



GENEVA SCIENTIFIC

LAB EQUIPMENT SOLUTIONS

ARABIDOPSIS CHAMBER - AR-36L3



Model	AR-36L3
Exterior Dimensions (WxDxH)	33.5" x 33.6" x 77.2"
Temp. Range (w/ lights on)	7-44C +/- 0.5C
Interior Space	29.7 cu.ft.
Total Shelving Floor Area	16.2 sq.ft.
Maximum Growing Height	13.5"
Light Intensity (6" from lamps)	350 micromoles/m2/sec
Number of Tiers	3

Applications

- *This chamber is frequently used for Arabidopsis thaliana, and other low light plant growth
- *Many other applications exist for this product

Percival's IntellusUltra Controller

The IntellusUltra control system was purpose-built for controlled environments and is standard on all Percival chambers.

- *Robust and reliable, industrial-grade integrated hardware design
- *Highly flexible architecture facilitates configuration, expansion and customization
- *Precise, simultaneous control of up to 7 environmental parameters
- *Industry-leading experiment protection and system diagnostics

IntellusUltra control graphical user interface

A touchscreen user interface is provided as standard on all Percival Scientific plant growth chambers and allows users to interact with their controlled environment in new and intuitive ways. (cont)

- *10.1" IPS, high resolution display with 10-point multi-touch sensitivity
- *Tabular and graphical presentation of chamber programs and parameters
- *Highly visible process values and alarm notifications
- *Enhanced user feedback menus

SciWhite LED lighting system

- *Three tiers of lighted shelving lit by SciWhite LEDs
- *Intensity programmable up to 350 micromoles/m2/sec of light irradiance measured at 6" from LEDs
- *Programming and control of the lighting is done via IntellusUltra real time controller
- *Dimmable between 10-100% output

Airflow/Circulation

- *Conditioned air circulates through a rear wall duct and is picked up by a specially designed fixed air diffuser located at the bottom of each tier (air is then delivered vertically upward at a slow speed through each shelf)
- *Air diffuser insulates shelf level experiments from heat generated by underlying light fixture (this design minimizes condensation on petri dish lids)

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Cabinet Construction

- *Interior constructed of 26-gauge galvanized steel
- *Interior floor constructed of 24-gauge polished steel
- *Exterior constructed of 24-gauge Gavannealed extra smooth steel
- *NSF compliant seam design
- *Overall wall thickness 2"
- *Integrated floor drain
- *Contains caster assembly and adjustable leveling legs
- *One 1.25" access port with air-tight plug
- *Highly durable and reflective coating

Insulation

- *Woodless construction using 2" thick foamed-in-place non-CFC Urethane with 97% closed cell-structure density of 2.2 lbs/cu.ft.

Doors

- *One door opening of 29.3" x 57.5" provides full access to chamber interior
- *Magnetic gasket provides a tight seal to door frame
- *Lift-off hinge design allows for simple removal of door

Interior Space

- *29.7 ft³ (0.8 m³) with shelf area of 16.2 ft² (1.5 m²) provided on three tiers

Shelving

- *Three tiers of white epoxy coated steel wire shelving (each shelf is 27"D x 28.8"W)
- *Each shelf is supported by shelf clips allowing 1/2" vertical adjustments
- *Maximum growing height is 13.5" per tier

Temperature Range

- *7°-44°C (±0.5°C) lights on and 2°-44°C (±0.5°C) lights off

Refrigeration

- *Top mounted air-cooled condensing unit with hot gas bypass system for continuous compressor operation, extended life and tight temperature control. Continuous running condensing unit ensures precise temperature control by alternately cycling refrigerant and hot gas to coil; also prolongs compressor life, and eliminates risk of ice build up in coil.
- *Extended stem solenoid valves for quiet and long life operation
- *Ceiling mounted evaporator coil incorporates twin air circulation fans in aluminum housing (heat rejection to ambient [standard chamber] = 2,896 BTU/hr.)

Temperature Safety Limit Controls

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

Electrical Requirements

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

Options

- *Additive Humidity Control with Sensor
- *IntellusUltra Connect
- *Additive CO₂ control
- *CO₂ removal system
- *Self-contained water-cooled condensing unit
- *Dry alarm contacts
- *Extended temperature ranges available
- *Convenience receptacles



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