

## COMPRESSIBLE FLOW, PIPE FRICTION MODULE F300G



**Year 1**  
study

### Description

A series of four straight tubes of different diameters with end pressure tapings allow pressure losses in a straight pipe to be investigated at a range of Reynolds numbers. Bends, sudden enlargements and contractions are included to allow investigation of pressure loss and recovery.

The unit is driven by an ejector (jet pump) allowing investigation of entrainment ratio and ejector performance.

The pressures, temperatures and air flow rate are recorded by a combination of instrumentation on the Compressible Flow Range F300 base unit and the optional module. A digital hand held manometer is supplied.

### Related laws

- Fluid Flow
- Pressure Distribution
- Pipe Friction

### Learning capabilities

- Investigation of the pressure distribution and pipe friction along a pipe of varying cross section and bends, while passing a compressible flow of varying volume.
- Variation of friction coefficient with velocity and Reynolds number.
- Determination of the Friction loss coefficient for various components in compressible flow.
- Performance of an Ejector.

### Technical Specification

- 13 x pressure tapping's

- Small Tube Bore Diameter: Ø6.8mm
- Large Tube Bore Diameter: Ø11mm
- Base Board: 1200mm long x 380mm wide
- 4 x straight tubes
- 6 x bends
- 2 x reducers

#### **Essential Ancillaries**

- F300

#### **What's in the Box?**

- 1 x F300G
- 1 x Differential Instrument
- 1m Hose
- 2 x Plastic Tee
- Instruction manual
- Packing List
- Test Sheet

#### **Essential Services**

- Air requirement: approximately 150 litres free air per minute at a pressure of 0 to 500 kN m<sup>-2</sup> gauge supplied to the F300 base unit.

#### **Ordering information**

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

F300G

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COUNTRY OF ORIGIN - UK WARRANTY PERIOD - 2 YEARS