AS1681 Volatile Material Ovens

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

AS1681 Volatile Material Ovens

Designed and Manufactured by **Thermoline Scientific**

The Thermoline volatile material ovens are designed and manufactured to provide safe and precise temperature conditions for the items stored inside. These unique drying ovens are built to the requirements set in Australian Standard AS1681-2002 and as such, feature positive and continuous minimum ventilation with an inbuilt purge timer to remove volatile vapours.
Available in 150 and 500 litre capacities, both are designed and manufactured by Thermoline to store volatile materials such as bitumen, paint or varnish.

Thermoline has two AS1681 drying ovens, both designed and manufactured in Australia. These models are economical and very easy to use, making them an ideal choice for all volatile or flammable samples requiring drying.
The TD-AS1681 ovens meet the safety requirements for electrically heated Type 1 ovens in which flammable volatiles occur. AS1681-2002 specifies the requirements for the design, construction and safe operation of ovens in which there may be an explosion hazard due to the presence of flammable volatiles.

"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


DEHYDRATING OVEN
Thermoline
DANGER
HOT SURFACE
DO NOT TOUCH

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"Providing the new industry standard since 1970."

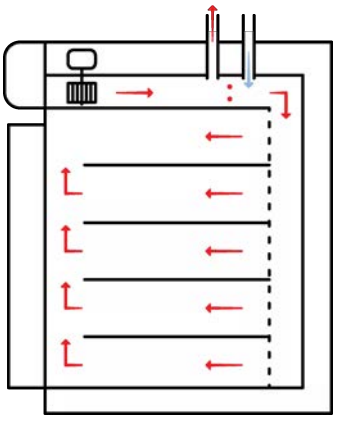
Since 1970, Thermoline lab equipment has been the proven industry standard. Our products appear in thousands of labs across the country and have been trusted for all general or critical research applications.

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

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

- **Proven Reliability:**
  With Thermoline's long standing track record of consistent performance through the use of durable materials and rigorous testing, you can trust in our products dependable performance.

- **Stainless Steel Interior:**
  Stainless steel is durable, easy to clean and corrosion-resistant, making it the perfect choice for high heat tasks. 316 marine-grade stainless steel is used here to ensure the most corrosive-resistant liner possible.



- **Fan Forced Air Circulation:**
  Fan-forced air circulation is a process of circulating air using a fan to distribute it evenly throughout the space. Thermoline's horizontal airflow blows dry air across each shelf for effective drying anywhere inside the oven. Heated air is blown down the rear of the oven where it is then forced over the shelf spaces via a perforated rear wall.

- **Pressure Vent Port System:**
  Thermoline's safety vent port located on the top of the ovens creates a release in the event of an explosion inside the chamber. The pressure can be safely and quickly removed via the vent, limiting damage inside the cabinet.

- **Digital PID Microprocessor Controller:**
  The Omron E5CC uses an automated programmable microprocessor to control the temperature within +/-0.1°C. The bright LED display has a range of functions including high alarm, temperature calibration and optional programmable multi-setpoint functions.

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

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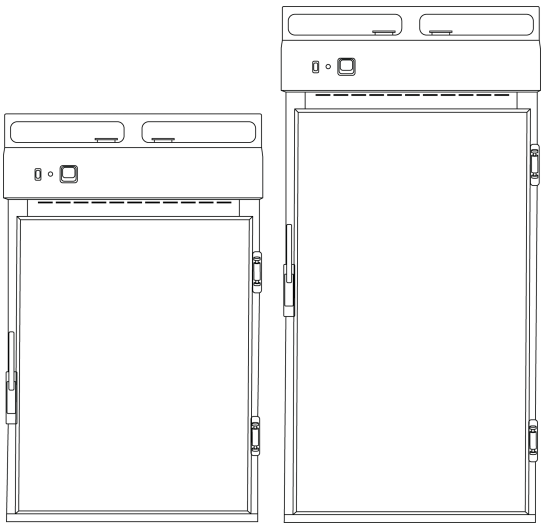
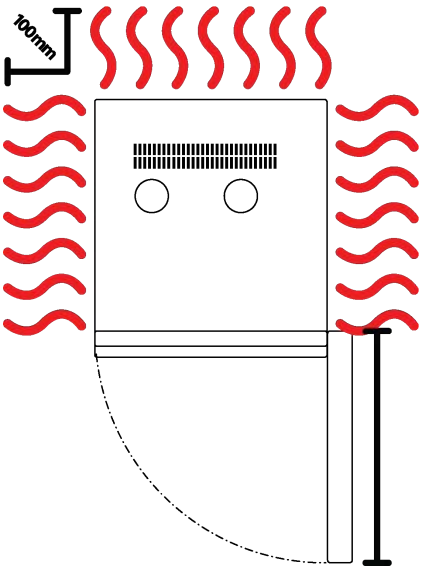


Dimensions

External	TD-150F-AS1681	TD-500F-AS1681
WxDxH (mm)	630x660x1120	780x810x1790
Internal		
WxDxH (mm)	500x510x600	650x650x1200

Clearance	TD-150F-AS1681	TD-500F-AS1681
Front (mm)	630	780
Back (mm)	100	
Sides (mm)	100	



See our Laboratory Oven Range.

80L, 150L, 250L, 500L, 700L and 680L

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Technical Specifications	TD-150F-AS1681	TD-500F-AS1681
Temperature Range	Ambient +10°C to 200°C	
Temperature Uniformity	+/-2°C @ 100°C	+/-4°C @ 100°C
Heater Power	900 watts	3000 watts
Electrical	5A/230V	13A/230V
Nominal Capacity	150L	500L
Porthole Diameter	No porthole allowed	
Weight	120kg	230kg

As per the guidelines in Australian Standard AS1681-2002, these ovens have an internal purge timer factory set to provide a preventilation perod of not less than four changes of fresh air (vents at minimum position) prior to heating elements operating, either initially, upon opening the door or after accidental shutdown.

Minimum Purge Rate (L/min)	106	151
Minimum Purge Rate (L/min)	232	245

Note: **It is the operators responsibility to ensure the flow rate is adequate for the volume and type of solvent introduced into this oven. Refer to Australian Standard AS1681-2002.**

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Features	**TD-150F-AS1681**	**TD-500F-AS1681**
Shelves (max @100mm spacing)	**3 (max 4)**	**5 (max 9)**
Lockable Castors	✔	✔
Internal Fan	✔	✔
Omron E5CC	✔	✔
Solid Door	✔	✔
Safety		
Over Temp Safety	✔	✔
Over Current Protection	✔	✔
Explosion Vent Port	✔	✔
Automatic Purge Timer	✔	✔
Safety Air Flow Sensor	✔	✔
Fibreglass Insulation	✔	✔

The air flow sensor will detect the following events and shut down the oven:

- A value lower than 5pa indicates that an air circulating fan may have failed.
- A value Higher than 45pa indicates that there may be a restriction to flow or blockage in the inlet or the outlet ports.

In both cases above the oven would not be capable of purging four volumes of air, therefore a volatile condition may exist and the oven is shut down.

Options

BMS Plug	**No volt contact closure plug and socket connection to a Building Management System**
Additional Shelves	**Additional Stainless Steel shelves to suit**


DEHYDRATING OVEN
Thermoline

CSD-039-V1

We are proudly Australian owned

We will continue to invest in Australian manufacturing.