



fitotron

HGC High Specification
Growth Chambers

fitotron® HGC High Specification Growth Chambers

Chamber Specifications

fitotron® HGC High Specification Growth Chambers are based on a modular design with very high performance. They are available in three sizes for plants that require high light intensities.

The fitotron® HGC High Specification Growth Chamber Range offers a modular concept and high accuracy and reliability in the control of temperature, humidity and lighting.

Our chambers enable the researcher to maintain controlled growing conditions of temperature and humidity in a 24 h period with independent selection of photoperiods.

With light intensity of up to 1000 $\mu\text{mol m}^{-2}\text{s}^{-1}$ at 500 mm, they are ideally suited to growing plants requiring high light, such as wheat, maize, cotton and rice. With growth heights of up to 2100 mm they are also ideally suited to growing large plants through to maturity.

fitotron® HGC High Specification Growth Chambers combine high quality components, design, and manufacturing expertise. This enables us to offer out-standing control, performance and integrity of all parameters. Our policy of continual liaison with leading researchers ensures we maintain our premier position as suppliers of high quality plant growth chambers and rooms.

Features and Benefits:

- Choice of high frequency fluorescent or ceramic metal halide lamps with light intensities from 450 $\mu\text{mol m}^{-2}\text{s}^{-1}$ at 200 mm to 1000 $\mu\text{mol m}^{-2}\text{s}^{-1}$ at 500 mm
- Full humidity control with both additive and dehumidification as standard
- Higher intensity light sources separated and independently heat managed for superior temperature uniformity in the growing space
- Choice of vertical or horizontal airflow for temperature uniformity across the plant canopy

Global Service and Support

The training undertaken by our agents and engineers is state-of-the-art in the industry, ensuring that our customers are supported by the highest level of technical expertise. Our customers can be assured that their equipment will perform to the required standard at all times.

Options

- LED-lighting technology
- Water-cooled refrigeration
- CO₂ control
- Growth height extension
- Low temperature module
- SIMPATI® control software



fitotron® Model	HGC0714	HGC1014	HGC1514
Growth area (in m ²)	0.73	1.00	1.50
Growth height (maximum in mm)	Choice of 1400, 1600 or 1900 or 2100 (all models)		
Exterior dimensions (wxdxh in mm) ¹	2020x980x1985	2320x980x1985	3040x980x1985
Interior dimensions (wxdxh in mm) ²	970x750x1400	1270x750x1400	1990x750x1400
Temperature range: Lights off	+5 °C to +45 °C (all models)		
Temperature range: Lights on	+10 °C to +45 °C (all models)		
Temperature fluctuation with time	±0.5 °C (all models)		
Humidity range: Lights off	40 % RH to 95 % RH (all models)		
Humidity range: Lights on	40 % RH to 85 % RH (all models)		
Dewpoint	+4 °C to +35 °C (all models)		
Maximum lighting intensity			
Lighting module 1 (fluorescent)	450 $\mu\text{mol m}^{-2}\text{s}^{-1}$ @ 200 mm (all models)		
Lighting module 2 (fluorescent)	900 $\mu\text{mol m}^{-2}\text{s}^{-1}$ @ 200 mm (all models)		
Lighting module 4 (metal halide)	1000 $\mu\text{mol m}^{-2}\text{s}^{-1}$ @ 500 mm (all models)		
Humidity fluctuation with time	±2 % RH (all models)		
Electrical connection ²	3 Ph/N/E 380 V-440 V 50 Hz (all models)		

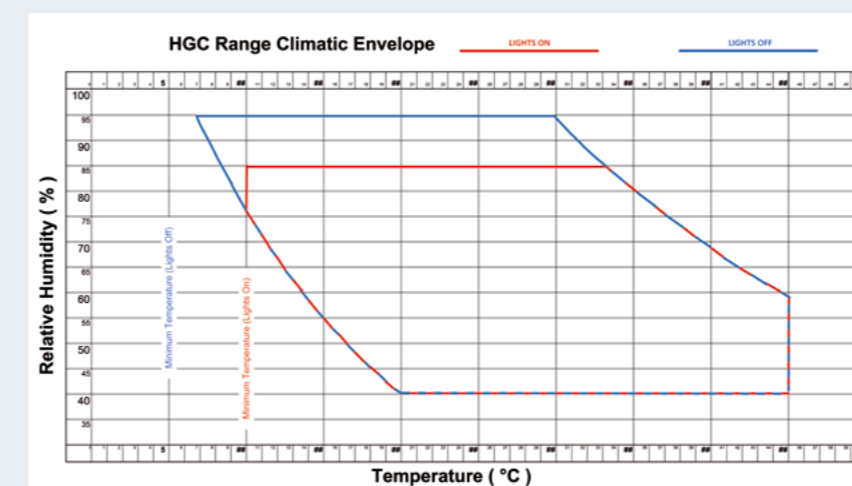
¹Height with light module 1. (Lights modules 2 + 4, external height = 2485 mm.) With optional height module, all heights increased by 500 mm

²Height with light module 1. (Lights modules 2 + 4, internal height = 1600 mm.) With optional height module, all heights increased by 500 mm

³60 Hz is also available dependent on destination country

Humidification

Humidification is maintained by injection of sterile steam at ambient pressure, preventing harmful bacteria (including legionella) from entering the chamber, creating a safe working environment. The system benefits from extended periods between maintenance and does not require a compressed air supply.



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