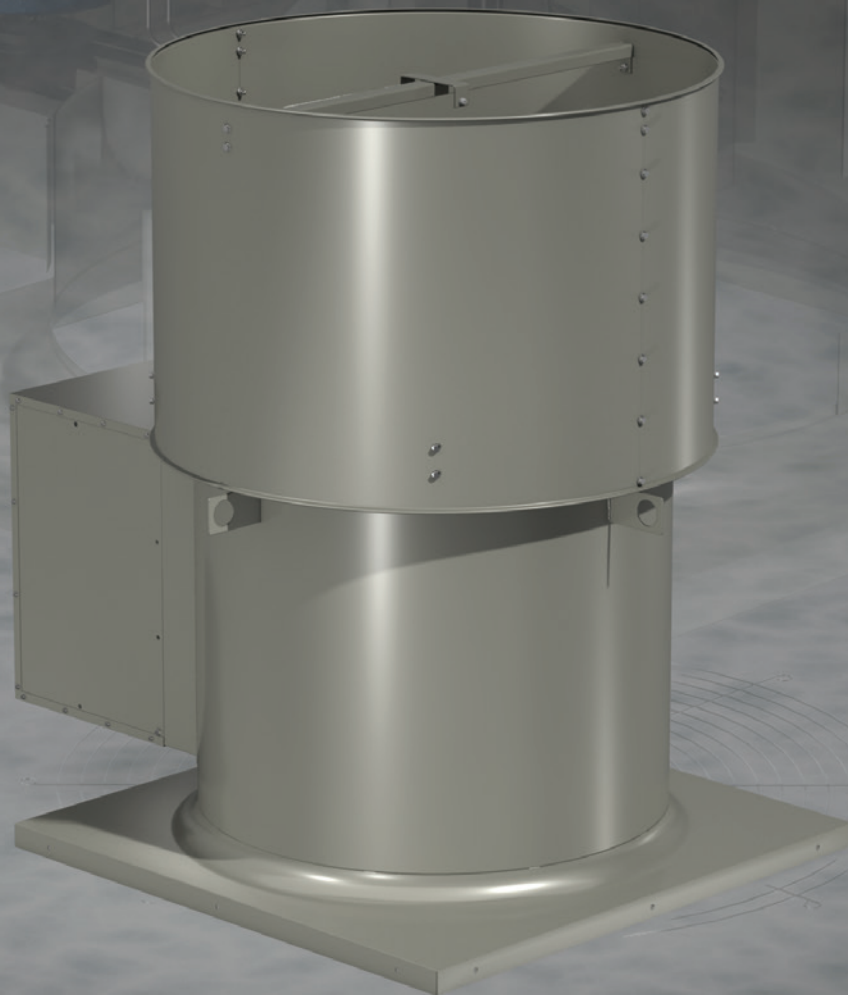


Tube Axial Roof Upblast Model TAUB with Fabricated Steel Propeller

- Belt Drive
- Low and High Pressure



BUILDING VALUE IN AIR.



July
2022

Tube Axial Roof Upblast Fans

Greenheck belt drive tube axial upblast roof exhausters, Models TAUB-L and TAUB-H, are designed to efficiently remove and disperse contaminated air. Model TAUB-L is designed for low pressure applications, Model TAUB-H for high pressure applications.

The upblast configuration is ideal for exhausting contaminants away from a building to prevent roof damage and recirculation of exhaust air. With the selection of the appropriate high temperature option, the TAUB-L and TAUB-H can also exhaust heat and smoke for either emergency situations or for continuous operation.

Greenheck's versatile tube axial design can be used in most commercial and industrial applications. Typical applications include:

- General exhaust
- Industrial space ventilation
- Fume hood exhaust
- Paint booth exhaust

TAUB Features:

- Belt drive with motor and drives out of airstream
- Propeller diameters from 24 to 60 inch (610 - 1524 mm)
- Volume Range: 5,000 to 58,000 cfm (8,500 - 98,500 m³/hr)
- Static Pressure: Up to 1.0 inch wg (250 Pa)
- Temperatures: Up to 500°F (260°C) continuously

Fabricated Steel Propellers:

The TAUB uses die formed, heavy-duty, welded fabricated steel propellers that are designed to meet a large range of capacity and pressure requirements. The fabricated steel propellers also allow for high temperature operation. All TAUB propellers are dynamically balanced to assure vibration-free operation.



Enjoy Greenheck's extraordinary service, before, during and after the sale.

Greenheck offers added value to our wide selection of top performing, energy-efficient products by providing several unique service programs.



- Our Quick Delivery program ensures shipment of in-stock products within 24 hours of placing your order. Our Quick Build made-to-order products are manufactured in 1-3-5-10-15-20 or 25-day production cycles, depending upon its complexity.
- eCAPS® online selection guides you to choose the best value products for your building projects. eCAPS® includes fan, louver, make-up air, energy recovery preconditioner, and dedicated outdoor air system (DOAS) selections, as well as a damper guide and toolbox.
- Greenheck's free computer aided product selection program CAPS®, rated by many as the best in the industry, helps you conveniently and efficiently select the right products for the challenge at hand.
- Our 3D service allows you to download, at no charge, easy-to-use AutoDesk® Revit® 3D drawings for many of our ventilation products.

Find out more about these special services at greenheck.com

Certifications

All sizes and configurations of the TAUB-L and TAUB-H have AMCA licensed Air and Sound performance data. In addition, UL/cUL 705 and UL Power Ventilators for Smoke Control Systems listings are available for TAUB models. Motors may be either 50 or 60 Hz.



Certified data may be found in Greenheck's Computer Aided Product Selection program (CAPS®).

FEI – Fan Energy Index



UL/cUL Listed Power Ventilator

UL/cUL File E40001

UL/cUL Power Ventilators for Smoke Control Systems

UL/cUL File MH17511



Quality Construction

Construction includes heavy gauge material used in the housing with integral venturi, windband, and curb cap. Rolled edges on the windband and damper blades are used for additional strength. Curb cap includes prepunched mounting holes.

Electrostatic Powder Paint



Powder coatings offer a uniform, durable, and high-quality finish. Standard powder coating is a one-coat process applied over a phosphatized surface that meets or exceeds the corrosion resistance of a comparable wet paint.

Greenheck offers a number of in-house coatings applied via “electrostatic powder.” The standard coating, Permator™, is excellent for indoor and mild outdoor applications.

Complete Assembly and Testing



The TAUB is completely assembled and tested before shipment. Our inspectors check that the fan operates with minimal vibration and is electrically safe for field operation.

Maintenance / Serviceable

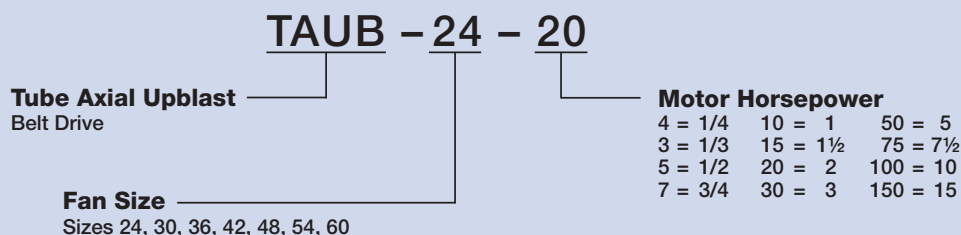
The TAUB incorporates the following value added features that allow for quick and easy field service.



- Bearing lubrication is performed through extended grease fittings located on the outside of the fan housing.
- An adjustable motor base is provided for tightening the fan belts.

Model Number Code

The model number code is designed to completely describe the fan. The correct code letters and numbers must be specified to identify fan size, propeller type and fan horsepower.



CONTINUOUS HI-TEMP OPERATION

• HT Option I - 200° - 500°F (93°-260°C)

The Model TAUB can be built to operate at up to 500°F (260°C) continuously for applications where exhaust temperatures exceed 200°F (93°C). Unlike the emergency smoke removal exhaust fans, this fan does not have fusible link damper lifters. Continuous high temperatures would trip the fusible links, holding the butterfly dampers open continuously.

Tests were conducted at Greenheck's research and design facilities using a 3.3 million BTU gas-fired burner capable of generating airstream temperatures in excess of 1000°F (538°C). Temperatures were monitored at the following critical locations throughout the tests: bearings, bearing compartment, belt tube, motor, motor compartment, airstream, and fan housing. The following high temperature options and their construction are a result of this extensive testing.

EMERGENCY SMOKE REMOVAL*

To remove smoke in the event of a fire, three levels of emergency smoke removal exhausters are available. As indicated in the chart below, the following options all contain fusible link damper lifters. These fusible links melt at 165°F (74°C) and allow the spring-loaded damper lifters to open the dampers. This allows the fan to serve as a gravity exhaust vent in the event that the power supply to the fan is cut off. Although the TAUB fan may be built with one of the following emergency smoke removal exhaust options, it will still perform the everyday general ventilation requirements.

• HT Option - UL Listed Power Ventilators for Smoke Control Systems

This construction meets specifications for UL Listed Power Ventilators for Smoke Control Systems. This includes the IRI requirements of 500°F (260°C) for a minimum of 4 hours, the SBCCI "Standard Fire Prevention Code" requirements of 1000°F (538°C) for a minimum of 15 minutes, and the Snow Load Test for butterfly dampers in UL-793.

**Note: Even though some parts of the fan may be destroyed when subjected to extremely high temperatures caused by a fire, the emergency smoke removal exhaust fan has been designed to operate effectively for the temperature and minimum time limits stated, as long as power to the fan is not terminated.*

Special Construction Features for High Temperature Operation

High Temperature Construction Features	High Temperature Options	
	HT Option I	HT-UL
165°F (74°C) Fusible Link Damper Lifters that will lift 10 lbs. per ft ²		✓
Vented Belt and Bearing Tube	✓	✓
Steel Damper Blades*	✓	✓
Dual Drives	✓	✓
Copper Lubrication Lines	✓	
High Temperature Paint	✓	
UL Label (Power Ventilators for Smoke Control Systems)		✓

**All fans with high temperature options have steel damper blades.*

Special attention must be given to the fan selection to ensure the dampers will open based on performance.

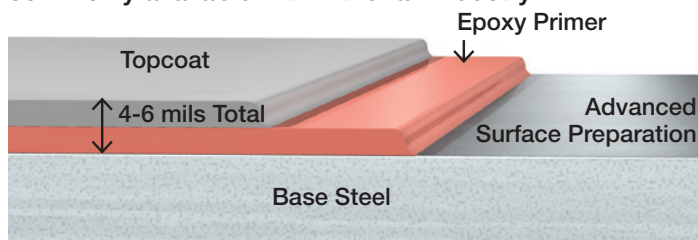
Protective Coatings

Greenheck offers a wide variety of protective coatings suitable for corrosive applications. All coatings are electrostatically-applied baked powders that offer a durable, long lasting finish.

Chemical Resistance Ratings						
Chemical	Bleach	Sulfuric Acid (10%)	HCl (10%)	MEK	Chlorine (0.1%)	NaOH (20%)
Permatector™	0	1	2	2	0	—
Hi-Pro Polyester	0	0	0	1	0	—
Hi-Pro-Z	0	0	0	1	0	1
RATING DESCRIPTIONS	0 - No effect 1 - Slight change in gloss or color 2 - Surface etching, severe staining, but film integrity remains 3 - Significant pitting, cratering, swelling, or erosion with obvious surface deterioration					

Two-Coat Advantage

Use Greenheck's Hi-Pro-Z two-coat coating technology for corrosive environments. Test data demonstrates our two-coat paint system offers four times the corrosion resistance of other coatings commonly available within the fan industry.



Performance Tested

When selecting a powder coating finish for heavy-gauge welded steel fans, critical information such as environment, moisture, exposure, abrasives, and chemicals should be considered.

Powder coatings are the best choice for most extreme applications. Major advantages over most vendor-applied liquid coatings include:

- Superior finish with uniform coverage and thickness
- A better coating provides better protection
- The process is environmentally friendly
- Unequaled value

				Environments						
				CLEAN AIR	COASTAL	CHEMICAL *	EXTREME WEATHER	ABRASIVE PARTICLES	SUN-UV	
One-Coat Process	Coatings	Color	Coating Specifications							
	Permatector™ Standard coating for steel products in both indoor and outdoor applications	Concrete Grey RAL 7023	Thickness: 2.0 - 3.0 mils Polyester urethane powder coating	X					X	
Two-Coat Process	Hi-Pro Polyester Formulated for exterior durability, color and gloss retention. Excellent for chemical applications.		Thickness: 2.0 - 3.0 mils High performance polyester urethane powder coating	X		X			X	
	Hi-Pro-Z Two-coat powder paint coating is resistant to saltwater, chemical fumes and moisture in corrosive environments		Thickness: 4.0 - 6.0 mils Hi-Pro Polyester topcoat with epoxy basecoat	X	X	X	X	X	X	

Note: Hi-Pro-Z is not available on aluminum.

*Chemical Resistant Rating Above

Standard Construction

Housing

Housing is continuously welded to prevent air leakage. The fan tube, curb cap, windband, and motor cover are constructed of heavy-gauge steel with Permator™ coating.

Butterfly Dampers

Butterfly-style dampers feature rolled edges for strength and weather protection. Damper stops maintain the proper blade position when the fan is operating. Gaskets line the edge of fan discharge for quiet damper closure. For sizes 24-30, aluminum material is standard; steel is standard for sizes 36-60. *Aluminum blades are optional on larger sizes.*

Bearings

Bearings are air handling quality, grease lubricated, pillow block type. Bearings are selected with a basic rating fatigue life L_{10} in excess of 40,000 hours at each fan's maximum operating speed.

Extended Lube Lines

Extended lube lines with grease fittings allow bearing lubrication from the fan exterior.

Belt & Bearing Tube

Belts, bearings, and drives are protected from the airstream by a heavy gauge steel belt tube and bearing cover.

Adjustable Motor Bases

Rigid structural steel motor bases are welded to the fan housing and include heavy-duty adjustment screws for belt tensioning.

Drives

Greenheck offers either constant or adjustable speed drives for fan speed adjustments. Belts are static-free and oil resistant.

Motors

NEMA base-mounted motors are standard. Motors are available in open drip proof or totally enclosed.

Motor Cover

Weatherproof motor cover shields the motor and drive components from dust, dirt, and moisture. Motor covers meet OSHA standards.

Accessories

Outlet Screen

Outlet screens constructed of steel mesh are available to shield dampers and fan discharge from debris.

Fusible Link Damper Lifter

Fusible link damper lifters automatically open butterfly dampers when the air temperature below the damper blades exceed 165°F (74°C). The damper blades are held open to provide smoke and heat relief with no electric power required.

Magnetic Latches

Magnetic damper latches minimize damper flutter (due to pressure changes within the building) when the fan is not in operation.

Inspection Door

Bolted or hinged inspection door provides access through the fan tube for cleaning or inspection of the propeller, bearings, and drives.

Inlet Guard

Inlet guards protect personnel and equipment in ducted or non-ducted installations. Inlet guards meet OSHA standards.

Shaft Seal

Shaft seals with aluminum rub rings are available to prohibit leakage of air into the bearing compartment of the fan.

Tie-Down Points

A set of four tie-down points are used to secure the fan to the roof deck when wind-loading is a concern.

Special Coatings

Special coatings are available for protective purposes. Coatings are applied before assembly so that each manufactured component is coated inside and out. Painting the exterior a specified color for appearance is also an option.

Roof Curbs

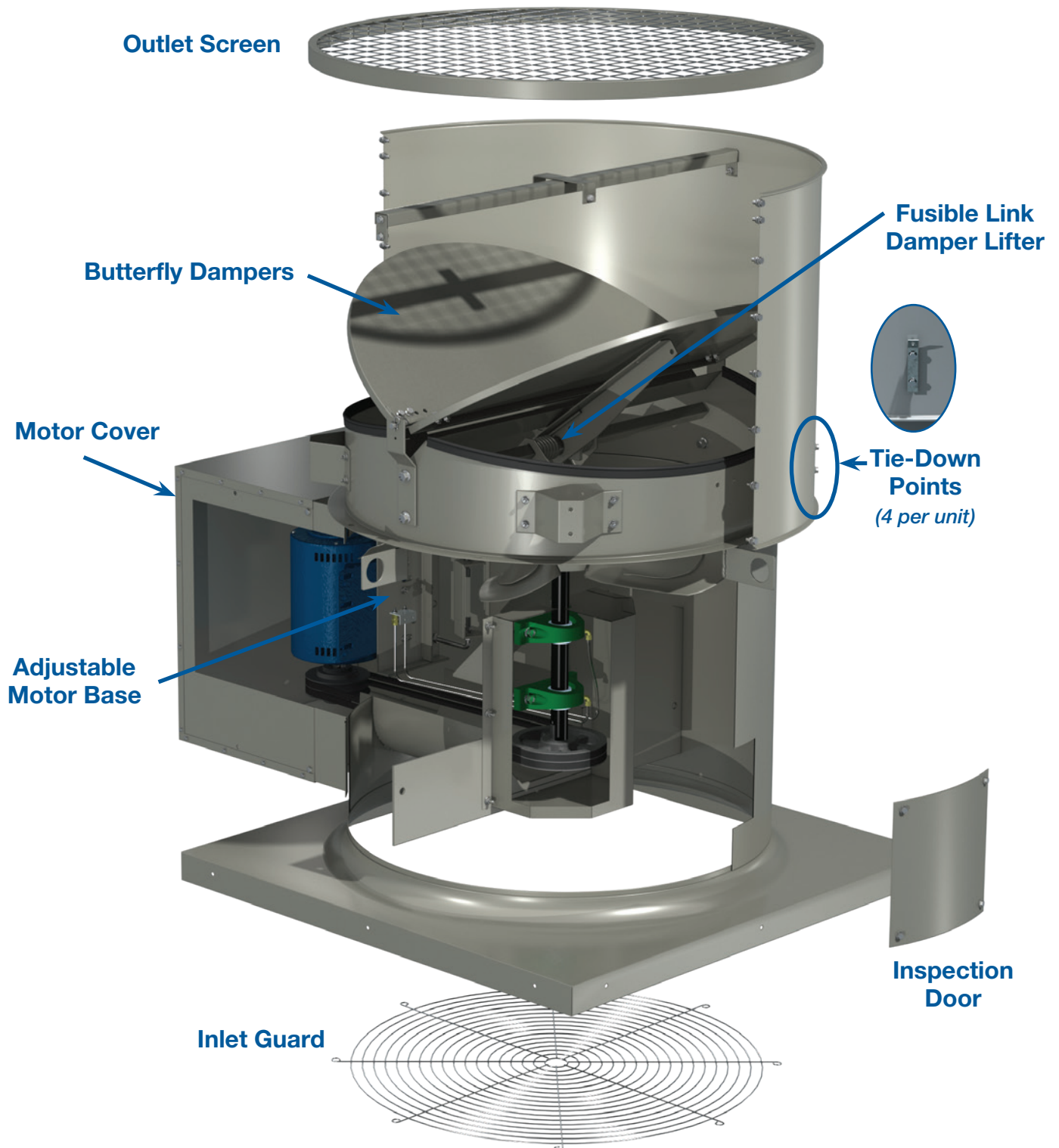
A complete line of prefabricated roof curbs is available for mounting model TAUB fans. See the Greenheck Roof Curbs, Extensions & Equipment Supports catalog.

Disconnect Switches

Toggle and heavy-duty disconnect switches are available for positive electrical shutoff and safety in servicing fans. The following switches are available to meet individual electrical requirements and can be factory mounted or shipped loose for field mounting.

- NEMA-3R — Rainproof (outdoor)
- NEMA-4 — Watertight (outdoor)
- NEMA-7 & 9 — Class 1 and 2 hazardous locations.

Greenheck will not factory mount NEMA-7 & 9 disconnect switches.



Specifications

Roof-mounted upblast exhaust fans shall be of the belt-driven tube axial type. Propeller construction shall be fabricated steel. A standard square key or tapered bushing shall lock the propeller to the shaft. Propellers shall be statically and dynamically balanced.

Fan tube and curb cap shall be constructed of heavy-gauge steel and an integral venturi inlet.

Curb cap shall have prepunched mounting holes. These components shall be coated with an industrial-grade paint.

Windbands shall be constructed of heavy-gauge painted steel with reinforced edges.

Bearing supports shall be constructed of structural steel members to prevent vibration and rigidly support the shaft and bearings. All structural steel parts shall be coated with an industrial grade paint to provide a lasting finish.

Fan shaft bearings and drives shall be isolated from the airstream. Turned, precision ground and polished steel shafts shall be sized so the first critical speed is at least 25% over the maximum operating speed. Close tolerances shall be maintained where the shaft makes contact with the bearing. Bearings shall be air handling quality, heavy-duty, grease lubricated, self-aligning ball type in pillow block mounts. Bearings shall be selected for a minimum L_{10} life in excess of 40,000 hours at maximum operating speed. Extended lubrication lines shall be provided with external grease fittings.

****For high-temperature applications, insert the appropriate verbiage here. High-temperature specifications are provided.***

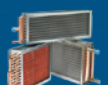
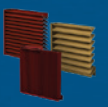
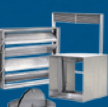
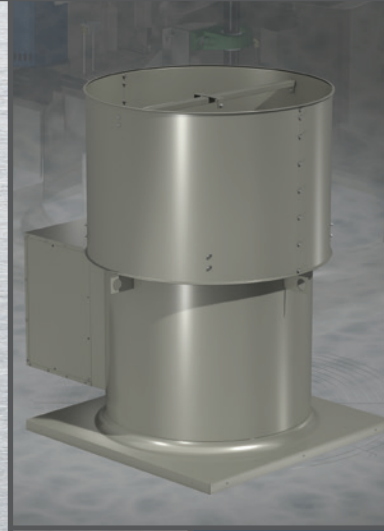
All fans shall bear the AMCA Certified Ratings Seal for Sound and Air Performance. Each fan shall bear a permanently affixed manufacturer's nameplate containing the model number and individual serial number for future identification.

Fans shall be Model TAUB as manufactured by Greenheck Fan Corporation of Schofield, Wisconsin.

****Specifications for high-temperature operation. (Insert the applicable high-temperature verbiage into the main specification.)***

HT Option I - 200°- 500°F (93°-260°C): Fan shall be capable of operating continuously at a temperature between 200°F and 500°F (93°-260°C).

HT-UL - UL Listed Power Ventilators for Smoke Control Systems: Fan shall meet the requirements for UL Listed Power Ventilators for Smoke Control Systems. This will include meeting the IRI requirements of 500°F (260°C) for a minimum of 4 hours, the SBCCI "Standard Fire Prevention Code" requirements of 1000°F (538°C) for a minimum of 15 minutes, and the Snow Load Test for butterfly dampers in UL 793.



Our Commitment

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.

Product warranties can be found online at [Greenheck.com](https://www.greenheck.com), either on the specific product page or in the literature section of the website at [Greenheck.com/Resources/Library/Literature](https://www.greenheck.com/Resources/Library/Literature).

