MOBILE BED AND FLOW VISUALIZATION UNIT
Model Number : GOTT-MBFVU-01

DESCRIPTION

The GOTT-MBFVU-01 is a particularly useful unit to demonstrate the fluidization phenomenon in engineering. It makes it possible to study different situations of flow and mobile bed visualization related to civil engineering structures.

This unit may be used mainly in two study fields. The first one is the investigation of mobile beds, which are related to water courses and civil engineering structures. The second one is related to the visualization of the flow in two dimensions.

The unit is self-contained and it consists of an inlet tank with adjustable overshot, a channel with sand traps, a discharge tank, water storage tanks, a centrifugal pump, an electromagnetic flow meter and set of models.

The unit includes the necessary instrumentation to measure the water level and the bed depth, formed by an instruments carrier and a gauge.

SPECIFICATIONS

- The GOTT-MBFVU-01 is mounted on a metallic structure with wheels, rigid and resistance enough to support the weight of water and sand without suffering any deformation. All components in contact with water are of non-corrosive materials. The unit includes a diagram with similar distribution to the elements in the real unit.

- This unit is divided into three sections: inlet tank, working section (channel) and discharge tank. These sections are assembled through joints in order to get a complete assembly.

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INSTRUMENTATION

- An instruments carrier, which can be positioned over any point of the working section.
- A gauge designed to be mounted on the instruments carrier. It is provided with a stainless steel hook and a point, and a Vernier scale.
- The practical exercises with this unit are carried out by using water and sand. Ink is included for the two dimension flow visualization, to carry out flow studies around the models and to demonstrate the boundary layer, without the need of assembling any accessory.
- Two water storage tanks, made of polyethylene, of approximately 250 l. each one. It has a filter at the pump inlet to retain possible residues, a butterfly valve and an overflow that connects the storage tanks.
- Centrifugal pump with flow regulation: flow range
- Electromagnetic flow meter with display for the measurement and the reading of the flow
- Membrane valve.

A SET OF MODELS

- 2 rectangular models.
- 4 cylindrical models.
- 4 square models.
- 2 profiled rectangular models
- 2 rectangular models with rounded ends.
- Triangular model.
- Asymmetrical aerofoil model.
- Six baffles to direct the water flow during the experimental tests
- A set of 12 "L" shaped profiles.
- Three pairs of different angles to build additional models.
- Electronic console, including:
- Motor-pump starter for the centrifugal pump
- Flow controller for the centrifugal pump.

TRAINING PROGRAM

- Observation of the flow around model engineering structures.
- Mobile bed experiments.
- Study of the meandering water courses characteristics.
- Visualization of the behaviour of boundary layers.
- Demonstration of boundary layer suction.
- Studies of erosion.
- Studies of deposition.
- Studies of velocity distribution in duct flow.
- Studies with engineering structures.
- Two dimensional flow visualization.

Manuals :
(1) All manuals are written in English.
(2) Model Answer
(3) Teaching Manuals

General Terms :
(1) Accessories will be provided where applicable.
(2) Manual & Training will be provided where applicable.
(3) Design & specifications are subject to change without notice.
(4) We reserve the right to discontinue the manufacturing of any product.

Warranty :
2 Years

ORDERING INFORMATION :

ITEM	MODEL NUMBER	CODE
MOBILE BED AND FLOW VISUALIZATION UNIT	GOTT-MBFVU-01	643-000

*Proposed design only, subject to changes without any notice.