



GENEVA SCIENTIFIC
LAB EQUIPMENT SOLUTIONS

ARABIDOPSIS CHAMBER - AR-41L3



Model	AR-41L3
Exterior Dimensions (WxDxH)	41" x 33.6" x 77.2"
Temp. Range (w/ lights on)	10-44C +/- 0.7C
Interior Space	37.2 cu.ft.
Total Shelving Floor Area	20.4 sq.ft.
Maximum Growing Height	12.5"
Light Intensity (6" from lamps)	370 micromoles/m2/sec
Number of Tiers	3

Applications

- *This chamber is frequently used for Arabidopsis thaliana, tobacco and other low light plant growth
- *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 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

- *Each tier of shelves is lighted by fluorescent lamps and incandescent lamps properly spaced for uniform light intensity over entire shelf
- *Intensity programmable up to 370 micromoles/m2/sec of light irradiance measured at 6" from lamps on 3 on/off light events
- *Two levels of programming of fluorescent lighting and one level of programming of incandescent lighting

Lighting System cont.

- *Programming and control of the lighting is done via IntellusUltra real time controller

Airflow/Circulation

- *Conditioned air circulates through a rear wall plenum, and travels horizontally across each shelf (air then flows vertically upward through the space between the door and shelves back to the unit cooler)

Cabinet Construction

- *26-gauge smooth galvanized white side walls and top reinforced with 24-gauge backer plates
- *Interior floor constructed of 24-gauge #304-4 stainless steel
- *24-gauge smooth white galvanized exterior
- *NSF compliant seam design
- *Overall wall thickness is 2"
- *Foamed-in-place non-CFC insulation
- *One 1 1/4" diameter access port on right hand wall
- *Chamber floor equipped with floor drain and hose assembly
- *Contains caster assembly and adjustable leveling legs to compensate for floor unevenness in the lab

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Insulation

*Woodless construction using 2" thick foamed-in-place non-CFC Urethane insulation with 93% closed cell, R-value of 12.5, K-value of 0.16 and density of 2.2 lbs/cu. ft.

Doors

*One door opening of 36.8" x 57.5" providing full access to chamber interior (magnetic gasket provides a tight seal to door frame)

Interior Space

*37.2 cu.ft. with work area of 20.4 sq.ft. provided on three tiers

Shelving

*Three tiers of 22-gauge stainless steel with no perforations (each shelf is 27"D x 36.3"W)

*Shelves slide in and out easily on stainless steel rail assemblies (at lower elevation only)

*When shelves are not mounted on rail assemblies, they are vertically adjustable in 1/2" increments

*Maximum growing height is 12.5" per tier

Finish

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

Convenience Receptacles

*Two 115/1/60 convenience receptacles provided inside chamber

Electrical Requirements

*Consult Geneva Scientific for electrical requirements and amperage draw.

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

*Ceiling mounted evaporator coils incorporate twin air circulation fans in aluminum housing (heat rejection to ambient with standard chamber: 3500 BTU/hr)

Temperature Range

*10-44C (+/- 0.7C) with lights on and 4-44C (+/- 0.5C) with lights off

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)

Options

*Additive Humidity Control with Sensor

*Dehumidifier with Sensor

*IntellusUltra Connect

*Android-Based Touch Screen

*CO2 Enrichment Package

*Self-Contained Water-Cooled Condensing Unit

*Dry Alarm Contacts

*Dimmable Lighting

*LED Lighting in Lieu of Fluorescent Lamps



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