

# TABLE TOP PROCESS CONTROL TRAINING EQUIPMENT



**Hampden** ENGINEERING CORPORATION

**American made since 1954**

## HAMPDEN INSTRUMENTATION AND CONTROLS TRAINING SIMULATORS

Hampden Engineering Corporation has been designing and manufacturing process simulators for engineering, technical, and industrial training programs since 1954. Hampden has earned its leadership position in the technical, vocational, and skills training field by integrating standard commercial instruments and controls into educational packages that facilitate the learning process.

Hampden's educational simulators and programs embrace a wide gamut of products, processes, and industries. For example, you can obtain Hampden training programs in Basic Electricity; Basic Electronics; Digital Electronics; Microcomputers; Heating, Refrigeration, and Air Conditioning; Electrical Motors and Transformers; Electrical Power Transmission and Distribution; Pneumatics; Hydraulics; Kinematics; Robotics; Instrumentation and Controls; and Process Automation.

As more and more power and process plants automate, they require personnel with knowledge and skills in Electronics, Mechanics, and Automatic Control Theory. To assist in the training of operators, technicians, and maintenance personnel, Hampden provides unique instrumentation and Controls (ICS) Training Programs. In addition to the representative ICS Training Panels shown in this brochure, custom-designed simulators may be supplied to meet plant-specific training needs.

Each of the Hampden training simulators contains a realistic process for which variables (pressure, temperature, flow, level, etc.) are measured and controlled. The measuring and controlling instruments are standard commercial devices: Foxboro, for example. You may select from among standard commercial instruments from any manufacturer, thereby tailoring the training program to your own needs.

When desired, Hampden Control Simulators may contain a number of instructor-inserted faults for practical experience in troubleshooting.

Hampden Instrumentation and Controls Trainers are fully compatible with audio/visual training programs available from such organizations as the Instrument Society of America.

All Hampden equipment may be equipped to operate on any voltage or frequency.

### Purpose

The Hampden H-ICS Trainers provide experience in setting up, tuning, operating, and troubleshooting actual instrument and control systems of the type used in the power and process industries. By simulating a process loop, provides instruction in the measuring and transducing of such physical variables as flow and level. Student trainees learn instrumentation and control techniques of standard equipment. Covered are open-loop control as well as the various types of closed-loop control: on/off, proportional, proportional plus integral, and proportional plus derivative, as well as a variety of final control devices, including electric, pneumatic and electronic.

### Description

The Hampden Instrumentation and Process Control Trainer contains, in addition to the principal measuring and transducing device, an independent indication of the value of the physical variable being controlled. Microprocessor-based controllers provide maximum flexibility in setting control parameters, besides providing the computer interface for distributed control.

## HAMPDEN INSTRUMENTATION AND CONTROLS TRAINERS



**Hampden H-ICS-TT-TT**  
Table Top Temperature Process Control Trainer



**Hampden H-ICS-LT-TT**  
Table Top Level Process Control Trainer



**Hampden H-ICS-FT-TT**  
Table Top Flow Process Control Trainer



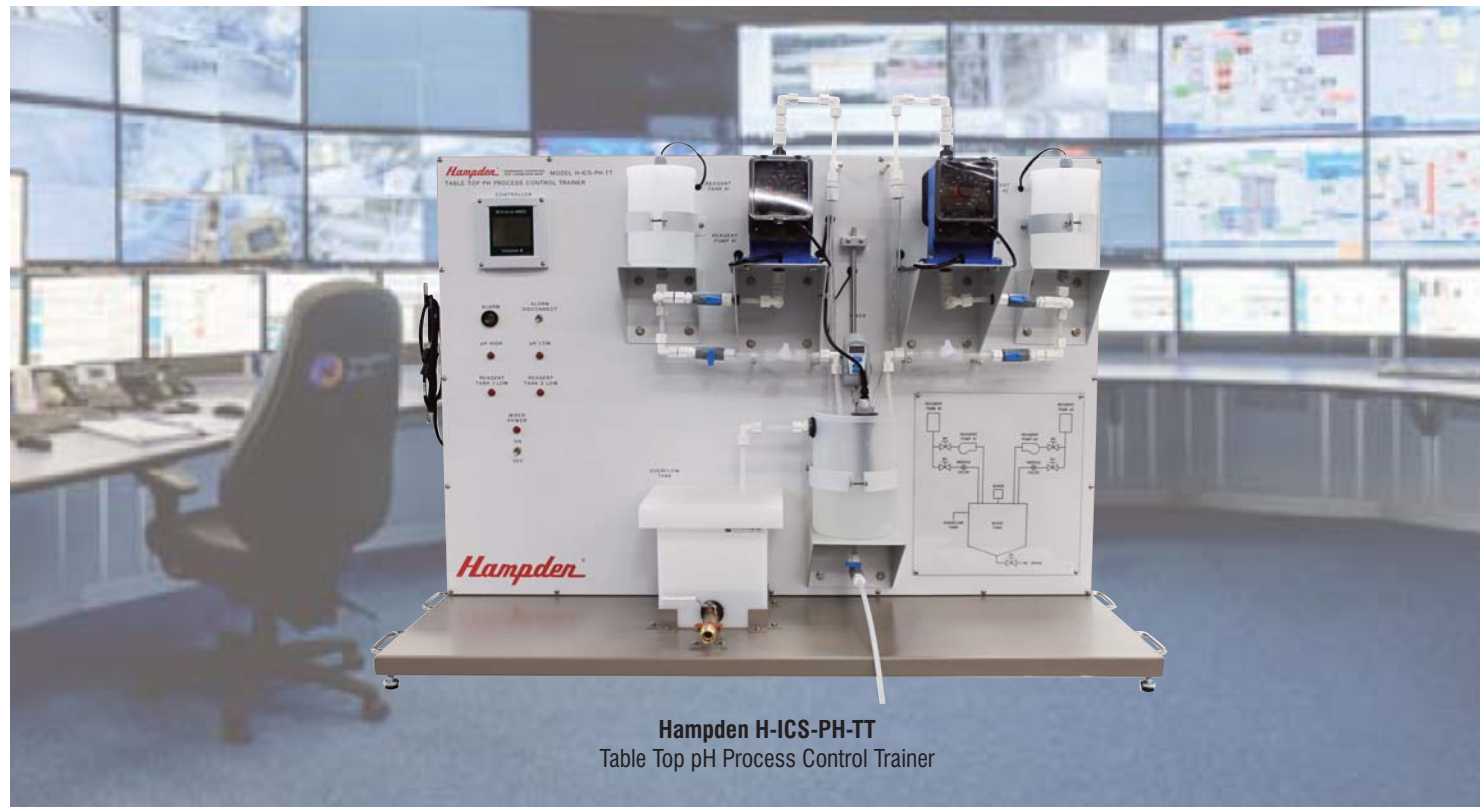
**Hampden H-ICS-PT-TT**  
Table Top Pressure Process Control Trainer



**Hampden H-ICS-FL-TT-CDL**  
Table Top Flow & Level Process Control Trainer  
with Computer Data Logging Option



**Hampden H-ICS-PT-TT-CDL**  
Table Top Pressure & Temperature Process Control Trainer  
with Computer Data Logging Option



**Hampden H-ICS-PH-TT**  
Table Top pH Process Control Trainer

**Standard Products...Designed to Meet Your Growing Needs!**

# LOOK TO HAMPDEN FOR YOUR TRAINING NEEDS!

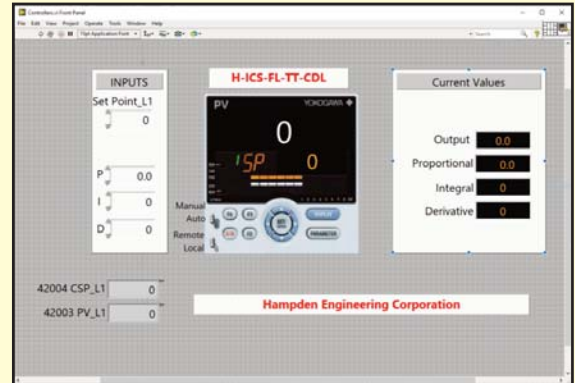
Hampden's selection of Instrumentation and Process Control Training equipment is far larger than we are able to show you in this brief brochure. There is literally any size and application, any degree of complexity available. As a matter of fact, Hampden can easily handle requests for trainers that are not presently cataloged. In all cases, standard commercial components are used, so that students receive real-world instruction in the laboratory classroom environment.

Hampden's Training Program offers on-site workshops for instructors and key personnel. All of Hampden's technical trainers may be equipped with computer interface terminals for data gathering, logging and controlling, and can be supplied as a turnkey package, complete with software, hardware, and experiments.

The world-wide popularity of Hampden's training equipment and programs results from the extraordinary collaboration between Hampden's engineers and technical educators. Hampden does not simply adapt standard products for international use, Hampden designs each product for the electrical power characteristics of the country in which it will be used, whatever the voltage or frequency.

Hampden Engineering Corporation is committed to providing the most up-to-date, practical hands-on training equipment.

Visit our home page at [www.hampden.com](http://www.hampden.com) to see what's new at Hampden, or send us an E-mail at [sales@hampden.com](mailto:sales@hampden.com).



LabView Screenshot



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