

Automation Checklist:

Designing the High Performing QC Lab

Growth Direct® System Installation Requirements

DELIVERY

- Systems arrive in three non-returnable crates
- Instrument Crate: 208 cm x 132 cm x 229 cm (82" x 52" x 90"); weight 1,043 kg (2,300 lbs.)
 - Top Incubator Crate: 140 cm x 97 cm x 196 cm (55" x 38" x 77"); weight 340 kg (750 lbs.)
 - Accessory Crate: 163 cm x 127 cm x 165 cm (64" x 50" x 65"); weight 346 kg (762 lbs.)
 - Specify delivery to or near the installation site

INFORMATION TECHNOLOGY

- Ethernet connectivity is required
- Customer-provided computer running Windows® 10 Professional or Enterprise, with:
- Antivirus software installed
 - Processor speed of 1 Gigahertz or faster
 - 2 Gigabyte RAM, 30 GB available hard disk space
 - Two available LAN ports, two available USB ports
 - Monitor, keyboard, and mouse
- English version of Microsoft Windows® for bridge computer, with software that includes:
- Date format provided as MMDDYYYY
 - Microsoft Exchange Server (preferred email)
 - Static IP address for customer network interface
 - Public IP address for bridge computer (firewall external IP if using interface PAT)
 - Dedicated email domain name
 - Dedicated username and password connection

DIMENSIONS, WEIGHT, AND CLEARANCES

Installed size is 241 cm high x 145 cm long x 99 cm deep (95" h x 57" l x 39" d)

Installed weight is about 1,187 kg (2,616 lbs.) empty and 1,212 kg (2,672 lbs.) with fully loaded cassettes

- Door openings must be at least 211 cm high x 91 cm wide (83" h x 36" w)
- Leave extra clearance around door openings if possible
- Minimum clearance is 46 cm (18") on left side, 76 cm (30") on right side, and 46 cm (18") behind
- Minimum clearance for input door is 91 cm (36")
- See local fire safety guidelines for ceiling clearance

UTILITY REQUIREMENTS

- Compressed Air:* Clean, dry air at 6–10 bar (87–145 psi) and minimum flow of 283 l/min (10 CFM)
- Supplied air must meet ISO8573-1:2010 7:4:4 standards
- A manual air supply shutoff valve within reach of the system is recommended
- Electrical Supply:* 200–240VAC, single phase, 50–60Hz, minimum 15 amp circuit
- Power consumption is about 800 watt-hours at 21°C (70°F) with a 220 VAC feed
- U.S. connection is L6-30P with 30 amp receptable; L6-15P with 15 amp receptacle can be substituted
- European connection is CEE 16-3

OPERATING ENVIRONMENT

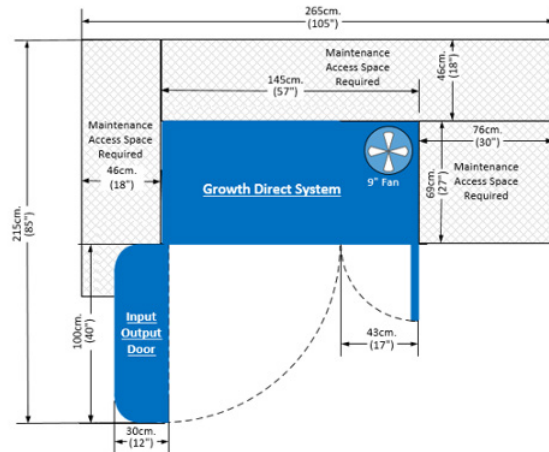
- Ambient temperature of 15°C–28°C (59°F–82°F)
- Relative humidity of 5%–75% (non-condensing)
- Maximum altitude is 2,440 meters (8,005 ft)
- 25.4 cm (10") duct flange is provided for optional venting up to 2,500 BTU/hr through HVAC system

Growth Direct® System Installation Diagrams

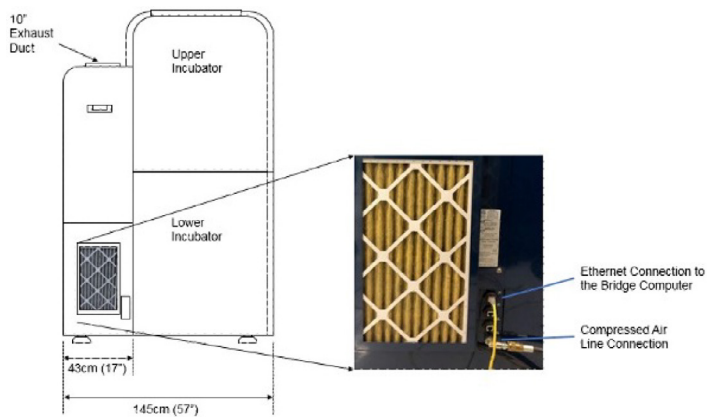
Front View: Installed Growth Direct® System



Top View: Clearances and Growth Direct® System Dimensions



Rear View: Growth Direct® System with Connections



What's next in designing your QC lab?

A Rapid Micro Biosystems Performance Analysis™ can help identify critical improvement opportunities with the Growth Direct® System, our proven automation solution used by biopharma companies worldwide. Email our solutions team for a consultation or visit us online to learn more.

CONTACT US



Micro Biosystems, Inc. | 978-349-3200 | www.rapidmicrobio.com

©2022, Rapid Micro Biosystems®, Inc.

RAPID MICRO BIOSYSTEMS® and GROWTH DIRECT® are registered trademarks of Rapid Micro Biosystems®, Inc., and the company logo is a trademark of Rapid Micro Biosystems®, Inc.