



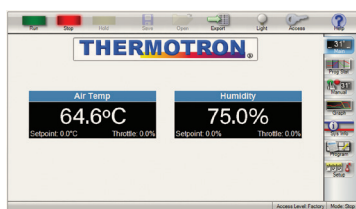
THERMOTRON[®] ——— TEMPERATURE+HUMIDITY

S/SM-8200+ BENCHTOP ENVIRONMENTAL CHAMBER

Benchtop Environmental Test Chambers provide superior performance for a wide range of applications. Engineering expertise assures optimum performance while chamber construction meets critical standards. Benchtop chambers offer the flexibility, reliability, uniformity, and control accuracy required for cost effective testing in a convenient tabletop size in temperature-only and temperature-humidity configurations. The chambers are also equipped with Thermotron's exclusive Windows[®]-based 8200+ Controller, which gives users a deeper look at what is happening to the product under test.

Features

- 8200+ Controller
- 1 to 5.5 cubic feet (25-155 liters)
- Access Port with Plug
- Cascade Refrigeration System
- Ethernet Connection
- Electronic Humidity Sensor (*SM models only*)
- Full Range Humidity System (*SM models only*)



SM-1.0-8200



8200+ Controller

The enhanced 8200+ Controller features an intuitive touchscreen display, with quick and efficient performance. Users can securely and easily enter and monitor test data with a familiar Windows[®]-based interface.

Built-in Graphing Capabilities

users pinpoint the exact data they wish to see

Ethernet Connection

easy and secure data export and remote PC access

Password-Based Security

multi-level, system protects sensitive data

Quick Step Wizards

easy program entry, test setup, and product monitoring

Transferable Spreadsheet Data

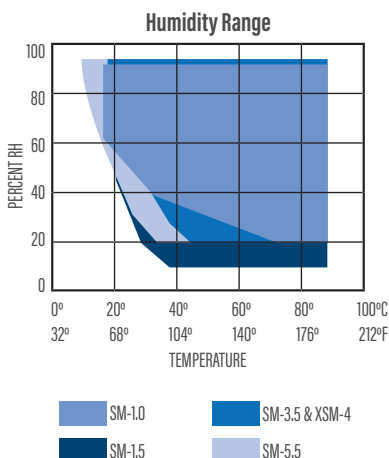
test data can be exported to commonly used spreadsheet formats and transferred via USB

Web Server

view the controller status from any computer connected to the network

Humidity Range

Temperature-Humidity Benchtop Chambers are ideal for testing products exposed to humidity extremes in their normal use environment. The electronic humidity sensor (located in the workspace) eliminates the need for maintenance-intensive thermocouple wicks and float tanks, and it provides excellent full-range humidity accuracy.



Optional Features

- Additional Access Ports
- Cart
- Cable Notch
- Custom Finishes
- CSA or CE Electrical Code
- Dry Air or GN₂ Purge System
- Four Monitor Channels
- Humidity Water Purification & Recirculation System (*SM-3.5, SM-5.5, and XSM-4.0 only*)
- Product Temperature Control (PTC) Software
- RS-232-485 or GPIB Interface Connection
- Recorder
- Refrigeration Gauges
- Shelves
- ThermAlarm[®]
- Window

GENERAL SPECIFICATIONS

Temperature-Only Model	S-1.0-8200	S-1.2-8200	S-1.5-8200	S-5.5-8200
Temperature Range	-40°C to 130°C (-40°F to 266°F)	-73°C to 180°C (-100°F to 356°F)		-68°C to 180°C (-90°F to 356°F)
Workspace Dimensions — WxDxH — in / cm	14 x 8 x 14 / 36 x 20 x 36	16 x 11 x 12 / 41 x 28 x 30	20 x 11 x 12 / 51 x 28 x 30	20 x 20 x 24 / 51 x 51 x 61
Exterior Dimensions — WxDxH — in / cm	18 x 23 x 30 / 46 x 58 x 76	30 x 22 x 41 / 76 x 56 x 104	34 x 22 x 41 / 86 x 56 x 104	57 x 33 x 44 / 145 x 84 x 112
Controller Screen Size — Inches	5			
Volume — Cubic Feet / Liters	0.89 / 25	1.2 / 34	1.5 / 42	5.5 / 155
Shipping Weight (approx.) — Pounds / Kg	235 / 106	320 / 145	400 / 181	850 / 386
Cooling Performance ¹ — Minutes 25°C to -35°C (77°F to -31°F) 25°C to -40°C (77°F to -40°F) 25°C to -54°C (77°F to -65°F)	42 - -	18 20 30	22 24 36	14 16 24
Heating Performance ¹ — Minutes 25°C to 110°C (77°F to 230°F) 25°C to 130°C (77°F to 266°F) 25°C to 180°C (77°F to 356°F)	16 26 -	18 26 45	22 31 54	13 18 30
Live Load Capacity — Watts, Temp. Mode -18°C (0°F) -40°C (-40°F) -54°C (-65°F)	125 - -	350 250 200	250 175 150	750 500 400
Window Size — WxH — in / cm	<i>optional</i>	6 x 8 / 15 x 20		12 x 12 / 30 x 30
Electrical Service — Full Load Amps 115 / 1 / 60 230 / 1 / 60 230 / 3 / 60 220 / 1 / 50	13.8* - - 9.5	16 - - 11	- - - -	- 25 19 25
Compressor Size	(1) 1/3 HP	(2) 1/3 HP		(2) 1 HP

Temperature-Humidity Model	SM-1.0-8200	SM-1.5-8200	SM-3.5S-8200	XSM-4-8200	SM-5.5-8200
Temperature Range	-40°C to 130°C (-40°F to 266°F)	-68°C to 180°C (-90°F to 356°F)	-18°C to 110°C (0°F to 230°F)	-68°C to 180°C (-90°F to 356°F)	-68°C to 180°C (-90°F to 356°F)
Workspace Dimensions — WxDxH — in / cm	14 x 8 x 14 / 36 x 20 x 36	20 x 11 x 12 / 51 x 28 x 30	17 x 18 x 20 / 43 x 46 x 51	20 x 20 x 20 / 51 x 51 x 51	20 x 20 x 24 / 51 x 51 x 61
Exterior Dimensions — WxDxH — in / cm	18 x 23 x 30 / 46 x 58 x 76	30.5 x 34 x 40.5 / 77 x 86 x 103	49 x 29 x 31 / 124 x 74 x 79	31 x 42 x 47 / 79 x 107 x 119	57 x 33 x 44 / 145 x 84 x 112
Controller Screen Size — Inches	5	7	5	7	5
Volume — Cubic Feet / Liters	0.89 / 25	1.5 / 42	3.5 / 99	4 / 113	5.5 / 155
Shipping Weight (approx.) — Pounds / Kg	250 / 113	450 / 204	550 / 250	700 / 317	1,050 / 476
Cooling Performance ¹ — Minutes 25°C to -10°C (77°F to 14°F) 25°C to -20°C (77°F to -4°F) 25°C to -40°C (77°F to -40°F) 25°C to -54°C (77°F to -65°F)	11 22 - -	16 24 40 60	50 - - -	8 12 20 40	6 8 16 24
Heating Performance ¹ — Minutes 25°C to 65°C (77°F to 150°F) 25°C to 110°C (77°F to 230°F) 25°C to 180°C (77°F to 356°F)	6 16 -	18 40 120	15 60 -	7 15 40	5 13 30
Live Load Capacity — Watts, Temp. Mode 10°C (50°F) -18°C (0°F)	300 125	400 250	250 -	700 500	1,000 750
Humidity Range ²	20% to 95% RH	10% to 98% RH	20% to 98% RH	20% to 95% RH	20% to 98% RH
Humidity Control Tolerance ³	±2.5%	±5%	±2.5%	±2.5%	±2.5%
Window Size — WxH — in / cm	<i>optional</i>	12 x 12 / 30 x 30	12 x 12 / 30 x 30	12 x 12 / 30 x 30 (<i>optional</i>)	12 x 12 / 30 x 30
Electrical Service — Full Load Amps 115 / 1 / 60 230 / 1 / 60 230 / 3 / 60 220 / 1 / 50	13.8* - - 9.5	19.3* - - 12	16 - - 11	- - 17 23	- 25 19 26
Compressor Size	(1) 1/3 HP	(2) 1/3 HP	(1) 1/4 HP	(2) 3/4 HP	(2) 1 HP

¹ Average

³ At a dry bulb temperature above 20°C (68°F).

Performance is based upon 60 Hz and 23.9°C (75°F) ambient air. Chambers are designed for normal, non-hazardous laboratory operating conditions. If hazardous materials are involved, please consult the factory.

² Limited by a 7°C (45°F) minimum dewpoint and a max dry bulb of 85°C (185°F). SM-1.0-8200 and SM-3.5-8200 are limited by 15°C (59°F) minimum dewpoint. SM-1.5-8200 is limited by a 6°C (43°F) minimum dewpoint and max dry bulb of 88°C (190°F).

² 20 Amp minimum service/20 Amp plug on a 6 ft cord.
Temperature Control Tolerance is ±1.1°C (2°F)

The addition of accessories may impact performance or increase exterior dimensions.

Specifications subject to change without notice. Custom options are available.