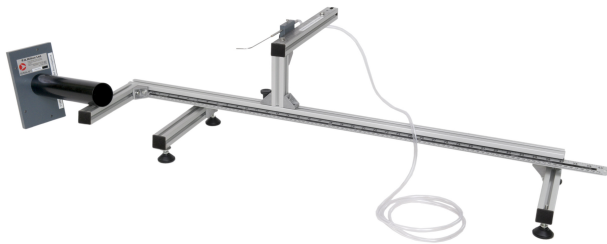




# ROUND TURBULENT JET INVESTIGATION

## F100D



Year 1  
study

### Features

- Simple attachment to F100 base unit

### Description

The Optional Round Turbulent Jet Investigation F100D components have been designed for operation with the Hilton Airflow System F100. The components allow students to quantitatively investigate the shear and mixing regions of a submerged turbulent jet.

A round parallel tube with a sharp edged discharge is used to create a turbulent jet using the air from the F100. A pitot tube is attached to a measuring frame that allows the device to be traversed horizontally and axially over the whole flow field. By this method the velocity profile at various axial distances from the jet, the pressure loss and entrained mass may be investigated.

### Related laws

- Uniform Velocity
- Viscous Drag
- Submerged Turbulent Jet
- Velocity Distribution
- Similarity of profiles
- Momentum Flux

### Learning capabilities

- Investigate the Shear and mixing regions of a submerged turbulent jet
- Investigation of the velocity profile and decay of a round submerged turbulent jet
- Momentum Conservation in the Jet

### Technical Specification

- Jet internal diameter: 50mm
- Pitot tube travel: Up to 550mm

- Measuring track with feet: 1000mm long

#### **Essential Ancillaries**

- F100
- F100A

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

- 1 x F100D on measuring track
- 2m PVC Hose
- 1 x Ruler
- Instruction manual
- Packing List
- Test sheet

#### **Weights & Dimensions**

- Weight: 8 kg
- Length: 1200mm
- Width: 500mm
- Height: 250mm

#### **Essential Services**

- F100

#### **Ordering information**

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

F100D

All brand and/or product names are trademarks of their respective owners. Specifications and external appearance are subject to change without notice. The colour of the actual product may vary from the colour shown in the brochure.

Copyright © 2018 P.A. Hilton Limited. All rights reserved. This technical leaflet, its contents and/or layout may not be modified and/or adapted, copied in part or in whole and/or incorporated into other works without the prior written permission of P. A. Hilton Limited. Hi-Tech Education is a registered trade mark of P. A. Hilton Limited.

COUNTRY OF ORIGIN - UK WARRANTY PERIOD - 5 YEARS