

# ADVANCED HVAC EDUCATION & TRAINING



Leading the Industry in  
High-Performance HVAC™

## Test and Improve HVAC Systems

# Duct System Optimization & Air Balancing Certification Program

Do you want to provide your customers the very best comfort and energy efficiency, and a safe and healthy indoor environment?

It's a known fact that typical air distribution systems across North America lose, on average, 43% of an HVAC system's efficiency.

Your customers don't have to live with these substandard systems. Now you can provide real solutions!

## **BENEFITS**

- Identify customer comfort issues using NCI's Comfort Survey, then provide optimized solutions
- Learn how to test and diagnose air distribution systems and uncover upgrade opportunities
- Accurately estimate room airflow and pinpoint duct system deficiencies
- Use live measurements to select fans, coils, and filters
- Close more duct renovation sales using NCI's exclusive tools and techniques. Explain to customers what you're doing in a simple, easy-to-understand manner
- Produce a renovation you can prove works using a final test-out
- Increase revenue and profitability by offering professional in-house balancing services that far exceed the average service and equipment replacement margins
- Improve your ability to comply with new, tighter local, state, and federal building codes and energy requirements
- Reduce system performance issues and energy consumption while improving comfort, IAQ, and customer satisfaction
- Establish yourself as the go-to professional to solve long-standing problems.



# Duct System Optimization/ Residential Air Balancing

## Learn how to deliver high quality, profitable duct system renovations that really work!

Set yourself apart from competitors by knowing how to optimize a duct system so it delivers the heating and cooling the equipment was designed to provide.

The process begins with a comprehensive evaluation of the existing duct system design, equipment sizing, followed by verification of real-time performance – not simulations.

You will then learn how to uncover air distribution upgrade opportunities to deliver the highest quality, comfort, and performance your customers want and are willing to pay for.

## Residential Air Balancing

Provide certified Air Balancing on your installations with this additional day of training and certification:

- More HVAC and energy professionals are discovering the importance of testing and balancing their installations for maximum system comfort and efficiency
- Many building departments and utility programs now require balancing reports
- Your ability to air balance your customers' HVAC systems will keep you ahead of the competition!

## Agenda:

### Day 1: Introduction to Air Distribution Upgrade

- Why you should upgrade a duct system
- Three steps to uncover air distribution upgrade opportunities
- Use static pressure to identify duct system restrictions
- Determine fan capacity and fan airflow
- How to generate customer interest

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

**For more information,  
call 800-633-7058 or visit  
NationalComfortInstitute.com**





- Show your customer how a balancing hood can help identify airflow issues in problem areas
- How to create a floor plan and duct schematic
- Document visible defects and needed changes
- Establish airflow requirements
- Estimate room airflow.

## Day 2: Optimize the Duct System

- How to use fan capacity and fan tables
- Coil selection and filter sizing procedures
- The importance of proper airflow
- Debunk common airflow assumptions
- Understand how air moves through duct
- How to select the best duct fittings
- Envision the ideal air distribution system
- Duct renovation overview
- How to select the right registers, grilles, and diffusers
- Choose proper placement of registers grilles, and diffusers.

***The day concludes with NCI's exclusive Duct System Optimization certification exam***

## Day 3: Testing & Balancing Residential Systems

- History and purposes of balancing
- Performing an airflow traverse
- Preparing for a balancing project
- Setting fan airflow
- Air test and balance procedures
- Using an air balancing hood
- Overcoming balancing obstacles
- Final testing and documentation.

***The day concludes with NCI's exclusive Residential Air Balancing certification exam***

## Who benefits from this training?

- Service and Maintenance Technicians
- Owners and Managers
- Installers
- Service and Installation Managers
- Salespeople and Sales Managers.

**Enhance your company's professional reputation with NCI's exclusive Duct System Optimization Certification. Establish yourself as the true HVAC distribution system expert in your market.**

**LEARN HOW TO  
deliver profitable  
duct system  
renovations that  
will delight your  
customers!**



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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 • NCI Online University



Scan the QR Code  
to Learn More  
and Register



Courses Qualify for:  
NATE, BPI & Most State CEUs