

## Putting Ourselves to the Test.

“Design. Test. Certify.”

This statement encapsulates our engineering and testing services commitment to the ventilation industry and our supporting role in achieving our company’s **mission**:

*“To be the market leader in the development of quality air moving and control equipment.”*

Our goal is to provide the intellectual knowledge, state-of-the-art test labs and cutting-edge design tools to transform ideas into reality.



### Contact Us Today

For more information on Greenheck engineering and testing services, our company and our products, contact your local rep or visit our Web site.



*Advanced technology and expert staff place Greenheck at the industry’s forefront in product development and testing.*



Prepared  
to Support  
Green Building  
Efforts

**Greenheck**

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Centrifugal & Vane Axial Fans | Fans & Ventilators | Energy Recovery Ventilators  
Make-up Air Units | Kitchen Ventilation Systems | Dampers | Louvers | Lab Exhaust Systems

## Greenheck Engineering

Design. Test. Certify.



 **GREENHECK**  
Building Value in Air.

## Design.

### Innovation Leading the Industry Forward.

Our engineers continuously develop and introduce new and redesigned product solutions based on the input they receive from hundreds of

manufacturer sales representatives around the world who listen carefully to what their customers need. Today's most advanced computer modeling and testing capabilities ensure that our products offer more efficient performance and easy, lower-cost installation. Whether it's developing compact fans with the lowest sound

levels and highest efficiencies, kitchen exhaust systems that trap more grease, advanced energy

recovery ventilators, or more effective lab exhaust systems, Greenheck engineers always have one goal in mind: deliver value that exceeds their

customers' expectations.

*Finite element analysis image showing blade stress distribution.*



*Wheel Failure Test*



*Fatigue Blade Cycle Test*

## Test.

### Performance Assurance.

Product testing and qualification play a major role in Greenheck's heritage and success. Rigorous testing conducted in world-class laboratories ensure that all of our designs and purchased parts meet the quality standards that our customers have come to expect from us.

Our real-life, in-house, testing procedures measure aerodynamic performance, sound levels, structural integrity, mechanical operation, environmental impact, temperatures, vibration levels and more. Fans are put through air and sound testing; louvers are tested for water penetration and pressure drop. Dampers are scrutinized in fire life safety testing.

In addition to performance testing, we put our products through rigorous structural testing. Fans, dampers and louvers are put through life tests and cycle tests. Components such as belts, pulleys, bearings and motors are also life tested. Motors are stressed in overload and over/under voltage tests, while bearings go through extensive L10 life verification tests.

## Certify.

### Making the Grade.

We take pride in being a leader in testing capabilities and capacity. Because we test our products so extensively, Greenheck is able to offer more products with certifications from AMCA, UL, ETL, CSA and ULc than any other manufacturer in our industry. We also maintain three in-house third-party registered air chambers and a registered sound-testing facility. These third-party certifications ensure our products fulfill our customers' expectations.



*Strain gage on axial fan aluminum hub.*



*A laboratory exhaust fan undergoes air performance analysis.*

## Engineering Services

### Product Development

- Air Performance Testing
- Sound Performance Testing
- Product Development Prototyping & Training
- Structural Testing
- Overspeed Testing
- Endurance Testing
- UL/ETL Temperature Testing
- Hurricane Testing
- Finite Element Analysis (FEA)
- Computational Fluid Dynamics (CFD)

- Modal Testing
- Fatigue Testing
- Motor Testing
- Actuator Testing

### Sales and Marketing Support

- Customer Tours
- Show Samples
- Customer Training
- Witness and Factory Acceptance Testing
- Field Problem Analysis and Correction