

# Air Flow and Aerodynamics



# PRINCIPLES of AIRFLOW, FAN TEST and FLOW MEASUREMENT F100M



Year 1 study

## **Description**

The Optional Principles of Airflow, Fan Test and Flow Measurement F100M components have been designed for operation with the Hilton Airflow System F100. The components allow students to quantitatively investigate three methods of flow measurement, the orifice plate, conical inlet and pitot static tube. The unit also allows students to utilise the flow measuring devices in conjunction with the fan throttle supplied in order to estimate the fan performance under a range of conditions.

# **Related Laws/Applications**

- Fan discharge throttling
- Bernoulli's Equation
- Pitot Tube
- Manometer
- Conical Intake

# Learning capabilities

- Comparison of pitot traverse and intake device flow measurement
- The use of flow measuring devices for measurement of fan characteristics.

## **Technical Specification**

• 24 Pitot Tube Measuring Points

#### **Essential Ancillaries**

• F100

#### **Recommended Ancillaries**

• F100A

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#### What's in the Box?

- 1 x Orifice Plate
- 1 x Bell Mouth Intake
- 1 x Fan Suction Adaptor
- 1 x Pitot Tube
- 1 x Iris type damper
- 1 x throttle Type Balancing Damper
- 1 x Fast Clamp
- 3 x Flange Gasket
- Fastenings
- · Instruction manual
- Packing List
- Test sheet

#### **Essential Services**

• F100

# **Ordering information**

To order this product, please call PA Hilton quoting the following code:  $\ensuremath{\mathsf{F}100M}$