

# Water Treatment Trainers

Educational Training Equipment for the 21st Century

Bulletin 652-1

## H-6521 Model Sedimentation Tank

### Purpose

The Hampden **MODEL H-6521** Model Sedimentation Tank has been developed to investigate the hydraulic characteristics and settling efficiencies of a model settling basin. The student will be able to evaluate how non-uniform flows occur and its interaction with sediment settling characteristics.

### Description

The Hampden **MODEL H-6521** Model Sedimentation Tank consists of:

- Bench
- Sump Tank
- Settling Tank
- Pump
- Instrumentation

### Specifications

#### Bench:

1-1/2" square mechanical tubing finished in instrument tan with levelers.

#### Bench Top:

72" long, 28" wide by 1-1/16" thick of medite woodcore and plastic laminate. Exposed edges to be black "T" molded plastic.

#### Component Panel:

Constructed the same as the wood top. Panel shall be 34" high, 24" wide, by 1-1/6" thick.

#### Nomenclature:

3-ply brown-white core engraving phenolic secured to the panel with stainless steel screws.

#### Sump Tank:

Polyethylene Tank, 30 gallon capacity, with special hardware for easy removal. This tank incorporates a sparge pipe for continuous agitation.

#### Settling Tank:

Clear lexan with entrance and exit weirs. The tank is 39" long, 16" wide, by 8" deep complete with tank drain.

#### Pump:

6 gallons/minute at 17ft head with Motor Starter.

#### Instruments:

Flowmeter-water, 6 gallons/minute  
Sediment suspension, flowmeter, 1 gallon/minute

#### Supplied Accessories:

- Baffle
- Secondary side set (narrow tank)
- Dye injection System
- Thermometer

#### Recommended Accessories:

- Balance
- Colorimeter
- 7-narrow-pass  
Filters covering  
Wave lengths  
450 to 700 mm
- Precipitated calcium carbonate



#### Demonstration Capabilities:

- Comparison of real flow regimes with flow models
- Flow rate, inlet water temperature and baffle position effects on dispersion.
- Dye tracers to measure flow short-circuiting and dead space.
- Related hydraulic characteristics to sediment removal efficiencies.

### Service Required:

#### Electrical:

120VAC - 1Ø - 60 Hz or  
220V - 1Ø - 50 Hz

#### Water:

Fill System

#### Waste:

Drain

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

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ENGINEERING CORPORATION

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