

Fluid Power Learning System

Educational Training Equipment for the 21st Century

Bulletin 223-15F

Hampden MODEL H-FP-223-15 Pneumatic Trainer

Purpose

The Hampden **Model H-FP-223-15** Pneumatic Trainer consists of a mobile bench, storage drawer, and a selection of commercial quality hardware, mounted on a 11 gauge white steel vertical panel, mounted on a frame of 14 gauge steel. Finished in instrument tan texture enamel.

The mobile bench is constructed of code gauge steel finished in satin black enamel with four swivel casters, two with locks. The bench top is of a pan construction with replaceable non woven absorbent mat. A storage shelf and provisions are provided for mounting the optional compressor.

The following components are mounted on the panel :

- Cylinder: Double-Acting Single Rod with CAM and clear plastic tube guard
- Cylinder: Double-Acting Double Rod with CAMS and clear plastic tube guards.
- Directional Control Valve: 4-way, 2-pos., 5-ported CAM operated spring return
- Directional Control Valve: 3-way, 2-pos. non-passing CAM operated spring return,
- Combination Air Line Filter, Regulator and Lubricator with pressure gauge. Adjustable from 2-125psi, manual drain.
- Manifold, 4-port
- Regulator, 2-125psi with pressure gauge.
- Directional Control Valve: 4-way, 2-pos., 5-ported, double remote air operated.
- Directional Control Valve: 4-way, 2-pos., 5-ported, dual pressure, double remote air operated.
- Directional Control Valve: 4-way, 2-pos., 5-ported single pressure, double remote air operated.
- Directional Control Valve: 3-way, 2-pos. remote pilot operated.
- Directional Control Valve: 3-way, 2-pos. hand lever operated, spring return.
- Directional Control Valve: 4-way, 2-pos., 5-ported hand lever operated, spring return.
- Graphic symbol tag for each panel mounted



Hampden **MODEL H-FP-223-15** (shown with **MODEL H-FP-223-15-EPS**, **MODEL H-FP-223-15-PPS** and **MODEL H-FP-223-15-FP**)
Dimensions: 66"W x 65"H x 28"D,
Weight: 500 lbs.

component.
Items stored in the plastic parts storage box are as follows:

- Check Valve: 1/4" ports - poppet type.
- Flow Control Valve: Needle type 1/4" ports.
- Quick Exhaust/Shuttle Valve.
- Exhaust Mufflers, Tees, and Plugs
- Tubing, thermoplastic 65Ft. 1/4"

H-FP-223-15-EPS Electro-Pneumatics Module Option

This package shall consist of a 16" wide, 28-1/8" high by 4" deep panel enclosure mounted to the pneumatic trainer.

Mounted on this panel shall be the following components:

- 2 - Pushbuttons with N.O. and N.C. Contacts
- 2 - Pilot Lights, 24V DC
- 1 - Selector Switch, Jog-Off-Run
- 2 - Relays, DPDT with 24V DC coil
- 1 - Relay, Time Delay, DPDT, with 24V DC coil
- 1 - Pressure Switch, SPDT
- 1 - Photo-Electric Switch
- 2 - Limit Switch with dustproof cover
- 1 - Solenoid Valve, 4-way, 3-pos., with 24V DC coil
- 1 - Solenoid Valve, 4-way, 2-pos., with 24V DC coil
- 1 - DC Power Supply, 24V DC @ 1.2A
- 64 - Hampden HR-1S Socket Receptacles
- 4 - Hampden PP-1 cords, 2-red and 2-black
- 4 - Hampden PP-2 cords, 2-red and 2 black

1 - Hampden Operating Instructions Manual

H-FP-223-15-PPS Pneumatic Air Supply Option

This unit consists of a 6 gallon compressor with high torque motor, regulator with gauge and auto-pressure setting. Motor has built-in thermal protection and includes an off-on switch.

Mechanical Ratings —

Shop Air: 10SCFM min @ 125psi max
*Electrical: 115VAC 10A

* Required if optional compressor is purchased.

H-FP-223-15-FP Pneumatic Fault System Option

This option adds 10 three-way pneumatic solenoid valves and 10 instructor inserted faults located behind a locked panel.

H-FP-223-15-PLC Programmable Logic Controller

Adds an Allen Bradley Programmable Logic Controller to the Electro Hydraulics Option. (Other PLC's available) includes H-LTCS lap-top controller and RSLogix Micro Software.

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



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Fluid Power Simulation Software

Educational Training Equipment for the 21st Century

Bulletin 223-16C

MODEL H-FP-223-14/15-CD Simulator Software for Hydraulics and Pneumatics

Purpose

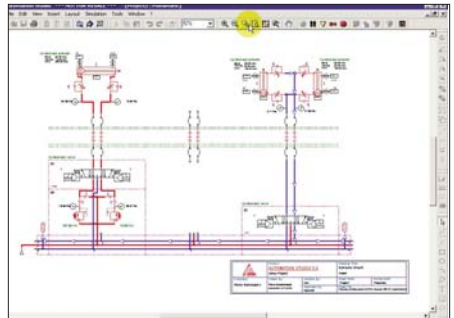
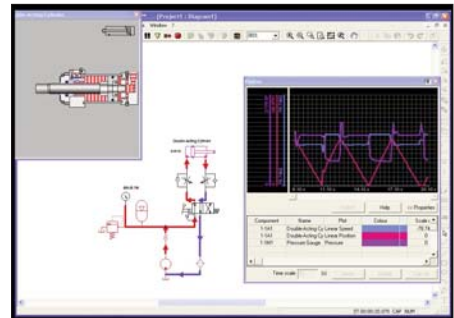
Famic Technologies Automation Studio provides schematic design, simulation and project documentation software suite for fluid power, automation, and controls. Utilizing the latest software tools, Automation Studio is a graphical, easy to use and intelligent system that makes it easy to assemble, test, and plot hydraulic circuits.

- Automation Studio was created for the automation industry, specifically to fulfill engineering, training, and testing requirements.
- Workshops associated with the software reflect the prevailing usage in the industry.
- The simulation utility is an efficient tool for the certification of automated processes and progress.
- All design tools are readily accessible in libraries within the environment.
- The software uses three main utilities; a Diagram Editor, a Project Explorer, and a Library Explorer.
 - The Diagram Editor allows users to create and simulate diagrams and generate reports.
 - The Project Explorer handles all file management and document classification associated with a simulation project.
 - The Library Explorer supplies the symbols necessary for the creation of diagrams which make up simulation projects.
 - Automation Studio uses a modular approach in simulations. Modules called workshops include component libraries which are used to create circuits, such as, hydraulic, pneumatic, and electric, etc. Components can be created by themselves or combined with other circuit types.
- Workshops complement the core system with documents which explain theory and the use of the software with exercises and examples.

Hardware Requirements

Windows® versions

Any hardware capable of supporting Microsoft Windows® 3.x graphical user environment, i.e., a system with an 80386 processor or higher and 2 MB RAM minimum.



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