



# Room Conditioning Units

*Designed and manufactured in Australia by  
Thermoline*

---

**ABN:** 80 000 859 129  
**Head Office:** 10-12 Ross Place  
Wetherill Park NSW 2164 Australia

**Phone:** +61 2 9604 3911  
**Email:** [hello@thermoline.com.au](mailto:hello@thermoline.com.au)  
**Web:** [www.thermoline.com.au](http://www.thermoline.com.au)

# Room Conditioning Units

Designed and Manufactured by **Thermoline**

These Thermoline room conditioning units provide a solution for reliable and accurate temperature and humidity control within the pre-built cool room structure via a 'plug-in' unit.

This unit houses all refrigeration, heating, humidification and sensors within a self-contained unit that slides up into the ceiling. The STAR X touchscreen controller is fitted within an electrical box and mounted to the front of the room for convenient access.

The Room Conditioning Units for Environmental Rooms are built by Thermoline and provide temperature only or temperature and humidity conditions. This economical method provides precise temperature/humidity conditions in cool rooms sized from 20m<sup>3</sup> to 30m<sup>3</sup>.

The TCU plug in systems are ideal where large capacity temperature and humidity control is required. You simply start with the room, and we can provide the temperature and humidity control solutions.



Custom made ducting is available to suit and advice on room type and construction is available by our expert engineering team. Thermoline can project manage the entire built and install offering you a complete turn-key solution.

## "This product is Proudly Australian Made."

Thermoline 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 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.**

**Note:** Overall temperature and humidity performance is contingent of room design and construction.



## Proudly Family-Owned and Operated

Today, we remain a proud second-generation family business



A family owned Australian business

# Room Conditioning Units

Designed and Manufactured by **Thermoline**

## "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.

### Warranty:

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

### Performance Note:

All quoted performance data is based on a coolroom being 30m<sup>3</sup> in volume with an insulated floor. When operating the room for pharmaceutical conditions of 25°C/60%RH, 30°C/65-75%RH & 40°C/75%RH (ICH Guidelines), the volume of the room could be increased to 60m<sup>3</sup> and still maintain tolerances of +/-2°C and +/-5%RH. It is, however, necessary that an insulated floor be installed. Conditions cannot be guaranteed if an insulated floor is not installed. Floor construction can consist of a 75mm coolroom panel covered with 20mm Marine Grade Plywood, then covered and sealed with a vinyl coating, or Aluminium or Stainless Steel Checker Plate.

- **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 365 days. Operators can also download the logged data to a USB and then view data via an Excel spreadsheet.

- **Fan Forced Air Circulation:**

The TCU units feature fan-forced air circulation. This results in an improved temperature spatial uniformity and quick recovery times after door openings.



Unit seen inside the workspace



Unit seen outside the workspace

# Room Conditioning Units

Designed and Manufactured by **Thermoline**

## Technical Specifications

	TCU-4	TCU-5
Panel Cut Out Size	905x905mm	4x 300mm dia holes (2x Outlet/2x Return)
Temperature Range	+5°C to +50°C	
Temperature Uniformity	+/- 2.0°C (Load Dependant)	
Humidity Range	30% to 90%	
Humidity Uniformity	+/- 5% (Load Dependant)	
Heating Element Power	1500 watts	3x 1000 watts
Electrical	15A/230V	20A/415V/3Ph
Recommended Room Size	20-30m <sup>3</sup>	
Recommended Internal Room Height	2300mm + (Plug is 250mm from ceiling)	
Recommended Coolroom Panel	100mm Fire Rated PIR Panel	
Weight	190kgs	220kgs
Refrigerant Type	R507	

## Features

STAR X Touch Screen	✓	✓
Ethernet Port	✓	✓
Download data to USB	✓	✓
Battery Backed-up Alarms	✓	✓
BMS	✓	✓
Supply Line Water Filters	1x Carbon, 1x Sediment	1x Carbon, 1x Sediment
Fibreglass Insulation	✓	✓

## Safety

Over Current Protection	✓	✓
Over Temperature Safety	✓	✓
Element Safety Cut Out	✓	✓

## Options

Ducting	Stainless steel ducting can be manufactured to suit your room
CO2 Control	Set Point Control of CO2 Between Ambient and 3000ppm

# Room Conditioning Units

Designed and Manufactured by **Thermoline**

---

Model: TCU-4 installed into 100mm PIR panel



# Room Conditioning Units

Designed and Manufactured by **Thermoline**

---

Model: TCU-5



**We are proudly  
Australian owned**

We will continue to invest in Australian  
manufacturing.

