# **Quality Profile**

**Certificates and Awards** 



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Greenheck, the leading manufacturer of commercial and institutional ventilation equipment, has come a long way since 1947 when it opened for business as a tiny sheet metal shop in Schofield, Wisconsin.

The Greenheck story is one of continuous growth over 72 years. The company changed in many ways to meet the challenges of evolving market expectations and the realities of global competition. Today, Greenheck is the market leader and had net sales of \$880 million in fiscal year 2020. Greenheck offers the broadest array of products in its market segments.

We employ 2,262 employees here in Wisconsin and have a total worldwide employment of 3,791, with over 2.9 million square feet of manufacturing and office space with facilities in Schofield, WI; Frankfort, KY; Tulsa, OK; Sacramento, CA; Kings Mountain, NC; Shelby, NC; Saltillo, Mexico; and Bawal, India. We also have distribution centers located in Schofield, WI; Greensboro, NC; Miami, FL; Dallas, TX and Sacramento, CA.

# **Product Description**

Greenheck products are known for quality all around the world. Our diverse product line includes commercial and industrial fans, dampers, fume and laboratory exhaust, make-up air units, energy recovery ventilators, DOAS, KVS, and dampers. You don't see many because each is most often found behind walls and ceilings or on the roofs of office buildings, hotels, shopping malls, schools, industrial plants, and other commercial buildings.

Greenheck has earned a quality reputation in the industry. We have aggressively taken market share from the competition in each of our product lines.



# **Management Philosophy**

Greenheck's management philosophy is to establish and communicate a clear vision and set of values and then live them. Our Vision, Our Purpose and Statement of Corporate Values focus on the partnership between our employees and business partners.

### **Greenheck Vision**

To be one of the most revered companies in the worldwide HVAC industry, respected for outstanding product quality, market-leading innovation, superb customer service and insight, and a results-oriented, entrepreneurial culture.

### **Greenheck Purpose**

To operate profitable businesses focused on delivering the most effective and efficient products, services, and systems to ensure air quality and comfort in the world's buildings.

# **Statement of Corporate Values**

Greenheck employees believe in and practice our core values. We continually strive to encompass and conduct day-to-day activities on the following:

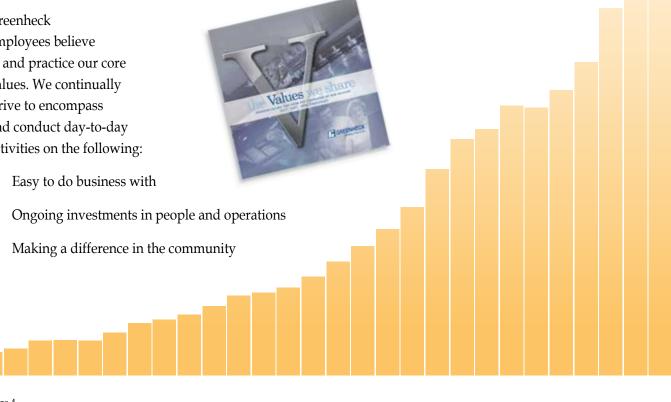
- Easy to do business with
- Making a difference in the community

- Mutually beneficial relationships with sales partners and suppliers
- Integrity and professionalism
- Continuous improvement through learning, innovation and teamwork

### **Financial Growth and** Consistency

Greenheck has enjoyed a history of continuous success and a strong financial position.

During the past decade, Greenheck has aggressively taken market share from the competition in each of our product lines. This has been accomplished by accelerating new and redesigned product introductions, expanding sales channels and improving channel effectiveness, and growing international business.



### **Customer Focus**

Greenheck believes in supporting our employees and our business partners. It is our belief that we cannot be successful without each other. A key business partner is our manufacturer representative. The majority of Greenheck's annual sales are generated through manufacturer representatives.

Our key strategies are developed to help them sell more products and capture market share. However, developing new and redesigned products is only one step in the process. Education and training is another key element to our success and our manufacturer reps' success. We have two resources available to assist in training.

### **Education Center**

Greenheck has two Education Training Centers, one located in Schofield, WI and one in Saltillo, MX. The Bernard A. Greenheck Education Center in Schofield is comprised of 39,000 square feet showcasing Greenheck and Accurex air movement, conditioning and control products. It provides customers and our business partners with an opportunity to learn about important product features and applications by viewing simulated and virtual installations as well as working product displays. The education center serves as an ideal training site for manufacturer's reps and customers, hosting over 2,000 global guests each year.

The final touches of the Saltillo, MX education center were completed in 2016. While not as extensive as the Schofield facility, it is used for the same purposes listed above. Plans area underway to expand the education center concept to our new campuses in Oklahoma and North Carolina.

### **Computer Aided Product Selection Program**

Greenheck's Computer Aided Product Selection Program (CAPS®) is more than a computerized selection program. It includes product descriptions, application information, dimensional drawings and detailed product performance for all products, as well as Revit® and AutoCAD® drawings for many products.

CAPS provides complete menu-driven support for our fans and ventilators, centrifugal and vane axial fans, energy recovery ventilators, make-up air units, kitchen ventilation systems, dampers and louvers.



### **Greenheck Enterprise Management System (GEMS)**

Greenheck has long realized that a key to manufacturing success is utilizing a stateof-the-art global technology platform. Since 2005, SAP has been the foundation for running our global



operations. However, implementing SAP was only the beginning of our journey and we have continued to look for ways to leverage and expand our investment in ways that create competitive advantages. Beyond the Enterprise Resource Planning (ERP) capabilities in core SAP, we have expanded the SAP footprint to enable technology in Business Intelligence and Reporting, Manufacturing Intelligence and Integration, Product Lifecycle Management, Financial Supply Chain

Management, Human Capital Management, Supply Network Collaboration and Supply Chain Management.



Since completing the implementation, SAP has helped us with key initiatives:

- Improve our customer service
- Provide the opportunity to redefine and redesign our business processes to make them more consistent and efficient

- Support operational excellence
  - Supply chain management
  - Lean and synchronized manufacturing
  - Manufacturing pull system Kanban
- Support the realization of our field-to-factory vision where a customer can place an order in the field and have it flow seamlessly through our factories with little to no manual intervention
- Allow for sales channel expansion
- Have a vended technology solution vs. an in-house developed system
  - Leverage best practice technology
  - Take advantage of regular improvement and enhancements
- Support our business unit structure
  - Multiple plants
  - Multiple distribution centers
- Support international growth
  - Operate in multiple currencies
  - Support multiple time zones and calendars
- Allow for assimilation of acquisitions into the company.

### Leadership in Manufacturing

Greenheck has been on a Lean journey for over 18 years. In May 2002 Greenheck deployed The Greenheck Performance System (GPS), an operational excellence strategy modeled after the Toyota Product System. Throughout the past 18 years, value-added results have been achieved both on the shop floor and in the office.

GPS empowers people to make improvements through:

- 1. Employee involvement
- 2. Accelerated gains throughout the organization
- 3. Reduced costs by eliminating non-value added activities
- 4. Improved competitiveness.

GPS has five primary strategies designed to eliminate waste, drive significant bottom-line improvements and increase quality. The overall goal is to achieve operational excellence.

These strategies are:

- 1. Lean Supply Chain
- 2. Design for Excellence
- 3. Maintenance Excellence
- 4. Business Process Excellence
- 5. Lean Enterprise.

#### **Engagement, GPS Tools and Results**

Our continuous improvement strategy engages all employees by implementing a top down, bottom up model. GPS has been a natural fit in our culture to



quickly drive process improvements by utilizing the tools at all levels.

The execution of GPS tools is layered at multiple levels. The top level utilizes the Value Stream Mapping (VSM) process to identify and prioritize breakthrough initiatives.

The next level or large-scale project level, utilizes the Champion Project as a means to accomplish the strategic breakthrough initiatives. Individuals are selected by management as a leadership development opportunity to learn a new mindset and implement significant change in a particular area of the company (factory or office). Other levels engage all employees by providing the opportunity to participate in implementing improvement ideas through the use of Pit Stop Events (Kaizen Events), Quick Fixes, Daily Management, and 5S+1, which includes Safety.

#### Value Stream Mapping

GPS started as a Lean program designed to eliminate waste from our processes, but it continues to grow and evolve. One of the most successful additions to this toolset is the Value Stream Mapping process. A value stream map is a simple tool that visually represents the flow of material and information; specifically highlighting waste in the process. However, the underlying philosophy of value stream mapping is how Greenheck approaches continuous improvement through consensus and collaboration. It enables groups to see and understand the big picture as a team. This process drives the direction and communication to business units and functional areas for implementation utilizing lean concepts and techniques.

#### **Champion Projects**

Champion Projects is a GPS tool used to execute the large-scale business, functional or corporate strategic objectives. Applicants, nominated by their business area and chosen by the GPS core team, participate in a wave training format. GPS wave training consists of full week or partial-week training sessions over a fourmonth period. The training weeks are a combination of existing GPS Lean Training required for Champion certification and hands-on activities and pit stops to jumpstart each Champion's lean project.

Following the formal training, each Champion is expected to implement a pre-identified Lean project. They must also lead at least four Pit Stop events and report out on the project results that demonstrate understanding and application of the Lean tools. Typical Champion Projects take 6-18 months to complete and are often focused around the improvement of a specific business process or value stream.



There have been 108 GPS Champions certified since 2002, of which 80 are still currently employed at Greenheck. They play an important role in their normal job duties as mentors and coaches to others in their respective departments.

#### **Pit Stop Events**

All employees, suppliers and even customers can participate in process improvements for the organization. Greenheck uses "Pit Stops," traditionally known as Kaizen events, to drive improvements and engage cross-functional teams in continuous improvement. A Pit Stop event is typically three to five days in length and has substantial visual and measurable improvements.

#### **Quick Fix Events**

Greenheck developed a "Quick Fix" program in 2008 that provided an alternative way to achieve substantial results with limited time commitment. It's a way employees can make a change in their area, usually focused on improving smaller scale 5S, safety, material flow or process flow. Quick Fix events are typically one day in length or less.

#### **Daily Management**

Daily management is a continuous process that measures performance, assigns and tracks issues, and increases communication at all levels of the plant, even across shifts. There are four core aspects that each board will represent. They are People, Quality, Delivery, and Cost in that order of importance.

This rapidly identifies any deviation from target that enables every employee to be involved in the process and be equally responsible for taking necessary actions to quickly correct a problem and restore the expected level of performance.

#### 5S + 1

The foundation for creating and maintaining a clean, safe, orderly, high performance work environment is

through the 5S+1 program. The origin is from Toyota where the five Japanese words that are translated to English start with "S."

- 1. Sort
- 2. Set
- 3. Shine
- 4. Standardize
- 5. Sustain.

The "+1" is for Safety. It requires involvement, creativity, and commitment of the people who work in a particular area.

While the toolbox continues to expand, the four guiding principles behind GPS remain the same. Employee engagement, accelerated gains, reduction in costs and improved profitability continue to drive our focus on continuous improvement. Ultimately, it's not the tools or training that make the difference – it's the people and culture that will drive results that will continue to make Greenheck a successful company.



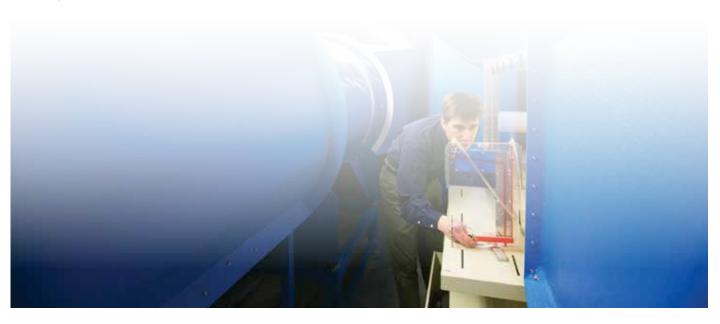
### **Research and Development Leadership**

Emphasizing product research and development directly correlates with two of our key strategies accelerate new and redesigned product introductions, and invest in state-of-the-art manufacturing equipment and technology. Greenheck has developed and maintains state-of-the-art testing laboratories. The laboratories are used to develop new or redesign existing products while addressing energy efficiency, indoor/outdoor air quality, noise, safety, and reliability concerns.

Greenheck opened the doors of a new 72,000 square foot state-of-the-art research and testing facility named the Robert C. Greenheck Innovation Center in 2015. The facility incorporates sound, airflow measurement and psychrometric labs, product prototyping and dedicated space for developing and fine-tuning manufacturing processes. It also includes office space to support our technical employee growth and foster an environment for collaboration and innovation.

Greenheck's on-site testing laboratories have established the company as the industry leader for testing to the latest versions of AMCA, ANSI, ASHRAE, UL and other industry standards of performance. Greenheck has five air performance test chambers and a reverberant room facility that is one of only 19 labs worldwide accredited by AMCA for testing sound levels of fans.

Greenheck personnel have been very instrumental in using testing knowledge to advance industry standards and regulatory codes. Our engineers are involved with several trade associations and participate in writing their construction codes and standards. These standards specify how data is to be obtained and uniformly presented to the public. Greenheck recently worked with educational facilities and trade associations to develop standardized testing methodologies to determine the grease extraction efficiency of filters. This effort has created patented technology to reduce grease emissions and minimize potential for restaurant fires.



### What is AMCA?

AMCA, the Air Movement and Control Association, International, is an international nonprofit trade association serving industry and the public. One of AMCA's most important functions is operating its Certified Ratings Program. In support of this program, AMCA maintains an independent product performance-testing laboratory.



### What is the purpose of AMCA's Certified Ratings Program and what kinds of performance are certified?

AMCA's Certified Ratings Program provides the buyer, specifier and user of air movement and control devices assurance that the published performance ratings are reliable and accurate.

Air system components can have performance ratings certified for:

- Air performance
- Air leakage
- Sound
- CFM/watt
- Water penetration

#### What types of products are covered by the **Certified Ratings Program?**

AMCA's Certified Ratings Program include performance ratings for:

- Fans
- Air curtain units
- Evaporative coolers Ventilators
- Louvers
- Blowers • Shutters
- Dampers

#### How does AMCA's Certified Ratings Program work?

- 1. Manufacturers must submit units for testing in AMCA's independent laboratory. All tests are conducted in accordance with national or international test standards.
- 2. Manufacturers' published ratings are verified for accuracy. Before catalogs containing the Certified Ratings Seal can be published, they are reviewed and approved by AMCA's engineering staff.
- 3. Additional laboratory tests are conducted every three years to assure continual conformance.

#### How is potential liability exposure affected?

By specifying the AMCA Certified Ratings Seal, specifiers, designers and others can be relieved of certain liability problems, and other legal entanglements frequently encountered in today's litigious climate. Selection of equipment supported by an independent Certified Ratings Program can greatly assist a specifier in demonstrating that "due diligence" was exercised in selecting equipment, and that reasonable steps were taken to assure that performance guarantees is met.

#### Who is eligible to participate in AMCA's **Certified Ratings Program?**

Any person, firm or corporation engaged in the business of manufacturing air movement and/or control devices - primarily fans, louvers, dampers and related air systems equipment - is eligible and encouraged to participate in AMCA's Certified Ratings Program. There are four ways to know if a product's published performance ratings are certified:

- 1. Visit AMCA's website www.amca.org/ certified/search/company.aspx
- 2. Manufacturer's catalogues will identify products having their performance ratings certified under AMCA's Certified Ratings Program.
- 3. Products with their performance certified will have the AMCA Certified Ratings Seal affixed.
- 4. Phone AMCA's Worldwide Certified Ratings Programs Department at +1-708-394-0066 for online updates.

### The AMCA Certified Ratings Seal is your best assurance of performance.





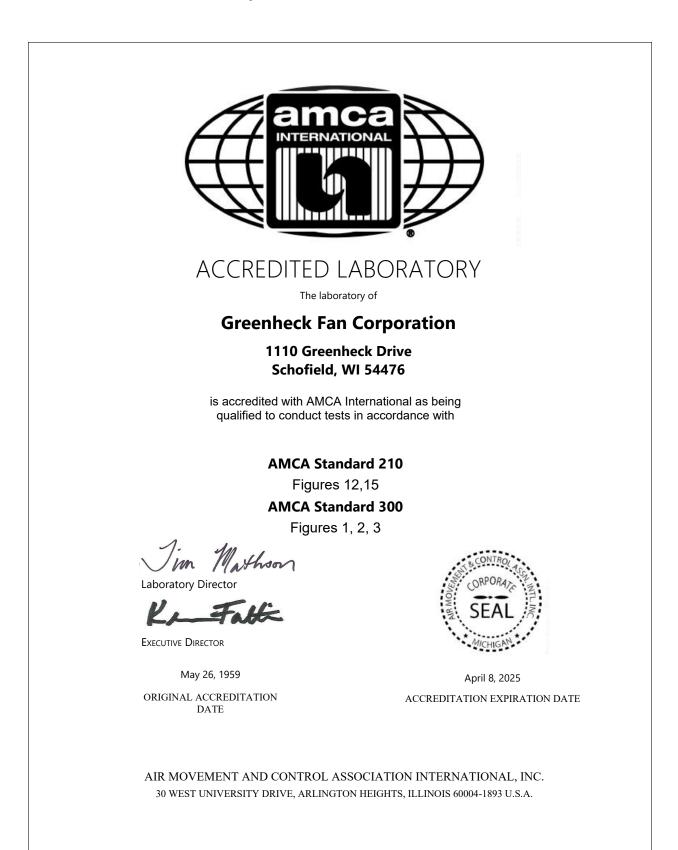


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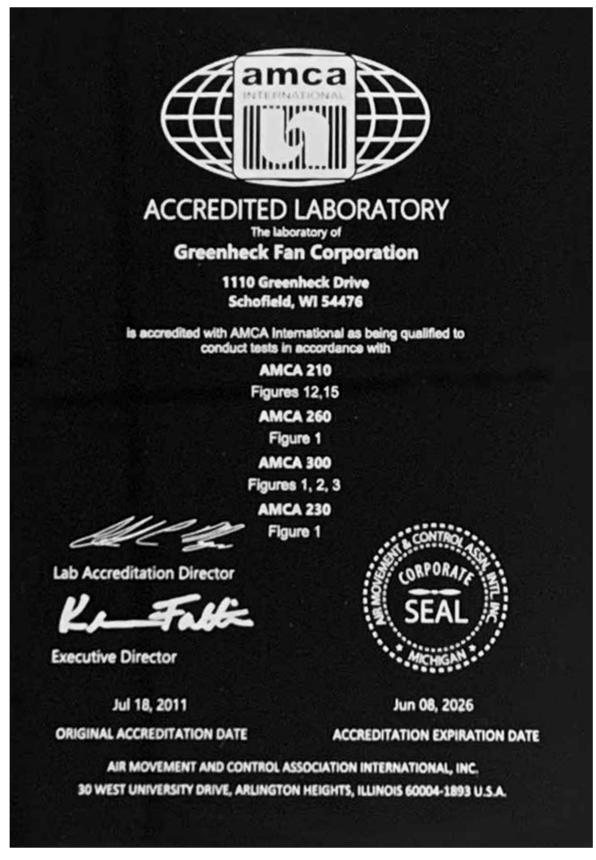


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### AMCA Accredited Laboratory - 1110 Greenheck Drive

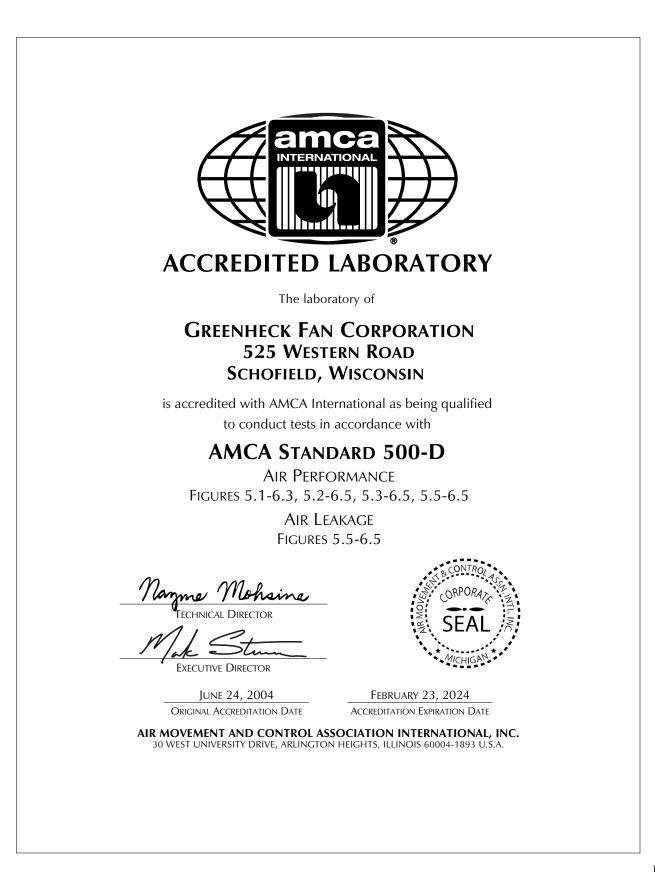


#### AMCA Accredited Laboratory - 1110 Greenheck Drive

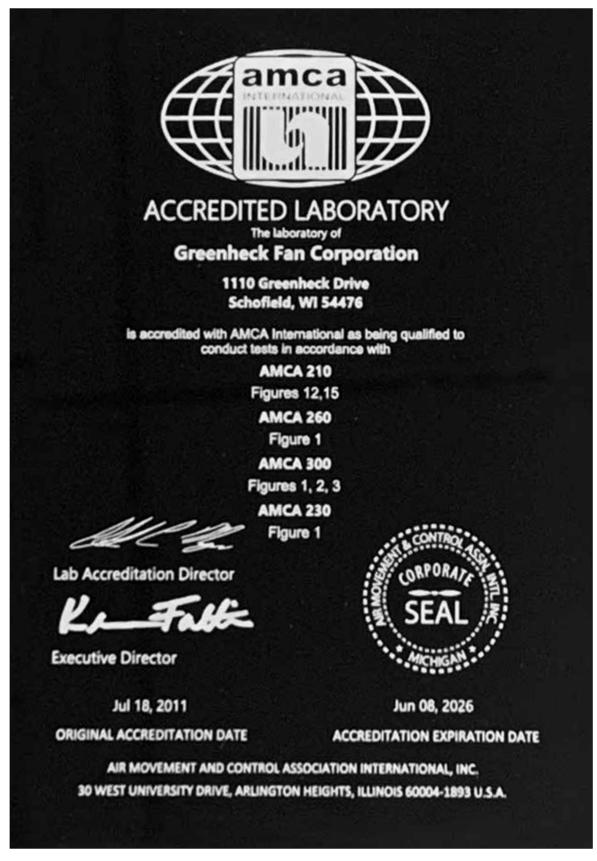


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#### AMCA Accredited Laboratory - 525 Western Road



#### AMCA Accredited Laboratory - 1110 Greenheck Drive



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### **Underwriters Laboratories (UL)**

Underwriters Laboratories (UL) is the trusted source across the globe for product compliance. Benefiting a range of customers - from manufacturers and retailers to consumers and regulating bodies - UL has tested products for public safety for more than a century.

#### **Online Certifications Directory**

# Greenheck Fan Corporation has products certified in the following categories:

- Air Heaters, Room, Fixed and Location Dedicated
- Attachments to Sprinkler Systems Protecting Commercial Cooking Equipment
- Ceiling Dampers
- Ceiling Firestop Flap Assembly Certified for Canada
- Commercial Appliance Outlet Centers
- Conveyors
- Dampers for Fire Barrier and Smoke Applications
- Dampers for Fire Barrier and Smoke Applications Certified for Canada
- Exhaust Hoods with Exhaust Dampers Certified for Canada
- Exhaust Hoods Without Exhaust Dampers

- Exhaust Hoods Without Exhaust Dampers Certified for Canada
- Fans, Electric
- Fans, Electric Certified for Canada
- Filters, Grease
- Fire Dampers, Marine
- Heating and Cooling Equipment
- · Heating and Cooling Equipment Certified for Canada
- · Power Ventilators for Restaurant Exhaust Appliances
- Power Ventilators for Restaurant Exhaust Appliances Certified for Canada
- Power Ventilators for Smoke Control Systems
- Power Ventilators for Smoke Control Systems Certified for Canada
- Switches, Industrial Control
- Ventilators, Power Certified for Canada

Reference www.ul.com for an up-to-date list of certifications.

#### UL Client Test Data Program

The UL Client Test Data Program authorizes Greenheck Fan Corp. to test our products in our certified laboratory and submit the laboratory test results to UL for review. Based upon the testing data, UL will either certify the product or choose to come up and witness the product being tested.

Greenheck laboratories are UL inspected yearly. Test data collection and submission are checked for compliance, data acquisition equipment is reviewed for proper usage, and calibration certificates and overall lab procedures are inspected. In addition, UL holds quarterly walk-through inspections of Greenheck manufacturing areas. During the inspections, random checks are performed on products being manufactured to ensure Greenheck complies with UL standards.





Safety. Science. Transformation."

UL LLC ISSUES THIS

# Certificate of Participation

#### **GREENHECK FAN CORP**

1110 GREENHECK DR, SCHOFIELD, WI 54476-1889, USA

The laboratory above has been assessed and found to comply with the applicable requirements of ISO/IEC 17025 In accordance with UL's Data Acceptance Program (DAP) and has been qualified as a DAP participant. The laboratory is hereby authorized to submit testing data to UL for product certification purposes as allowed by the schemes and for the product types and standards identified in the DAP Scope.

Client Test Data Program (CTDP)

DA File: DA652 Issued: 10/6/2023 Expires: 10/5/2024

Fal Howard

Paul Mouawad Program Owner

# **Standard For Safety For Ceiling Dampers UL 555C**

#### Scope

These requirements and methods of tests apply to ceiling dampers intended for installation in hourly rated fire resistive floor-ceiling and roof-ceiling constructions. Fire resistive assemblies are investigated in accordance with the Standard for Fire Tests of Building Construction and Materials, UL 263.

Ceiling dampers are intended for use in air handling duct outlets which penetrate membrane ceilings of hourly-rated fire resistive assemblies, or for installation in the ceiling membrane of such assemblies which utilize the plenum space for return air. They are designed for use as alternatives to previously tested hinged-door sheet metal type dampers installed at the bottom of sheet metal air ducts over each duct outlet. Ceiling dampers intended for installation in other types of fire resistive assemblies are investigated in accordance with the Standard for Fire Tests of Building Construction and Materials, UL 263, and are not covered in this standard.

The investigation of ceiling dampers involves a comparison of the fire resistance performance of a manufactured ceiling damper with that of a hingeddoor sheet metal damper, installed in identical suspended ceiling constructions, to determine that the substitution of the ceiling damper does not reduce the hourly fire resistance rating of the assembly previously rated with the hinged-door type damper. Ceiling dampers are not assigned hourly ratings. Dampers are assembly components designated for use in specific hourly rated fire resistive assemblies incorporating air duct outlets penetrating protective membrane ceilings. The fire resistance performance of the maximum size ceiling damper submitted for test is compared with the performance of the hinged-door type damper protecting the smallest size duct outlet specified in a rated assembly and having the maximum hourly rating for which fire resistance of a specified duration is required.

Tests conducted in accordance with these requirements are intended to demonstrate the performance of ceiling dampers during the period of fire test exposure, and are not intended to determine acceptability for use after exposure to fire.

It is the intent that tests conducted in accordance with the test methods described herein develop data to enable regulatory authorities to determine the acceptability of ceiling dampers for use in floor-ceiling and roof-ceiling assemblies of the specified or shorter duration.

A product that contains features, characteristics, components, materials or systems new or different from those in use when the Standard was developed and involves a risk of fire, electric shock or injury to persons, shall be evaluated using the appropriate additional component and end-product requirements. These requirements are determined necessary to maintain the level of safety for the user of the product as originally anticipated by the intent of this Standard.

# Smoke Dampers UL 555S

#### Scope

1.1 These requirements cover smoke dampers intended for use in heating, ventilating and air conditioning (HVAC) systems. Smoke dampers are intended:

- 1. To restrict the spread of smoke in HVAC systems that are designed to be automatically shut down in the event of a fire, or
- 2. To assist with the control of pressure differentials across smoke barriers when the HVAC system is part of an engineered smoke control system.
  - 1.1 revised January 11, 2002

1.2 Dampers covered by these requirements are evaluated for use as either:

- 1. Smoke Dampers For use in HVAC systems where ducts pass through smoke barriers.
- 2. Combination Fire and Smoke Dampers -For locations in HVAC systems where a fire damper and a smoke damper are required at a single location.
  - 1.2 revised January 11, 2002

1.3 Smoke dampers are used for the protection of openings in smoke barriers or in engineered smoke control systems in accordance with the Standard for Installation of Air Conditioning and Ventilating Systems, NFPA 90A. These damper assemblies are intended for installation in accordance with codes such as the BOCA National Mechanical Code, the SBCCI Standard Mechanical Code, the ICBO Uniform Mechanical Code and the International Mechanical Code.

1.3 revised January 11, 2002

1.4 Deleted January 11, 2002
1.5 Deleted January 11, 2002

1.6 Combination fire and smoke dampers shall also comply with the applicable requirements in the Standard for Fire Dampers, UL 555.

1.7 A product that contains features, characteristics, components, materials, or systems new or different from those covered by the requirements in this standard and that involves a risk of fire or of electric shock or injury to persons shall be evaluated using appropriate additional component and end-product requirements to maintain the level of safety as originally anticipated by the intent of this standard. A product whose features, characteristics, components, materials, or systems conflict with specific requirements or provisions of this standard does not comply with this standard. Revision of requirements shall be proposed and adopted in conformance with the methods employed for development, revision, and implementation of this standard.

### Fire Dampers UL 555

#### Scope

1.1 These requirements cover fire dampers that are intended for use where air ducts penetrate or terminate at openings in walls or partitions, in air transfer openings in partitions, and where air ducts extend through floors as specified in the Standard for Installation of Air-Conditioning and Ventilating Systems, NFPA 90A. Fire dampers are intended for installation in accordance with codes such as the BOCA National Mechanical Code, SBCCI Standard Mechanical Code, ICBO Uniform Mechanical Code and the International Mechanical Code.

1.1 revised January 10, 2002

1.2 Fire dampers are evaluated for use as either:

- Fire Dampers for Static Systems For HVAC systems that are automatically shut down in the event of a fire or for air transfer openings in walls or partitions
- **2**. Fire Dampers for Dynamic Systems For HVAC systems that are operational in the event of a fire
- 3. Combination Fire and Smoke Dampers For locations in HVAC systems where a fire damper and a smoke damper are required at a single location.

1.3 Under these requirements a fire damper is subjected to a standard fire exposure, controlled to achieve specified temperatures throughout a specified time period, followed by the application of a specified standard hose stream. This exposure by itself is not representative of all fire conditions; conditions vary with changes in the amount, nature, and distribution of fire loading, ventilation, compartment size and configuration, and heat sink characteristics of the compartment. These requirements provide a relative measure of fire performance of fire damper assemblies under these specified fire exposure conditions. Any variation from the construction or conditions that are tested such as method of installation and materials has the potential to substantially change the performance characteristics of the fire damper assembly.

1.4 Fire dampers for static systems (no airflow through the damper) are intended to close automatically upon the detection of heat by a heat responsive device.

1.4 revised January 10, 2002

1.5 Under these requirements, combination fire and smoke dampers and fire dampers for dynamic systems are exposed to standardized heat and airflow conditions and are evaluated for dynamic closure under these conditions.

1.6 Combination fire and smoke dampers shall also comply with the applicable requirements in the Standard for Smoke Dampers, UL 555S.

1.7 Fire dampers for dynamic systems are intended for use where the airflow is operational at the time of fire, such as in a smoke control system, or from other situations in which the fan system is operational at the time of a fire.

#### **Fire Dampers, UL 555** *Continued*

1.7 Fire dampers for dynamic systems are intended for use where the airflow is operational at the time of fire, such as in a smoke control system or from other situations in which the fan system is operational at the time of a fire.

1.8 Where fire dampers are required in ducts that penetrate fire barriers and where the duct is also used as part of a smoke control system, the system designer shall ascertain which type of fire damper is appropriate for the application. Fire dampers for dynamic systems are evaluated only for dynamic closure under heated airflow conditions. Combination fire and smoke dampers that have an elevated temperature rating are evaluated for dynamic closure under heated airflow conditions and they are also evaluated to operate under heated air conditions.

1.9 Tests conducted in accordance with these requirements are intended to demonstrate the performance of fire dampers during the period of fire test exposure and are not intended to determine acceptability of fire dampers for use after exposure to fire.

1.10 It is the intent that tests conducted in accordance with the test methods described herein develop data to enable regulatory authorities to determine the acceptability of fire damper assemblies for use in locations where fire resistance of a specified duration is required. 1.11 Fire dampers are intended to close automatically upon the detection of heat by the use of a fusible link or other heat responsive device.

1.12 These requirements do not cover:

Performance of the fire damper assembly in walls, partitions or floors constructed of materials other than those tested.

The performance of the fire damper assembly when installed using methods other than those fire tested.

Measurement of heat transmission through a fire damper assembly.

Measurement of the degree of control or limitation of the passage of smoke or products of combustion through the fire damper assembly.

1.13 A product that contains features, characteristics, components, materials or systems new or different from those covered by the requirements in this standard and that involves a risk of fire or of electric shock or injury to persons shall be evaluated using appropriate additional component and end-product requirements to maintain the level of safety as originally anticipated by the intent of this standard. A product whose features, characteristics, components, materials or systems conflict with specific requirements or provisions of this standard does not comply with this standard. Revision of requirements shall be proposed and adopted in conformance with the methods employed for development, revision and implementation of this standard.

### **Power Roof Ventilators For Restaurant Exhaust Appliances**

#### Scope

1.1 These requirements cover roof or wall-mounted ventilators for restaurant exhaust appliances.

1.2 Power ventilators for restaurant exhaust appliances covered by these requirements are intended for installation in accordance with the Standard of the National Fire Protection Association for the Installation of Equipment for the Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment, NFPA 96.

1.3 Power ventilators for restaurant appliances shall comply with the Standard for Power Ventilators, UL 705, modified in that wiring system shall not be located in the path of travel of exhaust products. The ventilator rating is not limited to 5 horsepower.

# Power Ventilators UL 705

#### Scope

1.1 These requirements cover power ventilators of the roof-and wall-mounted types and duct fans of the straight-through type intended for commercial or industrial use, residential fans intended for heated and conditioned air and for connection to permanently installed wiring systems in accordance with the National Electrical Code, NFPA 70.

1.1 revised effective November 23, 2006

1.2 These requirements do not cover the following:

- a) Ventilating equipment such as attic, wall-insert, ceiling-insert, household hood, window fans or canopy fans or blowers
- b) Air-moving equipment with integral air tempering means
- c) Dryer type fans used for drying carpets or floors
- d) Household and commercial blower inflator type fans
- e) Evaporative coolers; evaporative cooler pumps, including retrofit pumps
- f) Air filtering appliances
- g) Deodorizers and air fresheners
- h) Component fans
- i) Low voltage component fans
- j) Fans and blowers that circulate air, such as desk, ceiling-suspended, and hassock fans

- k) Ventilators rated more than 600 volts
- Ventilators employing universal motors rated more than 250 volts
- m) Air heaters equipped with fans
- n) Draft fans for furnaces
- o) Heating-ventilating units
- p) Blowers employed as components in equipment such as furnaces, mechanicalrefrigeration equipment, or air conditioners
- q) Fusible links and similar equipment that may be provided to disconnect a fan or close shutters in the event of fire
- r) Ventilators specifically intended for use in exhausting any of the following: gases other than air, atmospheres causing corrosion to the ventilator, air with water spray, or flammable vapors
- s) Ventilators for the removal or conveyance of dust, stock, or refuse
- t) Microwaves, ventilating and otherwise
- u) Ducted and non-ducted heat recovery units.

# **International Organization for Standardization (ISO)**

ISO is an International Standards Organization that developed quality management system standards that are recognized and respected throughout the world. ISO 9001 specifies requirements for a quality management system where an organization needs to demonstrate its ability to consistently provide product that meets customer and applicable statutory and regulatory requirements, and aims to enhance customer satisfaction through the effective application of the system, including processes for continual improvement of the system and assurance of conformity to customer requirements. All requirements of ISO 9001 are generic and are intended to be applicable to all organizations, regardless of type, size and product provided.

Certification of registration is provided by an approved third-party certification body. Third party certification bodies provide independent confirmation that organizations meet the requirements of ISO 9000.

Greenheck India has been certified to be in conformity with the ISO 9001:2015 Standard.

Greenheck's Heavy Duty/Industrial Damper Division has been certified to be in conformity with the ISO 9001:2015 Standard. Scope of the registration is for the design, manufacturing, welding, assembly, painting, plating and testing associated with heavy duty/ industrial dampers.

#### ISO 9001:2015 Standard Certificate Greenheck Heavy Duty Industrial Dampers



### ISO 14001:2015 Manufacturing of Ventilation Systems and Smoke & Fire Control Equipments



### ISO 9001:2015 Manufacturing of Ventilation Systems and Smoke & Fire Control Equipments



### ISO 45001:2018 Manufacturing of Ventilation Systems and Smoke & Fire Control Equipments



### **Industry Organizations**

Greenheck Fan Corporation is a member and/or active participant in the following organizations.

- AMCA Air Movement & Control Association International
- AHRI Air Conditioning & Refrigeration Institute
- NHRAW National Association of Heating, Refrigeration, and Air Conditioning Wholesalers
- SMACNA Sheet Metal & Air Conditioning Contractors National Association
- MCAA Mechanical Contractors Association of America
- ASHRAE American Society of Heating Refrigeration and Air Conditioning Engineers
- NAFEM National Association of Food Equipment Manufacturers
- HARDI Heating, Air Conditioning and Refrigeration Distributors International
- MAFSI Manufacturers Agents for the Food Service Industry National Association of Manufacturing
- NFPA National Fire Protection Association

### **Recent Awards**

2021	Forbes Best Midsized Employers Award
2021	Model ECV-40 Named to Retrofit Magazine's Top 25 Products List
2021	Dealer Design Award, model DC-5 HVLS fan, Gold, sponsored by The ACHR News
2020	Named 2019 Wisconsin Manufacturer of the Year, Mega Size Category
2020	United Way Circle of Excellence Award; Platinum
2020	Commercial Comfort Product of the Year for model DC-5 HVLS fan, sponsored by Engineered
	Systems
2020	Product of the Year for model DC-5, HVLS fan, Gold, sponsored by Consulting-Specifying
	Engineer
0010	
2019	Forbes Best Midsized Employers Award
2019	United Way Circle of Excellence Award; Platinum
2019	Product of the Year for model DS, HVLS fan, Gold, sponsored by Consulting-Specifying
• • • • •	Engineer
2019	Product Innovation Award for model DS, HVLS fan, Gold, sponsored by Architectural Products
2019	Dealer Design Award, model VGD-100+ and companion app, Gold, sponsored by The ACHR News
2019	ENERGY STAR <sup>®</sup> Most Efficient for 2019 for model SP-AP ceiling exhaust fan
2018	United Way Circle of Excellence Award; Platinum
2018	WI Department of Workforce Development Exemplary Employer Award
2018	Bubbler Award, Best Place for Young Professionals to Work
2017	Product of the Year Award for FumeJet <sup>®</sup> , Silver, Sponsored by Consulting-Specifying Engineer
2017	Bubbler Award, Best Place for Young Professionals to Work
2017	Named 2016 Wisconsin Manufacturer of the Year, Mega Size Category
2017	United Way Circle of Excellence Award; Platinum
2016	Wausau Region Chamber of Commerce - Manufacturing Excellence Award
2016	Bubbler Award, Best Place for Young Professionals to Work
2016	United Way Circle of Excellence Award; Gold
2010 2016	Dealer Design Award for Horizontal Mount Damper in Non-Concrete 2 Hour Fire Rated Barrier,
2010	
	Gold Sponsored by The ACHR News

### 2016 Wisconsin Manufacturer of the Year Award Mega Size Category

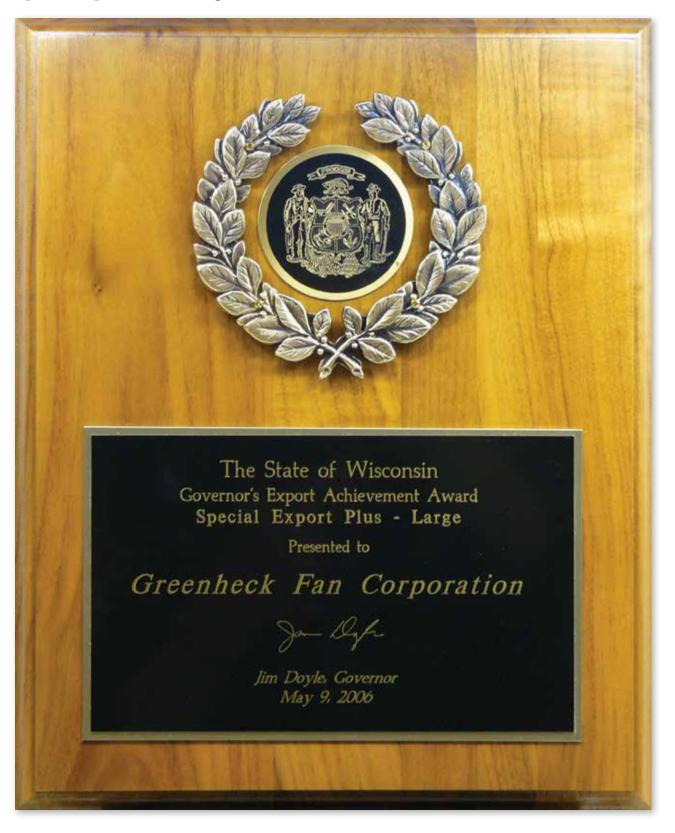


2016 WISCONSIN MANUFACTURER OF THE YEAR

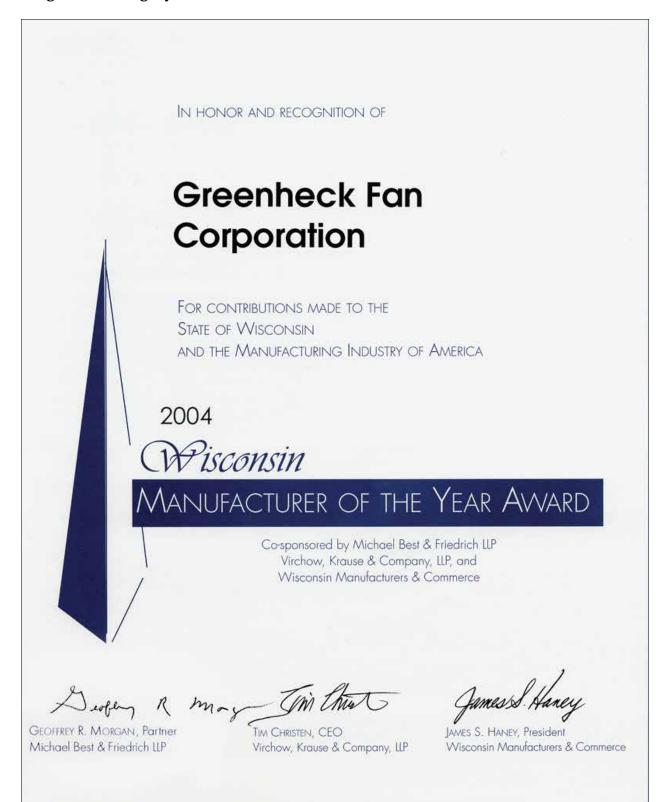
### 2012 Wisconsin Manufacturer of the Year Award Mega Size Category



2006 State of Wisconsin Governor's Export Achievement Award Special Export Plus – Large



2004 Wisconsin Manufacturer of the Year Award Mega Size Category



2001 Wisconsin Manufacturer of the Year Award Special Award - Sustained Excellence



#### 1998 - Certificate of Commendation from State of Wisconsin







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