



#### Features:

- Self-contained unit designed for the study of flow through permeable media.
- Tank made from non-corrosive materials & has toughened glass at Front for better visualization.

Tesca Drainage and Seepage Tank Demonstrator have been designed for experimental study & visualization of flow through permeable media. The trainer consists of a Tank with Toughened Glass at the front & an Aluminum panel at the back. The toughened glass is scratch resistant & permits clear visualization of the process. The tank has two adjustable overflows at each end for maintaining a constant level inside the tank. A dye injection system allows the dye to be injected through tapping on the back aluminum panel for visualization for flow pattern through the bed. Water is supplied from the sump tank using a centrifugal pump. Detailed Operation & Maintenance Manual is provided along with the trainer.

Note: Specifications are subject to change.

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

IT-2013, Ramchandrapura Industrial Area, Sitapura Extension,  
Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,  
Tel: +91-141-2771791 / 2771792; Email: info@tesca.in, tesca.technologies@gmail.com  
Website: www.tescaglobal.com

#### Specifications:

- A self-contained facility for the study of flow through permeable media.
- The tank has a toughened glass front and aluminum back to permit the insertion of pressure
- The design of the side supports allows free access to the interior
- Supply includes a sump tank, pump, starter, and control valve. Also a dye injection system and a Comprehensive instruction manual data sheets and student experiments.
- Working Section 1500mm X 100mm X 600mm.
- Basic Accessories - - - - -
  - Foundation pressure plate
  - Straight permeable membrane
  - Curved permeable membrane
  - Lateral pressure plate
  - Tile drain
- Overall Dimensions Length: 1.60m Width 0.60m Height: 1.45m

#### Optional:

- DAQ Computer interface & LabView Software
- 'Sci-Cal' Computer Control Software & Interface

#### Experiment Capabilities:

- Flowline visualization
- Determining seepage rates
- Flow net construction
- Verification of Darcy's Law
- Comparison of experimental results with analytical solutions

#### Typical student experiments include:

- Seepage underneath a sheet pile wall
- Seepage through an earth dam
- Control of seepage through permeable soils by sub-soil drainage
- Distribution of uplift pressure on hydraulic structures
- Reducing uplift pressure and lateral thrust by drainage
- Formation and behavior of 'Quicksand'
- Stability of an earth dam
- Draining an excavation site using wells

#### Required Services:

- Electric Supply 230 V AC, Single Phase, Earthed.