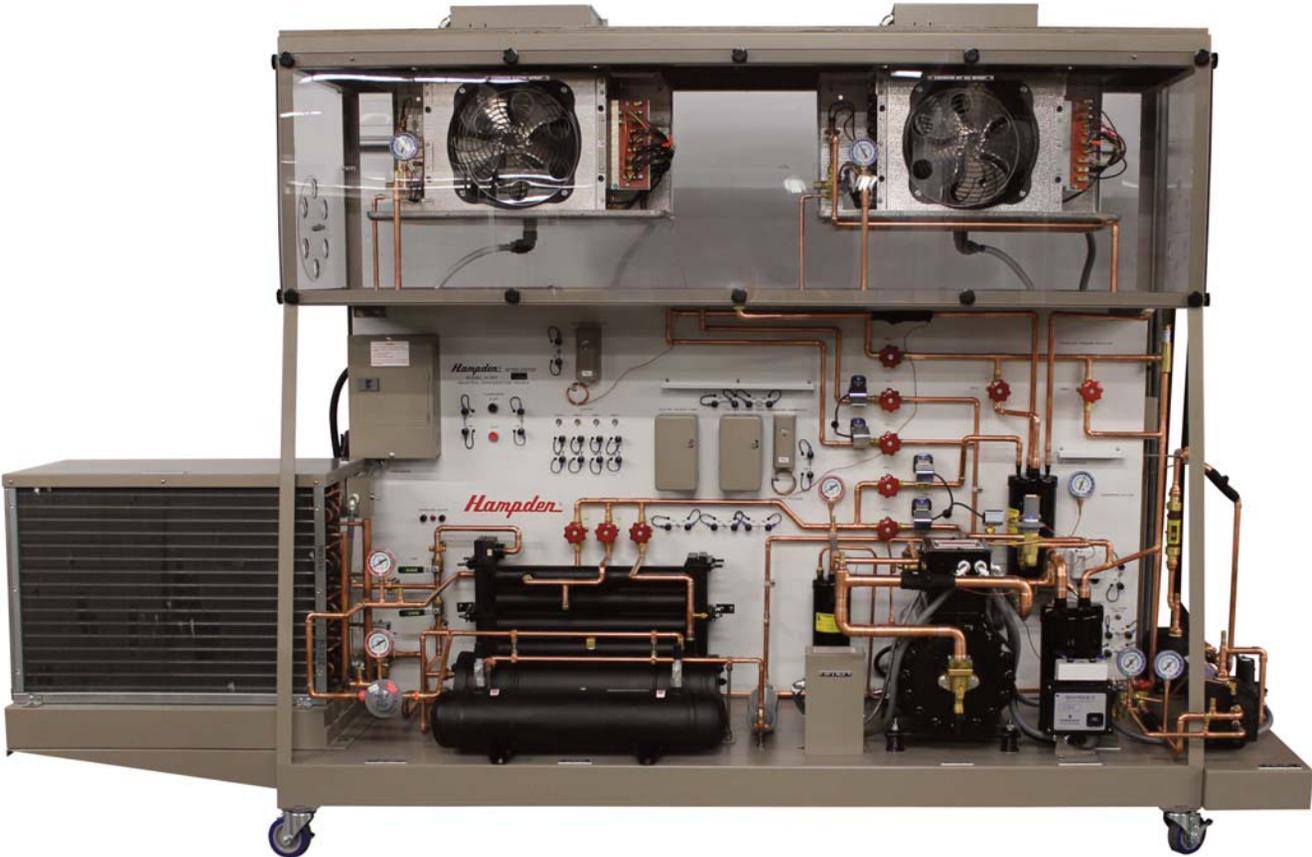


INDUSTRIAL REFRIGERATION TRAINER



Hampden[®]
ENGINEERING CORPORATION



H-IRT-1

The Hampden **Model H-IRT-1** Industrial Refrigeration Trainer consists of industrial refrigeration components completely factory assembled and wired. It is designed to provide training with larger commercial and industrial refrigeration systems which require water-cooled condensers (tube-in-tube and shell-in-tube), electric and hot gas defrost systems, cooling towers, hot bypass capacity control systems, crankcase pressure regulators, crankcase heaters and pressure pumps.

Options

H-IRT-FP-M Mechanical Fault Package

H-IRT-FP-18E Electrical Fault Package

H-IRT-ACC Third Condenser to expand training capabilities (Air Cooled)

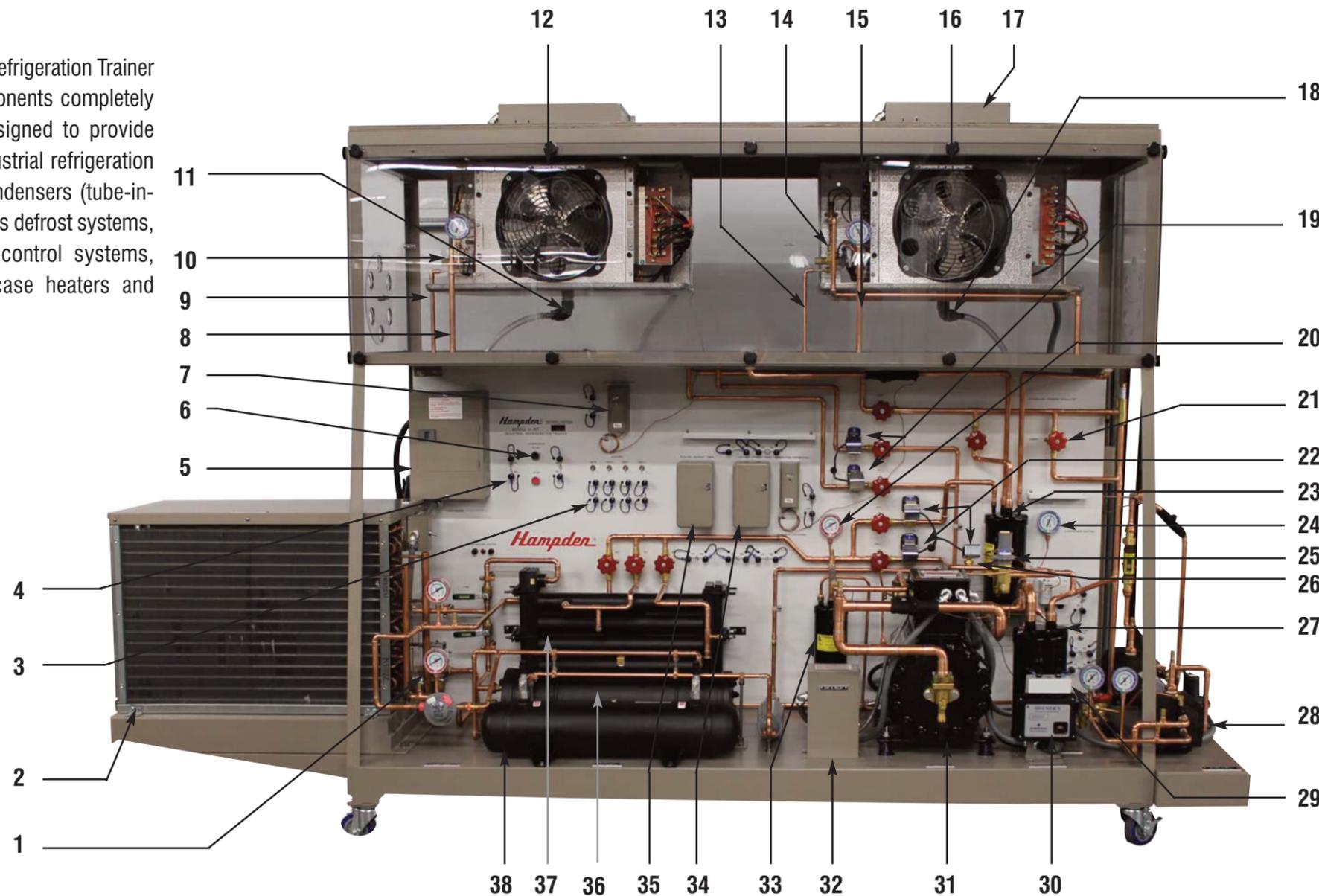
H-IRT-EC Evaporator Chiller, shell and tube type water chiller

H-IRT-1-CDL Industrial Refrigeration Trainer with Computer Data Logging package

H-ACTK-CT Water Cooling Tower

H-RST-DMB Digital Manifold with Bluetooth

Options must be specified at time of original order.



Lessons

The following lessons are included in the Hampden **Model H-IRT-1** Teacher's Manual:

- Properties of Matter
- Temperature and Heat Energy
- Refrigerants
- The Refrigeration Cycle
- Pressure-Enthalpy Charts
- Heat Transfer
- Refrigerant Oils
- Leak Detection
- Removing Refrigerant From a System
- Charging a Refrigeration System
- Liquid Control Devices-Thermostatic Expansion Valve
- Pressure Controls

Services Required

- 240/120V AC 1Ø 60Hz 35A with ground
- A source of flowing water
- A drain to sewer

Experiments

- Evaporator No. 1 with Tube-in-Tube Condenser No.1
- Evaporator No. 1 with Shell-in-Tube Condenser No.2
- Evaporator No. 2 with Tube-in-Tube Condenser No.1
- Evaporator No. 2 with Shell-in-Tube Condenser No.2
- Electric Defrost
- Hot Gas Defrost

- | | | | | | |
|--------------------------------|--|---|----------------------------------|--|----------------------------------|
| 1. Water Regulating Valve | 8. Evaporator #1 (Suction Line) | 14. Thermostatic Expansion Valve | 20. Compressor Discharge | 27. Suction Accumulator | 33. Oil Separator |
| 2. Air Cooled Condenser Option | 9. Evaporator #1 (Liquid Line) | 15. Evaporator #2 (Suction Line) | 21. Crankcase Pressure Regulator | 28. Evaporator Chiller Option | 34. Timer #2 (Hot Gas Defrost) |
| 3. Control Switches | 10. Thermostatic Expansion Valve | 16. Evaporator #2 (Hot Gas Defrost Unit Cooler) | 22. Solenoid Valves | 29. High & Low Pressure Cutout (Both Hidden) | 35. Timer #1 (Electric Defrost) |
| 4. Start/Stop Station | 11. Drain | 17. Load Heater Mechanical Fault Option | 23. Hot Gas Accumulator | 30. Oil Failure Control | 36. Condenser #2 (Shell-in-Tube) |
| 5. Load Center | 12. Evaporator #1 (Electric Defrost Unit Cooler) | 18. Drain | 24. Compressor Suction | 31. Compressor | 37. Condenser #1 (Tube-in-Tube) |
| 6. Compressor Starter | 13. Evaporator #2 (Liquid Line) | 19. Solenoid Valves | 25. Desuperheat Valve (Hidden) | 32. Cap & Relay | 38. Receiver |
| 7. Thermostat | | | 26. Discharge By-Pass Valve | | |

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

H-ACTK-CT COOLING TOWER



Front view



Back view



Side angle view

H-ACTK-CT

The Hampden **H-ACTK-CT** Cooling Tower provides a hands-on introduction to the principal components of cooling towers. The unit provides the student with the ability to assemble and troubleshoot the systems.

Enclosure: Steel with an Epoxy finish-mobile

Fan: 1/4 HP

Pump and Motor: 1/2 HP with thermal protection

Controls: Thermostat
Hi-Pressure switch
Disconnect switch
Float valve

Hardware: Galvanized pipe and fittings
Wire
Conduit or liquid type cable
Connectors
Fill connector
Hoses

Courseware: Correlated operations manual

Input: 208/220V AC, single phase
(Supplied by the H-IRT-1)



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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