

Air Flow and Aerodynamics



BERNOULLI'S EQUATION F100B



Year 1 study

Features

- · Compact and visually excellent experiment
- Pitot Static Tube
- Static Pressure Tapping
- Total Pressure Tapping
- Simple set-up

Description

The Optional Bernoulli's Equation F100B investigation duct has been designed for operation with the Hilton Airflow System F100. The duct allows students to quantitatively investigate Bernoulli's equation relating total pressure and dynamic pressure in a stream. The unit also introduces students to the Pitot - static tube, an essential tool for aerodynamic investigation and velocity measurement. A convergent divergent duct section has a pitot-static tube that can be moved axially along the duct to allow students to measure the local variations in total and static pressure due to the variation in duct cross section. The measured pressure changes may be compared with the Bernoulli equation predictions. The device is designed for use with the optional multi-tube manometer F100A.

Related Laws/Applications

- · Bernoulli's Equation
- Convergent-Divergent duct
- · Pitot-Static tube

Learning capabilities

- · Investigation of Bernoulli's Equation
- The use of the Pitot-Static tube for Air Velocity Measurement

Technical Specification

- Duct Depth: 50mm
- Duct Throat Height: 44mm
- Pitot-Static Tube travel: 310mm

Essential Ancillaries

- F100
- F100A



What's in the Box?

- 1 x F100B
- 4m PVC tubing
- Instruction manual
- Packing List
- Test sheet

Weights & Dimensions

Weight: 3 kgLength: 500mmWidth: 600mmHeight: 800mm

Essential Services

• F100

Ordering information

To order this product, please call PA Hilton quoting the following code: F100B