



### Features:

- Self-contained unit designed for practical demonstration and visualization of fluid flow study.
- The tank is manufactured Fiber-reinforced plastic or Stainless Steel and all components in contact with water are of non-corroding materials.
- Unit supplied with a number of models permitting a wide range of experimentation.

Tesca Mobile Bed & Flow Visualization Demonstrator consists of a tank made in three sections; inlet tank, working section, and the discharge tank. Each section has a flange on either side to join with the remaining sections. The inlet tank has a slitting baffle to stabilize the flow of water. A rail has been fixed on top of the tank & extends throughout the length of the tank to carry measuring instruments. A hook gauge is provided to measure the depth of the water as if it flows through the tank. Water is supplied to the tank from a sump tank by a centrifugal pump. A control valve is used to regulate the water flow rate. A flow meter is used to measure the water flow rate.



Detailed Operation & Maintenance Manual is provided along with the trainer.

### Specifications:

- Working area: 2 meters x 610mm or 4 meters x 610mm Max water depth: 120mm ▪ Thickness of sand bed: 60mm
- Flow range: 0-3.5 litres/sec.
- Sump capacity: 300 liters
- Accuracy of flow metering:  $\pm 1.5\%$  of full-scale deflection
- Basic Accessories
  - Model bridge piers; two rectangular, four cylindrical, two profiled, and two with rounded ends.
  - One asymmetrical aerofoil

Note: Specifications are subject to change.

### **Tesca Technologies Pvt. Ltd.**

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- Two model gate guides.
- - Eight aluminum baffles to direct the water flow for general test purposes. One set of twelve x 50mm x 50mm aluminum Tees and six 40mm equal angles all 125mm long, to enable the laboratory staff to build additional models
- Overall Dimensions
  - Length (4M): 5.70m
  - Width: 0.71m
  - Height: - 2.0m -

#### **Ordering Specifications:**

- A self-contained recirculating water tank for flow visualization and mobile bed studies.
- The tank is manufactured from glass-reinforced plastic and all components in contact with water are of no corroding materials.
- The working section has minimum dimensions of (4m) x 610mm and the flow range is 0-3.5 liters/sec.
- Fifteen models and accessories are included as standard and a sheet of colored glass allows rapid changeover from mobile bed to flow visualization mode.
- All controls are housed in a portable console which includes a flexible cable and water safe connectors.

#### **Experiment Capabilities:**

- Flow around model engineering structures
- Boundary layer suction demonstration
- Experimental investigation of erosion and deposition
- Characteristics of meandering watercourses
- Two-dimensional flow visualization by the Ahlborn technique
- Velocity distribution in duct flow
- A hydraulic analogy to compressible flow
- Civil engineering model testing

#### **Required Services:**

- Electricity supply: 220/240V/1PH/50Hz  
Stopwatch

#### **Complementary Products:**

- Multi-Purpose Teaching Flume
- Glass Sided Tilting Flume

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