



AF16

## COANDĂ EFFECT AND JET FLOW

Allows students to investigate the Coandă effect and a fluidic flip-flop



- One of a series of eight experiment modules that fits to the Modular Air Flow Bench (AF10)
- Shows an example of how the phenomena of fluid mechanics can be exploited to perform a useful task – a fluidic flip-flop
- Toggle clamp connections to the Modular Air Flow Bench contraction for quick and easy fitment
- Transparent fronted test duct with clearly printed scales allows the experiment to be clearly seen and components accurately positioned
- Effectively demonstrates the Coandă effect

# COANDĂ EFFECT AND JET FLOW

## DESCRIPTION

This module consists of an aerodynamically shaped nozzle from which a jet of air emerges. This flows against a wall to which it attaches. The wall may be rotated to show the deflection of the jet through large angles due to the Coandă effect. A second wall may be introduced at the other side of the jet, which may be switched from one side to the other, as is done in a fluidic flip-flop type switch. The effect of sealing the walls and adding a central splitter to the device are also investigated.

## STANDARD FEATURES

- Supplied with a comprehensive User Guide
- Five-year warranty
- Manufactured in accordance with the latest European Union directives

## ESSENTIAL BASE UNIT

- Modular Air Flow Bench (AF10)

## LEARNING OUTCOMES

- Demonstration of the Coandă effect
- Demonstration of the fluidic flip-flop

## SPECIFICATIONS

### PACKED DIMENSIONS AND WEIGHT:

0.2 m<sup>3</sup>; 10 kg

### OPERATING CONDITIONS

#### OPERATING ENVIRONMENT:

Laboratory

#### STORAGE TEMPERATURE RANGE:

-25°C to +55°C (when packed for transport)

#### OPERATING TEMPERATURE RANGE:

+5°C to +40°C

#### OPERATING RELATIVE HUMIDITY RANGE:

80% at temperatures < 31°C decreasing linearly to 50% at 40°C