



# **DRAG FORCE INVESTIGATION** F100G



**Year 1** study

#### Features

- Simple attachment to F100
- Very visual experiment
- Transparent Components
- Compact size
- Hydrodynamics & Aerodynamics

#### **Description**

This P. A. Hilton F100G Drag Force Investigation Module is simple and straightforward to operate. It does afford the student the opportunity to, first hand, observe qualitatively and quantitatively investigate the concept of drag by wake traverse and direct weighing, as well as, assessing the pressure distribution around a bluff body; ideally comparing the different experimental techniques, the influence of profile on drag, as well as theoretical predictions with the pre-determined quantitative experimental data. A short duct with integral load balance allows the drag of a body to be directly measured at a range of approach velocities. The bodies include an aerofoil, cylinder and plate. The cylinder has a radial tapping to allow investigation of the pressure distribution around the cylinder.

# **Related Laws/Applications**

- · Concept of Drag by wake Traverse
- Concept of Drag by direct weighing
- Pressure Distribution
- Bluff body
- Influence of profile on drag
- Hydrodynamics
- Aerodynamics
- Numerical Quadrature
- Reynolds Number

#### Learning capabilities

- Determining the drag forces on basic cylindrical bodies.
- Circumferential pressure tapping
- Direct force measurement
- Wake traverse

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# **Technical Specification**

- Graduated Face: 360° in 10° intervals
- Residual Current Circuit Breaker
- Power input cable

## **Essential Ancillaries**

- F100
- F100A

# What's in the Box?

- 1 x F100G
- 1 x Pitot Tube
- 1 x Force monitoring assembly
- 1 x Digital display
- 2m plastic hose
- 1 x Ruler
- Instruction manual
- Packing List
- Test sheet

## **Essential Services**

• 220-240 Volts, Single Phase, 50Hz (With earth/ground)

## **Ordering information**

To order this product, please call PA Hilton quoting the following code: F100G/230

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