Climatron Plant Growth

Designed and manufactured in Australia by Thermoline Scientific

Reach In Range

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Proudly Family-Owned and Operated

Today, we remain a proud second-generation family business

A family owned Australian business

Climatron Plant Growth

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The Thermoline Climatron Growth Cabinet models are designed and manufactured to maintain environmental conditions critical for general research and the growth of flora. The Thermoline Climatron Growth Cabinet offers an industry standard in temperature & humidity control. Climatron cabinets are available in various guises to best suit your application - temperature only, with or without humidity control, and door-mounted lighting or shelf lighting configurations.

Thermoline has two sizes in the Climatron plant growth cabinet range, all designed and manufactured in Australia. These durable and reliable models make them an ideal choice for all test samples requiring precise humidity and temperature control.

Climatron plant growth cabinets are widely used in plant biology research, horticulture, and agriculture. They allow for precise control over the growing environment, which can significantly influence plant growth, development, and productivity.

"This product is Proudly Australian Made."

Thermoline Scientific has been manufacturing and distributing high quality laboratory and scientific testing equipment since 1970. Over this time, Thermoline has grown to be a leading brand in the scientific and research industries.

Temperature is controlled accurately from +4°C to +40°C with the lighting off and +10°C to +40°C with the lighting on. Diurnal control of temperature, lighting and optional humidity is provided through the Star X Touchscreen.

"Built to last, using the best materials."

Thermoline Scientific uses materials that are able to withstand prolonged use and maintain their structural integrity. Materials such as Galvanised Steel, Aluminium, Zinc and Stainless Steel are commonly used in products that are subject to wear and tear. Benefits of these materials include:

- **Corrosion resistance.**
- **Lightweight.**
- **High load stress resistance.**
- **Low Maintenance.**

Our difference is in our commitment

For over 50 Years we have provided industry leading equipment and service


Climatron
STAR 700
Thermoline
SCIENTIFIC
AUSTRALIAN MADE

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"Providing the industry standard since 1970."

Since 1970, Thermoline lab equipment has been the proven industry standard. Our products appear in thousands of labs across the country and have been trusted for all general or critical research applications.

- **Australian Made:**
  This range is designed and manufactured by Thermoline. We proudly promote and support the Australian Made logo.

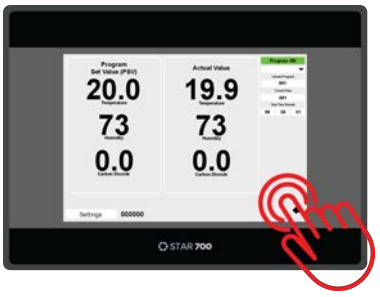
- **Star X 10" Touch Screen:**
  The STAR X touch pad control system offers easy to program diurnal control of temperature, lighting, humidity and carbon dioxide. The STAR X logs performance data as long as 365 days. Operators can also download the logged data to a USB and then view data via an Excel spread sheet.

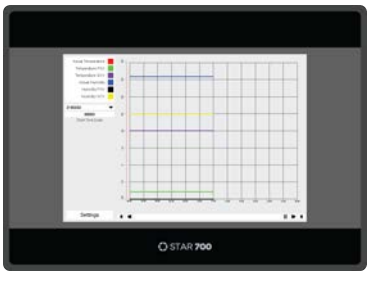
- **Optional Water Feed Tank:**
  Where mains water cannot be supplied the optional water tank allow for water to be pumped to the cabinet. The 55L pump tank features a self-priming 12V diaphragm pump, low water cut-out, an extra long 6m hose and a large opening for easy filling.

- **Fan Forced air circulation:**
  All Climatron cabinets feature fan-forced air circulation. This results in a temperature spatial uniformity better than +/-2.0°C (unloaded) and quick recovery times after door openings.

- **Stainless Steel Interior:**
  Stainless steel is durable, easy to clean and resistant to corrosion, making it the perfect choice for high-humidity environments. Stainless steel is used here to ensure the most corrosive-resistant liner.

- **Ultrasonic Humidification:**
  The Climatron cabinet utilises ultrasonics to generate humidity inside the workspace. Using ultrasonics reduces the heat input to the cabinet, lowers power requirements and allows for an easier-to-clean water tank compared with a heated steam generator.





Australian Government · NSW Government Health · CSIRO · The University of Sydney · Pfizer · Monash University

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Based on almost 100 years of experience with lighting technologies, Vossloh-Schwabe develops and manufactures LED solutions on proven industry platforms that can be individually tailored to suit your specific area of application. The Climatron range utilises high-output LED lighting in three colour options: 4000K, Leaf (2700K) and Bloom (1900K).

4000K	LEAF (2700K)	BLOOM (1900K)
Because the light is neutral, not leaning in favour of red or blue spectrum, it can be described as 'standard' and is the closest equivalent to Cool White T5 fluorescent lamps.	'Leaf' is the recommendation for plants and vegetables which should have an optimised vegetative growth. Due to increased spectral emission in the far red (> 700 nm), as well as in the green (500–560 nm) spectral range, the growth of the plants or the vegetables can be positively influenced.	"Bloom" shows an optimised effect on ornamental plants and young seedlings, which need support in the flowering or in the initial growth stage. The spectrum is characterized by its focus on the blue and red spectral range, which provides maximum efficiency in photosynthesis.

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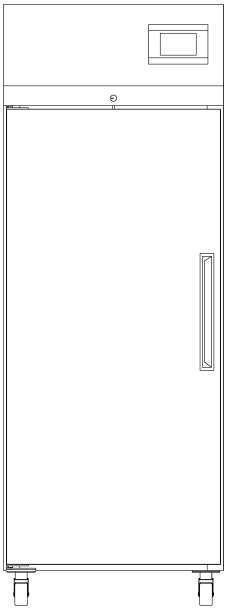
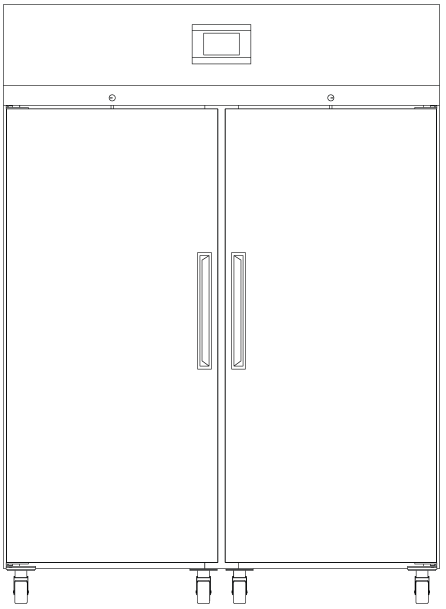
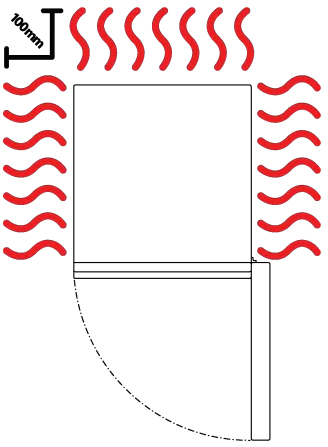




Dimensions

External	CLIMATRON-520-(DL/SL)	CLIMATRON-1100-(DL/SL)
WxDxH (mm) Shelf Lighting Models	740x840x2040	1470x840x2040
WxDxH (mm) Door Lighting Models	740x890x2040	1470x890x2040
Internal		
WxDxH (mm)	590x530x1430	1320x530x1430

Clearance	CLIMATRON-520	CLIMATRON-1100
Front (mm)	740	
Back (mm)	100	
Sides (mm)	100	



See our Temperature & Humidity Range.

See our premium range of Australian Made Temperature and Humidity Cabinets.

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Technical Specifications	CLIMATRON-520-(DL/SL)	CLIMATRON-1100-(DL/SL)
Temperature Range	+4°C to 40°C (lights off) +10°C to 40°C (lights on)	
Temperature Control Stability	+/- 0.2°C	
Temperature Uniformity	+/- 2.0°C (unloaded lights off)	
Humidity Range	Ambient to 90%RH as per temperature and humidity performance graphs	
Humidity Uniformity	+/- 5%RH (unloaded lights off)	
CO2 Range (Optional)	Ambient to 3000 PPM	
Nominal Capacity (L)	520	1100
Porthole Diameter (mm)	13mm (50mm with humidity option)	
Light Intensity at 20°C Shelf Lighting Models (Light intensity measured using 4000K lights)	4x LED Rails Per Tray 400 µmols/m2/sec (measured 300mm from light source) Note: By placing two Shelf Light Trays on top of each other, it is possible to achieve intensities up to 650µmols at 300mm	
Light Intensity at 20°C Door Lighting Models (light intensity measured using 4000K lights)	4x LED Rails 400 µmols/m2/sec (measured 300mm from light source)	8x LED Rails 400 µmols/m2/sec (measured 300mm from light source)
Weight	170kg	280kg
Electrical	10A/230V	
Heat Output	500 watts to 2000 watts (dependant on operating conditions)	
Noise Level @ 1 metre (dbA)	64	
Power Consumption (kWh/24)	8.5 (dependant on operating conditions)	
Refrigerant Type	R134a	

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Features	Climatron 520	Climatron 1100
Shelves (Door Lighting)	4 (DL)	4 levels (DL)
Shelf Lighting	Shelf Mounted Lighting (Max 3)	Shelf Mounted Lighting (Max 3)
Lockable Castors	✔	✔
Fan Forced Air Circulation	✔	✔
Star X Touch Screen	✔	✔
Ethernet port	✔	✔
Download data to USB	✔	✔
Battery Backed-up alarms	✔	✔
BMS	✔	✔
Door Locks	✔	✔
Supply Line Water Filters 1x Carbon, 1x Sediment	✔	✔
Ecofoam Insulation	✔	✔
Safety		
Over Temperature Safety	✔	✔
Element Safety Cutout	✔	✔
Options		
Shelf or Door Lighting	Nomenclature designations: Shelf Lighting (SL), Door Lighting (DL)	
Door Lighting	LED Lighting mounted to the outside of the glass door	
55L Pump Water Feed Tank	Pump feed water supply where mains water is unavailable	
Drain Pump	Drain Pump for when a suitable drain is unavailable	
Additional Shelves	Additional shelves and clips can be supplied	
CO2 Control	Set Point Control of CO2 Between Ambient and 3000ppm	
Additional Port Holes	Additional 13mm port holes or 50mm port holes can be added to the side walls	
Ultrasonic Humidification	Internally mounted humidifier (-H)	
STAR X-DIM	Option to control light intensity from the touchscreen	

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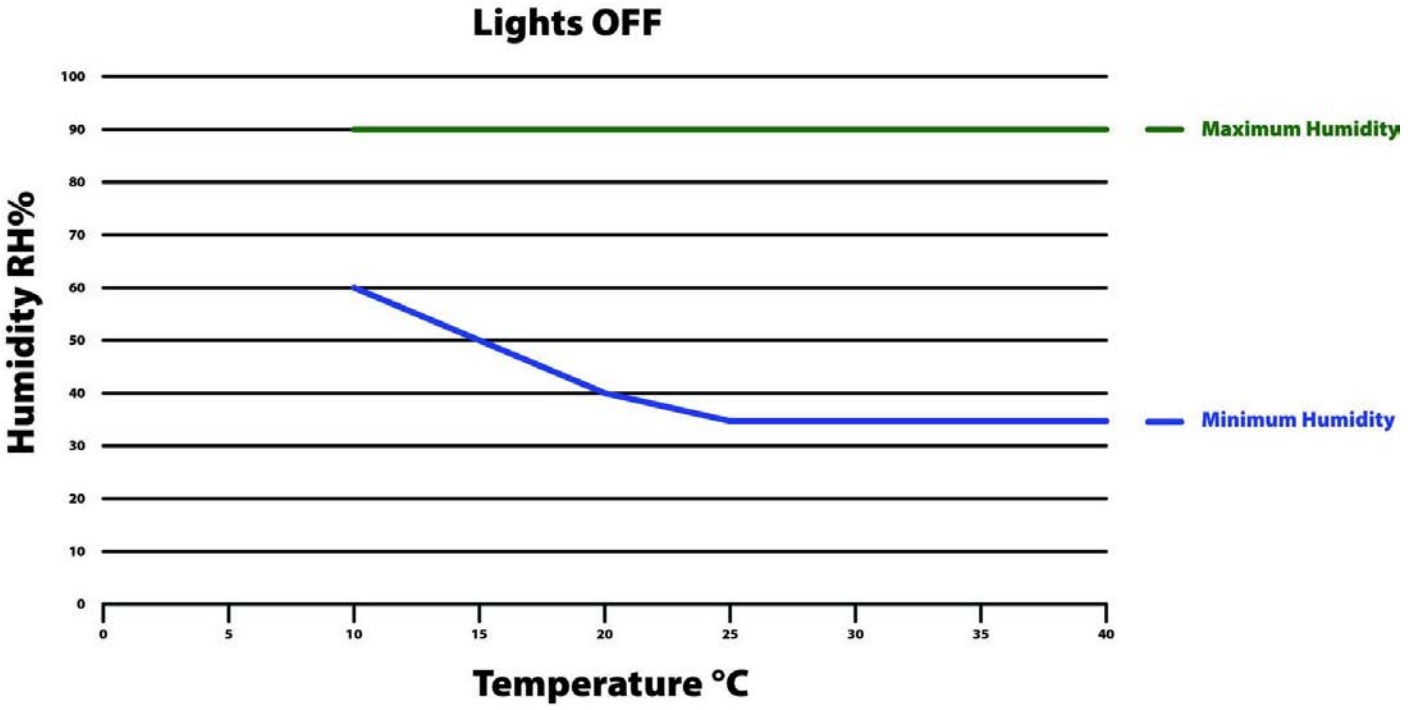
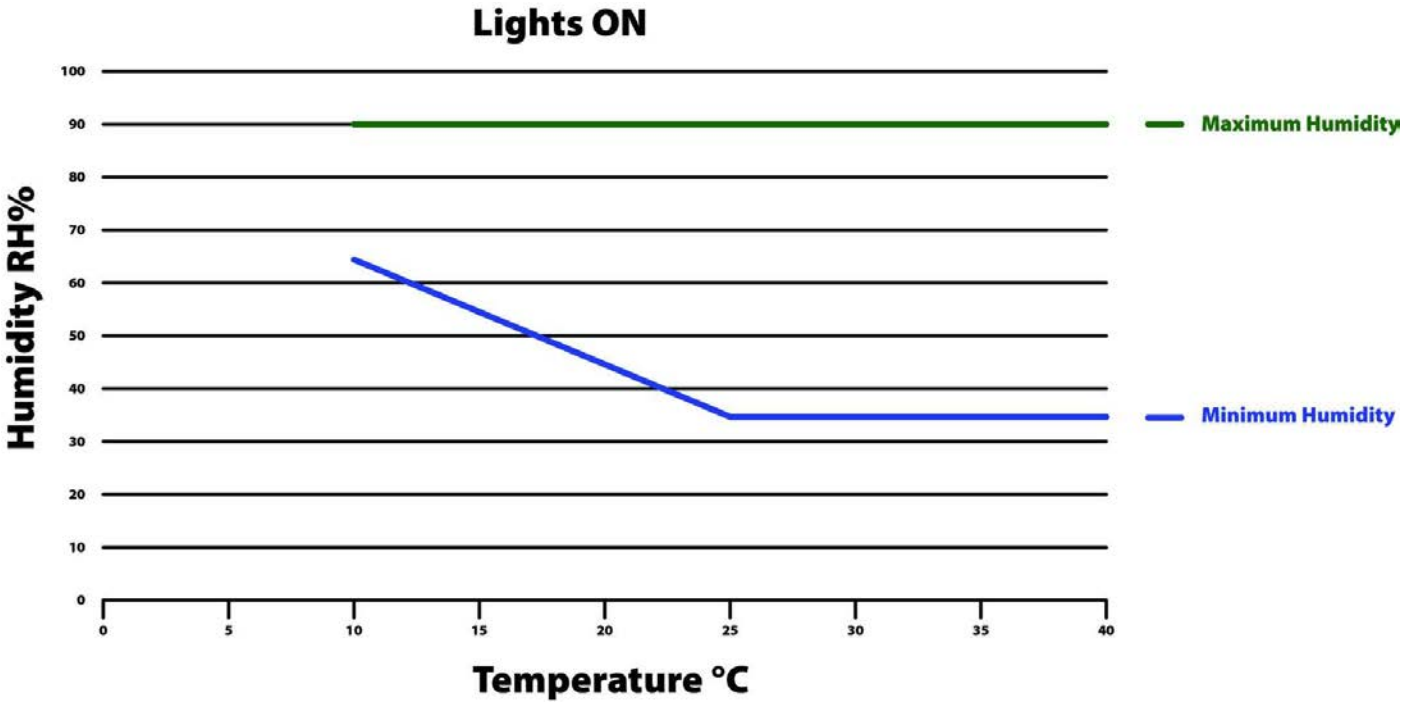
Temperature and humidity performance graphs - subject to ambient conditions.





Minimum Humidity is based on an empty cabinet and an ambient condition of 25°C and 35%RH.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We are proudly Australian owned

We will continue to invest in Australian manufacturing.

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