

weisstechnik®

Test it. Heat it. Cool it.

Our solutions are deployed around the world in research, development, production and quality assurance of numerous products. Our experts from 21 companies are at your service in 14 countries, ready to provide support to ensure high operational reliability of your systems.

Weiss Umwelttechnik is one of the most innovative and significant manufacturers of environmental simulation systems. With these testing systems, we can simulate all climatic conditions around the globe and beyond, under accelerated conditions. Whether temperature, climate, corrosion, dust or combined shock testing: We have the proper solution. We supply systems in all sizes, from standard versions up to customised, process-integrated facilities - for high reproducibility and precise test results.

Weiss Technik UK, a subsidiary of Weiss Umwelttechnik, has been one of the leading global suppliers of plant growth chambers and rooms for more than 50 years. We can supply, install and support our products in virtually every country in the world. **fitotron®**, our premier product brand, ranges from standard chambers to custom solutions including applications in plant growth, Arabidopsis, tissue culture, seed germination and storage, entomology and other specialist storage and test. We have a particularly successful track record in managing large multi-room installation projects and in finding workable solutions for customer needs, whether that be in lighting, containment, airflow, shelving and racking, gas control or remote monitoring and control software.

Vötsch Industrietechnik, another subsidiary of Weiss Umwelttechnik, offers a wide product portfolio in the field of heating technology. With an experienced team of engineers and designers, we develop, plan and produce high-quality and reliable heating technology systems for virtually any field of application. Products include heating/drying ovens, clean room drying ovens, hot-air sterilisers, microwave systems and industrial ovens. The portfolio reaches from technologically sophisticated standard versions to customised solutions for individual production operations.

A further Weiss Technik company, Weiss Klimatechnik, also offers reliable climate solutions wherever people and machinery are challenged: in industrial production processes, hospitals, mobile operating tents or in the area of IT and telecommunications technology. As one of the leading providers of professional clean room and climate solutions, we deliver effective and energy-saving solutions. Our experts will guide you from the planning to the implementation of your projects.

Weiss Pharmatechnik, a subsidiary of Weiss Klimatechnik, is a competent provider of sophisticated clean room and containment solutions. The product range includes barrier systems, laminar flow facilities, security workbenches, isolators and double door systems. The company emerged from Weiss GWE and BDK Luft- und Reinraumtechnik and has decade-long experience in clean room technology.

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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 a high level of light intensity.

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 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
- Height extension module
- Low temperature module



fitotron® Model	HGC0714	HGC1014	HGC1514
Growth area (in m ²)	0.72	1.00	1.50
Growth height (maximum in mm)	Choice of 1400, 1600 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)	800 $\mu\text{mol m}^{-2} \text{s}^{-1}$ @ 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)		

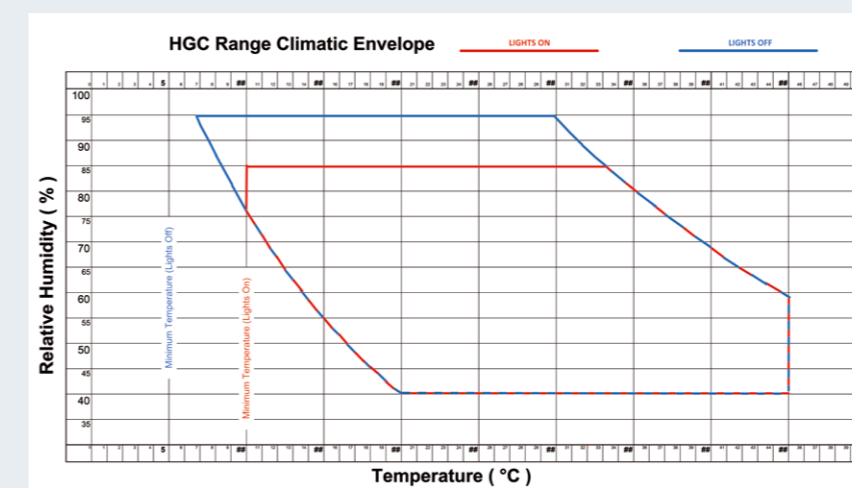
¹Height with light module 1. (Lights modules 2 + 4, external height = 2450 mm.) With optional height module, all heights increased by 500 mm

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.



Information subject to change without written notice.