

PG034 STANDARD CHAMBER

PG Series Overview

The PG Series is Darwin's stock plant growth chamber design. It is quiet, easy to clean, highly reliable and ideal for plant growth use. It offers hot gas bypass control of refrigeration and resistive heat to facilitate reliable, temperature and humidity control.

PG09

The PG09 is a bench top incubator designed to fit on 24" benchtops; stacked with optional racking.

PG034

The PG034 is a single-door incubator providing extra cubic feet designed for maximum capacity while still allowing passage through most commercial doorways.

PG068

The PG068 is a wide double door plant growth chamber. This chamber gives researchers additional growing room for their plants.



Featured photo is the PG034 plant growth chamber, open door view to show adjustable racks.



Featured photo is the PG034 incubator closed door view.



PG SERIES: STANDARD CHAMBERS

The PG series chambers feature hot gas by-pass technology which controls the temperature of the epoxy coated evaporator for greater uniformity. Compressors in our PG series of environmental chambers come with a three year warranty - which is the longest in the industry.

Quiet Operation

The PG chambers utilize quiet and highly efficient DC fans. Locating these chambers in laboratory workspaces is a viable option.

Superior Control and Uniformity

The ultrasonic humidification system provides excellent humidity control and avoids hot spots seen during chamber mapping of steam boiler equipped chambers.

Widely used options for plant growth chambers

1. LED lighting
2. T5HO bulbs
3. T8HO bulbs
4. Touchscreen controller (controls 3 outputs)

Greatly Reduced Direct and Indirect Energy

The PG Series chambers utilizes less energy than comparable chambers and introduce less impact upon building cooling systems. This efficiency "dual benefit" allows our chambers to be located in spaces unsuitable for other chambers. Electrical energy savings by the PG series vs. steam boiler equipped chambers can easily amount to hundreds or thousands of dollars saved per year.

Widely Proven, Non-Proprietary Controllers

Standard controllers for the PG Series are manufactured by Fuji Electric and are ideal for chambers. Unlike many proprietary controllers, this controller is commercially available and proven in tens of thousands of installations. Standard functions include: autotuning, fuzzy logic, PID control, programmable alarms, calibration capability, offset capability, etc. A touchscreen control interface is optional. Other controller manufacturers are also supported (Watlow, Allen Bradley etc.)

Services and Warranties

We offer free technical support throughout the lifetime of your chamber. In addition to standard warranties, we also offer extended warranties for cooling components, parts and labor. We also provide preventive maintenance services at an additional cost. Please ask for a quote.

PG034 Standard Chamber Specifications (ambient 21° C)

Performance	Standard	Customized Option
Temperature Range (Lights Off)	4° C to 60° C	-5° C to 60° C with Optional Defrost
Ambient Temperature (Lights Off)	21° C ± 3° C	Available
Temperature Control (Lights Off)	± 0.2° C	Available
Temperature Uniformity (Lights Off)	± 0.8° C	Available
Control Resolution	0.1° C	Available
Temperature Sensor (Lights Off)	NIST Traceable Platinum RTD	Available
Humidity Range	Ambient to 90% @ 40° C Dewpoint	2 to 95% @ 22° C
Humidity Control (Unloaded)	± 0.3%	Available
Humidity Uniformity (Unloaded)	± 2%	Available
Control Resolution	0.1%	Available
Humidity Sensor	NIST Traceable Rotronic HCS2	Other or Custom

Control System	Standard	Customized Option
Controller	Microprocessor based PID	West EC-44, Future Design Touchpad, Watlow, Allen Bradley
Control Readout	Actual and Set-Point Values	Trending, Duty Cycle
Calibration Correction Capability	Standard 0.1 Resolution	Available
Uniformity Off Set	Standard 0.1 Resolution	Available
Alarm	Audible and Visual	Text, Email, Web Server, Remote Access
Alarm Type	Deviation in 0.1° C or 0.1% RH with Delay	Absolute 0.1 Resolution with Delay
Remote Monitoring	Dry Alarm Contact, RS 485 & Analog Output	Ethernet
Password Protection	Numeric	Numeric, Alpha Numeric
Audit Trail	N/A	Available
Uninterrupted Power Supply (Monitoring)	N/A	Available

Construction	Standard	Customized Option
Exterior	Galvanized Powder Coated	Stainless Steel
Interior	Stainless Steel - Powder Coated White	Stainless Steel
Shelving	3 Stainless Steel Shelves, Supports Up to 150 lbs of Evenly Distributed Weight	Stainless Steel, Chrome Plate or Custom
Casters	2.75" Total Weight Capacity is 300 lbs per Castor, Not Including the Weight of the Chamber	5" Casters or Seismic Legs

Capacity & Dimensions	US Standard	Metric
Interior Capacity	30 ft ³	849 liters
External Dimensions	34"W x 35" D x 80.5" H	86.36 cm W x 88.9 cm D x 204.47cm H
Internal Dimensions	29.5" W x 29" D x 63.38" H	74.93 cm W x 73.66 cm D x 160.97 cm H
Shelf Dimensions	21.5" W, 26.25" D	54.61 cm W x 66.68 cm D
Crated Weight	720 lbs	191 kg

Electrical	US Standard	International
Voltage	115 / 60 / 1	230 / 50 / 1
RLA (Lights Off)	6	2.6 With Step Down Transformer
Cord Length	9 ft	9 ft

PG034 Stability Chamber Technical Drawings

