PANEL WALK-IN TESTING 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 helps 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 CHAMBERS

Thermotron Panel Walk-in Chambers are made from lightweight panels for fast and easy installation. Locating pins ensure an accurate fit and the Cam Action Speed Locks securely join panels in place. The corner posts are built at a defined 90-degree angle to strengthen and align the entire chamber.

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.

WP-1377-THCM4-25
Used for testing food service equipment

Features and Benefits

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

Exterior Surface Finish
Patterned aluminum or painted surface

Heavy-duty Inside Floor
Supports product loads up to 600 lbs (272 kg) per square foot

Interior Surface Finish
Stainless steel or aluminum

Special Panel Sizes
Available to custom configure your chamber

OPTIONS

Air-cooled Condenser
Eliminate the requirement for cooling water

Anterooms
Maintain chamber conditions when entry is necessary

CE Certification
Required for European, and other select, exported units

Custom Ports
Customize size, shape, and location for convenient electrical and/or mechanical connections

Defrosting Capabilities
Best for extended, low-temperature testing

Dry Air Purge
Utilize compressed air to minimize moisture in the chamber

Electrical Outlets
Install on the interior side walls

Humidity Purification System
Purify humidity inlet water with 5-micron pre-filter and demineralizer

Interior Lighting
Incandescent or fluorescent lights mount on the ceiling

LN_2 Injection
Add through a cooling coil in the conditioning plenum

Low-humidity Capabilities
Optimal for Electrostatic Reliability Testing

Multiple Door Sizes
Hinged, sliding, vertical lift, or bi-parting hinged doors

Minimal Spark Interior
Ideal for testing specific hazardous materials

Ramps
Assist in bringing products into the chamber

Refrigeration Quiet Package
Reduce noise levels produced by the machinery

Remote Refrigeration Package
House machinery away from the chamber to reduce noise levels

Shelving
Free-standing, foldable, or wall-attached shelves

Spreader Plate
Increase point-load and roll-load capabilities

Suspended Ceiling Airflow Grid
Improves air distribution within the test area

Variable Speed Airflow Control
Provide flexibility of controlling chamber air velocity

GENERAL SPECIFICATIONS

Panel Walk-in Chambers

	Interior Dimensions							
Model	**Inches**			**Centimeters**			**Volume**	
	W	D	H	W	D	H	Cubic Feet	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, but 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.

Conditioning Module Interface

Model	Minimum I.D. Width	Compressor Size Range	Air Flow
TCM1 Single Stage TCM1 Cascade THCM1 Single Stage	62 in (158 cm)	3-10 Hp	1,500 CFM
THCM1 Cascade	62 in (158 cm)	3-7.5 Hp	
TCM2 Single Stage TCM2 Cascade THCM2 Single Stage	85 in (216 cm)	5-30 Hp	3,000 CFM
THCM2 Cascade	85 in (216 cm)	5-15 Hp	
TCM3 Single Stage TCM3 Cascade THCM3 Single Stage THCM3 Cascade	108 in (274 cm)	10-30 Hp	4,500 CFM
TCM4 Single Stage TCM4 Cascade THCM4 Single Stage THCM4 Cascade	108 in (274 cm)	25-40 Hp	6,000 CFM

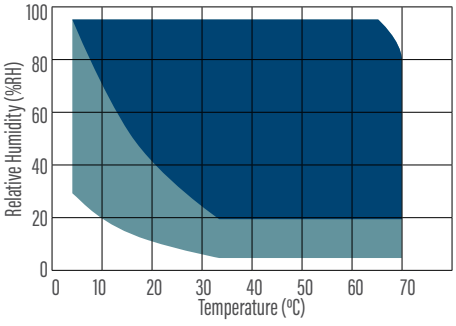
Single-stage refrigeration performance temperature range: -34°C to 85°C (-29°F to 185°F)

Cascade refrigeration performance: -68°C to 85°C (-90°F to 185°F)

***TCM**: Temperature Conditioning Module*

***THCM**: Temperature Humidity Conditioning Module*

Panel Walk-in Humidity Range



***Standard Humidity Range**: 20% to 95% RH, 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% RH, 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 purpose of electrostatic reliability testing by utilizing an electrical desiccant dryer.

The electronic humidity sensor eliminates the need for the traditional wet bulb humidity sensor.

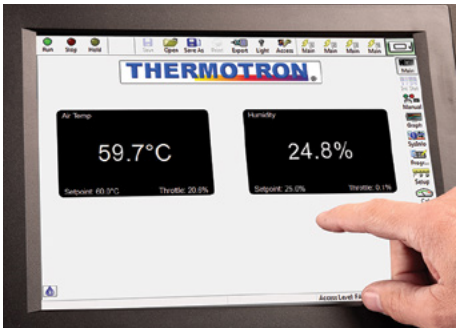
Specifications subject to change. Accessories may impact performance.

8800 CONTROLLER

Intuitive, Robust, Secure

Thermotron's exclusive Windows®-based 8800 Controller, with 12" color touchscreen, makes chamber operation and data collection easy and reliable. Quick navigation buttons provide shortcuts to user-selected screens. The 8800 Controller is standard on all Walk-in Chambers. With this Controller, receive:

- Multi-level, password-based security system to protect data
- Test data that can be downloaded to spreadsheet formats
- An Activity Log: record and retain 15+ years of chamber history
- Product Temperature Control to improves product change rates by precisely over-compensating the air temperature to control the product temperature
- The System Monitor to detect excessive refrigeration pressures and temperatures and notify users when problems occur
- The Product Dewpoint Control to prevent condensation by maintaining the product at a higher temperature than the dewpoint of the surrounding air (*optional*)
- ThermoTrak II™ to connect up to 32 controllers to one PC (*optional*)



Your Service

You'll will have the best before- and after-service care in the industry. Thermotron has the largest, best equipped, and most highly-trained direct sales representatives, application engineers, and field service engineers to help throughout the entire purchasing process. After your installation, you'll receive options for preventive maintenance, along with everything from yearly service seminar training to parts, worldwide service centers, and technical support. Expert assistance will be available throughout the life of your equipment.

Your Promise

We promise to meet and exceed your expectations by continually growing and improving our company. As industries evolve and specifications change, our customers face new challenges. We'll help meet your challenges by providing quality, state-of-the-art equipment. Quality. Trust. Confidence. Build yours with a Thermotron.

For more than 55 years, Thermotron has provided quality environmental test equipment. We've worked to establish a trusted reputation among our peers, and when people hear the name *Thermotron*, they have confidence in the testing of their own product. We've been building our name since 1962; now it's your turn.

QUALITY. TRUST. CONFIDENCE.
BUILD YOURS WITH A THERMOTRON.

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