



# BWT-104WA™

RESEARCH QUALITY, BENCHTOP WIND TUNNEL

The BWT-104WA™ is a research quality, open loop, benchtop wind tunnel for thermal characterization of components, circuit boards and cooling devices such as heat sinks, heat exchangers and cold plates. The polynomial shape and internal flow management system includes honeycombs and screens to break up turbulence and provides uniform, homogeneous flow, up to 4 m/s (800 ft/min) within the test section.

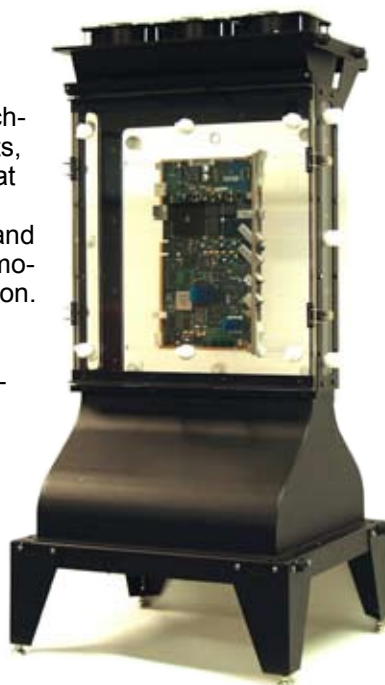
The BWT-104WA has 12 ports which allow a variety of probes, such as thermocouples, Pitot tubes, and temperature and velocity sensors, among others, to be inserted throughout the test section. The wind tunnel is made from aluminum and Plexiglas® and, provides a clear view of the test section for flow visualization. An access panel is conveniently located for mounting boards and, optional internal rail guides allow for simple installation of PCBs and heat sinks.

The BWT-104WA weighs only 14.5 kilograms (32 lbs.) and has the ability to operate on any axis, making it ideal for laboratory environments. Each BWT-104WA™ fan tray is equipped with three 24-volt DC fans, which can be individually switched on and off, with an included control unit, to generate airflow. It is also available with ATS' WTC-100™ Wind Tunnel Controller, which helps automate thermal characterization, as an optional accessory. ATS also carries a full line of temperature, flow and pressure sensors and scanners that are designed for use with the BWT-104WA™.

\* Power supply not included.



Side view of the BWT-104WA Benchtop Wind Tunnel



#### OVERALL DIMENSIONS (D X W X H)

108.25 cm x 44 cm x 44 cm  
(42.61 x 17.25 x 17.25")

#### TEST SECTION DIMENSIONS

51.20 cm x 43.18 cm x 10.16 cm  
(20" x 17" x 4")

#### FLOW RANGE

0 to 4 m/s (0 to 8000 FT/MIN)

#### MATERIALS

Aluminum, Plexiglas

#### WEIGHT

14.5 kg (32 lbs.)

#### FEATURES:

- » **Heat Sink Characterization**  
Characterize a variety of heat sink sizes for natural and forced convection cooling
- » **Heat Sink Comparison**  
Test two heat sinks side-by-side and compare their thermal performance in the same environment
- » **Component Testing**  
An ideal test vehicle for component characterization
- » **Multiple PCB Testing**  
Test actual or simulated PCBs for thermal and flow distribution
- » **Flow Visualization**  
Observe flow distribution in the tunnel by smoke or buoyant bubbles through the all Plexiglas® test section
- » **Variable Speed**  
Change flow rate by controlling the fan RPM
- » **Quick Access**  
Quickly change the test specimen through the front access test section
- » **Sensor Ports**  
Measure pressure, velocity and temperature through the sensor ports
- » **Data Center**  
View data and monitor events at the data center (with optional accessories)
- » **Flow Characteristics**  
High quality flow with very low turbulence intensity

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