Floor-Standing Biochemistry Analyzer - Automatic Chemistry Analyzer - 400 Tests per Hour

Model **MSBA-A-480SWISS** | Brand **Master Science**







The Master Science 400 T/H Biochemistry Analyzer is a floor-standing, random-access system for high-volume clinical chemistry. It keeps a constant 400 tests per hour with single or double reagents, using colorimetric and turbidimetric methods.

KEY HIGHLIGHTS

- High daily capacity
- Long walk-away time
- Samples and reagents kept cool
- Clean cuvettes
- Reagent freedom

AT A GLANCE

0 to 4.0 Abs / 0.0001 Abs
ABSORBANCE RANGE / RESOLUTION

37 ±0.1 °C
REACTION TEMPERATURE

Request a Quotation
Contact us for pricing, configuration options and delivery details.

support@themsci.com
www.themsci.com

Scan to view online

Overview

The sample tray takes 120 tubes or micro cups and the reagent tray 90 bottles, both cooled at 2 to 14 °C around the clock. 90 reaction cuvettes are cleaned by a 2 × 6-step automatic washing station, and the open system accepts any reagent.

Key Benefits

High daily capacity
the Master Science 400 T/H Biochemistry Analyzer processes 400 tests per hour.

Long walk-away time
120 samples loaded at once.

Samples and reagents kept cool
both trays refrigerated.

Clean cuvettes
12-step automatic washing.

Reagent freedom
open system.

For mid-size labs, see the Master Science 200 tests/hour chemistry analyzer.

Technical Specifications

GENERAL

Brand	Master Science
Model Number	MSBA-A-480SWISS
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System Type	Random access; open reagent (locked reagent optional)
Throughput	Constant 400 tests/hour (single or double reagent)
Principle	Colorimetry, turbidimetry
Methods	1-point end, 2-point end, fixed time, kinetics
Calibration	Linear and non-linear, up to 8 points
Sample Tray	120 positions, cooled 2 to 14 °C; micro cups, test tubes, blood collection tubes Ø12-13 × 25-100 mm
Sample Volume	2 to 30 µL, 0.1 µL steps
Reagent Tray	90 positions, 24 h Peltier cooling 2 to 14 °C
Reagent Volume	20 to 300 µL, 1 µL steps
Probes	Liquid level sensing, collision protection, internal and external washing
Reaction Tray	90 optical plastic cuvettes, 150 to 330 µL
Reaction Temperature	37 ±0.1 °C
Washing	Automatic, 2 × 6 steps
Mixer	Paddle type with PTFE coating
Quality Control	Westgard rules, control plots, cumulative QC
Interface	TCP/IP

OPTICAL PERFORMANCE

Light Source	Halogen lamp
Wavelengths	**340, 405, 450, 505, 546, 578, 630, 700 nm (4 more optional)**
Absorbance Range / Resolution	**0 to 4.0 Abs / 0.0001 Abs**

POWER

Power	AC 110/220 V ±10 %, 50/60 Hz, 650 W
Water Consumption	Up to 15 L/h

DIMENSIONS & WEIGHT

Dimensions (L × W × H)	1110 × 765 × 1150 mm
Weight	200 kg

COMMON LABORATORY PROBLEMS AND HOW THIS ANALYZER HELPS

Common Laboratory Problems and How This Analyzer Helps	How the Master Science 400 T/H Biochemistry Analyzer supports large workloads:
Morning sample peaks	400 tests per hour and 120-sample loading.
Sample evaporation while waiting	cooled sample tray.
Carry-over	probe washing and coated mixer.
Reagent lock-in	open reagent system.

The Master Science 400 T/H Biochemistry Analyzer is used in

- **Hospital central laboratories**
- **High-volume diagnostic centres**
- **Reference and pathology laboratories**
- **Routine blood and urine chemistry**
- **Large clinical research studies**

Capacity

- 120 sample positions
- 90 reagent positions
- 90 reaction cuvettes

Accuracy

- 37 ±0.1 °C reaction temperature
- Level sensing probes with washing
- 8 wavelengths, 0.0001 Abs resolution

Software

- Automatic dilution and result checks
- 8-point calibration and QC
- Patient database, 6 report formats

Optional Accessories

- Sample barcode reader
- Reagent barcode reader
- Locked reagent mode