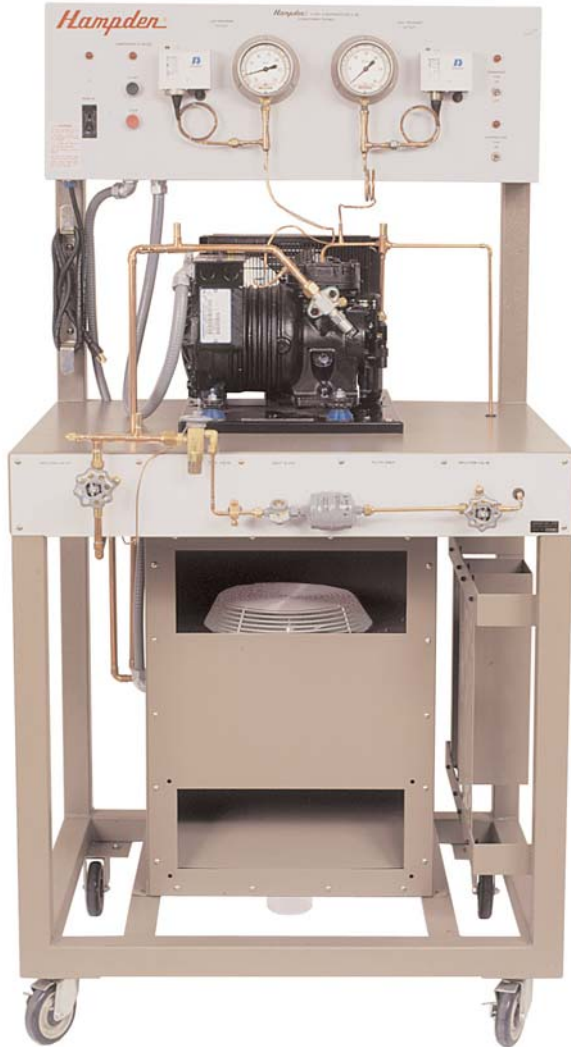


A/C & Refrigeration Training Systems

Educational Training Equipment for the 21st Century

Bulletin 234-2B

H-RST-5 Refrigeration and Air Conditioning Trainer



MODEL H-RST-5
Dimensions: 66"H x 34"W x 31"D
Shipping Weight: 575 lbs

Options

H-RST-5-CDL Refrigeration and Air Conditioning Trainer with Computer Data Logging package

Model H-RTS-1 Refrigeration Tool & Spare Parts Set

The Hampden **Model H-RST-5** Refrigeration and Air Conditioning Trainer is a thermostatic expansion valve (TEV) controlled refrigerating system which provides the basic facilities for studying the principles, mechanics and maintenance aspects of industrial refrigeration systems.

The **H-RST-5** consists of a mobile demonstration carrier with base and compressor mounting frame and an instrument/control panel. Gauges read evaporation and condensing pressures, while strategically located temperature wells permit temperature measurements. The lower portion of the workbench houses the evaporator with its fan, permitting the compressor to cycle based on evaporating pressure. The trainer is provided with faulted components which the instructor can temporarily install in place of the functioning components. The fault system includes: Air Flow Restrictor, Deflection Shield, TEV-Faulted Orifice, TEV-Faulted Screen, and Faulted Filter-Drier. The **H-RST-5** is R-22 based (optional R-134a) and is completely factory assembled and tested. It comes complete with operating instructions, a student experiment manual, and a teacher's manual.

Manual

A student manual includes the following topic areas:

- System Components
- System Operation and Performance
- Refrigeration Cycle
- Pressure Enthalpy Charts
- Compressors
- Refrigerant Control Device (TEV)
- Electric Circuits and Controls
- Pressure Controls
- System Charging and Servicing

Experiments

- Familiarization with the H-RST-5
- The Refrigeration Cycle
- Deflected Evaporator Air Flow
- Restricted Evaporator Air Flow
- High Pressure Protection
- Low Pressure Protection

Power required: 120V AC 1 ϕ 60Hz

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

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H-IMD-1 Ice Machine Demonstrator

Purpose

The Hampden Educational **Model H-IMD-1** Ice Machine Demonstrator demonstrates the principles, mechanics, and maintenance aspects of commercial ice machine systems.

Description

The unit consists of three sections: the ice cube machine, bin, and the control panel with six electrical and four mechanical programmable faults. The ice cube machine has an efficient vertical plate design with positive release harvest assist. The foamed-in-place polyurethane insulated head and fan pressure control maintains proper gas temperature to maximize freezing and harvest cycles. The bin provides support and ice storage for the ice cube machine. The control panel incorporates the educational modification including: electrical and refrigeration schematics, freeze cycle LED's and harvest cycle LED's, designed to assist the instructor in the operation and maintenance of the ice cube machine. The **H-IMD-1** can produce 200 pounds of ice per hour at 70°F air and 50°F water. Complete operating instructions are included.

Requirements

Owner-provided electrical, water, and drain hookups.

Power Required: 115V 1 ϕ 60Hz



MODEL H-IMD-1
Dimensions: 59"H x 30-1/8"W x 28"D
Shipping Weight: 320 lbs.



Dimensions: 7½"H x 19"W x 8½"D
Shipping weight: 40 lbs.

H-PRD-1 Potential Relay Demonstrator

The Hampden **Model H-PRD-1** demonstrates the function of a potential relay in the starting of a 240V compressor. A potentiometer is used to simulate the increasing speed of the motor during start-up. Pilot lights indicate when the start and run windings and the start and run capacitors are energized. Lamp brightness varies during the start period to simulate voltage variation. Four test jacks permit realistic voltage measurements at the potential relay. Input power is single-phase AC through a GFI circuit breaker.

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

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