

TP04300-Heat Only

ThermoStream® Thermal Airstream System

Available by Special Order

Mobile, Programmable Temperature System for high speed testing of components, parts, hybrids, modules, subassemblies and printed circuit boards at precise temperature.



TEMPERATURE PERFORMANCE AND AIRFLOW CAPACITY¹

Temperature Range	+35°C to +225°C
Typical Temperature Transition Rate (air) ¹	+40° to +125°C: 10 seconds or less +125° to +40°C: 15 seconds or less
System Airflow Output	1.9 l/s to 8.5 l/s (4 to 18 scfm) CONTINUOUS
Temperature Accuracy	1.0°C (when calibrated against the NIST transfer standard)
Temperature Set, Display and Resolution	+/- 0.1°C

¹Note: Under nominal operating conditions.

FEATURES

Modes of Operation	Two: Operator Mode and Engineering Mode
Test Set-up Configurations	In Engineering Mode, an unlimited quantity may be created and saved to hard disk.
Ramp/Soak/Cycle Configurations	In Engineering Mode, up to 18 sequences per test set up. Table is displayed on screen.
Program and Data Storage	Datalogging and program files may be stored on the hard drive or USB storage device (i.e. USB memory stick, USB mass storage device or USB Printer)
Temperature Control:	
DUT Sensor Ports	Internal Diode, Type T and Type K thermocouple and 100 ohm platinum RTD.
DUT Control	Control to within +/-0.1°C, SELF-TUNING available in DUT Control
DUT Temperature Control	Proprietary Dual Loop Temperature Control - Unique control algorithm enables direct temperature control (to within 0.1°C) at the device case; measures temperature at the device.
User Definable Temperature Limits	Allows operator to select and set the upper and lower temperature limits within the system temperature range.
Remote Interface Ports	IEEE-488, RS232, Start Test/End Test/Stop on First Fail (ST/ET/SFF), Ethernet.
Drivers	LabView® and LabWindows™
External Device Ports	Ports are located on the front of the system for connecting a mouse, printer and keyboard, in addition to a USB port.
On Screen HELP	Included for both Operator and Engineering Modes.
Status Indicators	On-screen and remote I/O
Temperature Calibration	Automated, simplified and accurate for all temperatures and airflows

Thermal Test Chambers

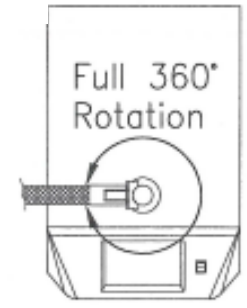
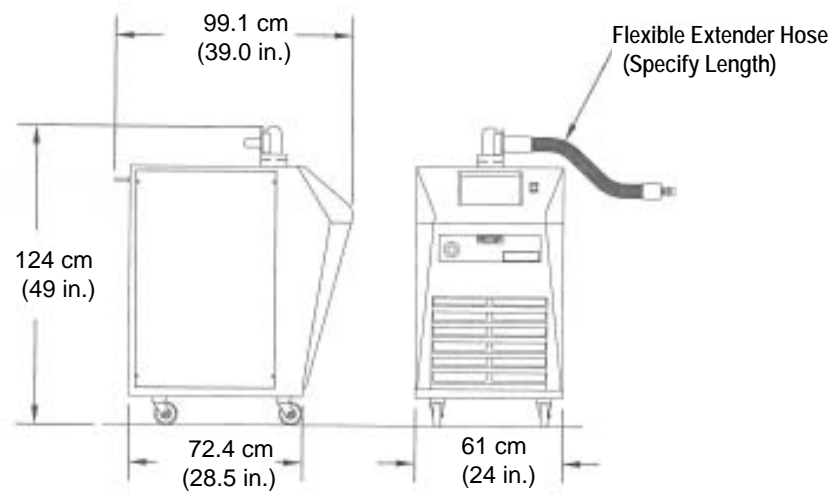
ThermoChamber™	Optional compact, portable thermal enclosure attaches directly or via "Flexible Extender Hose" to ThermoStream® for testing larger PCBs, assemblies and UUTs (Units Under Test). Allows convenient access for adding and removing UUTs. Available in three standard designs: Hood, Clamshell (top load) and Front Load. See ThermoChamber™ datasheets for specifications.
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Specifications: TP04300 Heat Only ThermoStream® Thermal Airstream System

Specifications

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Turret Assembly Rotation:
360° of freedom around base

ENVIRONMENTAL AND SAFETY FEATURES

Over Temperature Protection	+230°C (factory set); (Also, operator can set high and low air temperature limits.)
Mobility	Four swivel caster wheels with locks (10.16 cm (4 inch) diameter) static dissipative; rear handle for ease of transport
Serviceability	Auto-diagnostics and field replaceable modules
Noise level	Very low to negligible. Contact factory for details.

Weights and Dimensions

Base ² Dimensions:	Width: 61.0 cm. (24 in.), Depth: 72.4 cm. (28.5 in.) Height: 124 cm. (49 in.)
System Weight:	Not packed: 113.4 kg (250 lbs.) Packed: 226.8 kg, (500 lbs.)

² An additional 20.3 cm (8 in.) clearance is required for supply connections.

FACILITY REQUIREMENTS³

Power Requirements ⁴	200-250 VAC (230 V nominal), 50/60 Hz, 16 amp, 1 phase
Compressed Air Requirements	
Clean, Dry Air:	Filtered to 5 micron particulate contamination. Oil Content: <0.01 ppm. by weight filtered to 0.01 micron oil contaminant. Dewpoint: <10°C @ 6.2 BAR (90 PSI)
Supply Pressure	3.5 to 7.6 BAR (50 to 110 PSIG)
Supply Flow at Minimum Supply Pressure	4.8 l/s to 11.8 l/s (10 to 25 scfm); 20 scfm nominal
Air Supply Temperature	+20° to +25°C ; +22°C nominal
Operating Temperature	+20° to +28°C; +23°C nominal
Humidity	0 to 60% ; 45% nominal

³ Under operating conditions which are greater or less than nominal, performance may be less than specification provided.
⁴ Note: System is configured for operation within voltages listed above using an internal transformer. Please specify power configuration with order.



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TEMPTRONIC
an InTEST Company

4 Commercial St.
Sharon, MA 02067 USA
Tel: 781-688-2300
FAX: 781-688-2301
www.temptronic.com