PRECIOUS® TECHNO ENGINEERING
SERVES THE ENGINEERING QUALITY

SEED GERMINATOR SINGLE / DOUBLE CHAMBER

KEY FEATURES

1. Precise Temperature Control:
- Maintains uniform temperature throughout the chamber (typically 5°C to 60°C).
- Digital temperature controller with PID for accurate regulation.

2. Humidity Control System:
- Humidity range generally between 50% to 95% RH.
- Built-in humidifier or ultrasonic humidity generator for stable humidity.

3. Uniform Air Circulation:
- Air circulation fans ensure even distribution of temperature and humidity inside the chamber.

4. Illumination System:
- Fitted with fluorescent/LED lights to simulate day and night conditions for seed growth.
- Programmable photoperiod (light & dark cycle control).

5. Double-Walled Construction:
- Outer body made of powder-coated mild steel.
- Inner chamber made of stainless steel (SS 304) for durability and easy cleaning.

6. Insulated Design:
- High-density PUF insulation minimizes heat loss and ensures energy efficiency.

7. Microprocessor-Based Control Panel:
- Digital display for temperature, humidity, and illumination settings.
- Alarm for deviation from set parameters.

8. Shelving System:
- Adjustable stainless steel trays for flexible use and easy sample placement.

9. Safety Features:
- Over-temperature protection and power failure alarm.
- Auto-cut system to prevent overheating.

APPLICATIONS

Seed Germination Studies
For testing seed viability and germination rate.
Plant Growth Experiments
Ideal for seedling development and controlled growth.
Agricultural & Botanical Research
For research institutions, universities, and labs.
Seed Testing Laboratories
Standardized environment for testing germination under controlled conditions.
Pharmaceutical & Biotechnology Labs
For stability testing under specific humidity and temperature.

TECHNICAL MATRIX

Model	PTE-SG 614 A	PTE-SG 614 B	PTE-SG 614 C	PTE-SG 614 D	PTE-SG 614 E
Capacity (Liters)	100 liters	170 liters	285 liters	340 liters	442 liters
Capacity (Cubic Feet)	4.0 Cu. Ft	6.0 Cu Ft	10 Cu. Ft	12 Cu. Ft	15.6 Cu. Ft
Temperature Range	5°C to50°C				
Temperature Uniformity	±2°C				
Temperature Accuracy	±0.5°C				
No. of Chambers	Single / Double Chamber				
Temperature Controller	PID Controller / HMI PLC				
Relative Humidity Range	80% RH to 95% RH				
External Construction	Mild Steel Duly Powder Coated and SS 304 Grade Stainless Steel				
Lighting	Fluorescent Lamps				
Doors	Solid and Glass Doors with magnetic gasket				
Insulation	High Density PUF Insulation				
Shelves	Painted Steel wire				
No. of Trays	2, 3 or 5 as required (Extra Trays Available on demand)				
Refrigerant	CFC-free refrigerant				
Timer	Automatic				
Alarm	Audio / Visual Alarm for temp & humidity deviations				
Display	LED / LCD Display w/ Backlit				
Power Supply	220 Volts				

OPTIONAL ADD ONS

- Data logging with USB port With Touch Screen Display with Direct / Dot Matrix Printer
- CO_2 control system for advanced plant studies.
- Automatic water refill system for humidity maintenance.
- Wi-Fi/Ethernet connectivity for remote monitoring.
- By Profile Digital Microcontroller having 4 Programmers each of16 steps (of ramp / soak profile)
- 16x2) RS-485 communication ports, cables,window based software with inbuilt data recording
- By interior illumination with 3 fluorescent tubes of 60 cm. (20 Watts) placed vertically along back wall