

## AIR FLOW TEST STANDS

Climatic Testing Systems, Inc. (CTS) manufactures a wide range of Air Flow Test Stands for use in determining fan performance as well as for determining air side enthalpy measurements for testing of heat exchangers. Our Air Flow Test Stands are custom built to meet the customer's requirements and can be provided with manual controls or fully automatic data acquisition and control systems.

CTS designs and manufactures each one of its air flow test stands in accordance with standards put forth by [ANSI/ASHRAE 51](#) and [ANSI/AMCA 210](#). Our systems are designed and constructed to provide a repeatability of 1% or better.

### Typical Specifications

#### ❑ Air Flow Test Stand Features

- Air Flow Tunnel formed from clear lexan or urethane insulated panels
- Shear-type centrifugal mixers to thoroughly mix the Unit Under Test (UUT) discharge air
- Venturi-type nozzle to correct temperature and moisture uniformity
- Air flow sampling system ( in accordance with [ASHRAE 41.1 and 41.6](#)) to obtain accurate dry bulb, wet bulb or dew point temperatures
- AMCA air flow nozzles with manual or automated dampers
- Variable Speed System Blower
- Can be user configured to be a draw through or push through system
- Accurate pressure transducers to measure UUT differential pressure, Barometric Pressure and nozzle differential pressure
- DC power supply to control fan voltage in Automotive Applications
- Fan speed, voltage and current transducers
- Bypass dampers for low flow operation



#### ❑ Software

- Editing of test programs
- Automatic test sequencing
- Loop calibration and calibration reports
- Hardware checkout routine
- Stability monitoring
- Real Time tolerance adjustments
- Real time-history graphing capability
- Automatic Test Report Generation
- Data File Management

#### ❑ Performance Measurement

- Air Flow capacity up to 20,000 cfm with a 30:1 turndown ratio typical
- Control Stability of 1% or better
- 1% repeatability of test results

**Note: The specifications shown above are typical. Climatic Testing Systems, Inc. can customize your system to provide the performance that you desire.**

<http://climatictesting.com/>