

BIO-CHEM 400

Fully Automated Clinical Chemistry Analyzer — Technical Catalog

Product Overview

The Bio-Chem 400 is a high-performance, fully automated random-access chemistry analyzer designed for mid-to-high volume laboratories. Featuring state-of-the-art photometry, an integrated laundry system, and user-friendly software interface, it ensures maximum efficiency, precision, and reliable diagnostic insights.

Technical Specifications

Specification Parameter	Technical Value / Description
Throughput	400 photometric tests per hour (up to 560 T/H with optional ISE module)
Analysis Mode	Fully Automated, Random Access, Patient-prioritized STAT mode
Analytical Methods	End-point, Kinetics, Fixed-time, Turbidimetry, Monochromatic/Bichromatic
Sample Capacity	90 flexible positions accommodating primary tubes and sample cups
Reagent Capacity	80 refrigerated positions with independent continuous cooling system (2-8°C)
Sample Volume	1.5 µL to 45 µL, adjustable in increments of 0.1 µL
Reagent Volume	10 µL to 400 µL, adjustable in increments of 0.5 µL
Optical System	Rear spectrophotometry with holographic concave flat-field grating
Wavelengths	12 standard wavelengths: 340, 380, 405, 450, 505, 546, 578, 600, 660, 700, 750, 800 nm
Reaction Cuvettes	120 semi-permanent optical plastic cuvettes with automatic 8-step wash station
Water Consumption	Deionized water, less than 10 liters per hour under continuous operation
Connectivity	Bi-directional LIS interface supporting ASTM & HL7 protocols via RJ45
Quality Control	Real-time QC charts, Westgard rules, Levy-Jennings plots built-in

Installation & Environmental Requirements

- **Power Supply:** AC 110/220V $\pm$ 10%, 50/60Hz, 1500VA maximum power consumption.
- **Ambient Temperature:** Operating range between 15°C and 30°C with stability within $\pm$ 2°C.
- **Humidity:** 35% to 85% relative humidity, non-condensing.
- **Dimensions:** Approximately 1100 mm (W) x 750 mm (D) x 1150 mm (H) benchtop installation.