

THERMOTRON®



Walk-In Chambers

From aerospace and avionics to refrigerators and automobiles, Thermotron Walk-In chambers serve as test sites for components, assemblies, and finished products. Thermotron is dedicated to supplying test equipment designed to meet specific needs. Understanding the product's size, quantity, and test requirements help determine the best chamber size for your application. If our standard equipment does not address your test requirements, we will design a custom test chamber that can. Thermotron Walk-In chambers are designed and built to last.

Panel Walk-In

Thermotron panel Walk-In chambers are made from lightweight panels for fast and easy installation. Locating pins ensure an accurate fit and the “cam over center” locks securely join panels in place. The corner posts are built at a defined 90-degree angle to strengthen and align the entire chamber.

The WP-1377-THCM4-25 pictured was used for testing food service equipment.



Features and Benefits

Exterior Surface Finish	Patterned aluminum or painted surface
4" (10 cm) Urethane Insulation	Ensures locked-in temperature during testing
Cam Action Speed Lock	Allows for a tight fit and locked-in humidity
Embedded Steel Straps	Provides positive seal around the chamber
Interior Surface Finish	Stainless steel or aluminum
Heavy Duty Inside Floor	Supports product loads up to 600 lbs (272 kg) per square foot
Anterooms	Maintains conditions of the chamber when entry is necessary
Special Panel Sizes	Available to custom configure your chamber

Flexible and Selectable

Thermotron has a wide variety of standard conditioning module configurations ready to interface to a panel assembly. This flexible interface allows you to mix and match the box size and module in order to meet individual test requirements. Conditioning modules are predesigned and prepackaged with a conditioning plenum and refrigeration machinery mounted on a common base. If the standard module sizes don't meet your needs, custom configurations are available as well.

Solid Walk-In

Thermotron designs and manufactures solid-welded construction chambers for applications requiring more than 85°C and temperature-humidity testing.

The WS-150-CHM-12-12 pictured on the right was built to test extra large solar panels for real-world environmental factors.

Features and Benefits

All Solid Walk-In chambers are custom designed and engineered to meet specific testing needs. Speak with your local sales representative or an application engineer about how Thermotron can build a custom chamber for you.



Options

Air-Cooled Condenser	Eliminates the requirement for cooling water
Shelving	Free-standing, foldable, or wall-attached shelves
Dry Air Purge	Utilizes compressed air to minimize moisture in the chamber
Multiple Door Sizes	Choose from hinged, sliding, vertical lift, or bi-parting hinged doors
Humidity Purification System	5-micron pre-filter and demineralizer purifies humidity inlet water
LN ₂ Injection	Through a cooling coil in the conditioning plenum
Interior Lighting	Incandescent or fluorescent mounted on the ceiling
Electrical Outlets	Installed on the interior side walls
Refrigeration Quiet Package	Reduces noise levels produced by the machinery
Ramps	Assists in bringing products into the chamber
Remote Refrigeration Package	Machinery can be located up to 50 feet from the chamber
Spreader Plate	Increases point load capabilities and roll load capability

Additional Options

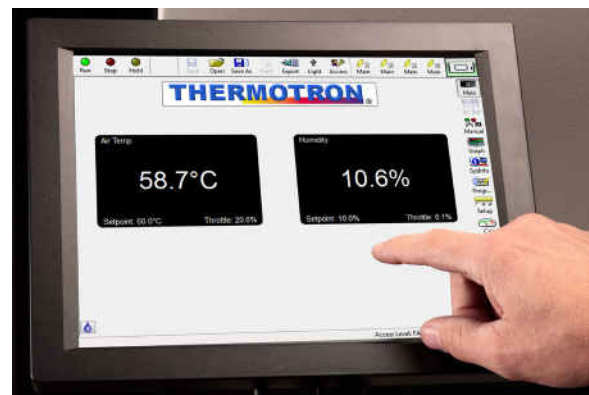
- Custom port sizes and shapes
- Defrosting capabilities
- Water spray for moisture testing
- Non-sparking interior
- Floor reinforcement
- Product and electrical feedthroughs
- Product connectors through internal raceways
- “CE” mark is offered on European units
- Low humidity applications for electrostatic reliability testing
- Special electrical standards and various power configurations
- Variable speed control of airflow from ceiling, wall, or floor
- Interior suspended ceiling reduces air supply velocity and increases air distribution control

8800 Programmer Controller

Thermotron’s exclusive Windows®-based 8800 Programmer Controller supports familiar and robust operations on a 12” color touchscreen. The 8800 is Ethernet and web-enabled for anytime/anywhere access and has a multi-level, password-based security system.

The 8800 is ThermoTrak II compatible, allowing up to 32 controllers to be connected to a single PC. The controller can also be used on a smartphone or tablet through a VNC server.

Some other benefits of the 8800 include endless graphing capabilities, setup wizards, raw data reports exportable to a commonly used spreadsheet format, and complete report generation.



Panel Walk-In

Interior Dimensions								
Model	Inches			Centimeters			Volume	
	W	D	H	W	D	H	Cu. Ft.	Liters
WP-286	62	85	94	158	216	239	286	8,100
WP-323	62	85	106	158	216	269	323	9,147
WP-364	62	108	94	158	274	239	364	10,308
WP-410	62	108	106	158	274	269	410	11,611
WP-499	85	108	94	216	274	239	499	14,132
WP-563	85	108	106	216	274	269	563	15,944
WP-605	85	131	94	216	333	239	605	17,134
WP-683	85	131	106	216	333	269	683	19,343
WP-769	108	131	94	274	333	239	769	21,778
WP-867	108	131	106	274	333	269	867	24,553
WP-904	108	154	94	274	391	239	904	25,601
WP-1020	108	154	106	274	391	269	1,020	28,886
WP-1097	131	154	94	333	391	239	1,097	31,067
WP-1237	131	154	106	333	391	269	1,237	35,032
WP-1261	131	177	94	333	450	239	1,261	35,712
WP-1422	131	177	106	333	450	269	1,422	40,271

The specifications reflect the workspace prior to plenum interface. Some of the interior workspace will be used by the conditioning module plenum.
 This is a list of common sizes and other custom sizes are available. Thermotron can make Panel Walk-In chambers much larger than WP-1422. Please consult with your local sales person or an application engineer for more information.

Our Promise

Thermotron has the largest, best equipped, and most highly trained service force in the test equipment industry. Direct sales representatives, application engineers, and field service engineers provide support before and after the sale. From preventive maintenance and service seminars to our responsive parts department, our worldwide service centers and support staff provide expert assistance.

We use the precepts of quality to grow and continuously improve our company and employees in order to meet or exceed our customers' expectations. As industries evolve and specifications change, our customers face new challenges. We strive to help them meet those challenges by providing state-of-the-art testing equipment. We help great companies make great products.



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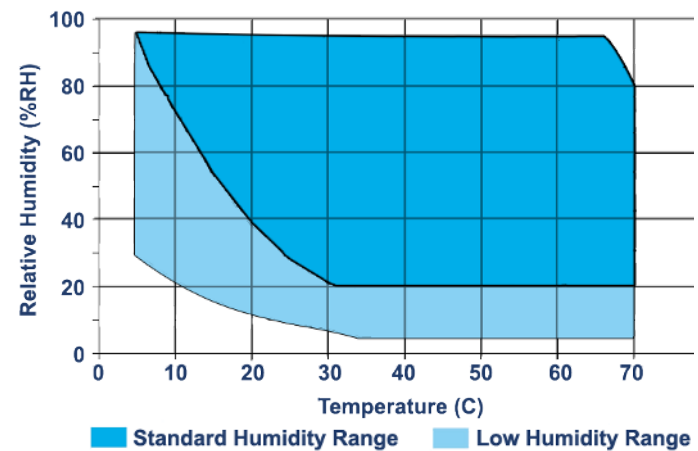
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Conditioning Module Interface

Model	Typical Compressor Size Range	Air Flow (CFM)
TCM1 Single Stage TCM1 Cascade THCM1 Single Stage	3-10 Hp	1,500
THCM1 Cascade	3-7.5 Hp	
TCM2 Single Stage TCM2 Cascade THCM2 Single Stage	5-30 Hp	3,000
THCM2 Cascade	5-15 Hp	
TCM3 Single Stage TCM3 Cascade THCM3 Single Stage THCM3 Cascade	10-20 Hp	4,500
TCM4 Single Stage TCM4 Cascade THCM4 Single Stage THCM4 Cascade	25-40 Hp	

Single stage refrigeration performance temperature range: -34°C to 85°C (-29°F to 185°F)
 Cascade refrigeration performance: -68°C to 85°C (-90°F to 185°F)
 TCM stands for Temperature Conditioning Module
 THCM stands for Temperature Humidity Conditioning Module.

Panel Walk-In Humidity Range



Standard Humidity Range: 20% to 95% relative humidity, limited by a dewpoint range of 5°C to 65°C (42°F to 149°F) and a maximum dry bulb temperature of 70°C (158°F)
Optional Low Humidity Range: 5% to 95% relative humidity, limited by a dewpoint range of -10°C to 65°C (-42°F to 149°F) and a maximum dry bulb temperature of -5°C to 70°C (-41°F to 158°F)

- Low humidity capability expanded down to 5% RH primarily for the purposes of electrostatic reliability testing by utilizing an electrical desiccant dryer.
- The electronic humidity sensor eliminates the need for the traditional wet bulb.
- Specifications subject to change. Accessories may impact performance.