

Dimension[®] RxL Max[®] clinical chemistry system Instrument Specifications

Effective: December 2008 Instrument Weight and Dimensions

Weight

Basic

805 lbs. (366 kg)

With Heterogeneous Immunoassay (HM) Module

880 lbs. (400 kg)

With HM and Reagent Management System (RMS)

1205 lbs. (548 kg)

Dimensions

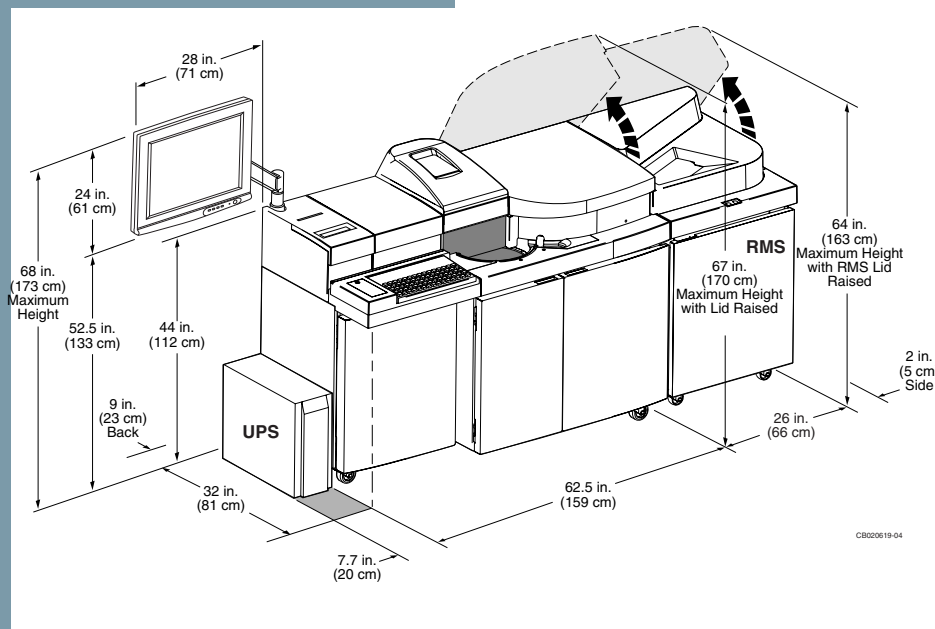
62.5 in. (159 cm)¹ wide x 44 in. (112 cm) high without monitor; 68 in. (173 cm)² high with monitor x 32 in. (81 cm)³ deep

Additional Instrument Clearances (Minimum)

- Monitor overhead clearance—19 in. (48 cm)
- Monitor left side clearance—16 in. (41 cm)
- Cooling fan clearance on right side—3 in. (8 cm)
- Ventilation clearance in back—9 in. (23 cm)
- Doorway opening for installation—32 in. (81 cm)

The instrument keyboard can be raised to reduce the depth from 32 in. (81 cm) to 30.5 in. (77 cm) for moving the instrument through doorways.

1. Add 7.7 in. (20 cm) to the length if the UPS is positioned to the left of the instrument.
2. Required for raising instrument lids.
3. Add 11 in. (28 cm) to the depth if the UPS is positioned behind the instrument.



Notes: No leveling required; however, the two front casters should be locked during system operation.

A 360° access is needed for service. Installation and service require at least 36 in. (91 cm) of working space on each side. Access to back of instrument requires moving it forward.

UPS must be installed in same room as instrument. UPS should be installed on left side of instrument (when viewed from front); if installed in back, allow 11 in. (28 cm) of clearance.

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Room Environment

Operating Temperature

Room temperature must be 65–85°F (17–30°C) with a maximum fluctuation of 5°F (2.8°C) per hour. The system requires a maximum of 120 minutes to warm up from a cold start to the incubation temperature.

Relative Humidity

Maintain between 20 and 80%

Average Thermal Output

4778 Btu/hr for each instrument
6318 Btu/hr with HM and RMS

Average Noise Output

<70 dBA at 1 m while operating

Water Requirements

- Instrument feed water: must maintain stable dO₂ content between 5 and 8 ppm
- Consumption at maximum throughput
 - RxL Max® Basic: 0.85 gal./hr (3.2 L/hr)
 - RxL Max® with HM: 1.19 gal./hr (4.5 L/hr)
 - RxL Max® with RMS¹: 0.98 gal./hr (3.7 L/hr)
 - RxL Max® with HM and RMS¹: 1.32 gal./hr (5.0 L/hr)
- Temperature: < 35°C
- Resistivity: ≥ 10 megohms cm
- Bacterial content: ≤ 10 colony-forming units/mL
- System feed water line must not exceed 12 feet
- System is supplied with water system

¹ The water required by the RMS module is supplied by the Dimension® instrument onboard water bottle. RMS water specification is the same as for the instrument.

Waste Requirements

Liquid Waste Output

0.85–1.32 gal./hr (3.2–5.0 L/hr) at maximum consumption

Liquid wastes are aspirated from all instrument sources to the Dimension® RxL Max® waste bottle. The waste is considered biohazardous, consisting of condensate, probe wash water and reagent.

A 50-ft (15.2-m) tubing is supplied for external waste disposal. Maintenance of the waste tubing from the instrument to the disposal point is the responsibility of the user. The disposal point should be selected in accordance with local hazardous waste guidelines.

Electrical Installation Requirements

Current/Operating Power Requirements

	Nominal Line Voltage VAC	Line Voltage VAC	Nominal Line Frequency HZ	Maximum Continuous Current, AMPS	Power Consumption (WATTS)
RxL Max®	115 230	103 to 126 207 to 253	47 to 63 47 to 63	~11 ~8	1900 1900
RxL Max® with HM	115 230	103 to 126 207 to 253	207 to 127 207 to 253	~13 ~8	1900 1900
RxL Max® with RMS (with or without HM)	115 230	103 to 126 207 to 253	103 to 127 103 to 127	~17 ~11	2350 2350

Recommended Service Outlet

115 vac, 60 Hz, Single Phase, 20 A (North America)
230 vac, 50 Hz, Single Phase, 16A (EU)*
*230 vac/13A for U.K.

Transient Overvoltage

Installation Category II (branch circuit)

Circuit

The instrument should have a separate, dedicated line with Hot, Neutral, and Isolated Ground in its own conduit. The conduit should start at the distribution panel and be continuous to the receptacle. Three-wire distribution to the receptacle is required for each instrument. The third (green) ground wire should start at the distribution panel and be continuous to the receptacle in accordance with NEC paragraph 250-146 (D), unless local codes prohibit. The ground wire should not be tied to grounds from other loads.

Wire Size (North America only)

10 AWG wire is required to minimize the voltage drop between the distribution panel and the receptacle when the instrument operates at full current load.

Receptacle

Customer must provide a Hospital Grade receptacle, installed by a qualified electrician before arrival of the instrument. The receptacle must be accessible to the 9-ft. (2.7 m) power cord furnished with the instrument.

The USA requires NEMA #5-20R 20 amp straight blade receptacle (Hubbell receptacle No. IG-8310 or equivalent).

Leakage Current

	115 vac/60 Hz	230 vac/50 Hz
Normal Supply Connections	Under 10 μ A	Under 100 μ A
Ground Disconnected	Under 70 μ A	Under 150 μ A
Measurement Standard	UL3101-1	EN61010-1

This complies with the requirement of UL 3101-1, CSA C22.2 No. 1010.1 and TUVS Certification for EN 61010-1 safety standards for non-patient vicinity laboratory equipment.

Phone Line Requirements

A dedicated phone line connected to the Dimension[®] RxL Max[®] system is required for installation.

- Dedicated, direct line connected only to the Dimension[®] RxL Max[®] system (not through a switchboard)
- Full duplex, capable of two-way transmission
- Standard phone connection (not digital)
- RJ11C or RJ11W phone jack

Host Interfacing

A 25-pin female connector is required for hookup to the male connector used for host communications port.

Installation

The Dimension[®] RxL Max[®] clinical chemistry system will be installed by a qualified representative of Siemens Healthcare Diagnostics Inc. The installation will include checkout of all aspects necessary to ensure the equipment is fully operational.

Preventive Maintenance Frequency

Four Siemens service preventive maintenance visits per year.

Code Compliance

Safety Compliance

The Dimension[®] RxL Max[®] system has been designed and tested to comply with safety standards UL3101-1, CSA C22.2#1010.1 and EN61010-1 under the following environmental conditions [subclause 1.4]:

Temperature	5°C (41°F) to 40°C (104°F)
Humidity	Maximum 80% at 31°C to 50% at 40°C
Altitude	Maximum 2,000 m (6,562 ft)
Main Supply	115 \pm 10% vac or 230 \pm 10% vac, 50/60Hz
Overvoltage Category	Category II, connected to a branch circuit
Pollution degree	Degree 2, normal indoor laboratory environment. Air contains only non-conductive pollutants with occasional condensation.

Additional *functional* environmental conditions are discussed earlier in this document.

Emission Compliance

The Dimension[®] RxL Max[®] system has been designed and tested to CISPR 22 Class A. In a domestic environment it may cause radio interference, in which case you may need to take measures to mitigate the interference.

The Dimension[®] RxL Max[®] system should not be used next to any Industrial Scientific and Medical (ISM) equipment that must functionally produce RF energy (e.g., diathermy equipment).

Barcode Scanner

The barcode scanner uses Class I LEDs (light-emitting diodes) and is not hazardous to your eyes.