

BIOPREP® Plant Grow Cabinet – 1600 L (BP-PGC-1600)

Description

The **Bioprep BP-PGC-1600 Plant Grow Cabinet** is a high-performance, controlled-environment growth chamber designed for precise simulation of plant growth conditions. With a large internal capacity and advanced environmental controls, it is ideal for applications in plant physiology, seed germination, breeding research, phenotyping, and biotechnology laboratories.

This cabinet provides accurate control of **temperature, humidity, light intensity, and CO₂ concentration**, ensuring stable and repeatable experimental conditions. Uniform LED lighting, multiple shelf levels, and optional advanced configurations make the BP-PGC-1600 a versatile solution for modern plant research facilities. The system is also available in a **Tissue Culture Chamber** configuration for in-vitro applications.



Key Features

- ❖ Large **1640 L** growth chamber capacity
- ❖ Wide temperature and humidity control range
- ❖ High-uniformity LED plant growth lighting
- ❖ Multiple lighting shelves for simultaneous experiments
- ❖ Programmable environmental parameters for reproducible results
- ❖ Optional CO₂ enrichment for enhanced plant growth studies
- ❖ Observation window for sample monitoring without disturbance
- ❖ Robust construction for long-term laboratory use

Applications

- ❖ Plant growth and physiology studies
- ❖ Seed germination and propagation
- ❖ Stress and climate simulation experiments
- ❖ Agricultural and horticultural research
- ❖ Biotechnology and academic laboratories
- ❖ Tissue culture and in-vitro plant research (optional configuration)

Technical Specifications

Model	BP-PGC-1600
Chamber Capacity	1640 L
Temperature Range	3 °C to 45 °C
Humidity Range	50% – 90% RH
Light Intensity	300 $\mu\text{mol}/\text{m}^2/\text{s}$ @ 10 cm
Shelves	5 lighting levels
External Dimensions (W×D×H)	2254 × 823 × 2010 mm

Optional Configurations

- ❖ Higher light intensity: 500 / 1200 / 1600 $\mu\text{mol}/\text{m}^2/\text{s}$
- ❖ LED color combinations: 1 / 3 / 4 / 7 / 18 colors
- ❖ Extended temperature range: down to -10 °C (light off)
- ❖ Extended humidity range: from 30% RH
- ❖ CO₂ control: up to 2000 ppm / 5000 ppm
- ❖ Observation window
- ❖ Tissue Culture Chamber version available