

# ADVANCED HVAC EDUCATION & TRAINING



Leading the Industry in  
High-Performance HVAC™

Learn to Maximize Air Delivery and Overall Performance

## Commercial Air Balancing Certification Program

NCI's Commercial Air Balancing Certification program helps equip HVAC professionals with the knowledge and tools they need to balance commercial HVAC systems up to 20 tons, including kitchen exhaust and make-up air systems.

### **BENEFITS**

- Learn the basics, then step up to advanced, easy-to-understand air balancing measurements, testing static pressures, temperature, and airflows using plain English procedures and forms
- Increase sales and customer loyalty – add testing, adjusting, and balancing to your service offerings by integrating it into your differentiated service and maintenance approach
- Use air balancing techniques to identify and solve system performance issues, improve IAQ, and reduce energy consumption
- Use HVAC performance diagnostic techniques to identify and solve system performance issues, improve IAQ, and reduce energy consumption
- Establish yourself in your marketplace or your company as a true air balancing expert – the go-to professional to solve long-standing problems
- Sell highly profitable professional air balancing work at margins far beyond those available from typical service and equipment replacement
- If you're an on-staff engineer or technician, you can use air balancing and diagnostics to maintain your facility's comfort systems in peak operating condition.



# Commercial Air Balancing/Economizers and Kitchen Exhaust Systems

## Deliver High Quality Air Balancing Services and Professional Reports

An increasing number of HVAC and energy professionals are discovering the importance of testing and balancing their installations. Many are also recognizing the opportunity to provide independent balancing services. Additionally, more code officials, building departments, and utility programs are requiring certified balancing reports for both new construction and replacement/renovation work.

This class is also ideal for facility management professionals and on-staff service techs who need to test and balance systems within their plants and commercial facilities.

National Comfort Institute's completely updated 3-day program gives the HVAC professional a comprehensive

education on the airside testing and adjusting processes needed to maximize air delivery and overall performance. We start with the basics of pressure, temperature, and airflow testing, then build up to more complex air balancing techniques.

## Why NCI's Air Balancing Training is Different

Our air balancing training was created from the ground-up based on many years of actual field experience, practical NCI standards, and simplification of often complex engineering concepts and terminology. For example, this class will help you understand what fan laws do, how they work, and how using them to make pulley adjustments affects system balance. You'll also learn how to overcome the common obstacles you'll run into in the field while adjusting and balancing most commercial systems.

***NCI is the world leader in HVAC System Performance and Air Balancing training. We built the industry's best practices, processes and forms, and have been teaching them for nearly two decades!***

**Register now and discover the High-Performance HVAC™ Difference!**

**For more information, call 800-633-7058 or visit [NationalComfortInstitute.com](http://NationalComfortInstitute.com)**





## AGENDA:

### Day 1: The Key Elements of Air Balancing

- Commercial Air Balancing Overview
- NCI Commercial Air Balance Specification
- Estimating and Selling Balancing Work
- Preparing for a Balancing Project
- Static Pressure Testing
- Static Pressure Profiles
- Traversing Airflow
- Electrical and RPM Testing.

### Day 2: Balancing Principles, Techniques, and Reporting

- Fan Laws - Effects of Changes in Pulley Diameter, Static Pressure, Amp Draw and Horsepower
- Measuring and Adjusting Register and Grille Airflow
- Proportional Balancing
- Temperature Testing and Final Testing
- Publishing the Final Report
- Review ComfortMaxx™ Software.

### Day 3: Economizers and Kitchen Exhaust Systems

- Economizer Fundamentals
- Measure and Adjust Economizer Airflow
- Kitchen Exhaust System Fundamentals
- Kitchen Exhaust System Balancing and Reporting
- Exercises with ComfortMaxx™ software.

*The day concludes with NCI's exclusive Commercial Air Balancer certification exam (optional)*

### WHO SHOULD ATTEND?

HVAC Professionals, Engineers & Certified Air Balancers, Installers & Installation Managers, Facility Maintenance & Technicians, Service Managers.

### NCI's Training and Certification Packages Include:

- Course workbooks, Field Reference Guide, and other training materials
- Many useful NCI report forms and procedures
- Certificates and wallet cards upon passing certification exams and field testing
- 30 days of unlimited toll-free support.

**Deliver high quality air balancing services, and produce professional reports and documentation to differentiate your company from your competition!**

**LEARN HOW TO  
professionally  
air balance  
commercial  
facilities**



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## Who is NCI?

**National Comfort Institute, Inc. (NCI)** is the world leader in HVAC System Performance and Air Balancing training. We created the industry's best practices, processes, and forms and have been teaching them for decades.

What makes NCI's approach different? We show you how to thoroughly test and diagnose the system using practical, easy-to-follow methods so you'll know exactly what to do to provide your customers with optimum comfort and energy efficiency.

NCI coined the phrase "High-Performance HVAC™", a unique approach to managing a contracting business through accountability and measurable results. During the past two decades, NCI has trained and certified more than 30,000 HVAC industry professionals. For more information about NCI, please call 800-633-7058 or visit [www.nationalcomfortinstitute.com](http://www.nationalcomfortinstitute.com).

### **Additional Educational Opportunities from NCI:**

- Residential HVAC System Performance & Air Balancing • Hydronic Testing, Adjusting, & Balancing
- Large Commercial Balancing (National Balancing Council) • Airflow Testing & Diagnostics Implementation
- Combustion Performance and CO Safety • Commercial HVAC System Performance • Duct System Optimization
- NCI Online University.



Scan the QR Code  
to Learn More  
and Register



Courses Qualify for:  
NATE, BPI & Most State CEUs