Humiditherm with Lighting

Designed and manufactured in Australia by Thermoline Scientific

Thermoline SCIENTIFIC

Proudly Family-Owned and Operated

Today, we remain a proud second-generation family business

A family owned Australian business



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Our Australian Made temperature and humidity cabinets control and maintain specific temperature and humidity levels within the cabinet for various applications such as storage and testing of temperature-sensitive materials, electrical components, stability testing of pharmaceuticals, prescription medicines and shelf life testing. The Humiditherm chambers are also available with either door-mounted or shelf-mounted LED lighting. Overall, the combination of temperature, humidity, and lighting control in a single cabinet provides a convenient and efficient way to maintain specific environmental conditions for a wide range of applications.

Thermoline has three sizes and two lighting configurations available, all designed and manufactured in Australia. There are two main variations in this series.
The first, the TRHDL, has lighting fitted to the outside of the glass door, permitting light energy to pass through the glass, thus eliminating heat generated by the lights. The second variation, the TRHSL, has shelf lighting to allow better light distribution per shelf. High-output LED lighting is used in both variations.



"This product is Proudly Australian Made."

Thermoline Scientific have 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 science industry.



"Built to last, using the best materials."

Thermoline Scientific uses the best 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


Thermoline
Humiditherm

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"Providing the new 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.

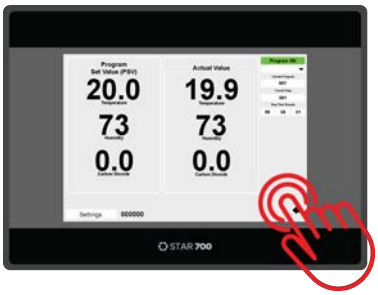
- **Star X 10" Touchscreen:**
  The STAR X touchscreen control system offers easy to program diurnal control of temperature, lighting, humidity and carbon dioxide. The STAR X logs performance data for as long as 800 days. Operators can also download the logged data to a USB and then view data via an Excel spreadsheet.

- **Optional Water Feed Tanks:**
  Where mains water cannot be supplied, two optional water tanks allow water to be pumped or gravity-fed directly 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. The second option is a 25L powerless tank for gravity-fed water supply.

- **Fan Forced air circulation:**
  All TRH 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 best choice for high-humidity environments. 316 Stainless steel is used to ensure the most corrosive-resistant liner.

- **Trough Humidification:**
  The TRH cabinets provide humidification control via a heated water trough and bare pipe evaporator. This provides quick and stable humidity control and avoids the need for ultrasonics which may disturb samples such as those used in Drosophila research.





Australian Government

NSW Health

CSIRO

The University of Sydney

Pfizer

Monash University

2 Year Warranty!
Thermoline offers a comprehensive two years parts and labour warranty on all Australian Made products.



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"NEW! The deflector allows for side by side positioning of the temperature and humidity cabinets."

Thermoline Ventilation Deflectors work by redirecting the flow of warm air exhausted from the refrigeration system upwards. This allows for side by side positioning of the cabinets, avoiding exhausted air being drawn into the next cabinet that may initiate overheating.





- **Fully Adjustable Stainless Steel Shelves:**
  Adjustable interior shelves allow for increased storage capacity and organisation by allowing for customisation, flexibility to accommodate different sizes and shapes of items, easy cleaning of interior and cost effective solutions as the unit can be adapted to different needs.

- **Drosophila Research:**
  The TRHDL and TRHSL cabinets are often used where Drosophila research being carried out. Drosophila research has had a significant impact on our understanding of biology, and has contributed to the development of new treatments for a wide range of diseases, including cancer, neurodegenerative disorders, and inherited genetic disorders. Fruit flies continue to be an important tool in the investigation of many biological processes and diseases, and are widely used in research institutions around the world.

- **Customisation:**
  Customisation
  A lot of the products we manufacture can be customised to suit your space or samples. Speak to our friendly customer service team about customising your environmental chamber in a way to suit your needs.

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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 Humiditherm 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.



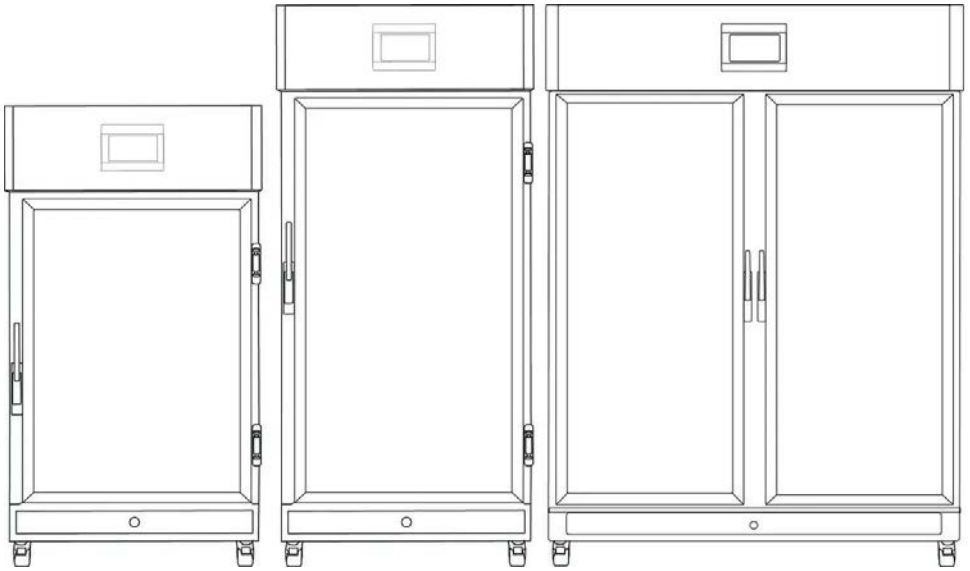






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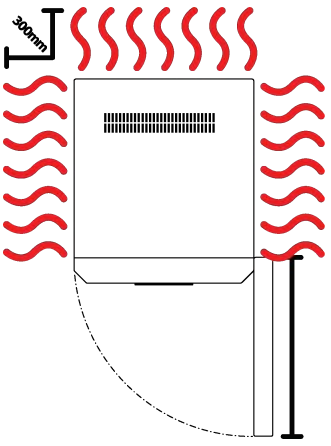


Note: Cabinets positioned side-by-side require at least 500mm between or fitment of ventilation deflectors on exhaust side.

Dimensions

External	**TRH(SL/DL)-300-SD**	**TRH(SL/DL)-460-SD**	**TRH(SL/DL)-850-SD**
WxDxH (mm) Shelf Lighting Models	810x950x1640	810x950x1950	1330x950x1950
WxDxH (mm) Door Lighting Models	810x990x1640	810x990x1950	1330x990x1950
Internal			
WxDxH (mm)	650x650x840	650x650x1140	1170x650x1140

Clearance	**TRH(SL/DL)-300-SD**	**TRH(SL/DL)-460-SD**	**TRH(SL/DL)-850-SD**
Front (mm)	810		650
Back (mm)	300		
Sides (mm)	300		





See our Climatron range!
360L, 520L and 1100L

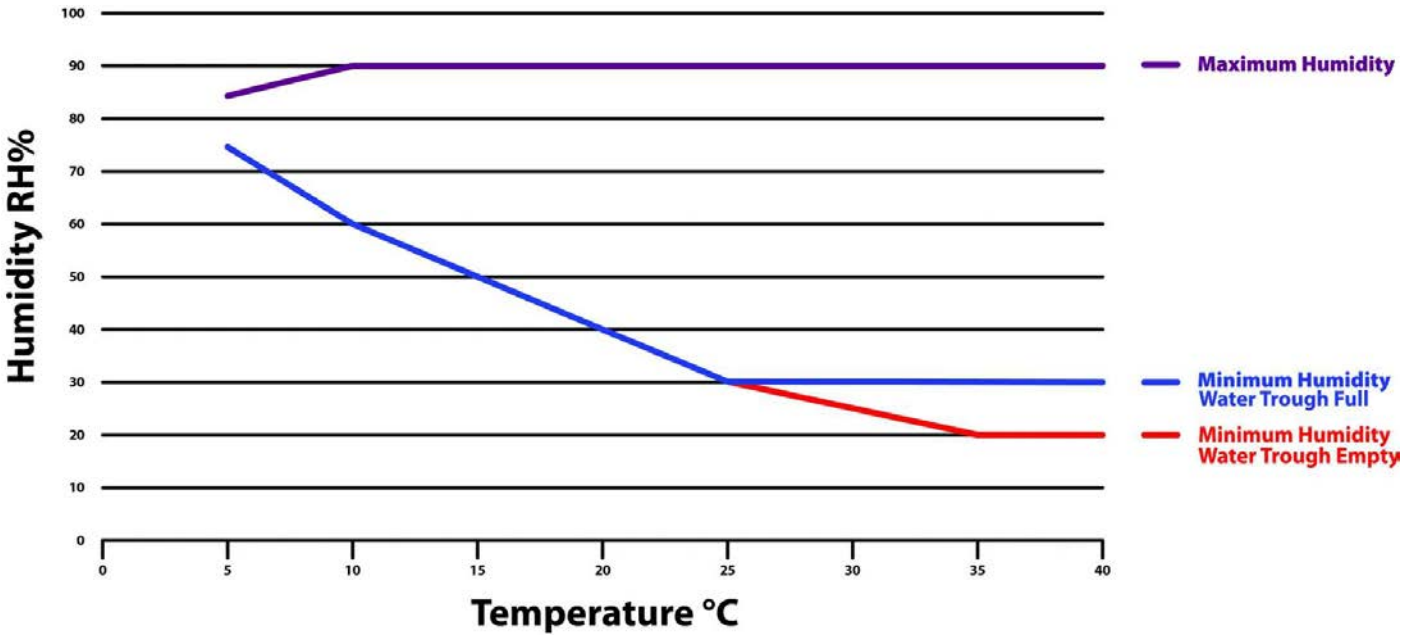
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Technical Specifications	TRH(SL/DL)-300-SD	TRH(SL/DL)-460-SD	TRH(SL/DL)-850-SD
Temperature Range	+5°C to +40°C		
Temperature Control Stability	+/- 0.2°C		
Temperature Uniformity	+/- 2.0°C		
Humidity Range	20% to 90%RH as per Control Envelope		
Humidity Uniformity	+/- 5%RH		
Light Intensity @ 20°C*	Door Lighting - 400 µmols @ 300mm Shelf Lighting - 400 µmols @ 300mm Note: By placing two Shelf Light Trays on top of each other, it is possible to achieve intensities up to 650µmols at 300mm		
CO2 Range (Optional)	Ambient to 3000 PPM		
Porthole Diameter	50mm		
Electrical	15A/230V		
Nominal Capacity	300L	460L	850L
Weight	180kgs	240kgs	350kgs
Heat Output	700 watts to 2700 watts (dependant on operating conditions)		
Noise Level @ 1 metre (dbA)	60		
Refrigerant Type	R507		

*** Light intensity changes throughout the temperature range. Detailed light intensity data can be supplied on request.**

Control Envelope for TRHDL TRHSL cabinets





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Features	TRH(SL/DL)-300-SD	TRH(SL/DL)-460-SD	TRH(SL/DL)-850-SD
Shelves	3 (Door Lighting)	4 (Door Lighting)	4 (Door Lighting)
Lockable Castors	✔	✔	✔
Star X Touch Screen	✔	✔	✔
Ethernet port	✔	✔	✔
Download data to USB	✔	✔	✔
Battery Backed-up alarms	✔	✔	✔
Trough Humidification	✔	✔	✔
BMS	✔	✔	✔
Supply Line Water Filters 1x Carbon, 1x Sediment	✔	✔	✔
Fibreglass Insulation	✔	✔	✔
Safety			
Over Current Protection	✔	✔	✔
Over Temperature Safety	✔	✔	✔
Element Safety Cut Out	✔	✔	✔
Options			
Self Lighting or Door Lighting	Nomenclature designations: Self Lighting (SL) or Door Lighting (DL)		
Shelf Lighting	Shelf Mounted Lighting (Max 1)	Shelf Mounted Lighting (Max 3)	Shelf Mounted Lighting (Max 3)
Door Lighting	LED Lighting mounted to the outside of the glass door		
Additional Shelves	Additional stainless steel shelves and clips can be supplied		
Heavy Duty Shelves	Update to allow for higher loads on shelves (limits total number of shelves possible for use)		
Door Locks	Door latches can be replaced with key lockable versions		
25L Gravity Water Feed Tank	Gravity feed water supply where mains water is unavailable		
55L Pump Water Feed Tank	Pump feed water supply where mains water is unavailable		
CO2 Control	Set Point Control of CO2 Between Ambient and 3000ppm		
Additional Portholes	Additional 50mm port holes can be added to the side walls		
STAR X-DIM	Option to control light intensity from the touchscreen		
Stainless Steel Exterior	Stainless steel exterior option available		


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GORILLA
crown

We are proudly Australian owned

We will continue to invest in Australian manufacturing.

AUSTRALIAN MADE®