

Training Session

The Helix Innovation Centre



ATMO
sphere

business case

natural refrigerants

June 16 & 17, 2016 - Chicago



What is The Helix Innovation Center?

It is a building which will foster a environment for academia and industry collaboration. The Helix is dedicated to advancing research and education in heating, ventilation, air conditioning, and refrigeration technologies.

The Modules

The center will feature interactive real-world environments, or modules, designed to spur innovation and help advance the technology used in homes, commercial buildings, supermarkets, restaurants and data centers.



Residential
Connected
Home



Light
Commercial
Building



Data Centre
Thermal
Management



Food
Service
Operation



Supermarket
Refrigeration



Designed for Collaboration and Teaming





Features

- 2,000 sq. ft. home
- Fully operational kitchen & bathrooms
- Two complete air conditioning systems
- Environmentally controlled chamber

Temperature: -25 to 125 °F

Humidity: 20 to 90%



Features

- 34,000 sq. ft. commercial building
- Low flow fixtures enable reduction in water usage
- Energy monitoring
- Reflective roofing materials which negate surrounding temperature impact
- 211 tons of construction waste diverted from landfills
- Environmentally controlled chamber
 - Temperature: -20°F to 120°F
 - Humidity: 20 to 90%



Features

- 1,000 sq. ft. data lab
- 400 KW Load
- 250 KW Cooling Refrigerant
- 120 KW can be free cooling
- Temperature 41°F to 135°F
- 12 wireless rack sensors
- 1 in-row high density CRV
- Cdd Isle Containment
- Configurable venting
- 2 DAO85 with PRE Downflow
- 1 PDX029 Downflow



Features

- 1,500 sq. ft., fully functional, high-density kitchen
- Designed for modern American cuisine
- Capacity to serve 150 meals
- Independent temperature and humidity control
- Remote condensing equipment can be located in environment chamber
- Environmentally controlled chamber
Temperature: -25 to 125 °F
Humidity: 20 to 90%

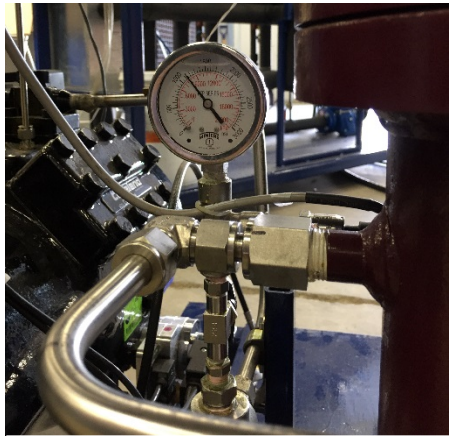


Features

- CO₂ Transcritical refrigeration system
- 2,500 sq. ft. Supermarket / C-store
- Independent humidity and temperature control
- Remote condenser located in environment chamber
- Environmentally controlled chamber
 - Temperature: -25 to 125 °F
 - Humidity: 20 to 90%
- Full System Integration; Refrigeration & HVAC



WEBINAR



R-744 & R-717 Training

- End Users, Contractors, Colleges, Consultants, Wholesalers, Utilities, Energy Managers, Internal Staff
- Types: (R744, R717, R290)
 - In Class Theory
 - Webinars
 - Hands On
- Industry Stewardship
 - Handbooks
 - “Did You Know” Social Media
- Training Centers Located Globally
 - U.S., Canada, Latin America, Europe, Australia, India, China..



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Thank you very much!