



MODEL NO. - ACM- 6471SG



# SEED GERMINATION CHAMBER



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As it is very well known that **seed germinator** is laboratory equipment which is used for the Germination of Seeds. Weiber Seed Germinators provides suitable varying atmospheric conditions for the seed germination; that can be created within the chambers without the need of going outside. Typically, these create an environment in which light, humidity and temperature are controlled to provide optimum conditions for the germination of seeds. They are made of double walled structure having two chambers, one inner and one outer. Weiber Seed Germinators are designed in such a way that they are able to control the crucial environmental parameters.

The main components of a Seed Germinator include

- A germinating cylinder
- A temperate controller

## SALIENT FEATURES

- Reliable
- Low maintenance
- PUF insulation
- Energy efficient
- RS 232 interface
- Stainless steel interior
- Corrosion resistant

## APPLICATIONS

- Apart from the usual germination applications, Weiber Seed Germinator also has the following applications
- involving plants, tissues and microorganism test
- Electronic components industries
- Enzyme reaction studies
- Tissue culture application
- Growth observation studies
- Fermentation analysis

## CONSTRUCTION DETAILS

**Chamber Body:** Double walled cabinet with inner chamber made up of Stainless steel of grade SS 304 and outer wall of heavy gauge PCRC steel sheet that is degreased and pre treated with primers for rust proofing .

**Insulation:** It's a process of retardation or the reduction of heat loss or heat gain for energy conservation. Weiber Seed Germination Chamber provides cellular insulation that is through polyurethane foam.

**Cellular Insulation:** Composed of air or some other gas contained within foam of stable small bubbles and formed into boards, blankets, or hollow cylinders.

**Heating:** Desired positive temperature is provided through stainless steel sheathed air heaters, these heaters do not affect the test specimen directly as they are placed in conditioning plenum providing indirect heat.

**Air Circulation:** Air Circulation efficient motor fans are provided, ensuring uniform temperature throughout the chamber.

**Cooling:** Negative temperature is maintained through ultra low temperature application compressor and non CFC eco friendly R 404a refrigerant used.

**Refrigeration:** It is provided through hermetic and half-hermetic compressor cascade refrigeration system. Hermetic compressor is completely sealed, especially against the escape or entry of air and semi-hermetic compressor is partially sealed units and these units are mainly utilized for real refrigeration work.

**Humidification:** Humidification is the process of regulating humidity; a measure of moisture in the air. Humidity inside the Weiber seed germinator is provided through steam generated from heating water using immersion type heater. A water reservoir is provided in the machine with heaters and controls for this purpose, to achieve 90 to 96% + 3% RH (non adjustable).

**Temperature Control:** The temperature inside our chambers is controlled through programmable micro-processor based temperature controller cum indicator.

## TECHNICAL SPECIFICATIONS

|   |       |                                |
|---|-------|--------------------------------|
| Temperature variation (time)                  | +/-°C | 0.5                            |
| Temperature deviation (spatial)               | +/-°C | 0.5                            |
| Readability/ Set ability                      | °C    | 0.5                            |
| Temperature range ***                         | °C    | 5°C to 60°C                    |
| Temperature sensor                            |       | PT-100                         |
| Humidity Range                                | %     | 20-95% RH                      |
| Humidity Sensor                               |       | Capacitive                     |
| Sensor thermocouple                           |       | Type K                         |
| Controller                                    |       | PID Controller                 |
| Display                                       |       | LED/LCD                        |
| Adjustable alarm limits (visual and acoustic) |       | Optional                       |
| <b>Safety thermostats</b>                     |       |                                |
| Temperature variation (time)                  | +/-°C | 3                              |
| Sensor thermocouple                           | -     | Type K                         |
| Automatic setting                             | -     | Yes                            |
| Adjustable limits                             | -     | Yes                            |
| <b>Light control</b>                          |       |                                |
| Readability / Set ability                     | %     | 7% (optional feature)          |
| Light intensity in the middle                 | Lux   | As Desired (optional feature)  |
| Light intensity in both sides                 | Lux   | As Desired (optional feature)  |
| <b>Accessories</b>                            |       |                                |
| Automatic de-icing system                     |       | optional                       |
| Timer (1-999 minutes or hours)                |       | optional                       |
| Real Time Program                             |       | optional                       |
| Printer Report Program                        |       | optional                       |
| Serial Data Port                              | Rs232 | optional                       |
| <b>Shelves</b>                                |       |                                |
| Standard/ max                                 |       | depends on the size of chamber |
| Dimensions w,d                                | mm    | as per customers requirement   |
| Access Port 30 mm                             |       | optional                       |
| Inspection window in door with cover          |       | optional                       |
| Castors, lockable                             |       | Yes                            |
| <b>Power consumption</b>                      |       |                                |
| Nominal voltage                               | V     | 230, 1~                        |
| Frequency                                     | Hz    | 50/60                          |



An ISO 9001 : 2208 | ISO 14001 : 2008 | ISO 13485  
WHO: GMP Products | GLP Compliant Products

[www.acmasindia.com](http://www.acmasindia.com) | [www.acmasglobal.com](http://www.acmasglobal.com) | [www.test-chambers.com](http://www.test-chambers.com)

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