

**Features**

- Basic modular comprehensive system designed for teaching aerodynamic principles.
- Works with eight different interchangeable experiment modules each designed to convincingly demonstrate a particular air flow principle or phenomena
- Easy setup, all the experiment modules can be fitted and removed in minutes.
- Simple and safe to use allowing students to gain hands-on practical experience with minimal supervision
- Compact, mobile and simple to install

Note: Specifications are subject to change.

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Tesca Air Flow Bench – Modular Design 32089 is designed to demonstrate behavior of bodies during flow around or through bodies with a compressible fluid. The purpose of experiments is familiarization with and optimization of drag and the flow field around a body. The trainer consists of a centrifugal fan, which can be used to generate flow velocities up to 40m/s. The fan speed can be changed using Variable Frequency Drive (VFD). A stabilization tank with flow straightener ensures a consistent, low-turbulence and reproducible flow in the measurement section. A carefully shaped nozzle provides a largely homogeneous velocity distribution of the air flow.

The accessories are attached using quick release fasteners and can be interchanged quickly and easily. Measuring points along the measurement section allow pressure and velocity measurements to be taken. The tube manometers are required to be able to show the pressures clearly.

Detailed Operation & Maintenance Manual is provided along with the trainer.

Specifications

- Centrifugal fan: Power consumption: 0.37kW, Max. flow rate: 15 m³/min
- Nozzle exit cross-section: 50x100mm
- Max. flow velocity at the nozzle exit: 40m/s
- Vertical measurement section with flow straightener and nozzle
- Radial fan infinitely variable via frequency converter
- Thermometer for measuring air temperature

Experiments

- Bernoulli's Equation
- Drag Force
- Round Turbulent Jet
- Boundary Layer
- Flow Around a Bend
- Jet Attachment
- Flow Visualization
- Tapped Aerofoil
- Multi-Tube Manometer

Services Required

- Mains power supply: 220-240V, 1Ph, 50Hz