


HYDRAULIC & PNEUMATIC TRAINING SYSTEMS



**New!
DESIGN**
Real world Industry
standard
components

Optional faults for
skills assesment



Hampden[®]
ENGINEERING CORPORATION



HYDRAULIC & PNEUMATIC SYSTEMS

Industry Leading Products for Hydraulic/Pneumatic Training

Model H-FP-223-14 Hampden Hydraulic Trainer consists of a mobile bench, hydraulic pump, and selection of hardware mounted on a vertical panel. All hydraulics hardware is of commercial quality and configured for training purposes.

The following are mounted within the bench:

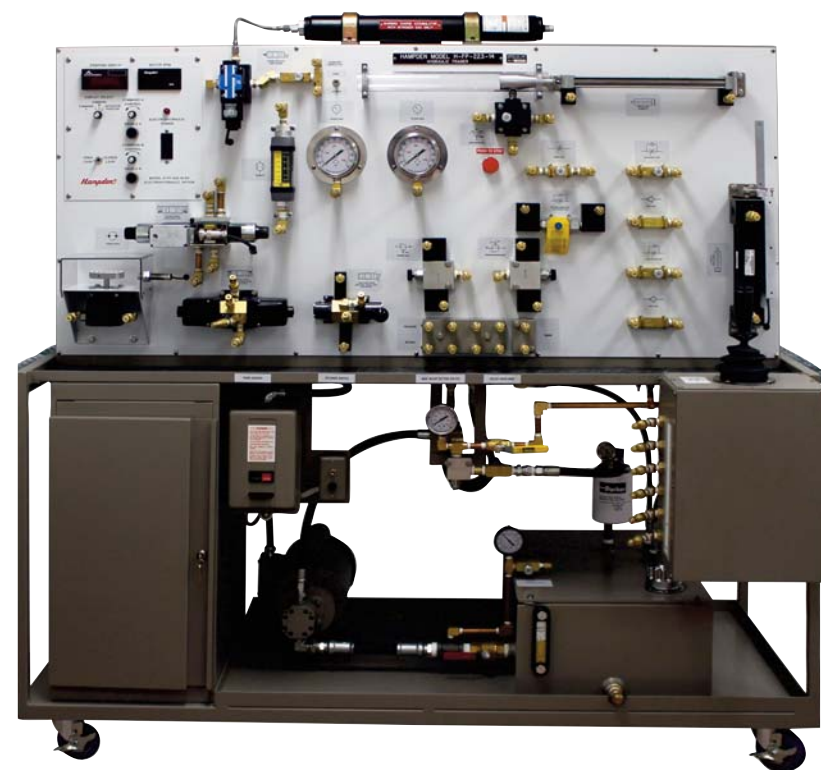
- LIQUID LEVEL GAUGE
- BALL VALVE
- NEEDLE VALVE
- PRESSURE RELIEF VALVE
- 3-GPM GEAR PUMP
- SOLENOID SELECTOR SWITCH
- 8 FOOT POWER CORD AND CORD RACK.
- ELECTRIC MOTOR w/VIBRATION AND ISOLATION MOUNTS
- 10 GALLON RESERVOIR WITH FILLER BREATHER CAP
- MOTOR STARTER SWITCH w/OVERLOAD PROTECTION
- THERMOMETER
- 10 MICRON FILTER
- PRESSURE GAUGE
- VACUUM GAUGE
- AERATION FILTER
- VENTING BALL VALVE

The following components are mounted on the panel:

- FLOW CONTROL VALVES
- NEEDLE VALVES
- PRESSURE GAUGES
- TEES
- HEADER FOR RETURN AND DRAIN
- PRESSURE REDUCING VALVE
- HYDRAULIC CYLINDER w/CLEAR TUBE AND TAPERED CAM
- HYDRAULIC MOTOR WITH LEXAN® SHAFT GUARD
- HOSES WITH QUICK CONNECT FITTINGS
- LEVER OPERATED 4-WAY DIRECTIONAL CONTROL VALVE
- PRESSURE COMPENSATED FLOW CONTROL
- SOLENOID OPERATED 4-WAY CLOSED CENTER DIRECTIONAL CONTROL VALVE
- CHECK VALVES
- FLOWMETER
- HYDRAULIC CYLINDER
- CROSS
- SEQUENCE VALVE
- DECELERATION VALVE
- HOSE RACK
- HEADER FOR PRESSURE

Optional Equipment—

- ▶ **H-FP-223-14-FP** Hampden Hydraulic Fault System Option
- ▶ **H-FP-223-14-P** Hampden Pneumatics Option
- ▶ **H-FP-223-14-PPS** Hampden Pneumatic Air Supply Option
- ▶ **H-FP-223-14-JS** Hampden Joystick Option
- ▶ **H-FP-223-14-EH** Hampden Electrohydraulics Option
- ▶ **H-FP-223-14-A** Hampden Accumulator Option
- ▶ **H-FP-223-14/15-CD** Software for Hydraulic and Pneumatic



H-FP-223-14
Shown with EH Option

H-FP-223-14-FP Optional Fault System



MODEL H-FP-223-14-FP
Hydraulic Fault System Option adds 8 two-way hydraulic solenoid valves and 10 instructor inserted faults (located behind a locked panel.)



MODEL H-FP-223-14-JS
Joy Stick Option with 4 fault switches.



Hydraulic Trainer — double sided



The Hampden Model **H-FP-223-14-JS** Joystick Option can be easily added to any existing Hampden **H-FP-223-14** Hydraulic Trainer.

The Hampden MODEL H-FP-223-15

Electro-Pneumatic Trainer consists of a wide selection of commercial grade electro-pneumatic hardware mounted to a vertical panel above a mobile bench which includes a lockable storage cabinet. A popular choice among educators because of the variety of configurations available for demonstration. Includes; tubing, tees, plugs, experimental hardware and courseware.

Optional Equipment

- H-FP-223-15-FP Pneumatic Fault System Option
- H-FP-223-15-PPS Pneumatic Air Supply Option
- H-FP-223-15-EPS Electro-Pneumatics Module Option
- H-FP-223-14/15-CD Simulator Software for Hydraulics and Pneumatics



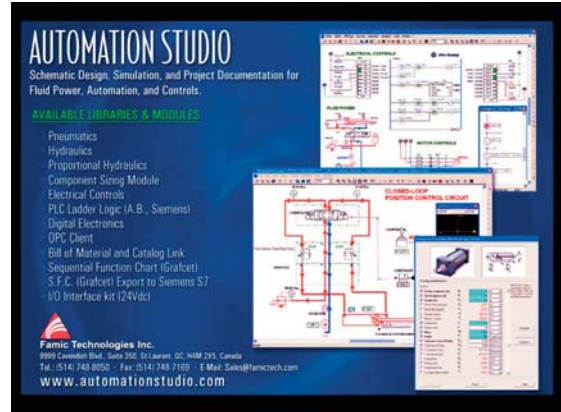
H-FP-223-15
Shown with FP Option, EPS Option and PPS Option

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

Industry Leading Products & Hampden Engineering Means Real World Experience for your Students!

Included Libraries

- Pneumatic Library
- Hydraulic Library
- Electrical Control Library
- PLC Ladder Logic Library
- Grafcet (SFC) Library
- Digital Electronics Library
- Bill of Material and Catalog Link Module



Automation Studio is a completely integrated software package that allows users to design, simulate and animate circuits consisting of various automation technologies including pneumatics, hydraulics, PLC's, Grafcet and electrical controls. Automation Studio is the ideal CAD and simulation tool for teachers, students and engineers.

With the new Allen Bradley PLC Ladder Logic Library of Automation Studio, students can now learn PLC automation in the classroom, simply and efficiently. The Automation Studio is compatible with most manufacturers software, enabling students to concentrate on the principles of PLC controls and not waste time learning another interface.

Training a workforce to compete in this rapidly expanding technology has become essential. Hampden Engineering Corporation designs and produces a family of hydraulic & pneumatic training tools specifically

tailored to every level of complexity, from introductory programs to advanced design and troubleshooting courses of study, complete with courseware. Our engineers can easily provide equipment modifications and designs per your specifications.

Hampden designs and manufactures industrial training tools for over five decades. We know how important an investment is. That's why all our hydraulic and pneumatic products, from basic tabletop modules to the more complex roll-around systems are designed to stand up to heavy-duty use while also providing excellent portability.



Hampden's **Modular Fluid Power Technology Program** is designed to demonstrate basic & intermediate hydraulic/pneumatic principles within a classroom environment. These modules are ideally suited to developing students' varying levels of accomplishment while also providing teachers with an easily expandible curriculum.

- **H-FP/BHS** Basic Hydraulics System
- **H-FP/IHS** Intermediate Hydraulics System
- **H-FP/EHS** Electro-Hydraulics System
- **H-FP/BPS** Basic Pneumatics
- **H-FP/IPS** Intermediate Pneumatics
- **H-FP/EPS** Electro-Pneumatics
- **H-FP/ESS** Electronic Sensor System
- **H-FP/HPS** Mobile Hydraulic Supply
- **H-FP/PPS** Pneumatics Air Supply
- **H-FP/H-6032** Mobile Hydraulic Bench



H-FP-HPS
Mobile Hydraulic Supply supports up to three hydraulic systems. ▲



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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