

Air Flow Properties & Measurements

Overview

This is a 4 Hour Continuing Education course designed to provide attendee with the Fundamentals of Air Flow Properties & Measurements. Course will be based on residential systems performance and personal comfort requirements.

This training will supply attendee with the knowledge of air properties, principles, & air behavior as they relate to providing comfort. Included, will be explanations on the various air measuring equipment used in our industry and the different techniques to verify efficient operation of HVAC equipment in a residential structure.

This course will provide the participant with the methods to analyze, diagnose, and provide real life solutions to common air flow problems. Also, the methods to balancing air flow in duct systems.

The Design work for all installed systems is the corner stone to provide energy efficiency and comfort for the customer.

Outline

- Personal Comfort
- Local Temperatures
 - Bin Hours
 - Balance Point
- Health Strategies
 - Pollutants
 - Microbials
- Air Laws (Specific)
 - Density, Volume, Heat, Humidity
- Heat Formulas
 - Sensible
 - Relative Humidity
 - Enthalpy
- Equipment Performance Formulas
- Air Measurement Units
 - Static, Velocity, Total, Pressures
- Air Measuring Equipment
 - Temperature Rise
 - Inclined Manometers
 - U-tube Manometers
 - Vane Anemometers
 - Flow Hoods
 - Hot Wire
 - Volume Air Balancer
- Duct Losses
 - Supply & Return Leaks
 - Measuring