The DC controlled ThermalAir TA-5000A-HT System power adjusts almost instantaneously to your temperature settings and test conditions in real time, providing precise temperature control when you need it while saving energy.

High-quality engineering plastic that can withstand high and low temperatures is used on the Thermal Head and Flex Hose Connector.

Nozzle

Exhaust

Flex Hose Connector
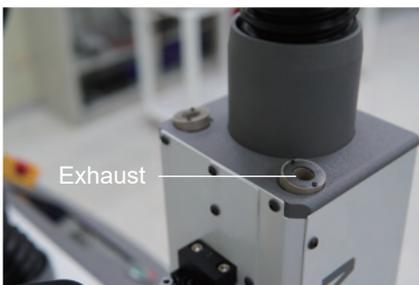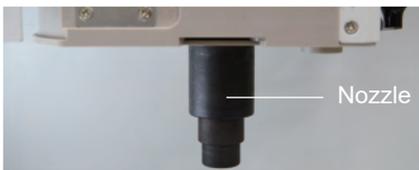
ThermalAir TA-5000A-HT
An Evolution in Localized Temperature Test Systems

The ThermalAir TA-5000A-HT thermal air stream system increased the high-temperature capacity up to +300°C. It is used for temperature testing, fast thermal cycling, and device temperature characterization of components, hybrids, modules, PCBs, and other electronic and non-electronic assemblies at precise temperatures from -80°C to +300°C.

Performance Plus!

- Eco-friendly with up to 50% power energy savings
- Ultra-stable DC temperature control with Smart DC energy efficient chiller
- Two built-in color touch screen displays. Front panel's easy icons and Thermal Head workstation display make it more convenient for users.
- No voltage or frequency configuration needed
  - One System Worldwide
- Quiet low audible noise for engineering laboratory
- No LN_2 or CO_2 required [Built-in Chiller & Air Dryer]

Features and Advantages

- Ultra cold temperatures are maintained at 50Hz or 60Hz.

- Thermal Head touch screen lets operator control temperature settings, ramp and cycle right at user's test bench workstation.

- Plug-in Anywhere from 185 to 250VAC.
  No need for user voltage re-configuration when system moved to different locations.

- Versatile Boom Arm & Stand - Extended height applications standard

- USB and SSD for thermal file management and data logging

- A separate temperature controlled dry air purge keeps the surrounding test area frost-free operation during long test time at extremely cold temperatures.

- Two User Control Modes - Standard Operator & Temperature Cycle (Temp Cycle, Ramp & Soak)

- Quick & Easy Interchangeable Temperature Head Accessories - 5.7 inch ID HT Metal Cap and 4 ft. gas transfer flex hose for user applications (UUT)

- User Interface and Operations - Remote Control Compatible Modes for existing user test programs

  - Center Control Color Touch Screen Display
  - PC or Tablet
  - IEEE-488.2 & RS-232
  - Intranet via LAN or USB Router

Temperature Solutions MPI**Thermal** For The Future CE ISO9001 Certified
A Division of MPI Corporation

Email: info@mpi-thermal.com | Web: mpi-thermal.com

Thermal Head

The ThermalAir TA-5000A-HT Head incorporates an intuitive full function touch screen display that is seamlessly integrated (built-in) for use right at end user's workstation or tester. With a single tap of the Thermal Head touch screen, the user can control, navigate and communicate many temperature functions.

The most commonly used controls are on the screen right at your fingertips.

This means easy access anytime while operating the system Hot & Cold.

- Touch enable control
- Read real time temperature
- Soak times & Dwell times
- Temperature setting
- Cycle times
- User messages & alerts
- Air flow on/ off
- Head up/ down
  And More...

Dimensions & Weights

139.7cm (55in.)

114.2cm (45in.)

57.5cm (22.6in.)

70.7~131.6cm (27.8~51.8in.)

15.2cm (6in.)

147cm (57.9in.)

Extended Working height
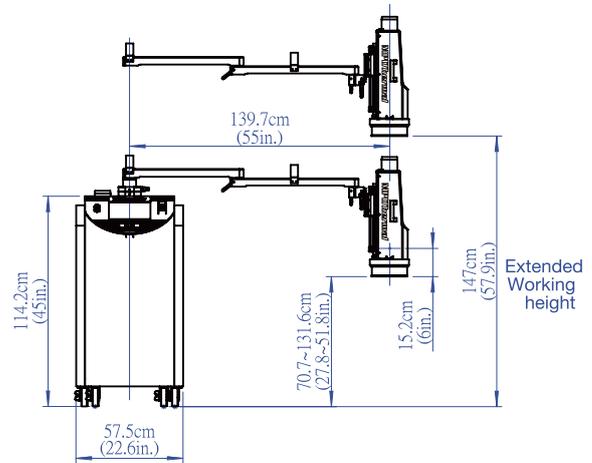
Full Interface For All Communication Control Requirements

4 USB-Type A, 1 USB-Type B, HDMI, IEEE-488, LAN, RS-232, T-Type, K-Type and RTD temperature sensors PLUS Auto Start Test & End of Test for automatic temperature cycling Hot-Cold-Amb.

All these are made for simple control and serviceability.

Specifications

Temperature Performance & Airflow Capacity

Temperature Range	-80°C to +300°C (50/60Hz same system)
Typical Temperature Transition Rate	-55°C to +125°C / +125°C to -55°C <10 sec
Temperature Accuracy	± 1.0°C (calibrated system)
Temperature Resolution	± 0.1°C
Temperature Air Output System	4 to 25 SCFM (1.9 to 11.8 l/s) Continuous
Temperature Control Methods	Environmental Internal Air TC and Remote External Type T, K, RTD (TC Sensors)

Note: Systems DO NOT degrade @50Hz or @High Air Flow Output Rates

Facility Requirements / Dimensions & Weights / Compressed Air

Base Unit & System Weight	W=57.5cm (22.6in.), D=92.8cm (36.5in.), H=136.3cm (55.7in.) Un-packed: 265kg (584 lbs) / Packed: 395kg (870 lbs)
Portability	Static dissipative, four easy roll swivel caster wheels
Maximum Reach	139.7cm (55 in.)
Maximum & Minimum Heights	Standard: 70.6-131.6cm (27.8-51.8in.) / Extended: 85.9-146.9cm (33.8-57.9in.)
Hi-Temp Accessories	5.7 inch ID Metal Cap; 4 ft. HT Flex Hose
Noise Level	<49 dBA average
Power	185 - 250VAC (220 Nominal), 60 / 50Hz, 30amp, 1 phase
Clean, Dry Air (CDA)	Filtered to 5µ particulate contamination Oil Content: < 0.10 ppm by weight and filtered to 0.01µ oil contaminants
Input Air Dewpoint	<10°C @6.2BAR (90PSI)
Input Air Pressure	90 to 120 PSIG (6.2 to 8.3 BAR)
Input Air Flow	15 to 30 SCFM (7.2 to 14.3 l/s) 25 SCFM nominal
Input Air Temperature	+15° to +25°C, +22°C nominal
Operating Temperature Environment	+15° to +28°C, +23°C nominal
Operating Humidity	0 to 60% RH, 45% nominal

MPI*Thermal* *ThermalAir* TA-5000A-HT Infosheet

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