

Ventilation, IAQ & Mold

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Topics

- Ventilation... The Good Bad & Ugly
- Ventilation Standards
- Measuring The Right Thing
 - Air Conditioning Control
 - CO₂ For Ventilation Control
 - Economizer Control

Ventilation The Good...

The Solution To Indoor Pollution Is Dilution

- Primary indoor quality tool that compliments source control & filtration
- Major Guideline: ASHRAE Standard 62.1
- Every non residential building has minimum requirements for outside air established by local codes
- Provides pressurization to stop outside moisture penetration in walls

Ventilation The Bad

- Ventilation is a major portion of heating and cooling cost
- Primary legitimate source of moisture inside buildings
- Standards may get much more complicated (ASHRAE 62.1)

ASHRAE Ventilation Standard 62.1

Pre 2001 - Simple

- Simple look up table (min of 15 cfm per person)
- Used in most current codes - 15 years

Post 2001 - Complex

- Rates now based on formula with many assumptions and inputs
- Based on minimum recommended rates reduced (3X)
- Part of design process split into ventilation for sources and ventilation for people... but
- Verification of intended design ventilation difficult
- Complexity protects engineering profession, and liability
- Unlikely to be incorporated into codes