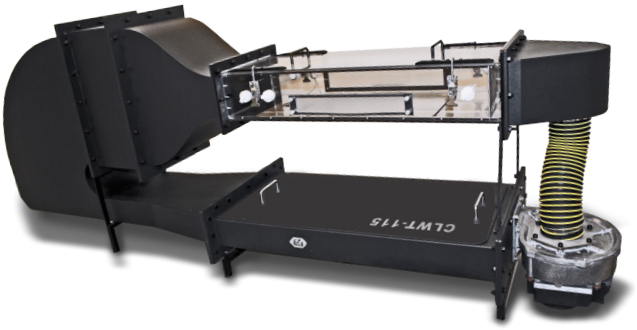
CLWT-115™

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 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 some NEBS and other standards. The precise controls and temperature range of the CLWT-115™ wind tunnel allows its use for testing heat sink performance and for calibrating air and temperature sensors.

The complete wind tunnel fits on most lab benches and is powered from standard AC outlets. 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 or sides for mounting and repositioning of boards, components 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.

OVERALL DIMENSIONS (L X W X H)
220.8 cm x 49.3 cm x 86.5 cm
(86.9" x 19.4" x 34")

TEST SECTION DIMENSIONS
77.6 cm x 26 cm x 11.6 cm
(30.5" x 10.2" x 4.55")

NUMBER OF INSTRUMENT PORTS
6

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

TEMPERATURE RANGE
Up to 85°C (185°F)

WEIGHT
114 kg (250 lbs.)

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

FEATURES:

- **Quick Access**
  Quickly change the test specimen through the top access test section
- **Sensor Ports**
  Measure pressure, velocity and temperature through the sensor ports
- **Data Center**
  View data and monitor events (with optional controller)
- **Flow Characteristics**
  High quality flow with very low turbulence intensity
- **Free Lifetime Tech Support**

APPLICATIONS:

- **High Temperature Testing**
  Evaluate the effects of elevated temperatures on components and PCB response and reliability
- **Heat Sink Characterization**
  Characterize a variety of heat sink sizes for natural and forced convection cooling
- **Sensor Calibration**
  Precision temperature and velocity controls allows accurate calibration of sensors
- **Component Testing**
  Utilize for individual or multiple component testing
- **Multiple PCB Testing**
  Test actual or simulated PCBs for thermal and flow distribution

RoHS COMPLIANT