

RESEARCH QUALITY WIND TUNNEL



WT-3106 and WT-3107



- ✓ Quick Access Panel
- ✓ Sensor Ports (18)
- ✓ Change Flow Rates by Controlling the (5) Fans On/Off
- ✓ Operate Vertically or Horizontally
- ✓ Flow Visualization Through the All Plexiglas® Test Section

Applications

- ✓ **Component Temperature Testing:** Evaluate the Effects of Air Flow on an Individual or Multiple Component's Temperature and PCB Response and Reliability
- ✓ **Heat Sink Characterization of Natural or Forced Convection**
- ✓ **Sensor Calibration with Optional Calibrated Sensors**
- ✓ **Multiple PCB Testing: Test Actual or Simulated PCBs for Thermal and Flow Distribution***

* Visit omega.com for the TVS-1000 Series temperature/velocity profiling packages.

The WT-3106 and WT-3107 are research quality wind tunnels designed for PCB and component level testing. It is used in air flow characterization and flow visualization, thermal resistance measurements, and generation of P-Q curves.

The wind tunnels can be used to characterize different heat sink sizes for natural and forced convection cooling. Two heat sinks can be tested side by side to determine their thermal performance in the same environment. Actual or simulated PCBs can be tested for thermal flow distribution and pressure drop characterization.

The WT-3106 and WT-3107 produce uniform air flows of up to 6 m/s (1200 ft/min). Air is drawn into the tunnel with up to 5 variable DC fans mounted at the exhaust section of the tunnel. These fans are mounted on a tray and can be easily replaced with another tray to accommodate larger or smaller fans.

An internal flow management system, with honeycombs and screens, breaks up turbulence and provides uniform and homogeneous flow in the test section.

The WT-3106 and WT-3107 can be operated both vertically and horizontally and features a Plexiglas® test section for ease of flow visualization. Rail guides are provided so the unit position can be adjusted.



WT-3106 shown smaller than actual size.

The WT-3106 and WT-3107 include 18 sensor ports in front and on the sides of the test section for inserting a variety of probes, such as thermocouples, pitot tubes, velocity measuring sensors, etc. The flexibility of the movable plate and housing provides users with a high degree of latitude to design and build their own setup to suit their needs. A switch box is provided with the unit so individual fans can be turned on and off. Sensors to measure the flow parameters are also available by OMEGA as optional accessories.

Specifications

Wind Tunnel:

WT-3106: 195.3 L x 101.6 W x 84.8 cm D (76.9 x 40 x 33.4")

WT-3107: 197.7 L x 101.6 W x 77.2 cm D (77.8 x 40 x 30.4")

Test Section:

WT-3106: 60.9 L x 60.9 W x 15.2 cm D (24 x 24 x 6")

WT-3107: 60.9 L x 60.9 W x 17.8 cm D (24 x 24 x 7")

Number of Sensor Ports: 18

Flow Range:

WT-3106: 0 to 6 m/s (0 to 1200 ft/min)

WT-3107: 0 to 5.5 m/s (0 to 1100 ft/min)

Flow Uniformity: ±1%

Weight:

WT-3106: 72 kg (159 lb)

WT-3107: 70 kg (155 lb)

Power Supply Requirements: 24 Vdc at 5.5 Amps
(Power supply provided by customer)

To Order

Model No.	Description
WT-3106	Research quality wind tunnel, 0 to 1200 ft/min
WT-3107	Research quality wind tunnel, 0 to 1100 ft/min

Comes complete with (18) sensor ports, fan switch box and operator's manual.