

SEED GERMINATOR

SG- 3098



EPC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

Seed germination chamber are exclusively designed for germination and development of seeds under different crucial environmental parameters like humidity, temperature and illumination with greater accuracy to provide more uniform and stronger seedlings. Accurate environmental conditions are created within the chamber to perforated different experiments without going on to the field.

Our chambers provide the largest growth area with innovative designs. The seed germinator is corrosion resistant and appreciated among our clients for its fine finish and easy installation. Beside the research based seed germinator, we are also manufacturing very economical commercial grade seed germinators, which are commonly used as sprouters in various agro-based industries and tissue culture industries.

►► **Special Features**

1. Hot and cold cycles
2. Light & dark operations
3. Day light effects on flowering cycle
4. Removable shelves for easy loading
5. Custom cyclic process controls
6. Study wheels afford mobility
7. Less use of electrical and mechanical components on the top and bottom of chamber - Provides easy maintenance of chamber, increases durability because of proper air circulation; cooling systems kept at bottom of the chamber to provide proper environment for compressor.
8. Circulation fan with variable speed

Electrical Efficiency

Variable speed motor saves money by reducing energy bills, as it consumes less electricity than conventional motor.

Cooling Efficiency

Variable speed enables gaining air conditioning efficiency or SEER.

Air Quality

Variable speed motor helps clean the air efficiently. When the fan is in constant operation (indicated by the "Fan" setting on thermostat), the motor continues to slowly circulate air, allowing filters to capture more contaminants.

Humidity Control

Variable speed motor combined with a thermostat allows controlling the amount of humidity.

Quieter Operation

Variable speed blower motor are significantly quieter than its single

9. Air cooled refrigerated system - Air cooled refrigeration system offer various benefits like

Low fan power consumption

Resistant to corrosion and freezing conditions

Requires very low maintenance

Guaranteed long life operation

10. PCRC sheet body - Powder coated steel body assures corrosion resistant chamber and allows working of chamber at high temperature applications.

11. Digital output - Target and Performance Output of the chamber operations are in digital format (digits) giving precise reading.

12. Preattached data logger with data analysis software (OPTIONAL) Primary benefits of using data loggers is to automatically collect data 24hour basis. Graph and table format of results can be produced automatically by the data logging software.

13. Open and close updates through mobile network (OPTIONAL) Mobile technology has the potential to make services more flexible and keep informed, information anywhere at any time from mobile device, and can set alert system to know whether or not the chamber is being used.

14. Reliable - Construction, performance mechanism, controls and information system integration makes the equipment reliable.

15. Precise Control of Environmental Parameters - The set/ programmable parameters of the chamber are precise or have less deviation from original value, thus ensuring correct measurement.

16. Micro-processor based Controller - Enables precise control of temperature, humidity, pressure and other values. Benefits:

Processing speed is high

Provides flexibility to alter the system by changing software.

Compact in size.

Operation and maintenance easier.

Maintain precise values

17. Aesthetically designed - Designed according to the standards and principles underlining industry's aesthetic values.

18. Corrosion Resistant interior and exteriors - Corrosion resistant coatings like epoxy coatings are applied inside and outside the chamber to prevent against degradation due to moisture, salt spray, exposure to a variety of environmental or industrial chemicals/ corrosive agents.

19. Energy Efficient - chamber uses less energy to provide the same level of performance and convenience, thus making it an energy conserving chamber.

20. CFC-free cooling - The air cooled refrigerator uses CFC (chlorofluorocarbon) free refrigerants that are ozone friendly and ecofriendly.

21. Sturdy Construction- Chambers are built with robustness to withstand stress and strain, giving the chamber long life and ability to perform in extreme stress environments.

22. Low Maintenance - Benefit in retaining proper functionality over long period of time

23. Light Weight: Compact and superior materials ensure the chamber be light weight.

►► Applications:

- Seed testing
- Biological studies
- Forestry research work
- Biological research and tissue culture tests.
- Photo stability tests
- Plant growth and propagation
- Agriculture Industries
- Crop Motivation
- Crop Genetic Engineering

►► Construction Details:

Thermal Shock test chambers are double walled convection heated and cooled units. Outer body of our environmental chambers are constructed out of thick PCRC, pre coated corrosion resistant GI sheet duly pre-treated with primers and rust proofing and painted with long lasting stove enamel or elegantly powder coated. The inner chamber is made of heavy gauge stainless steel sheet of SS-304 grade). The gap between the walls is filled with high grade mineral glass wool, which ensures maximum thermal efficiency in our chambers.

The unit is provided with single door, with viewing window made of thick plexi glass/float glass, to view the specimens, without disturbing the temperature of the chamber. This door is provided with magnetic door closer. This door is provided with lock and key arrangement. The unit is mounted on a sturdy steel frame. The unit is provided with various customized shelves in various permutations and combinations to suit individual requirements. The triple walled back of our Thermal Shock test chambers are provided with two/Four/Six/Eight (size specific) air circulation fans for uniform maintenance of the temperature throughout the chamber.

►► Heating :

Indirect heating system is provided in our units, comprising of air heaters made of high grade Kanthal A-1 wires of suitable wattage. The warm air is evenly distributed throughout the chamber through efficient motor fans ensuring very good temperature sensitivity.

►► Cooling :

An energy efficient cooling unit is installed in our photostability test chambers to enable studies at lower room temperatures. We use high end CFC free compressors of Kirloskar/Tecumseh / Bitzer/ Denfos make, conforming to latest international standards and guidelines..

►► Technical Specifications :

Construction	External	Epoxy powder coated MS sheets
	Internal	High grade SS 304 stainless steel
Temperature range		Chamber 1 : 5°C to 60°C Chamber Chamber 2 : Ambient 5°C to 60°C Chamber
Temperature Sensitivity		+1°C
Humidity Range		20-85% RH (as per graph)
Humidity Sensitivity		±1%RH
Temperature Sensor PT-100		PT-100
Water Reservoir		18 L
Water Quality		Distilled/ionized
Temperature Controller		PID (HMI+PLC: Optional)
Display Accuracy		0.5% full scale
Shelves		14
Inner Dimensions / Capacity		518 W x 910 H x 548 D mm / 265 Liters
Power Consumption		
Nominal Power		Single Chamber-3KW, Dual Chamber-6KW
Nominal Voltage		230, 1~, 50/60Hz
Voltage Stabilizer		Optional

►► Regulatory compliances



►► Corporate Social Responsibility

Analytical Foundation is a Nonprofit Organization (NGO) found for the purpose of:



Analytical Foundation

1. Research & Innovation Scientist's awards / QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops / Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds, souls and body by means of Yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

►► Reach us @



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