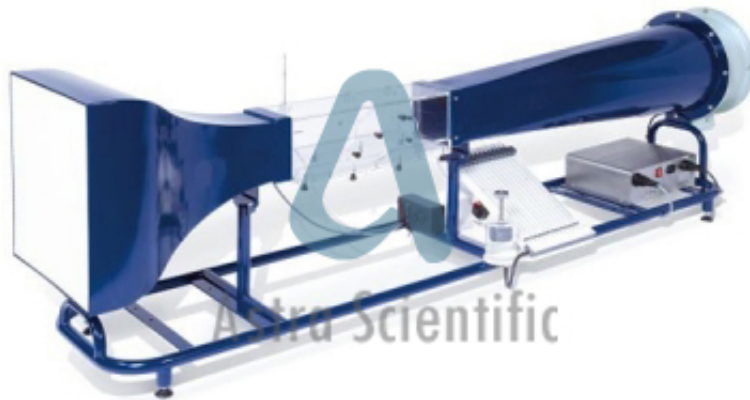


Product Name :
Astra Scientific Subsonic Wind Tunnel

Product Code :
Fluid Mechanics Lab0035



Description :

Astra Scientific Subsonic Wind Tunnel

Technical Specification :

DESCRIPTION: The designed and developed module is a small wind tunnel designed for bench top operation. Air is drawn through the working section by a variable speed fan at the discharge end of the tunnel. A honeycomb flow straightener is incorporated at the inlet, and a 9.4:1 contraction ratio ensures well-developed airflow through the working section. The working section is fabricated from clear acrylic to give good visibility of the models, and appropriate model connection points are included in the sidewall and roof of the working section.

A unique feature of the working section is that its entire base is removable to allow

The insertion of large or complex models such as the Bernoulli Apparatus, Boundary Layer Plate or alternative models constructed by the user.

FEATURES:

- Computer controlled air flow
- 150mm (6" nominal) square working section
- Transparent working section for visibility
- Wide range of models for both aerodynamics and air flow studies
- Choice of water or electronic manometer banks
- Quick release connectors on manometer tubes and quick release fastenings for easy model changing
- Simple flow visualization technique incorporated

SPECIFICATION:

- Square test section, nominally 150 x 150mm,length 455 mm
- Air velocity in the test section variable from 0 to 34m/s (note: some models can only be used at lower velocity)
- Profiled inlet with a 9.4:1 (nominal) contraction ratio

Tube length: 320mm

Inclination: 30°

Measurement range 0-160 mm H₂O

16 channels 0-178 mm H₂O (differential)

Lift force 3.4N at model

Drag force 3.4N at model

Inclination +/- 45°

Aero foil NACA 0015

Cord length 61.5mm

Thickness 9.2mm

Equatorial diameters:

Large models 50mm

Golf ball and small sphere 43mm

Cylinder diameter 30mm

Tapping spacing 20°

Throat width 100mm

Upstream/downstream width 150mm

- POWER REQUIRED 220-240V/1/Phase, 50Hz, 10Amps



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