



**supplyLAB**

[www.supplylab.pt](http://www.supplylab.pt)  
[geral@supplylab.pt](mailto:geral@supplylab.pt)

Cacém Park - Edifício 9  
Estrada de Paço de Arcos nº88  
2739-512 Agualva Cacém  
T +(351) 21 4278700  
F +(351) 21 4278709



SGC 120 Biological Chambers

# fitotron® SGC 120 Biological Chambers

The fitotron® SGC 120 Range combines high quality, versatility and user friendliness. Controlled environments for plant research.



Apart from the preconfigured models we also offer a wide range of customisation. Light trays can easily be removed or added. You can also choose from various lighting options.



Reproducible, constant and uniform conditions for temperature, humidity and light are crucial for the quality of experiments. fitotron® SGC 120 Biological Chambers fulfil these requirements and also provide a high level of flexibility in changing test conditions.

The user defines a variety of self-programmed options via a colour touchscreen panel. Temperature and humidity can be set at the touch of an icon as well as the day and night time. The conditions of the chamber can be displayed graphically. Additionally, USB and Ethernet-connections are provided.

## fitotron® SGC 120 Plant growth chamber

It provides access to most of the worldwide climatic conditions, without the influence of natural variation.

- Up to 5 lamp trays
- Individually dimmable lamp trays
- Growing area up to 3.4 m<sup>2</sup>
- Max. growing height: 1275 mm
- Humidity control 35% - 80% RH

## fitotron® SGC 120 Arabidopsis Chamber

The design allows unlimited access for measurements on tightly bundled leaves. The chamber provides space as well as controlled light, temperature and humidity conditions for the Arabidopsis complete life cycle through to maturity.

- 3 lamp trays
- Individually dimmable lamp trays
- Growth area 2.04 m<sup>2</sup>
- Standard growth height 400 mm
- Humidity control 35% - 80% RH

## fitotron® SGC120 Insect Incubation Chamber

Fruit flies, bees and other insects can be studied in a controlled environment. Lamp trays have dimmable high frequency fluorescent lamps minimising any stroboscopic stress.

- 4 lamp trays as standard
- Individually dimmable lamp trays
- Insect-friendly lighting
- Humidity control 35% - 80% RH
- Shelf area 2.72 m<sup>2</sup>

## fitotron® SGC 120 Tissue Culture Chamber

This chamber provides a generous tray area, including detachable spacers that can be used to prevent condensation on the petri-dish cap.

- 5 lamp trays
- Dimmable lightning
- Tray spacers
- Humidity control 35% - 80% RH
- Tray area 3.40 m<sup>2</sup>

## fitotron® SGC 120 Seed Storage Chamber

Perfectly suited for the simulation of cool, dry conditions.

- 5 wire trays (more possible)
- Air-drying system for control of air humidity down to 15% at 4 °C
- Tray area 3.40 m<sup>2</sup>
- Suitable for both medium and long-term seed storage

## fitotron® SGC 120 Constant Temperature Chamber

Constant climatic conditions are created in this chamber for the storage of biological material, media and plant tissue. It is also perfectly suitable for incubation and conditioning.

- 5 wire trays (more possible)
- Optional humidity control 35% - 80% RH
- Tray area 3.40 m<sup>2</sup>

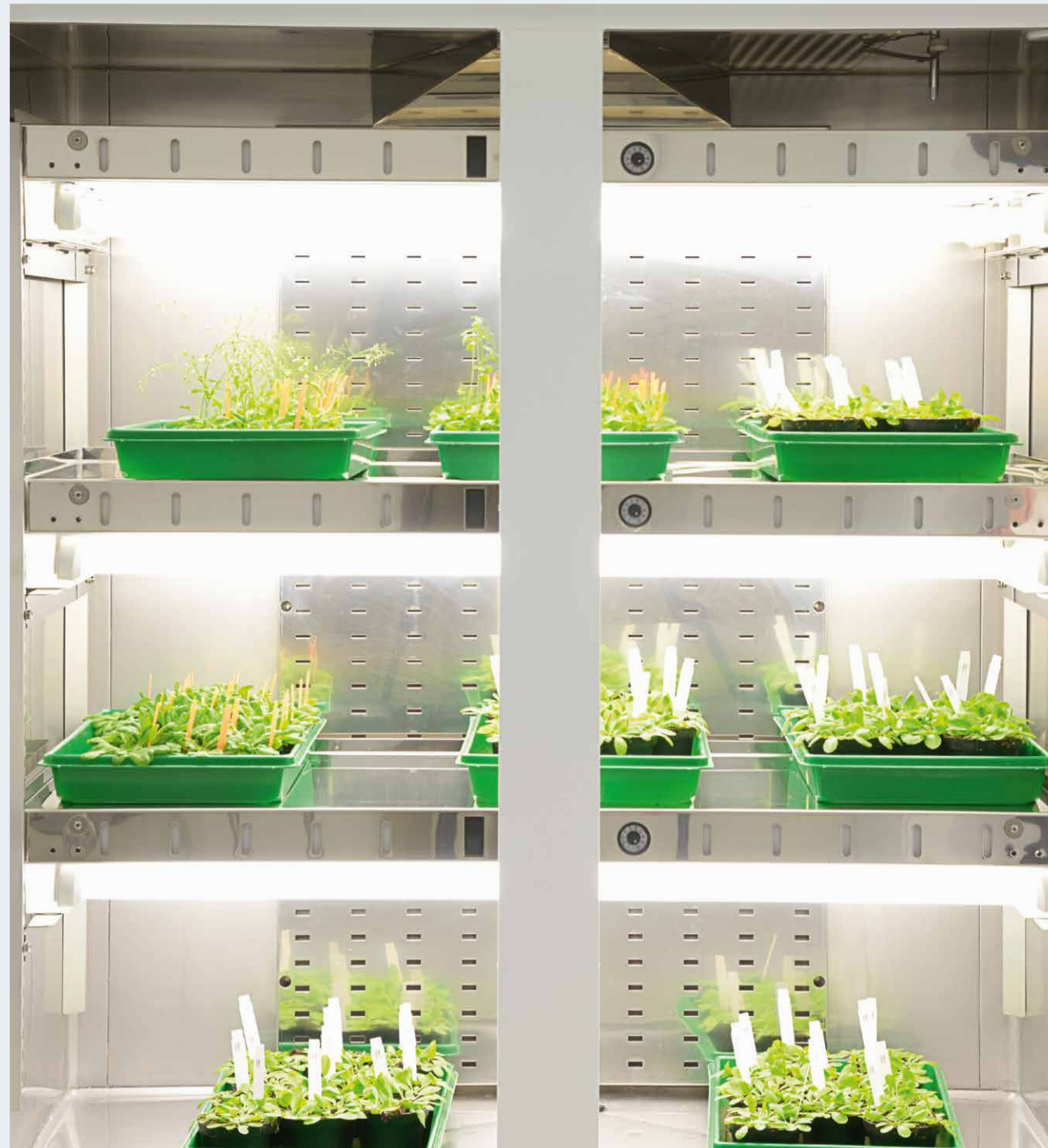
## fitotron® SGC 120 LED

Available as a preconfigured system with two LED-trays. Single lamp trays can also be used with all models. Three different LED-tray types are available.

- 2 LED-light trays as standard
- Growing area 1.36 m<sup>2</sup>
- Humidity control 35% - 80% RH
- LED-tray types:  
White/research/production

# Bringing nature into the laboratory.

All models have a simple user-friendly control as well as numerous setting options.



# Technical Data of the **fitotron**® SGC 120 Range

<b>Dimensions (w x d x h in mm)</b>	Interior	1320 x 675 x 1410	
	Exterior	1440 x 810 x 1981	
	Working volume	1200 litre	
<b>Temperature range</b>	-2 °C to +40 °C (lights off)		
	+5 °C to +40 °C (lights on)		
	Seed storage: +4 °C		
	Actual temperature range may vary according to configuration		
<b>Temperature fluctuation with time</b>	+/-0.3 °C		
<b>Humidity control (where fitted)</b>	35% RH - 80% RH, temperature dependant		
	Measurement by capacitive humidity sensor including control of both humidification and de-humidification		
<b>Standard tray configuration</b>	Constant temperature	5 wire trays	
	Arabidopsis	3 lamp trays	
	Plant growth	Up to 5 lamp trays	
	Insect incubation	4 lamp trays	
	Tissue culture	5 lamp trays	
	Seed storage	5 wire trays	
<b>Configuration of the fluorescent lamp trays</b>	<b>1 lamp tray</b>	12 x 36 W fluorescent lamps Maximum intensity approximately 620 $\mu\text{mol m}^{-2} \text{s}^{-1}$ measured 150 mm beneath the light at 25 °C Maximum height between the trays 1185 mm Total tray area 0.68 m <sup>2</sup>	
	<b>2 lamp trays</b>	6 x 36 W fluorescent lamps per tray Maximum intensity approximately 290 $\mu\text{mol m}^{-2} \text{s}^{-1}$ measured 150 mm beneath the light at 25 °C Maximum height between the trays 530 mm Total tray area: 1.36 m <sup>2</sup>	
	<b>3 lamp trays</b>	4 x 36 W fluorescent lamps per tray Maximum intensity approximately 170 $\mu\text{mol m}^{-2} \text{s}^{-1}$ measured 150 mm beneath the light at 25 °C Maximum height between the trays 310 mm Total tray area: 2.04 m <sup>2</sup>	
	<b>4 lamp trays</b>	3 x 36 W fluorescent lamps per tray Maximum intensity approximately 140 $\mu\text{mol m}^{-2} \text{s}^{-1}$ measured 150 mm beneath the light at 25 °C Maximum height between the trays 205 mm Total tray area: 2.72 m <sup>2</sup>	
	<b>5 lamp trays</b>	2 x 36 W fluorescent lamps per tray Maximum intensity approximately 100 $\mu\text{mol m}^{-2} \text{s}^{-1}$ measured 150 mm beneath the light at 25 °C Maximum height between the trays 205 mm Total tray area 3.40 m <sup>2</sup>	
	<b>Safety</b>	Adjustable safety thermostat independent from the controller, with min/max temperature limits for acoustic and visual alarm display. Potential-free alarm contact.	
<b>Construction</b>	Interior	Corrosion resistant, stainless steel	
	Exterior	Zinc protected steel with a painted textured finish	
<b>Electrical requirement</b>	230 VAC +/-10%, 50/60 HZ, 1Phase L-N, 13 A		
<b>Water requirement</b>	Demineralised water (humidity option only)		
<b>Options available</b>	CO <sub>2</sub> control, LED-light trays, additional single wire trays and light trays, access ports, water cooling		

**weiss**technik®

**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 services 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.

**Weiss Technik UK Ltd**

Loughborough Technology Centre

Epinal Way

Loughborough

LE11 3GE/United Kingdom

Phone +44 1509 631590

enquiries@weiss-uk.com

www.weiss-uk.com

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www.supplylab.pt  
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