



GENEVA SCIENTIFIC

LAB EQUIPMENT SOLUTIONS

REACH IN PLANT GROWTH CHAMBER - PGC-105HID



Model	PGC-105HID
Exterior Dimensions (WxDxH)	106.6" x 38.5" x 81.5"
Temp. Range (w/ lights on)	10-44C +/- 0.5C
Interior Space	112.9 cu.ft.
Total Shelving Floor Area	16.2 sq.ft.
Maximum Growing Height	56.3"
Light Intensity (24" from lamps)	1250 micromoles/m ² /sec
Number of Tiers	1

Applications

*This chamber is frequently used for cereals, citrus, grapes, grasses and other plants that require high light intensity and higher growth height.

*HID lighting is not recommended for rice

*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

*Lighting module housed in fixture at top of chamber is separated from environmental area by thermal barrier

*Optimum lighting conditions maintained by controlled air circulation over light source removing excess heat

*Light fixture yields up to 1250 micromoles/m²/sec at 24" from barrier

Lighting System cont.

*Lamp provides Ceramic Metal Halide lamps properly spaced for uniform light intensity

*Please note that the refrigerant cooled lamp bank allows for the plants to grow up to the barrier without being exposed to the heat stress from the lamps caused in non-refrigerant type of lamp canopies.

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)
*One door has a 12" x 12" observation window with light tight cover

Interior Space

*112.9 cu.ft. with work area of 16.2 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 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 = 3500 BTU/hr
*Heat rejection to ambient (standard refrigeration system) with optional air-cooled self-contained condensing unit = 20000 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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