b> Immunoglobulin A FS <b>Immunoglobulin E FS</b> Immunoglobulin G FS Immunoglobulin M FS Antistreptolysin O (ASO)
<b>Metal Profile</b> Calcium FS <b>Copper FS</b> Magnesium XL FS <b>Zinc FS</b>	<b>Bones, Osteoporosis</b> Alkaline Phosphatase FS IFCC Calcium FS Phosphate FS <b>Vitamin D</b> Rheumatoid Factor FS	<b>Inflammation</b> CRP FS CRP U-hs FS <b>Procalcitonin (PCT) FS</b> Rheumatoid Factor FS Complement C3cFS Complement C4FS
	<b>Pulmonary Profile</b> <b>Adenosine Deaminase (ADA)</b> <b>Angiotensin Converting Enzyme (ACE)</b>	<b>Nutrition</b> Albumin FS Magnesium XL FS Prealbumin FS Total protein FS Uric Acid FS TBHBA
	<b>Thrombosis</b> D-Dimer	<b>Electrolyte</b> Chloride 21 FS Potassium FS Sodium FS

# SYNERGY UNLEASHED

**Combining two high-throughput analyzers boosts efficiency and significantly reduces TAT by enabling the faster, simultaneous processing of larger sample volumes.**



- 1 600 photometric T/h,  
800 t/h with ISE
- 2 120 Positions for Samples
- 3 80 Positions for Reagents
- 4 Compact footprint
- 5 Can get integrated  
with SYS Lumina ci

- 1 240 Tests per hour
- 2 25 Positions for Reagents
- 3 70 Positions for Samples
- 4 Easy daily maintenance free  
bulk cuvette loading
- 5 Can get integrated  
with SYS 680 ci







**Sys 680 ci**

**Sys Lumina ci**



**Streamlined  
Processes**



**Consistent Results**



**Reduced  
Turnaround Time**



**Advanced Detection**



**Minimized Errors**



**Comprehensive  
Diagnostic Capabilities**



**Consolidated Reporting**

The integration of high-throughput automation clinical chemistry analyzers with chemiluminescence immunoassay analyzers is crucial for improving efficiency, accuracy, and diagnostic capabilities while reducing costs and enhancing patient care. This technological synergy prepares laboratories to meet current and future healthcare demands effectively.

# Test Menu of Immunoassy

A wide test menu in immunoassay is essential for comprehensive diagnostics, enabling accurate and timely patient care. It enhances operational efficiency by reducing the need for external testing and provides a competitive edge by meeting diverse diagnostic needs. Additionally, it supports cost-effectiveness and fosters innovation through extensive data

Thyroid	Fertility	Tumor Marker	ToRCH
FT3	Total β-HCG	CEA	Toxo IgG
FT4	FSH	AFP	Toxo IgM
T3	LH	CA125	Rubella IgG
T4	Prolactin	CA15-3	Rubella IgM
TSH	E2	CA19-9	CMV IgG
Anti-TG	E3	FPSA	CMV IgM
Anti-TPO	Testo	TPSA	HSV-1/2 IgG
Tg	Prog	NSE	HSV-1/2 IgM
rT3	Cortisol	CYFRA 21-1	HSV-1 IgG
TRAB*	ACTH	CA72-4	HSV-2 IgG
Infectious Disease *	DHEA-S	HE4	Toxo IgG Avidity*
HIV Combo *	AMH	PG I*	CMV IgG Avidity*
HBsAg *	Free testo*	PG II*	
Anti-HBs *	17-OH Prog*	SCCA*	<b>Inflammation</b>
HBeAg *	SHBG*	ProGRP*	PCT
Anti-HBe *	PAPP-A*	CA50*	CD14-ST*
Anti-HBc *		CA242*	IL-6*
Anti-HCV *	<b>Bone Metabolism</b>	AFP L3%*	
Anti-TP (Syphilis) *	Intact PTH	PIVKA-II*	<b>Hypertension*</b>
H Pylori IgG*	Calcitonin	G-17*	Renin*
Anti-HBc IgM*	Vitamin D total	S100*	Aldosterone*
HAV IgM*	GH*	total P1NP*	
HEV IgG*	HGFI*		
HEV IgM*	N-MID	<b>Diabetes</b>	
Anti HAV*	Osteocalcin*	Insulin	
	Beta Crosslaps*	C-Peptide	
		IGFBP-3*	
Anemia		<b>Liver Fibrosis</b>	
Ferritin	<b>Cardiac Markers</b>	LN*	
Vitamin B12	CK-MB	HA*	
Folate	Myoglobin	PIIINP*	
	Troponin I	CIV*	
	BNP		

\* Launching soon

## Technical Specifications

### System Function:

**Throughput:** 600 photometric tests per hour, up to 800 tests per hour with ISE

**Measuring principles:** Absorbance Photometry, Turbidimetry

**On-board tests:** up to 77 photometric tests + 3 ISEs + 3 serum indices

**Methodology:** End-point, Fixed-time, Kinetic, ISE

### Sample Handling:

**SDM:** 120 samples by 12 racks, sample continuous loading, STAT in priority

**Sample volume:** 1.5~45µL, step at 0.1µL

**HbA1c sample:** Whole blood for HbA1c test

**Sample probe:** Liquid level detection, clot detection and collision protection

### Reagent Handling:

**Reagent tray:** 80 positions with cooling system (2~8°C)

**Reagent volume:** 10~200µL, step at 0.5µL

**Reagent probe:** Liquid level detection, bubble detection and collision protection

### Built-in Bar Code Reader:

Sample and reagent bar code readers support Codabar, ITF (Interleaved Two of five), Code 128, Code 39, UPC/EAN and Code 93;

Capable to connect with LIS in the bi-directional mode

### Reaction System:

**Reaction volume:** 70~300µL

**Reaction temperature:** 37°C with 0.1°C fluctuation

**Reaction cuvettes:** 124 reusable cuvettes with 8-step auto wash

### Optical System:

**Light source:** Tungsten-halogen lamp

**Photometer:** Grating photometer

**Wavelength:** 16 wavelengths (340nm, 380nm, 412nm, 450nm, 480nm, 505nm, 546nm, 570nm, 605nm, 630nm, 660nm, 700nm, 740nm, 770nm, 800nm, 850nm)

**Absorbance range:** 0~3.5Abs(10mm conversion)

### Control and Calibration:

**Calibration mode:** Linear(one-point, two point and multi-point), Logit-Log 4P, Logit-Log 5P, Spline, Exponential, Polynomial, Parabola

**Control rules:** Westgard multi-rule, Twin plot

### Operation Unit:

**Operation system:** Touch screen(optional), Windows 10(64bit)

**Interface:** RS-232, Network Port, USB/ parallel port

### Working Conditions:

**Power Supply:** 200~240V, 50/60Hz, 1700VA or 110/115V, 60Hz, 1700VA

**Temperature:** 15~30°C

**Humidity:** 35~85%

**Dimension:** 1380mm(length)\*860mm(width)\*1200mm(high)

**Weight:** 350kg

### Water Consumption:

**Average Water Consumption:** ≤25 L/h

\*\*Touchscreen with arm is discontinued

## Order Information

Item Code	Analyzer
4000004028	SYS 680 ci with ISE
4000004018	SYS 680 ci without ISE

**DiaSys**

Diagnostic Systems

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