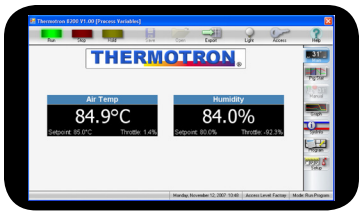
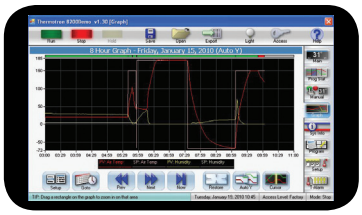




THERMOTRON®

S/SM-8200 Series Environmental Test Chambers

Ideal for Environmental Testing

Thermotron's S/SM-8200 Series chambers deliver the quality and accuracy you would expect from a premier worldwide supplier of environmental testing equipment. Featuring the 8200 touchscreen programmer/controller, wide temperature and humidity ranges, and multiple chamber sizes, Thermotron's S/SM-8200 Series chamber is the ideal choice for quality and customizable simulated environmental testing.

S/SM-8200 SERIES ENVIRONMENTAL TEST CHAMBERS
(8, 16, and 32 Cubic Foot Models Shown)

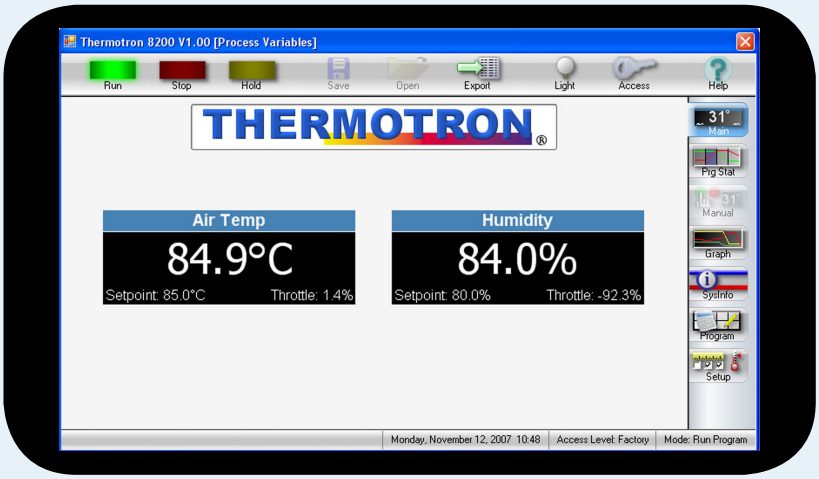
Powerful, Yet Versatile Chambers

S/SM-8200 Series chambers utilize hermetically sealed compressors that provide moderate temperature change rates while consuming less power than comparable chambers. A heated window provides a clear view of the test area that is illuminated by the interior work space light. Casters provide mobility and easy move-in capabilities. Advanced features such as an electronic humidity sensor and product temperature control add value and reduce test time and maintenance.

We understand that protecting your investment is important; that's why a comprehensive service and support program is available for each S/SM-8200 Series chamber sold. Thermotron's warranty backs every chamber sold with access to application engineers, technical support, and nationwide field service technicians, lowering the ongoing cost of ownership.

8200 Touchscreen Controller

Thermotron's S/SM-8200 Series chambers feature the 8200 programmer/controller. Operation and data collection are easy with its high-resolution 7-inch color touchscreen display. The familiar Windows® look and feel supports robust operations. Its unique main screen allows most of the information and interface to be contained on a single screen, eliminating confusing navigation. The graphing screen uses a tap and drag zoom box, allowing you to magnify specific areas on a graph easily.



The 8200 features pinpoint accuracy with touchscreen simplicity.

The built-in USB port allows programs to be interchanged between instruments quickly and easily, as well as allowing the export and transfer of test data using a USB flash drive. With built-in Ethernet capabilities, the 8200 has network-wide accessibility. All of these benefits add up to a powerful series of environmental test chambers that meet the requirements of your test.

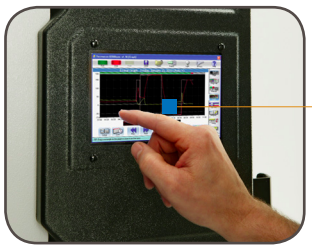
S-8200 Series

Standard Features and Benefits

- Interior Light Illuminates Work Space
- Heated Window Provides Clear View, Less Condensation
- One access port *(standard)*
- Product Temperature Control ***(New!)***
- Ethernet Connection
- Electrical Panel with Disconnect on Front Door for Easy Access
- Hermetically Sealed Compressors
- Self-Contained Refrigeration System Requires No Cooling Water
- Casters provide mobility and easy chamber move-in

- Door-Mounted 8200 Programmer Controller Frees Access Space
- USB Port

- User-Friendly Pop-Up Keypad for quick and easy data entry



- Graphing Capability

S/SM-8200

Chamber Options

- Add'l Access Ports and shelving
- Auxiliary Event Relay Board
- Cable Notch
- CE and CSA Compliant
- Chart Recorders
- Dry Air or Nitrogen Purge System
- GPIB or RS-232/485 Computer Interface
- Humidity Water Purification and Recirculation System
- Inner Glass Doors
- Low Humidity System
- Liquid Nitrogen or CO_2 Boost/ Back-Up Cooling System
- Refrigeration Gauges
- ThermAlarm™
- ThermoTrak II™ Software
- Water-cooling

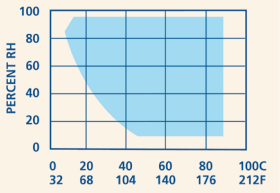
**Specifications subject to change. The addition of accessories may affect performance. Certain options may increase move-in dimensions.*

S-8200 SERIES TEMPERATURE CHAMBER SPECIFICATIONS

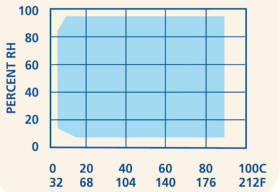
Model	S-4-8200	S-8-8200	S-16-8200	S-27-8200	S-32-8200	
Interior Dimensions —WxDxH Inches Centimeters	 20x20x20 51x51x51	 24x24X24 61x61x61	 30x30x30 76x76x76	 36x36x36 91x91x91	 38x38x38 97x97x97	
Cubic Volume — Ft/Liters	4/113	8/227	16/453	27/764	32/906	
Exterior Dimensions — WxDxH Inches Centimeters	 31x42x68 79x107x173	 35x49x73 89x124x185	 45x59x81 114x150x206	 51x65x88 130x165x224	 53x68x90 135x173x229	
Temperature Range	-70°C to +180°C (-94°F to +356°F)					
Temperature Control Tolerance	All Models 0.3°C (0.5°F)					
Temperature Uniformity	All Models 0.7°C (1.1°F)					
Weight — Lbs/Kg	700/318	800/363	1,320/599	1,800/816	1,975/896	
Compressor Size	1-1	1-1	2-2	2-2	2-2	2-3
Cooling Change Rates — Min +180°C to -65°C (+356°F to -85°F) +71°C to -65°C (+160°F to -85°F) +85°C to -40°C (+185°F to -40°F)	 50 30 14	 66 44 26	 68 50 28	 85 58 39	 93 65 45	 68 48 21
Heating Change Rates — Min -65°C to +180°C (-85°F to +356°F) -65°C to +71°C (-85°F to +160°F) -40°C to +85°C (-40°F to +185°F)	 27 11 10	 42 16 15	 52 22 20	 66 27 25	 71 30 28	 38 12 10
Live Load Capacity — Watts -18°C (0°F) -40°C (-40°F) -54°C (-65°F)	 600 400 300	 550 350 200	 1,000 700 400	 1,000 700 400	 1,000 700 400	 1,500 1,050 600
Electrical Service — Amps 230/1/60 230/3/60 460/3/60 220/1/50 400/3/50	(full load) 27 21 — 25 12	(full load) 25 19 — 24 11	(full load) 46 33 — — 17	(full load) 46 33 — — 17	(full load) 46 33 — — 17	(full load) — 47 24 — 24
Noise Level† — dBA Heating/Cooling	 60/68	 60/68	 60/70	 60/70	 60/70	 60/70

SM-8200 SERIES HUMIDITY RANGE

LOW TEMPERATURE / HUMIDITY CHAMBER



WITH OPTIONAL LOW HUMIDITY PACKAGE



SM-8200 SERIES TEMPERATURE/HUMIDITY CHAMBER SPECIFICATIONS

Model	SM-8-8200	SM-16-8200	SM-27-8200	SM-32-8200	
Interior Dimensions —WxDxH Inches Centimeters	 24x24x24 61x61x61	 30x30x30 76x76x76	 36x36x36 91x91x91	 38x38x38 97x97x97	
Cubic Volume — Ft/Liters	8 / 227	16 / 453	27 / 764	32/906	
Exterior Dimensions — WxDxH Inches Centimeters	 35x49x73 89x124x185	 45x59x81 114x150x206	 51x65x88 130x165x224	 53x68x90 135x173x229	
Temperature Range	-68°C to +180°C (-90°F to +356°F)				
Temperature Control Tolerance	All Models 0.3°C (0.5°F)				
Temperature Uniformity	All Models 0.7°C (1.1°F)				
Weight — Lbs/Kg	875/397	1,395/633	1,875/851	2,050/930	
Humidity Range *	All Models 10% to 98% RH				
Humidity Control Tolerance **	All Models 2.5% RH				
Humidity Uniformity ***	All Models 1% RH				
Compressor Size	1-1	2-2	2-2	2-2	2-3
Cooling Change Rates — Min +180° to -65°C (+356°F to -85°F) +71°C to -65°C (+160°F to -85°F) +85°C to -40°C (+185°F to -40°F)	 72 54 32	 80 54 31	 98 64 42	 106 71 48	 74 51 23
Heating Change Rates — Min -65°C to +180°C (-85°F to +356°F) -65°C to +71°C (-85°F to +160°F) -40°C to +85°C (-40°F to +185°F)	 43 17 16	 54 22 21	 68 28 26	 73 31 29	 40 13 11
Live Load Capacity — Watts -18°C (0°F) -40°C (-40°F) -54°C (-65°F)	 550 350 200	 1,000 700 400	 1,000 700 400	 1,000 700 400	 1,500 1,050 600
Electrical Service — Amps 230/1/60 230/3/60 460/3/60 220/1/50 400/3/50	(full load) 25 19 — 27 11	(full load) 46 33 — — 21	(full load) 46 33 — — 21	(full load) 46 33 — — 21	(full load) — 53 27 — 24
Noise Level† — dBA Heating/Cooling	 60/68	 60/70	 60/70	 60/70	 60/70

* Limited by a +7°C (+45°F) minimum dew point temperature and a maximum dry bulb temperature of+88°C (+190°F). Relative humidity indication at or near the physical limits may be affected by sensor accuracy and control tolerance
** At a dry bulb temperature above +20°C (+68 °F).
*** Based upon temperature uniformity specifications.

† Noise Level: A-weighted sound pressure level measured at a distance of 1.0 meter (39.4 inches) from the surface of the equipment at a height of 1.6 meters (63 inches) from the floor in free-field conditions, using a calibrated instrument.
Performance is based upon 60Hz and 23.9°C (75°F) ambient air, and may vary slightly at other ambient temperatures. Chambers are designed for use under normal laboratory operating conditions. For other applications, please consult Thermotron.

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