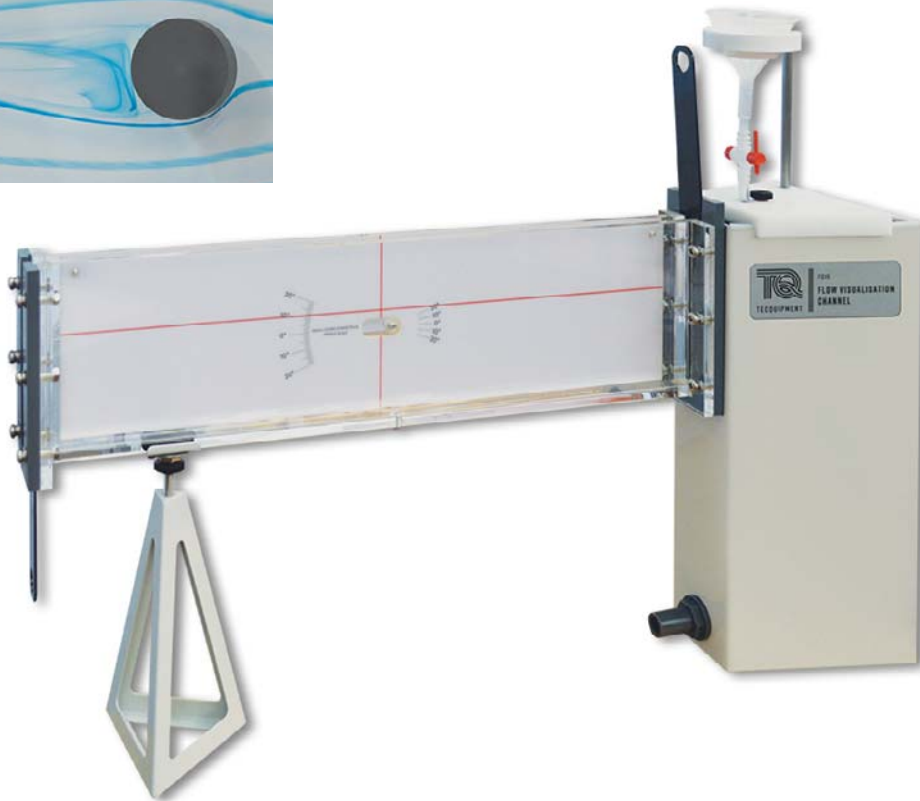
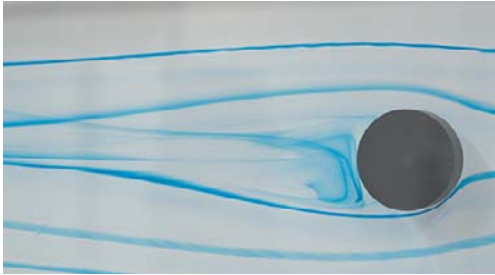


≡ FLOW VISUALISATION CHANNEL

FC15

A compact, entry-level piece of equipment for visualising flow patterns around weirs and other objects in an open channel. Can also be used with the included lock gates to perform wave flow experiments.



KEY FEATURES

- Acrylic channel providing maximum flow visualisation
- Blank panel, enhances visualisation by providing a plain backdrop
- Undershot inlet for demonstrating hydraulic jump
- Overshot outlet for regulating free surface levels
- Works with TecQuipment's Digital Hydraulic Bench (H1/H1D/H1F) or similar for easy installation

INCLUDED

- Sharp-crested weir
- Broad-crested weir
- Two sluice gates
- Two cylinder models in different sizes
- Two hydrofoil models (symmetrical and asymmetrical)
- Three sealing lock gates

≡ FLOW VISUALISATION CHANNEL

FC15

DESCRIPTION

The apparatus consists of a robust stainless steel settling tank that reduces turbulence, flowing into a 15 mm wide flow channel fabricated from transparent acrylic, together with various models, gates, weirs and hydrofoils. The channel is fitted with dye injectors enabling the details of flow to be easily demonstrated and observed through streamlines.

The equipment is designed primarily for use with TecQuipment's Digital Hydraulic Bench (H1F, available separately) which provides the necessary water supply, drain and volumetric flow-measurement facilities. Alternatively, the customer may arrange their own water supply and flow measurement facilities if desired.

STANDARD FEATURES

- Supplied with comprehensive user guide
- Five-year warranty
- Made in accordance with the latest European Union directives
- ISO9001 certified manufacturer

LEARNING OUTCOMES

- Visualisation of flow around objects in an open channel
- Study of flow around submerged sharp-crested weir
- Study of a broad-crested weir and the effects of changing the profile of the weir (by reversing the block in the channel)
- Visual demonstration of hydraulic jump
- Visual demonstration at varying angles of flow around a hydrofoil (both symmetrical and asymmetrical)
- Visual demonstration of the mixing of two fluids with different densities e.g. warm and cool water, (lock gate experiment)
- Visual demonstration of the energy released when a block of ice turns to water
- Visual demonstration of ice melt in fresh and salt water.

RECOMMENDED ANCILLARY

- Digital Hydraulic Bench (H1F)

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

ESSENTIAL SERVICES

SPACE NEEDED:

1.5 m x 1 m floor area (includes space for H1F)

OR

1 m x 0.3 m bench space (if not using H1F)

The apparatus is for use with the H1F Digital Hydraulic Bench (see separate datasheet for details) or customer's own water supply.

SPECIFICATIONS

TecQuipment is committed to a programme of continuous improvement; hence we reserve the right to alter the design and product specification without prior notice.

NETT DIMENSIONS AND WEIGHT:

800 mm long x 750 mm high x 190 mm wide and 8 kg plus 0.25 kg for models

APPROXIMATE PACKED DIMENSIONS AND WEIGHT:

0.5 m³ and 10 kg

WORKING SECTION:

600 mm long x 150 mm high x 15 mm wide

ANCILLARIES (INCLUDED)

- Undershot sluice gate on inlet
- Overshot sluice gate on outlet
- Cylinder models in two sizes
- Submerged narrow-crested weir
- Broad-crested weir (can be placed either way round for sharp or curved profiles)
- Two hydrofoil models (symmetrical and asymmetrical)
- Dye bottle and dye
- Three sealing lock gates
- Thermometer