HVACR system fundamentals

Copeland refrigeration certifications

NC3 and Copeland help shape tomorrow's workforce through certification programs, industry supported curriculum and hands-on training. Students receive classroom instruction on refrigeration system components and maintenance procedures.

PROGRAM OBJECTIVES

- Identify refrigeration system components and describe the role they play in system operation.
- Describe the role of refrigerant in a refrigeration system.
- Calculate superheat and sub-cooling.
- Recover refrigerant from a refrigeration system and perform a system evacuation.
- Charge a refrigeration system with refrigerant.
- Trace electrical circuits on a refrigeration system using a wiring diagram.
- Gather basic pressure, temperature and electrical system operating information from a working system.

PROGRAM OUTCOMES

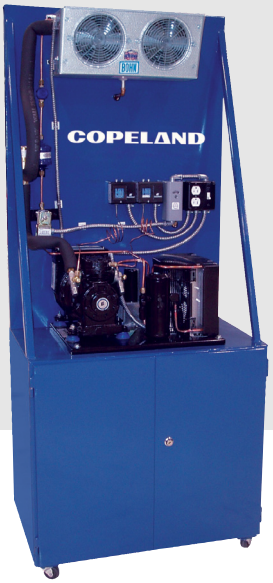
- Students that complete the HVACR System Fundamentals certification will demonstrate their understanding of electrical and mechanical operation of an HVACR system.
- Students that complete the Refrigeration System Electrical Operation and Maintenance certification will correctly perform system component wiring tasks.
- Students that complete the Refrigeration System Mechanical Operation and Maintenance certification will correctly perform refrigeration maintenance tasks including a replacing system filter drier, low-pressure control, valve plate, and compressor.

COURSE CONTENTS INCLUDE:

- Working with the Copeland Mobile app
- HVACR System Fundamentals and Best Service Practices
- HVACR System Components
- Compressor Fundamentals
- Refrigerants and Oils
- Refrigerant Recovery, Evacuation and Charging

HANDS-ON TRAINING

Students perform electrical and wiring tasks using a Copeland Refrigeration System Simulator.



COPELAND

Copeland is a proud partner of the National Coalition of Certification Centers. Copeland Certifications are developed and administered by NC3 (National Coalition of Certification Centers) and are compatible with other industry recognized certifications.

For more information, contact NC3 at nc3.net.