



GENEVA SCIENTIFIC

LAB EQUIPMENT SOLUTIONS

REACH IN PLANT GROWTH CHAMBER - PGC-10



Model	PGC-10
Exterior Dimensions (WxDxH)	71" x 38.5" x 77.6" (35.5"D with door removed)
Temp. Range (w/ lights on)	10-44C +/- 0.5C
Interior Space	63.1 cu.ft.
Total Shelving Floor Area	10.1 sq.ft.
Maximum Growing Height	46"
Light Intensity (6" from lamps)	1,000 micromoles/m2/sec
Number of Tiers	1

Applications

*Frequently used for research applications such as lighting for vascular plants to facilitate standard plant production, plant pathology research and seedling germination and development

*Many other applications exist for this product

Percival's IntellusUltra Controller

Percival Scientific has built a reputation of providing flexible, customized options for research scientists around the world. We've taken that philosophy to the next level with our improved IntellusUltra controller. Now choose from the levels of functionality that meet your research needs.

Lighting System

*Single tier plant growth bench lit by patented lamp bank specifically designed to optimize energy efficiency by managing the heat inside the lamp bank

*Design produces a constant light irradiance throughout a chamber's temperature range

Lighting System cont.

*Intensity programmable up to 1,000 micromoles/m2/sec measured at 6" from barrier, utilizing a balanced spectrum for plant growth using fluorescent lamps and incandescent lamps 3 on/off light events

*Lamp bank is counter-balanced for adjustable light intensity

*Two levels of programming of fluorescent lighting done via IntellusUltra real time controller

*Utilizing the patent pending high efficiency lamp bank results in cost savings of over \$1,750 annually (assuming lights are energized for 14 hours per day in region with electrical costs of 10 cents per KW/hr)

Cabinet Construction

*Interior and exterior constructed of 22-gauge electro-zinc plated steel

*Stainless steel floor

*Perforated aluminum channel work bench

*Inner shell supported by thermal conducting insulator locking inner liner in place without a metal-to-metal bond to outer case

*Chamber floor equipped with floor drain with attached 3/4" plastic tubing

*Chamber cabinet is attached to angle frame base containing heavy duty swivel caster assembly and adjustable leveling legs to compensate for floor unevenness in the lab

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Airflow/Circulation

- *Conditioned air moves in uniform upward direction through entire work bench through perforations in aluminum channels
- *Fresh air inlet and outlet are adjustable

Insulation

- *Woodless construction using foam-in-place 2" thick CFC free urethane insulation foam (this is an environmentally friendly foam with global warming potential [GWP] of 0.0 and ozone depletion potential [ODP] of 0.0)

Door

- *One door opening of 25.8" x 48.3" (magnetic gasket provides a tight seal to door frame)
- *12" x 12" observation window with a light tight cover

Interior Space

- *63 cu.ft. with work area of 10.1 sq.ft. provided on one tier

Finish

- *Interior and exterior painted with high reflective, environmentally friendly, high temperature baked white powder coating

Refrigeration

- *Self-contained air-cooled condensing unit with hot gas bypass system for continuous compressor operation, extended life and close temperature control (this continuous running condensing unit ensures precise temperature control by alternating cycling refrigerant and hot gas to coil; this also prolongs life of compressor, and eliminates risk of ice build up in coil)
- *Solenoid valves have extended stem for quiet and long life operation
- *Heat rejection to ambient (standard refrigeration system) with water-cooled self-contained condensing unit = 2000 BTU/hr
- *Heat rejection to ambient (standard refrigeration system) with air-cooled self-contained condensing unit = 9100 BTU/hr

Temperature Range

- *2-44C (+/- 0.5C) lights off and 10-44C (+/- 0.5C) lights on (full fresh air) within work area on horizontal plane

Temperature Safety Limit Controls

- *Experiment Protection: Adjustable high and low temperature controls, audible alarms, and visual indicators provided
- *Controls shut down all power to chamber, activating alarms (when the temperature returns to the normal range the system will automatically reset)

Convenience Receptacles

- *Two convenience receptacles provided inside chamber

Electrical Requirements

- *Consult Geneva Scientific for electrical requirements and amperage draw.

Options

- *Additive Humidity Control with Sensor
- *Dehumidifier with Sensor
- *CO2 Enrichment Package
- *IntellusUltra Connect
- *Android-Based Touch Screen
- *Door with Observation Window and Cover
- *Self-Contained Water-Cooled Condensing Unit
- *Dry Alarm Contacts
- *Security Package
- *Temperature Recorder
- *External Drip Pan Assembly
- *Additional Shelving



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