

# SEED GERMINATOR CHAMBER

## ALS-INS072



## DESCRIPTION

A Seed Germination chamber is a machine used for the germination of different types of seeds in laboratories. These machines are specifically designed growth chambers that create an artificial environment using temperature, humidity and light responsible for the germination of seeds. These chambers play an important role in crop production respectively.

## KEY FEATURES

- Chambers:** Our seed germinators are constructed in single chamber and dual chamber designs. Dual chamber machine has two adjacent chambers and each chamber has individual temperature and humidity control system.
- Construction:** Inner chamber of each machine is made of thick sheet of stainless steel 304; while the exterior is made of GI sheet which is powder coated for corrosion resistance surface. Each jointed is nicely molded and arc welded.
- Control system:** When using seed germinator accuracy is a prime requirement; therefore, we use powerful PID based temperature and humidity control system supported by high accuracy PT100 RTD sensor and capacitive sensor. In addition, we also use PLC based HMI controller which features color touch screen, data monitoring and recording and data transfer into computer on user demand. It can be further customized to any level of comfort.
- Cooling System:** The cooling system in our seed germinator machines are done using branded CFC free and hermetically sealed compressor with R134A refrigerant. It is long life compressor and plays important role in maintaining low temperature.
- Humidification:** The humidification system consists of a stainless-steel tank and an ISI mark immersion heater. It also features automatic water filling device, when water goes below the low level, this device opens the valve for water re-filling.
- Heating:** For heating system, we use tubular air or wire bead heater that are non-corrosive and feature fast heat up.
- Air circulation:** In order to achieve uniform temperature and humidity level in every corner of the chamber forced air circulation is needed and in our seed germinator we use high quality motorized blower assembly for this purpose. This assembly not only distributes temperature and humidity uniformly all over the chamber but also offers quiet and vibration-free operation for long years.
- Illumination:** Good seed growth mostly depends upon sufficient illumination inside the chamber; therefore, we equip our seed germination machines with high LUX fluorescent LED lights (customizable) that are controlled through a microprocessor-controlled cyclic timer. This timer controls both light and dark cycle.

## TECHNICAL SPECIFICATION

MODEL	ALS-INS072SGC
Temperature range	5°C to 60°C
Temperature controller	Digital PID controller
Temperature accuracy	±1%
Temperature sensor	PT-100
Humidity range	50% to 90% RH
Humidity controller	Digital PID controller
Humidity accuracy	±3%
Photosynthetic Photon Flux Density (PPFD)	150-170 µmol/m <sup>2</sup> /s
Light timer	24x7 weekly digital timer
Construction	Double walled
Exterior	Mild steel powder coated
Interior	Stainless steel 304
Outer door	Single or double solid doors with lock & key
Inner door	Glass door to view samples
Shelves	03 to 12 (Height adjustable)
Safety	Audio / visual alarm for temperature deviation
Optional Features	<ul style="list-style-type: none"> <li>• Exterior made of stainless steel 304 / 316</li> <li>• PLC with HMI interface</li> <li>• Data logger with USB interface</li> <li>• Password protection for controller</li> <li>• Caster wheels</li> </ul>
Power supply	220 Volts / 50 Hz

## ORDERING INFORMATION

Model	Dimensions (mm)	Volume (Litres)	Volume (Cu.Ft.)
ALS-SGC170	560 x 580 x 660	170 Liters	6
ALS-SGC250	550 x 450 x 1000	250 Liters	10
ALS-SGC350	610 x 615 x 1016	350 Liters	12
ALS-SGC600	800 x 600 x 1250	600 Liters	14
ALS-SGC800	1120 x 600 x 1200	800 Liters	20
ALS-SGC1000	1074 x 765 x 1240	1000 Liters	28

