

FM07.xls  
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## ADJUSTABLE BED FLOW CHANNEL

MODEL: FM07



### FEATURES

- Compact, comprehensive, sturdy design
- Fully re-circulating type
- Fully transparent channel

### DESCRIPTION

This is fully re-circulating type equipment. Water is supplied from a sump tank through a pump to the channel. The channel is fully transparent. Standard channel is 75 mm width and 4700 mm length. However we can supply the channel width of up to 300 mm.

At the inlet, a flow steadying section is provided so that there will reduce disturbances at the test section. The gates provided at the upstream and downstream of the test section help regulate the depth of the flow. Depth measurements is done using a high accuracy, high resolution digital gauges. The gauges are mounted on a movable platform; the movement can be longitudinal and transverse.

The slope of the bed can be adjusted, manually (or optionally electrically), with high precision to give positive or negative slopes. Flow rate is measured using Orifice or a high accuracy magnetic Flow-meter with digital display. Various types of weir is supplied with the channel.

## INSTRUCTION MANUAL

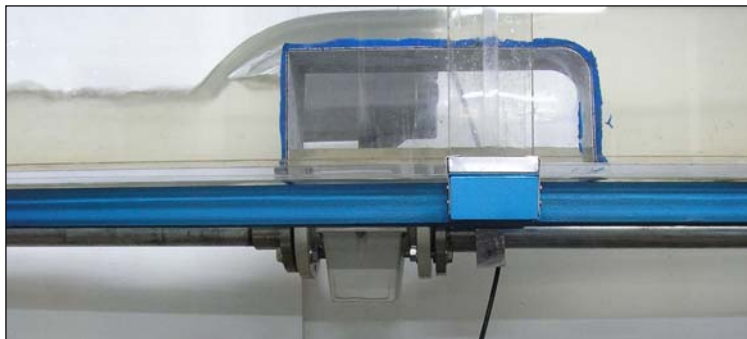
Self -explanatory operating manuals are provided with each system. Detailed theory as well as practical exercises is also included in the manual

## LIST OF EXPERIMENT

- Study of Open Channel flow with slope.
- Demonstration of duct flows.
- Study of Specific Energy Curve.
- Study of Hydraulic Jump.
- Study of Nape Profiles over a Sharp Crested Weir.
- Calibration of Broad Crested and Ogee Weir.
- Calibration of a Venturi Flume
- Demonstration of Bernoulli's equation in converging flows.
- Energy losses in converging and diverging flows.
- Study of flow over weirs.
- Specific energy relationships for sub-critical and super-critical flows.
- Critical depth – upstream water level studies.
- Surface wave studies

## COMPONENTS

- Sump Tank
- Pump
- Fully transparent channel
- Slope adjusting device (Manual/Electrical)
- Digital gauges for depth measurement (3 nos.)
- Flow measuring device (Indirect/Digital)
- Pitot tube
- Piping



## SERVICES REQUIRED

1. Water
2. Power supply

### NiYo Engineers

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