# Hydrology Demonstrators

Educational Training Equipment for the 21st Century

Bulletin 652-6A

H-6526

**Ground Water Flow Tank** 

# **Purpose**

The Hampden **Model H-6526** Ground Water Flow Tank provides a means of investigating simple three dimensional flow models utilizing sand as a medium. A multitube manometer is used to show profile and make level measurements at appropriate locations.

Tank demonstrations provide the student with practical experiments about land drainage, flood risk, wells, and drainage of lakes or ponds.

# Description

The Hampden **Model H-6526** Ground Water Flow Tank consists of a mobile structural tube frame base, tank assembly with fittings, and a nineteen tube manometer.

# **Specifications**

#### Frame:

14-gauge 2" x 2" square mechanical tubing finished in instrument tan texture.

#### Casters:

Four swivel, two with locks.

### Tank:

Non-corrosive, 39" long x 19" wide x 10" deep with 19 pressure taps imbedded in the bottom of the tank in a cruciform pattern. Two controlled wells are incorporated as well as two complete width inlet/drain assemblies with flow control valves and drain hose fittings.

#### Manometer:

19-tube manometer connected to a mounting frame. The frame is silk-screened with horizontal lines in increments of 5 mm for reference along with a vertical scale of 150 mm in 1 mm steps. A sliding horizontal cursor provides immediate reference of any level. The other end of the tubes is connected to the pressure taps located in the tank bottom.



MODEL H-6526 Ground Water Flow Tank Dimensions: 42"H x 431/4"W x 25"D Weight: 500 lbs.

### Demonstrations:

- A. Hydraulic Gradient in Ground Water (Darcy's Law)
- B. Cone of Depression for a Single Well, unconfined
- C. Cone of Depression for a Single Well, confined
- D. Cone of Depression for 2 Wells
- E. Excavation Site Using 2 Wells for De-watering
- F. Drainage of Lake or Pond

### Accessories:

- 1. Rectangular Ring Large
- 2. Rectangular Ring Small
- 3. Round Ring Single well assembly
- 4. Stainless Steel Weights (2)
- 5. Sand 2 bags #1 Silica Sand, washed
- 6. Hose Adapter



MODEL H-6526 Accessories

All Hampden units are available for operation at any voltage or frequency



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