

ESTEEM INDUSTRIES INC.

GROWTH CHAMBERS

ESTG-130 PLANT GROWTH CHAMBER



Esteem series of Growth Chambers are ideal for agriculture or biotechnology testing growth of plants in an artificial climatic condition. It controls temperature, relative humidity and illumination. The wide variety of temperatures and light intensity patterns that are essential in plant research can now be accurately reproduced and controlled with the updated range by Plant Growth Chambers.

State-of-the-art equipment for Plant growth and animal studies. Provision for light, temperature and humidity are made to test plant growth and analyse their flowering cycle. Inner chamber made of S.S. 304 and outer of thick cold rolled steel duly pretreated & powder coated. 75 mm thick glass wool of high density is

sandwiched between the two walls to provide insulation. A see through window is provided for inspection of plants. Heating is controlled by solid state digital temp controller cum indicator to maintain temp. between 15°C to 50°C. A 7 days programmable timer is provided. Cooling is maintained by hermetically sealed compressor. Provision for 50,000 lux is provided with a mixture of incandescent lamp & fluorescent light to give effect of day light, whereas humidity is controlled from 55% to 95% \pm 5% by humidistat.

ESTG-132 WALK-IN-INCUBATOR





FEATURES OF ESTEEM GROWTH CHAMBERS:

- Digital PID Controls Temperature, Humidity and Illumination.
- 11 Segments, 999 Cycles Programmable or Continuous Operation.
- Accurate temperature control by $\pm 0.1^{\circ}\text{C}$ accuracy and $\pm 0.5^{\circ}\text{C}$ uniformity.
- Humidity Control from 30 ~ 98 % RH by ± 3 % RH accuracy.
- Illumination from 0 ~ 20,000 Lux by 6 to 8 Steps of gradation (Option Max. 40,000 Lux).
- Maximum and uniform light distribution through the chamber.
- 3-Line back light LCD displays operating status and easy-to-input program

pattern.

- Water level controller automatically supply and stop water for humidity control.
- Over temperature protection, low water level alarm, electrical leakage breaker.

TECHNICAL SPECIFICATION

MODEL NO	 ESTG-130 Plant Growth Chamber	 ESTG-132 Walk-In-Incubator	 ESTG-136
Temperature	Heating Type	Forced convection by silent coaxial fan	
	Range	+ 5°C~ 60°C (without illumination)	
	Accuracy	± 0.1°C at 20°C	
	Uniformity	± 0.8°C at 20°C	
Humidity	Humidifier type	Water boiler with immersed incolony sheath heater	
	Range	30% ~98% RH (Altitude less than 2,000 m)	
	Accuracy	± 3.0% at 60%	
	Uniformity	± 6.0% at 60%	
Illumination	Illumination type	Fluorescent lamp from 3-side light bank	

	Range	0~20,000 Lux (40,000 Lux Optional)		
	Control steps	6 steps		8 steps
	Feature	Lamp-on-delay function by 1 minute of interval		
Control	Main controller	Digital programmable microprocessor PID controller		
	Program	11 Segment,999 cycle or continuous		
	Sensor	Pt 100 Ω for temperature/Electronic sensor for humidity/Lux meter for illumination		
Safety device	Temperature	Hydraulic over temperature protection /Low water level warning & cut-off		
	Electrical	Electrical leakage breaker		
Dimensions (W x D x H) mm	Inner	500 x 550 x 1200	600 x 600 x 1200	1200 x 600 x 1200
	Outer	700 x 825 x 1880	790 x 875 x 1980	1390 x 875 x 1980
	Clearance	710 x 835 x 1890	800 x 885 x 1990	1400 x 885 x 1990
Material	Chamber	1.0 Gauge stainless steel polished (SUS 304)		
	External	Steel 1T with epoxy powder coating		
	Door	Internal tempered safety glass door and external door with magnetic packing		
	Utility	Water Inlet/Water outlet/Over flow /Drain.		

