



Flow over Weirs and Notches Apparatus (SMT-FM-07-A)

Flow weirs and Notches Apparatus allows students to do tests on relationships between upstream water level and weir discharge for different shaped notches. They can then compare their results with theory. Sharp-crested weirs are a type of control structure that dam up an open channel in a defined manner. They are often used to determine the discharge of an open channel. Trainer contains two different plate weirs as sharp-crested weirs. The two weirs are typical measuring weirs with defined weir openings: in the Thomson weir the opening is triangular; in weir it is rectangular.

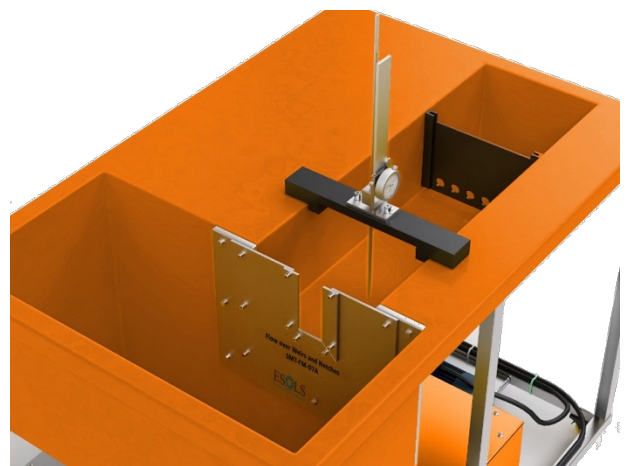
The weirs are installed and screwed in place into the base module (Hydraulic Bench SMT-FM-100). The weir can be installed and replaced quickly and easily. Water from the small experimental flume in it flows over the weir being investigated.

A level gauge for detecting the head is included in the delivery. The head is used to determine the discharge, which is then compared to the measured values from trainer.

TECHNICAL SPECIFICATIONS

Specifications:

- Compact size apparatus.
- Easy to operate and understand.
- Corrasion proof weirs.
- Discharge measurement in open channels using 4 measuring weirs.
- Two Weirs with V-profile.
- Two Weirs with rectangular profile.
- Level gauge with scale for determining the head.
- Level gauge can be positioned anywhere along the Experimental flume.
- Can be used with Base water supply Hydraulic Bench (SMT-FM-100).



Technical Data:

- Weirs:
 - Material: stainless steel/Malamin
 - Self-sealing.
 - Rectangular Profile:
 - LxW of the section: 60mm.
 - V-profile:
 - Angle of the section: 90°.
 - Height of the section: 50mm.
- Measuring ranges:
 - Head: 0...250mm.
- LxWxH: 230x190x8mm (weir plates).
- LxWxH: 300x200x300mm (level gauge).
- Total weight: approx. 4kg.
- Accessories (Included)
 - All necessary fittings.
 - Instruction Manual
- Operating Conditions
 - Laboratory Temperature: 5°C to 40°C

- **Note:**

This product may produce small splashes of water in use, so you must use it at a safe distance from electrical supplies. ESOLS recommends approximately 2.0 m.

Experimental Data:

- Study of head against discharge
- Study of Coefficient of discharge
- Study of Rectangular and different angled V-notches
- Investigation of characteristics of flow over rectangular and V-notches
- Comparison of theoretical and measured discharge.