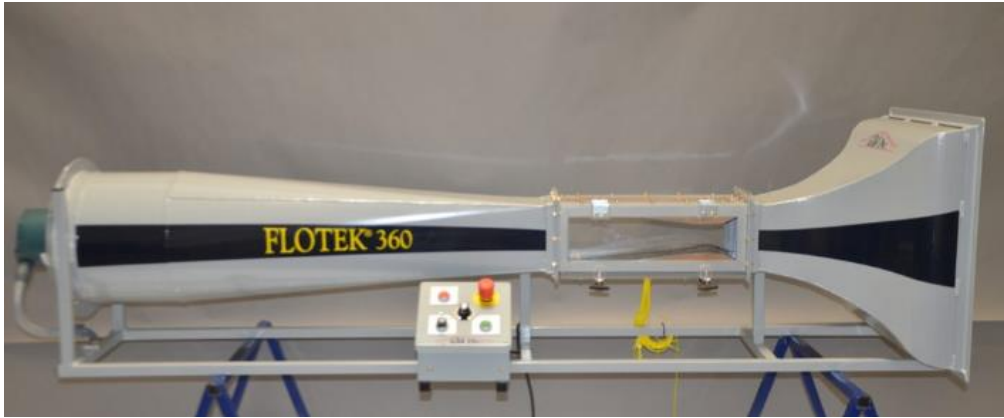


FLOTEK 360 – Low Noise Mobile Wind Tunnel



FLOTEK® 360 is a small benchtop wind tunnel made for classrooms where space and transport are a primary concern. This low noise classroom wind tunnel can be mounted to a bench or you can utilize an optional mobile stand to move the wind tunnel to different locations. This entry level wind tunnel is great for smaller middle schools, high schools, and technical colleges.

Air is drawn through the entrance cone into the test section by a variable speed fan. A plastic honeycomb flow straightener with an L:D ratio of 10:1, ensures a laminar air flow through the test section. The entrance cone has a contraction ratio of 12:1, down to a test section measuring 6" x 6" x 18" (152mm x 152mm x 457mm) long. The air velocity through the test section is variable up to 27m/s.

The test section has clear acrylic side walls and top to give a clear observation of the test in progress. The other flow sections are fabricated from 11-gauge steel formed sections.

A range of accessories are available for laboratory demonstrations. A further accessory allows the system to be connected to a user supplied computer and includes an interface card and LabVIEW software.

In addition to the standard air foil demonstrations and the golf ball demonstration, the larger test section allows a wider range of demonstrations to be undertaken, including a racing car demonstration and airflow patterns around buildings.

STANDARD EQUIPMENT

Flotek 360 with the following items: 16 tube water manometer, Lesson Plans and Lab Manual.

OPTIONAL EQUIPMENT

1) Roll Stand

Allows the wind tunnel to be moved from one classroom to another. The roll stand is also available with a built-in computer stand.

2) Computer Data Acquisition System I

National Instruments 16 channel PCI Data Card with LabView Software

16 Channels A/D with 16 pressure transducers for real-time data. 2 D/A channels to control tunnel velocity and optional airfoil control

3) Digital RPM Readout

Allows students to read the exact motor RPM to produce certain velocity.

Can also read velocity of Test Section without model.

4) NACA 2415 Airfoil

Manual control or controlled by computer with Data Acquisition option.

Additional Airfoils (0015, 4415 and flat plane)

5) Rocket Sting

Allows students to perform flight evaluation testing on rockets to predict rocket flight pattern.

(Rocket will spin if fins are not aligned properly) Overall drag reading on rocket can be obtained.

Available with or without a digital scale.

6) Lego Experiment

Allows students to construct buildings and study their effect on wind velocity and air turbulence.

7) NASCAR Exhibit

Reads wind velocity and drag profile over stationary car. Allows students to evaluate the effects of race car drafting by repositioning 2 other cars. Available with or without a digital scale.

8) Golf Ball Experiment

Allows students to prove dimple effect on drag.

9) Replacement 16 tube manometer - 16 tubes 0-6 Inches of water

	<u>Optional Equipment</u>
FT-360-200	Roll Stand (Standard)
FT-360-210	Roll Stand (Computer Version)
FT-360- 310	C-Rio based Data Acquisition System
FT-360-330	Computer Control System
FT-360-350	Dell Optiplex Computer with 19" Flat Panel Monitor Pre-Configured with Software and Hardware. Includes Microsoft Office
FT-360-400	Digital RPM Readout
FT-360-500	NACA 2415 Airfoil (Manual Control)
FT-360-510	NACA 2415 Airfoil (Computer Control)
FT-360-520	NACA 0015 Airfoil
FT-360-530	NACA 4415 Airfoil
FT-360-540	NACA Flat Plane Airfoil
FT-360-560	Computer Controlled Yarn (Visual Display)
FT-360-580	2 Component Beam With NI strain Module
FT-360-600	Rocket Sting w/ Digital Balance Scale
FT-360-610	Rocket Sting w/o Digital Balance Scale
FT-360-700	Venturi Experiment 10 deg.
FT-360-710	Venturi Experiment 13.5 deg.
FT-360-800	NASCAR Exhibit w/ Digital Scale
FT-360-810	NASCAR Exhibit w/o Digital Scale
FT-360-900	Golf Ball Experiment
FT-360-925	Golf Ball Experiment to mount on Beam
FT-360-950	Flow around Buildings Experiment
FT-360-975	Flow around Round Cylinder Experiment
FT-360-1000	On-Site Set up and Delivery (per day)
FT-360-1100	Delivery and Set
FT-360-1200	16 Tube Manometer