



GENEVA SCIENTIFIC

LAB EQUIPMENT SOLUTIONS

ARABIDOPSIS CHAMBER - AR-22L



Specifications shown are per compartment

Model	AR-22L
Exterior Dimensions (WxDxH)	33.5" x 36.6" x 77.9"
Temp. Range (w/ lights on)	10-44C +/- 0.7C
Interior Space	14.6 cu.ft.
Total Shelving Floor Area	10.8 sq.ft.
Maximum Growing Height	20"
Light Intensity (6" from lamps)	250 micromoles/m2/sec
Number of Tiers	1

Applications

- *Designed for growth of the Arabidopsis plant
- *Provides adequate space for growing the plant to maturity under controlled temperature, humidity and light conditions
- *Incorporates two individually controlled environments in one compact footprint

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 research needs.

Lighting System

- *Each tier of shelves is lighted by cool white fluorescent lamps and incandescent lamps properly spaced for uniform light intensity over entire shelf
- *Intensity programmable up to 250 micromoles./m2/sec of light irradiance measured at 6" from lamps on 3 on/off light events

Lighting System cont.

- *Two levels of programming of fluorescent lighting and one level of programming of incandescent lighting
- *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

- *Interior constructed of 22-gauge electro-zinc plated steel
- *Exterior constructed of 18-gauge exterior electro-zinc plated steel
- *Welded seams and joints on outer and inner shells
- *Inner shell supported by non-compressing/non-thermal conducting material locking inner liner in place without a metal-to-metal bond to outer case
- *Chamber is completely self-contained
- *Overall wall thickness is 2"
- *Two 1 1/4" diameter access ports on R.H. wall (one per compartment)
- *Stainless steel chamber floor equipped with floor drain and hose assembly

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Cabinet Construction cont.

*Contains caster assembly and adjustable leveling legs to compensate for floor unevenness in the lab

Insulation

*Woodless construction using CFC free insulation (overall wall thickness is 2", ample insulation for maintenance of stated temperature range)

Doors

*Two doors each with an opening of 29.2" x 27.7" providing full access to chamber interior (magnetic gasket provides a tight seal to door frame)

Interior Space

*29.1 cu.ft. with work area of 10.8 sq.ft. provided on two shelves

Shelving

*One tier per compartment of white epoxy coated steel wire shelving (each shelf is 27"D x 28.8"W)

*Shelves are supported by shelf clips allowing 1/2" vertical adjustments (maximum growing height is 20")

Finish

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

Refrigeration

*Twin condensing unit (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 buildup in coil)

*Solenoid valves have extended stem for quiet and long life operation

*Ceiling mounted evaporator coils incorporate dual air circulation fans in aluminum housing (heat rejection to ambient in standard chamber = 6000 BTU/hr)

Temperature Range

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

Convenience Receptacles

*One 115/1/60 convenience receptacle provided inside each compartment

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

*Door with Observation Window with Cover

*Door with Fresh Air Ports

*Self-Contained Water-Cooled Condensing Unit

*Dry Alarm Contacts

*Dimmable Lighting

*Extended Temperature Ranges

*External Drip Pan Assembly

*LED Lighting in Lieu of Fluorescent Lamps



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