

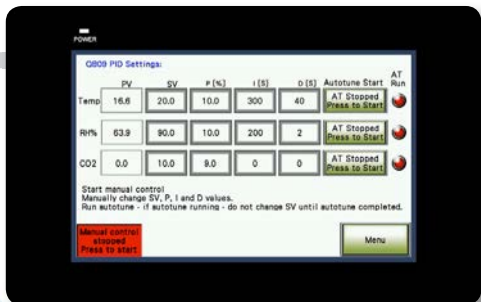
Plant Growth Humidity Chamber

Serving the Scientific, Medical and Research industries since 1945

LABEC Plant Growth Chambers with Humidity Control are fitted with internal lights and are manufactured in Australia with high quality stainless steel for easy maintenance and excellent durability. Suitable for applications such as plant germination and culture growth or where refrigeration, heating and diurnal control is required.

Controller

With Labec Plant Growth Chambers, environmental conditions can be accurately reproduced and controlled with our dynamic air flow system and unique heating system. They provide excellent temperature uniformity using a digital microprocessor based PID temperature controller which controls the temperature within the range 10°C Lights OFF / 15°C Lights ON up to +50°C and Day/Night simulation features.



Touch Screen Control display system



Model PGH36



Standard Control display system

Humidity control

The humidity can be controlled within the ranges of 10-90% (temperature dependent, see chart below). The Relative Humidity is achieved through an automatic water level inlet.



Laboratory Equipment Pty Ltd

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Data logging

When optioned the controller can be connected via RS232/RS485 communication ports which can be connected directly to a data logger or computer to log chamber information. Software is available for programming and monitoring.

Lighting

A range of lighting configurations to suit your applications is available. Lighting can be door lighting, wall lighting, or on each shelf. The shelf lighting provides High light intensity, >90 micromoles centre of each shelf. Labec chambers can now be supplied with T5 fluorescent lights in standard, marinestar, aquastar or grolux lights for different applications. The T5 lights use electronic ballasts which give a ¼ more output than the standard T8 tubes.

Additional options

To suit your requirements the addition of options such as programmable controllers, timers and cable access ports are also available.



Model PGH50
Sealed lights within door.



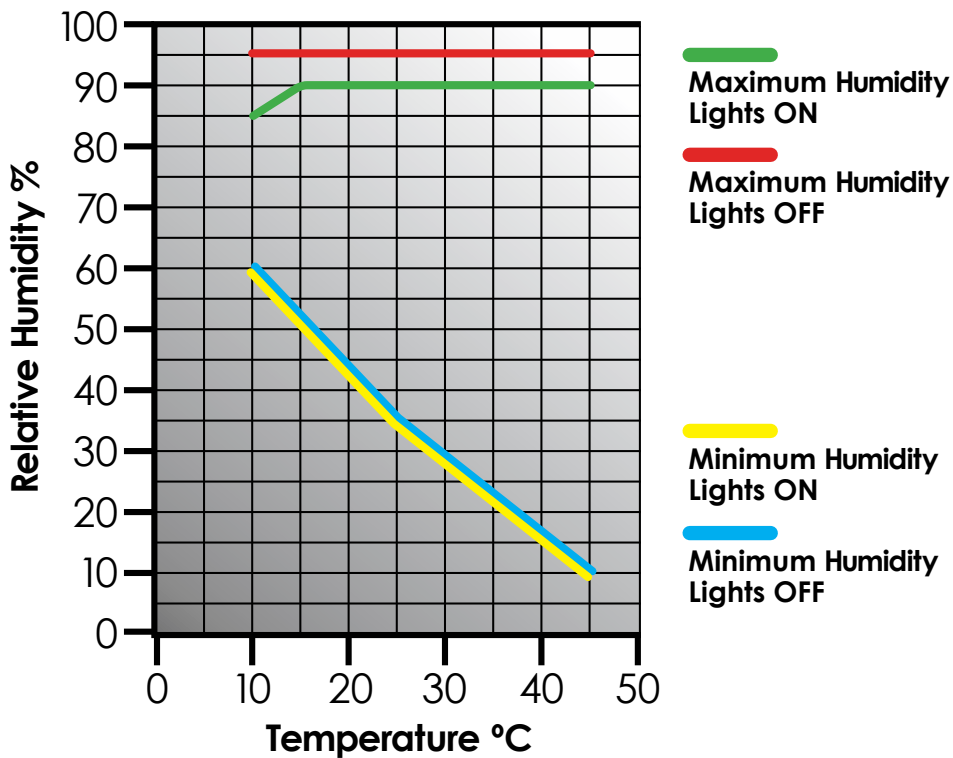
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Plant Growth Humidity Chamber

FEATURES INCLUDE:

- RCD/ ELB (earth leakage breaker).
- Over Temperature Thermostat.
- 316 grade Stainless Steel interior.
- Stainless Steel exterior.
- Lights separated from chamber.
- Diurnal control system.
- Precise control of temperature & humidity.
- Digital indication of internal temperature and set values.
- Quiet running CFC free refrigeration system.
- Monitoring or cable point access port.
- Fully adjustable open wire shelves.
- Fitted with castors to allow for easy moving.



Humiture chart which illustrates the relationship of temperature and humidity within the chamber

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SPECIFICATIONS

Plant Growth Humidity Chamber

Model	PGH24	PGH36	PGH50	PGH80
Capacity (litres)	160	300	500	820
Int. Dim. (cm) H x W x D	60 x 50 x 50	90 x 60 x 50	120 x 65 x 65	120 x 115 x 65
Ext. Dim. (cm) H x W x D	136 x 61 x 80	175 x 76 x 80	220 x 78 x 92	192 x 145 x 92
Humidity Controller	Digital PID Controller			
Humidity Range	10-90% RH (temperature dependent)			
Humidity Sensor	Vaisala			
Humidity Fluctuation	+/- 2% RH			
Temp. Controller	Digital PID Controller			
Temp. Min	+10°C Lights OFF / +15°C with lights ON			
Temp. Max	50°C			
Temp. Setting Accuracy	+/- 1°C			
Temp. Fluctuation	+/- 0.2°C			
Temp. Sensor	Pt100ohms			
Heating System	Electric Element			
Refrigerant	R134a (CFC Free)			
Interior Material	316 Grade Stainless Steel			
Exterior Material	Stainless Steel			
Shelves	2		3	6
Standard Wall Lighting (Watts)	2 x 18W	2 x 36W	3 x 36W	6 x 36W
Options	Glass viewing windows, castors, cable entry port, programmable temperature profiler, additional shelves, various lighting configurations to suit your applications (doors, walls, each shelf), data logger, chart recorder.			
Safety Features	Over temperature alarm, Temperature protection cut off, Earth leakage breaker (ELB).			
Power (W)	240V/50Hz			
Weight (kg)	102	135	155	195

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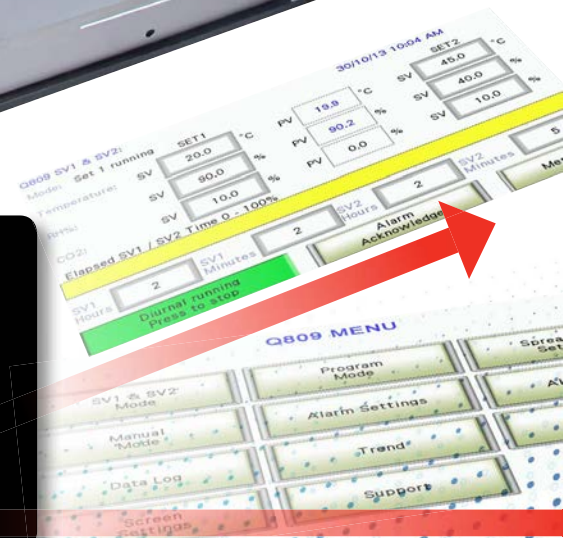
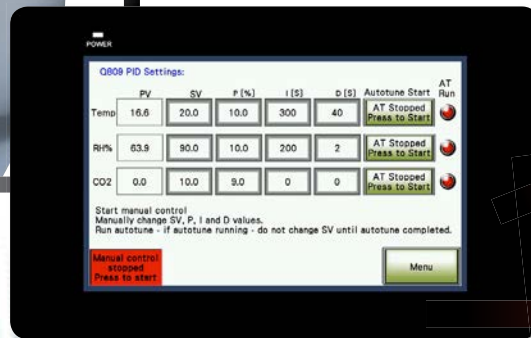
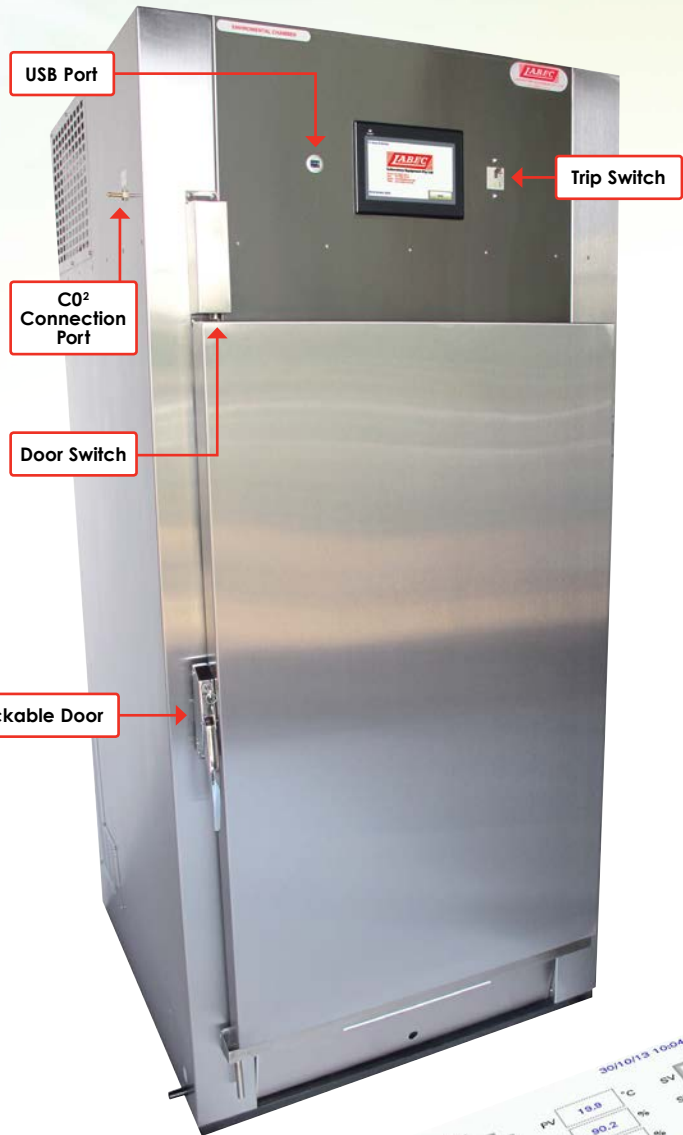
Optional Carbon Dioxide (CO₂)

To achieve accurate plant reproduction Labec chambers are designed for optimum performance.

Labec optional Carbon Dioxide (CO₂) control system is built into the touch screen controller. With advanced PID and auto-tune controls accurate CO₂ can be achieved with concentration levels up to 3000ppm with ±50ppm accuracy.

The controller allows advance parameters and diagnostics of the system. The user can control all stages of the growth with pre-programmed settings and alarm functions.

Downloading the datalog results is easy with the front USB port.



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