

PROCESS TRAINERS



Hampden
ENGINEERING CORPORATION



INSTRUMENTATION AND CONTROL TRAINERS

— SYSTEM CONTROL: H-ICS "X" SERIES —

— PROCESS CONTROL: H-ICS "T" SERIES —



The **Model H-ICS-FX** Flow Control Trainer is designed to provide complete instruction on the measurement and control of flow of energy. The rate of water flow is dependent on the position of the control valve and on the position of a hand-operated valve. ◀◀◀◀

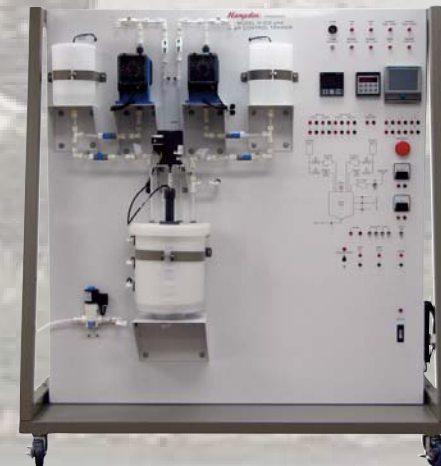
The **Model H-ICS-PX** Pressure Control Trainer is designed to provide complete instruction on the measurement and control of pressure. Pressure within the vessel is dependent on the speed of the pump and the open or closed position of hand valves that permit flowing water to bypass the pressure vessel. ▶▶▶▶

The **Model H-ICS-LX** Level Control Trainer is designed to provide complete instruction on the measurement and control of level. Tank level water flow is dependent on the position of the control valve and the rate at which water is allowed to flow (by gravity) into the tank. ◀◀◀◀

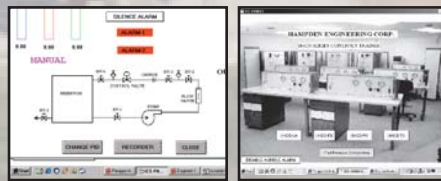
The **Model H-ICS-TX** Temperature Control Trainer is designed to provide complete instruction on the measurement and control of temperature. The temperature is dependent on the current through the heater and on the position of the solenoid-operated three-way valve. ▶▶▶▶



The **Model H-ICS-pHX** pH Control Trainer is designed to provide instruction on the measurement and control of pH. Students are able to learn how pH is produced and measured; how it is sensed, and how a voltage proportional to pH is transmitted. They are provided with the opportunity to calibrate a pH transmitter and to tune a control system to match the frequency response of the loop. The system displays measured variable, set point, and controller output on the same chart for visual evidence of the results of changing control parameters. ▶▶▶▶



The **Model H-ICS-X** Instrument and Control Interface Package and Program consists of the hardware and software necessary to control the Hampden series of ICS panels. This is a graphically-oriented program, with documentation, to permit computer control of the panel's controller. ▼▼▼▼



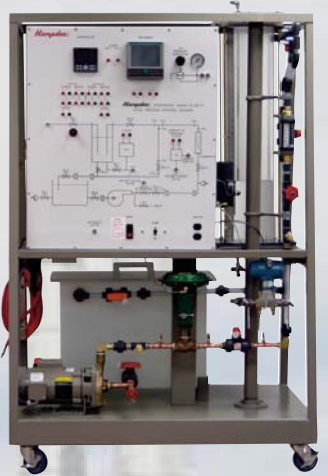
Sample Screens from Hampden's Model H-ICS-X Software



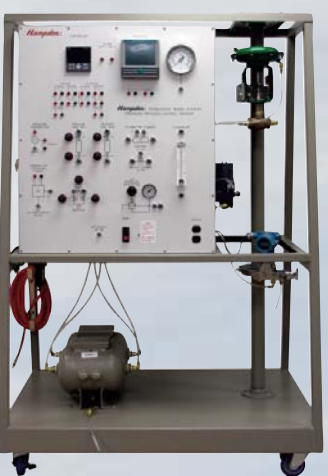
▲ The **Model H-ICS-FT** Flow Process Loop Trainer is designed to provide complete instruction on the measurement and control of flow.



▲ The **Model H-ICS-LT** Level Process Loop Trainer is designed to provide complete instruction on the measurement and control of level.



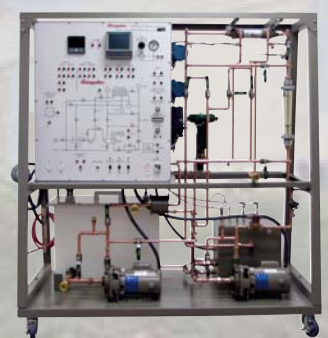
The **Model H-ICS-PT** Pressure Process Loop Trainer is designed to provide complete instruction on the measurement and control of pressure. ▼



The **Model H-ICS-TT** Temperature Process Loop Trainer is designed to provide complete instruction on the measurement and control of temperature. ▼



The **Model H-ICS-HET** Heat Exchanger Process Loop Trainer is designed to provide instruction on the measurement and control of temperature utilizing a heat exchanger or a SCR. Temperature can be monitored with (4) thermocouples or from the RTD. ▼



The **Model H-ICS-APT** Analytic Process Loop Trainer is designed to provide instruction on the measurement and control of pH, conductivity, and dissolved oxygen level as well as the temperature of water. ▼



The **Model H-ICS-pHT** pH Process Control Trainer is designed to provide instruction on the measurement and control of pH. ▼



The **Model H-ICS-FLT** Flow/Level Process Control Trainer provides students and trainees with the opportunity to learn both theory and "hands-on" practice of a flow and level instrumentation and control system. ▼



▶ **NOTE:** Instructor Insertable Faults are available as an option on the H-ICS-"X" Series when you specify **Model H-ICS-200**

▶ **NOTE:** Instructor Insertable Faults are included with the H-ICS-"T" Series

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

Hampden Engineering Corporation

ALSO FROM HAMPDEN.....

INSTRUMENTATION AND CALIBRATION CONSOLES



The Hampden **Model H-6485** Instrumentation and Calibration Console enables the demonstration of the principles of calibration and measurement of process instrumentation. After calibrating an instrument, it can be installed on a trainer and utilized in a real application.



The Hampden **Model H-6485-10** Instrumentation and Calibration Console consists of an instrumentation module and a work center (bench).



TAKE IT ON THE ROAD WITH HAMPDEN'S PROCESS CONTROL TRAILER.....



All the equipment in your trailer is tied down to keep it in place while you are on the move—



Don't have a training facility or the room for training equipment?

Take your classroom with you —

Open the doors and you are ready to get started teaching the newest in Process Control Technology from Hampden Engineering —



Hampden is committed to providing industry-leading technology.

For the latest from Hampden, visit our home page at <http://www.hampden.com> or e-mail us at sales@hampden.com

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