

## H-IPPT-3 Industrial Process Plant Trainer

### Purpose

The Hampden **Model H-IPPT-3** Industrial Process Plant is a pilot plant unit designed for training engineers, technicians, repairmen, and operators in the following ways:

- Enables students to familiarize themselves with actual industrial process systems. It is designed to expose them to the different kinds of industrial equipment used in measurement and control.
- Has all the operating characteristics of a full-sized industrial plant without the psychological pressures and dangers inherent in an actual process plant. This permits students to make and experience the results of errors in system operation with no danger to the process or operator.
- It is designed to allow student development in the areas of system start-up, tuning, and troubleshooting, all of which are of critical importance to the instrument technician.

### Description

The Hampden **Model H-IPPT-3** is comprised of two sections. The Control Section contains all control equipment, remote control interface and a complete tri-colored graphic representation of the pilot plant.

The Process Plant incorporates transparent level towers that make it possible for the students to actually see the process in action. The two liquids used in the Process Plant have different specific gravities, different colors, and are immiscible. These liquids are non-corrosive to brass and copper alloys, non-toxic, and non-flammable.



Control Section (left) and Process Plant (right)  
Shipping Weight: 3000 lbs

The Process Plant is factory assembled and is supplied with a pair of transparent towers, two storage tanks, circulating pumps, four heat exchangers, a low-pressure steam generating boiler and all necessary hand valves together with its copper and applicable transparent piping. It comes completely equipped with the instrumentation necessary to allow instruction in operation, measurement, control, and control system tuning adjustment of the process and control system variables.

### Equipment Supplied

- Electric boiler
- Steam heat exchangers
- Air heat exchangers
- Microprocessor-based controllers
- Recorders
- Temperature transmitters
- Differential pressure transmitters
- Pressure transmitter
- Level transmitters
- Control valves
- Auto/manual stations
- Interconnecting cords

### Optional Equipment

**MODEL H-ICS-X** - Computer Control Software/Interface

**MODEL H-ICS-CS** - Computer System

**MODEL H-IPPT-3-FP** - Fault Program

**MODEL H-IPPT-PLC-5**  
Programmable Logic Controller

**MODEL H-ICS-CC** - Computer Workstation

### Services Required

#### Electrical—

208/120V. AC—3Ø—60Hz—100A for electric steam boiler and water chiller

#### Air—

1/4" line, clean dry instrument air, 60–100 psig

#### Water—

1/2" line - drain (customer connection),  
1/2" line - boiler make-up

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

**Hampden**  
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