

CLWT-115™

BENCHTOP CLOSED LOOP WIND TUNNEL FOR ELEVATED TEMPERATURE TESTING OF BOARDS AND COMPONENTS

The **CLWT-115™** is a research-quality closed loop wind tunnel that provides a convenient, accurate system for thermally characterizing PCBs and individual components at elevated temperatures from ambient to 85°C.



The **CLWT-115™** wind tunnel produces air flows up to 5 m/s (1000 ft/min). With customization, it can generate flows up to 50 m/s (10,000 ft/min) using orifice plates (available optionally). The clear Lexan test section lets the user view the test specimen and allows for ease of flow visualization.

Unlike open loop wind tunnels, the **CLWT-115™** recirculates internal air. This allows the system heater to quickly warm the air to a specific temperature. The testing of boards and components in hot air is a requirement in many electric systems such as components and power supplies. The precise controls of air temperature and velocity along with the broad temperature range of the **CLWT-115™** wind tunnel make it a versatile test instrument for a variety of applications.

The complete wind tunnel fits on most lab benches and is powered from the **CLWTC-1000**™ (included). The **CLWTC-1000**™ requires 220 VAC at 20 Amps. It has a smaller footprint than traditional, closed loop wind tunnels or environmental test chambers.

The wind tunnel's test section can be accessed from the top door for mounting and repositioning of devices under test and sensors. Optional internal rail guides provide an easy mechanism to install test specimens of different sizes (e.g., PCB, heat sink).

Instrument ports (6) are provided in the side walls of the test section for placing temperature and velocity sensors, such as thermocouples, Pitot tubes and hot-wire anemometers.

Custom options are also available. Contact ATS for details.

INCLUDED ACCESSORIES:



CLWTC-1000[™] Wind Tunnel Controller



StageCONTROL 1000[™]
Operating software for control

OVERALL DIMENSIONS (L X W X H)

220.8 x 49.3 x 86.5 cm (86.9 x 19.4 x 34")

TEST SECTION DIMENSIONS

77.6 x 26 x 11.6 cm (30.5 x 10.2 x 4.6")

NUMBER OF INSTRUMENT PORTS

FLOW RANGE

0 to 5 m/s (1000 ft/min)

TEMPERATURE RANGE

Up to 85°C (185°F)

WEIGHT

65 kg (231 lbs)

For further technical information, please contact Advanced Thermal Solutions, Inc. at **1-781-769-2800** or **www.qats.com**

FEATURES:

>> High Temperature Testing
Evaluate the effects of
elevated temperatures on

elevated temperatures on components and power supplies at different velocity

» Aerodynamic & Pressure Drop Measurement

Measure the effect of air flow on drag and pressure drop for components and boards

» Flow Characteristics

High quality flow with very low turbulence intensity

» Wind Tunnel Controller

Control flow and temperatures while viewing data and monitoring events with **CLWTC-1000**

Component Testing

Evaluate the effects of air flow on an individual or multiple component's temperature and PCB response and reliability

» Quick Access

Quickly change the test specimen through the top access test section

» Sensor Ports

Measure pressure, velocity and temperature through sensor ports

» Heat Sink Characterization

Characterize a variety of heat sink sizes for natural and forced convection cooling

» Sensor Calibration

Precision temperature and velocity controls allow accurate calibration of sensors

» Multiple PCB Testing

Test actual or simulated PCBs for thermal and air flow distribution



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