



# GENEVA SCIENTIFIC

LAB EQUIPMENT SOLUTIONS

## REACH IN PLANT GROWTH CHAMBER - PGC-105



Model	PGC-105
Exterior Dimensions (WxDxH)	105.6" x 38.5" x 77.6"
Temp. Range (w/ lights on)	10-44C +/- 0.5C
Interior Space	106.7 cu.ft.
Total Shelving Floor Area	15.9 sq.ft.
Maximum Growing Height	54"
Light Intensity (6" from lamps)	1100 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 have taken the philosophy to the next level with our improved IntellusUltra Controller. Now choose from the levels of functionality that meet your 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.  
 \*Lamp bank is counter-balanced for adjustable light intensity

### Lighting System cont.

\*Intensity programmable up to 1100 micromoles/m2/sec measured at 6" from barrier, utilizing a balanced spectrum for plant growth using fluorescent lamps and incandescent lamps on 3 on/off light events  
 \*Two levels of programming of fluorescent lighting and one level of programming of incandescent lighting done via IntellusUltra real time controller

### 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

### 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 casters

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### 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

\*Two reach-in doors each with an opening of 26" x 48.5" (magnetic gasket provides a tight seal to door frame)

### Interior Space

\*106.7 cu.ft. with work area of 15.9 sq.ft. provided on one tier

### Shelving

\*One tier of white epoxy coated steel wire shelving (shelf is 72.9"D x 31.5"W)

\*Shelf is supported by shelf clips allowing 1/2" vertical increments

\*Maximum growing height is 54"

### Finish

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

### Refrigeration

\*Self-contained water-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 alternately 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 = 3000 BTU/hr

\*Heat rejection to ambient (standard refrigeration system) with air-cooled self-contained condensing unit = 15000 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

\*IntellusUltra Connect

\*Android-Based Touch Screen

\*CO2 Enrichment Package

\*Remote Air-Cooled Condensing Unit

\*Dry Alarm Contacts

\*Dimmable Lighting

\*LED Lighting in Lieu of Fluorescent Lamps



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