

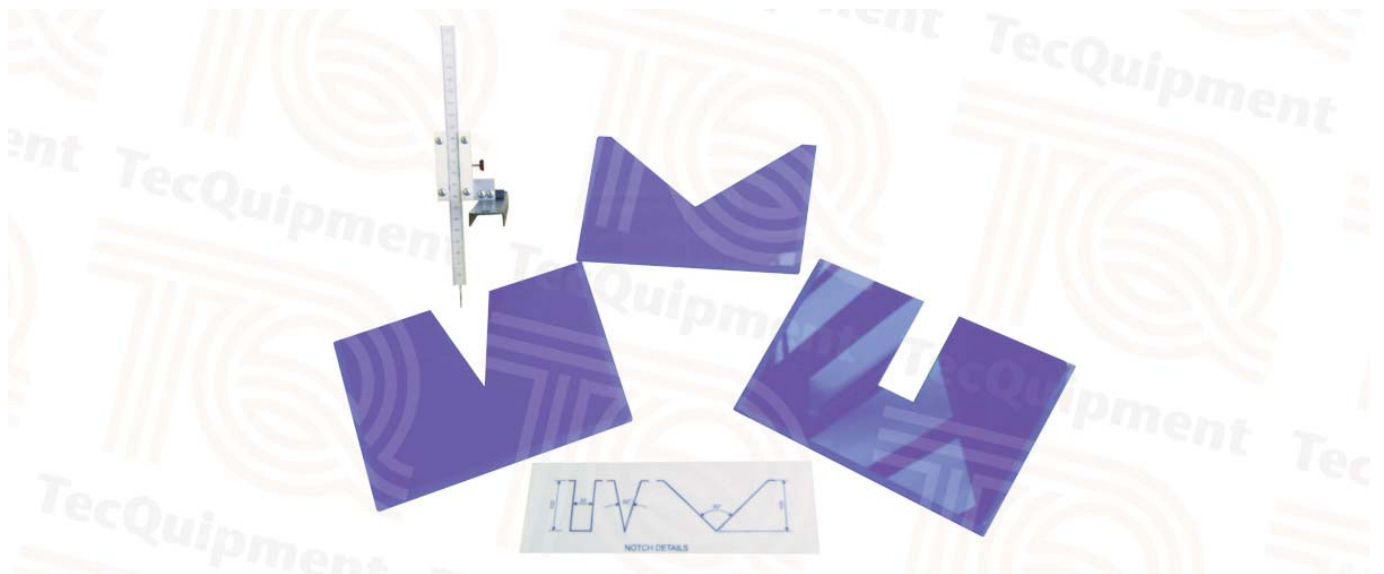


Fluid Mechanics

H1D/a

Set of Weirs

For use with the TecEquipment Volumetric Hydraulic Bench (H1D), to study weirs as flow regulation and measurement devices



- Full quantitative analysis possible
- One rectangular and two V-shaped notches
- Precise measurement of water level
- Requires minimal installation
- Easy operation
- Specially designed for use on the TecEquipment Volumetric Hydraulic Bench (H1D)

H1D/a

Set of Weirs

Description

Specially designed for use with TecEquipment's Volumetric Hydraulic Bench (H1D, available separately), this set of weirs clearly demonstrates the use of weirs as simple flow regulators. They allow students to derive, and then experimentally verify, relationships between upstream water level and weir discharge for a variety of different shaped notches.

Each weir fits in a sealed groove in the channel section of the hydraulic bench. This enables convenient and quick changing of weirs. Plastic materials and corrosion-resistant finishes throughout the equipment give the fullest possible protection against corrosion.

Water from the hydraulic bench supply flows through the channel and over the weir, allowing students to clearly observe the discharge. Students measure the free water surface using an adjustable depth gauge attached to a beam across the channel. The weir discharge flows into the volumetric tank of the hydraulic bench.

The equipment includes two different V-notch weirs and a rectangular notch weir and depth gauge. Other types of weir are available separately – see Advanced Set of Weirs (H1D/b).

To perform experiments, students regulate the flow using the hydraulic bench, initially to maximum discharge. They note values of discharge and head, and reduce the flow. They repeat the readings for approximate equal decrements in head, until the stream no longer springs clear of the notch. From their results they plot graphs of discharge rate against head, and also the logs of each.

Note: These weirs are identical to those supplied with TecEquipment's Flow Over a Notch Apparatus (H6).

Standard Features

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

Experiments

Comprehensive study of flow over weirs, including:

- Investigation of head against discharge
- Coefficient of discharge for notches
- Rectangular and different angled V-notches

Essential Base Unit

- Volumetric Hydraulic Bench (H1D)

Available Experiment Modules

- Advanced Set of Weirs (H1D/b)

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

Specification

Dimensions:
Nett: 460 mm x 340 mm x 160 mm
Packed: 0.025 m³

Weight:
Packed: 2 kg

Rectangular notch:
Depth 100 mm, width 30 mm

V-notches:
1 x depth 100 mm, notch angle 30°
1 x depth 100 mm, notch angle 90°

Maximum flow rate (rectangular notch):
62 L.min⁻¹

Accessories:
Label showing notch details

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