

H-6522 Surface Irrigation Demonstrator

Purpose

The Hampden **Model H-6522** Surface Irrigation Demonstrator has been developed to investigate surface water penetration utilizing various irrigation methods. This demonstrator can be set up to show surface slopes and irregularities, soil textures, and wetting patterns of various emitters.

Description

This unit incorporates a bench mounted base with levellers, sump tank, pump, starter, rotameter with control valve, tank, nine tile drain taps, two percolation taps, and hose set.

Specifications

Bench Mounted Base:

- Furniture stock steel finished in instrument tan texture with levellers
- Control panel terminal box

Sump Tank:

- 10 gallon (37.8 liter) polypropylene with tank drain ball valve and interconnection fittings

Pump:

- Centrifugal pump with sealless magnetic drive
- 5 gallons (18.9 L/min) maximum
- Service kit includes the Viton O-ring and impeller/magnetic assembly

Control Panel:

- 14-gauge furniture stock steel finished in instrument white enamel.
- Ground Fault Interrupter circuit breaker.
- Pilot light
- Rotameter with control valve - 2 gal/min (7.57 L/min).
- 3-ply white core brown engraving phenolic secured to the panel with stainless steel screws

Tank:

- 60" (1524mm) long, 28" (711.2mm) high by 4" (101.6mm) inside dimensions
- Tank base, frame, and removable sides of stainless steel
- Rear panel of aluminum with nine tile drain port fittings
- Two percolation bottom taps
- Three side ports each side
- Front of tempered glass with grid lines and stainless steel trim.

Accessories:

- Hose set
- Drip nozzles (2 required)
- Tile drain assemblies (3 required)
- Pump service kit

Components Not Supplied:

- Medium, soil
- Stop watch

Dimensions and Weights:

- Length: 60" (1524mm)
- Depth: 24" (609.6mm)
- Height: 31" (787.4mm)
- Weight: 450 lbs (204.5kg)
- Cu.ft.: 44 (1.25M³)

Experiment Capabilities

- Sub-surface drainage
- Effects of infiltration on land slope, soil texture, surface irregularities and discharge rates
- Wetted patterns of various emitters

Services Required

Electrical:

- 120V AC 60Hz, single-phase

Water:

- Supply (fill sump tank)
- Waste Drain (drain sump tank)

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

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