

# Specifications Access™ Laboratory Workstation

## System Specifications

**Electrical:** 120V or 240V  $\pm 10\%$ , 50/60 Hz, 15A (Base), 25A (Extended)

**Air:** Filtered, oil-free, dry air, 552 kPa (80 PSI) minimum, 1034 kPa (150 PSI) maximum

**Vacuum:** 78 kPa (23 inches Hg) minimum, 2.5 CFM

**Base Dimensions:** 1475 mm width x 890 mm depth x 1132 mm height (58.0 x 35.0 x 44.6 inches)

**Extended Dimensions:** 1475 mm width x 890 mm depth x 1132 mm height (58.0 x 35.0 x 44.6 inches)

**Weight:** Approximately from 68 kg to 102 kg (150 to 225 lbs) depending upon components

**Labware Compatibility:** All Echo® Qualified microplates and most ANSI-compliant/SBS standard microplates (96,384,1536)

**Operating Environment:** 21°C  $\pm$  5°C (70°F  $\pm$  9°F), 10%–80% relative humidity, non-condensing

**Application Software:** Labcyte automation control and compatible Echo® software applications

**Operating Software:** Microsoft Windows XP Professional

## Included Components

**Computer:** Intel Core2Duo 3GHz, 2GB Ram, 22" monitor, keyboard, optical mouse

**Echo Insert Station:** Holds up to 2 Labcyte source plate inserts

**4-Shelf De-lidder:** Vacuum based removal – compatible with Labcyte MicroClime™ lids and most microplate lids

**4-Shelf Temporary Storage:** Holds all Echo Qualified microplates and most ANSI-compliant/SBS standard microplates (96, 384, 1536)

**Plate Storage:** Any combination of up to four 20-microplate random-access racks or 50-microplate sequential-access stacks

**Barcode Reading Shelf:** High-resolution raster scan, 650nm wavelength, 32 characters maximum

**Compatible Barcode Formats:** CODE39, ITF, INTERLEAVED 2-of-5, COOP 2-of-5, Codabar, CODE 128, EAN-128, CODE 93, EAN/UPC (A\*E)

## Integrated Devices

### Microplate Handling Robot

**Drive:** 4-axis, servo controlled, absolute encoders

**Horizontal Reach:** 550 mm

**Vertical Reach:** 750 mm

**Maximum Velocity:** 500 mm/sec

**Maximum Acceleration:** 2500 mm/sec<sup>2</sup>

**Payload:** 500 gm

**Gripper:** Pneumatically actuated

### Bulk Filler

**Range:** 50 nL to 50,000 nL

**Resolution:** 1 nL

**Fill Accuracy:** +/- 2%

**Fill Precision:** <7% CV at 50 nL, <5% at 500 nL, <3% above 1000 nL

**Fluids:** One to four different fluids

### Microplate Centrifuge

**Top Speed/G-Force:** 3000 RPM/1000 G

**Maximum Payload (per bucket):** 250 g

**Accel/Decel:** Approximately 7.5 seconds 0-3000 RPM

**Maximum Imbalance:** 10 g

**Capacity:** Two microplate positions

### Thermal Microplate Sealer

**Sealing Temperature:** 30 to 200 °C

**Microplate Material Types:** Seals are compatible with polycarbonate, polyethylene, polypropylene, polystyrene and cyclic olefin copolymer (COC) plates

**Seal Materials:** approved aluminum and clear sealing film

### Echo® Liquid Handling Platform

**Compatibility:** All Echo liquid handlers

**Volume per transfer:** 2.5 nL

**Volume Transfer Range:** 2.5 to 10,000 nL (source plate specific) higher volume transfers with extended transfer time

**Transfer Accuracy:** <10% deviation from target volume

**Transfer Precision:** <8% CV

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