

# Tube Axial Roof Upblast Model TAUB with Fabricated Steel Propeller

- Belt Drive
- Low and High Pressure



BUILDING VALUE IN AIR.

 **GREENHECK**  
Building Value in Air.

October  
2009

## 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: 4,000 to 60,000 cfm (6,796 - 101,941 m<sup>3</sup>/hr)
- Static Pressure: Up to 1.0 inch wg (248 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 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.



### Leading Edge Support

All Greenheck products are supported by the industry's best product literature, electronic media, and Computer Aided Product Selection program (CAPS). You'll also find extensive product and Installation and Operation and Maintenance Manuals (IOM) information on the Internet.

And, of course, you can always rely on the personal service and expertise of our national and international representative organization. To locate your nearest Greenheck representative call 715-359-6171 or visit our website at [www.greenheck.com](http://www.greenheck.com)




### Quick Delivery and Quick Build Programs



Greenheck's Quick Delivery (QD) and Quick Build (QB) Programs ensure rapid response time with your needs dictating manufacturing time. Use CAPS or visit [www.greenheck.com](http://www.greenheck.com) to determine what programs are available for these products.

## AMCA Licensed & UL/cUL Listed

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.



Greenheck Fan Corporation certifies that the TAUB-L and TAUB-H fans shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Models TAUB-L and TAUB-H are listed for Electrical UL 705, File No. E40001.  
 Models TAUB-L and TAUB-H are listed as Power Ventilators for Smoke Control Systems, File No. MH17511. This listing includes UL 705.  
 Both listings are optional and must be specified.



## 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. Consult Greenheck’s Product Application Guide, *Performance Coatings for Ventilation Products*, for a complete listing of coatings and relative resistance. For corrosive environments (i.e. outdoor coastal), see page 5 for information on our zinc-rich basecoat technology.

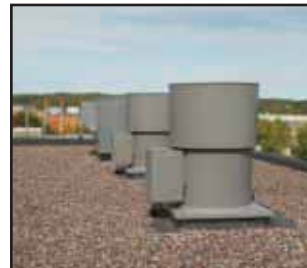
## Complete Assembly and Testing



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

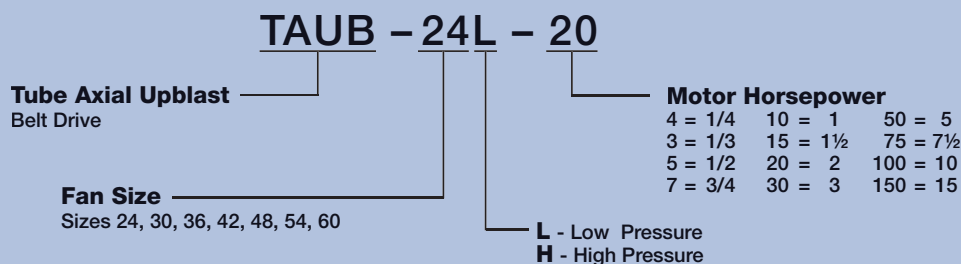
The TAUB incorporates the following value added features that allow for quick and easy field service.



- 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 II - 500°F (260°C) for a minimum of 4 hours

This construction meets specifications requiring the fan to exhaust 500°F (260°C) air for a minimum of 4 hours in an emergency smoke removal situation per IRI requirements.

### • HT Option III - 1000°F (538°C) for a minimum of 15 minutes

This construction meets specifications requiring the fan to exhaust 1000°F (538°C) air for a minimum of 15 minutes in an emergency smoke removal situation per SBCCI Standard Fire Prevention Code. This construction also meets (and exceeds) IRI requirements for 500°F (260°C) for a minimum of 4 hours.

### • HT Option IV - 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 Option II	HT Option III	HT Option IV
165°F (74°C) Fusible Link Damper Lifters		✓	✓	
165°F (74°C) Fusible Link Damper Lifters that will lift 10 lbs. per ft <sup>2</sup>				✓
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. See each performance page for the minimum CFM required to open the dampers.*

In 1972, Greenheck took the lead as the first commercial and industrial fan manufacturer to introduce electrostatic powder coatings. Today, Greenheck continues to lead by being the first to offer a superior zinc-rich powder basecoat and powder coating finish.

This zinc-rich basecoat technology is used extensively outside the HVAC industry to protect bridge beams, automotive components and other heavy-gauge steel products. Now this advanced technology is exclusively available on Greenheck welded steel products.

Greenheck's coating process starts with a minimum of five wash stages to treat all components prior to painting. Cleaner parts result in better coating adhesion and durability. We then use an advanced two coat powder application method that includes a basecoat of zinc-rich powder and a topcoat of Greenheck's Permator™ or Hi-Pro Polyester. The combination of these two topcoats over our new zinc-rich basecoat results in the two new coatings Perma-Z and Hi-Pro-Z. These oven cured coatings provide superior corrosion resistance along with a tough, uniform finish to combat the most extreme conditions.

## Zinc Advantage

When compared to a traditional single coat application, the benefits of the two coat system include:

- An automatic powder coat application produces uniform coverage and unmatched paint quality.
- The double coat thickness provides superior durability and protection from air and water.
- The zinc-rich basecoat includes an epoxy component that provides additional corrosion protection.
- The zinc-rich basecoat provides chemical protection of exposed steel to prevent corrosion.

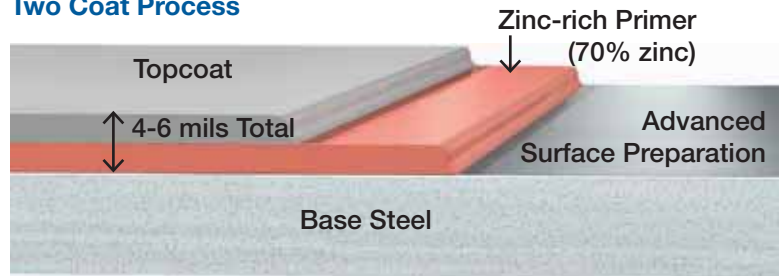
The protection offered by the zinc-rich base coats in Perma-Z and Hi-Pro-Z result in extraordinary corrosion resistance. Test data demonstrates our two-coat paint system offers three (Perma-Z) and four (Hi-Pro-Z) times the corrosion resistance of other coatings commonly available within the fan industry. See table for salt spray life for various coatings.

Coating fans with Perma-Z or Hi-Pro-Z has reduced our customers annual paint maintenance costs by three to four times!

### One Coat Process



### Two Coat Process



Hours	1000	2000	3000	4000
Permator™	██████████			
Hi-Pro Poly	██████████			
Perma-Z	██████████	██████████		
Hi-Pro-Z	██████████	██████████	██████████	██████████
Baked Phenolic	██████████			
Epoxy Phenolic	██████████			
Fluorocarbon	██████████			

## 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 proper blade position when fan is operating. Gaskets line the edge of fan discharge for quiet damper closure. For sizes 24-30 aluminum material is standard and steel is standard for sizes 36-60. *Aluminum blades 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

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### 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 exceeds 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 provide protection for 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. Consult Greenheck's Product Application Guide, *Performance Coatings for Ventilation Products* for a complete listing of coatings and relative resistance.

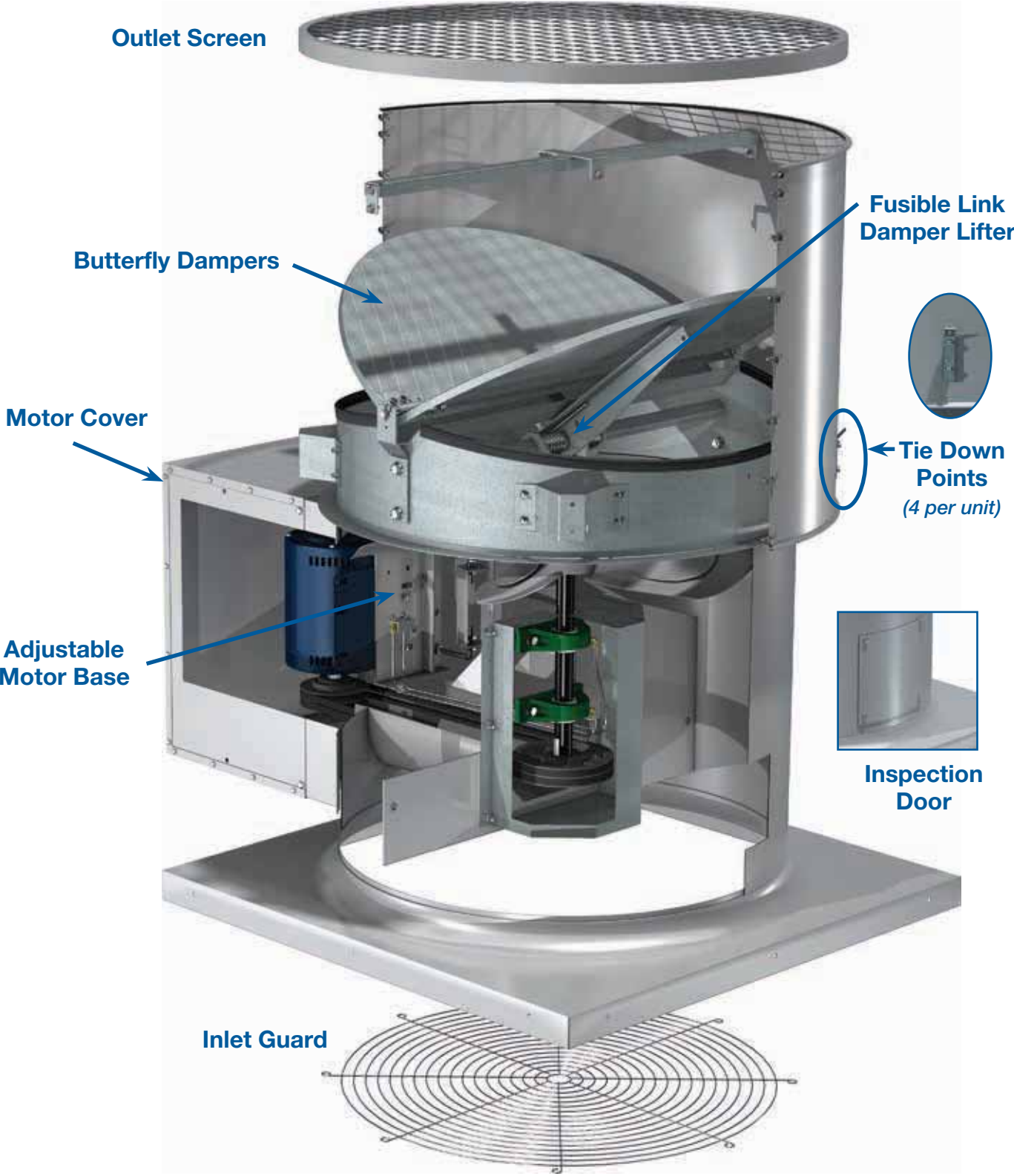
### Roof Curbs

A complete line of prefabricated roof curbs are 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 shut-off 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.



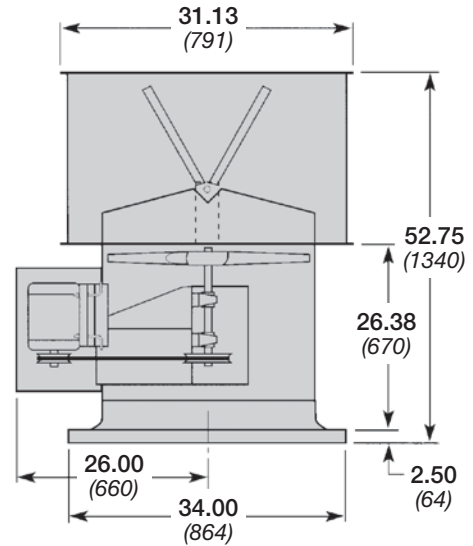
Performance Data	
Maximum RPM	
Low Pressure	1085
High Pressure	1935
Specification Data	
Maximum Motor Frame Size	184T
Shaft Diameter	1 [in.] 25.4 [mm]
Recommended Roof Opening	26½ x 26½ [in.] 673 x 673 [mm]
Approximate Fan Weight	300 [lbs.] 136 [kg.]

Imperial data – Metric data

All dimensions in inches (millimeters).

Material Gauges	
Fan Tube	12
Windband	20
Curb Cap	12

Minimum CFM required to open butterfly dampers	
Aluminum	Steel
3947	5220



## TAUB-24L (Low Pressure)

HP	RPM	TS	Max BHP	Sones @ F.A.	dBA @ F.A.	Static Pressure (in. wg) / CFM							
						0.000	0.050	0.100	0.125	0.150	0.200	0.250	0.375
1/2	830	5215	0.47	16.4	63	5229	4932	4586	4378	4068			
	845	5309	0.50	17.0	64	5324	5034	4697	4494	4226			
	860	5403	0.52	17.6	64	5418	5133	4804	4610	4384			
3/4	895	5623	0.59	19.1	66	5639	5365	5053	4877	4685			
	915	5749	0.63	20	67	5765	5497	5194	5029	4841	4189		
	935	5874	0.67	21	67	5891	5629	5334	5180	4995	4446		
	960	6031	0.73	22	69	6048	5793	5509	5361	5187	4714		
1	985	6188	0.79	24	70	6206	5957	5683	5538	5378	4978		
	1000	6283	0.82	25	70	6301	6056	5787	5645	5491	5134		
	1020	6408	0.87	26	71	6427	6186	5925	5786	5642	5304	4629	
	1040	6534	0.92	26	71	6553	6317	6063	5926	5789	5461	4913	
	1060	6660	0.98	27	72	6679	6447	6200	6066	5932	5616	5128	
	1085	6817	1.05	27	72	6836	6610	6372	6241	6109	5809	5394	

## TAUB-24H (High Pressure)

HP	RPM	TS	Max BHP	Sones @ F.A.	dBA @ F.A.	Static Pressure (in. wg) / CFM							
						0.000	0.125	0.250	0.375	0.500	0.625	0.750	1.000
3/4	1120	7037	0.61	23	74	5670	5110	4535	3822				
	1170	7351	0.70	24	75	5923	5383	4841	4210				
	1220	7665	0.79	24	75	6176	5655	5142	4588				
1	1280	8042	0.91	25	76	6480	5978	5499	4983	4309			
	1340	8419	1.04	27	77	6784	6299	5851	5359	4777			
1½	1435	9016	1.28	30	79	7265	6805	6401	5941	5481	4849		
	1535	9644	1.57	34	81	7771	7334	6959	6541	6111	5622		
2	1585	9958	1.73	37	82	8024	7601	7233	6837	6421	5998	5414	
	1640	10304	1.91	39	83	8303	7893	7534	7159	6757	6355	5841	
	1690	10618	2.09	39	83	8556	8159	7806	7450	7060	6669	6223	
3	1770	11121	2.41	42	84	8961	8582	8238	7911	7538	7166	6793	
	1850	11623	2.75	45	86	9366	9003	8668	8357	8011	7654	7298	6407
	1935	12157	3.14	48	87	9796	9449	9122	8825	8508	8166	7825	7061

Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BHP) does not include transmission losses. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The AMCA Certified Ratings Sound Seal applies to sone ratings only.



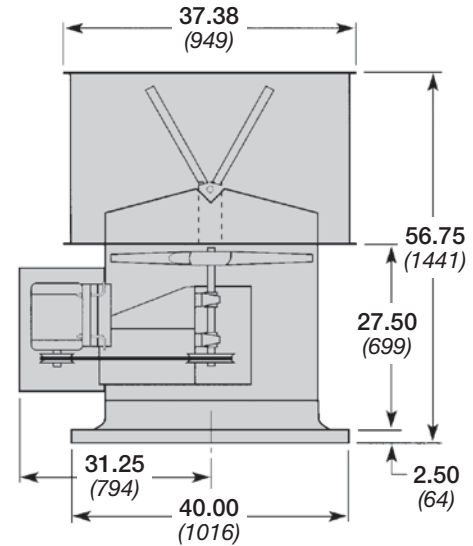
Performance Data	
Maximum RPM	1090
Low Pressure	1090
High Pressure	1635
Specification Data	
Maximum Motor Frame Size	213T
Shaft Diameter	1 1/4 [in.] 31.75 [mm]
Recommended Roof Opening	32 1/2 x 32 1/2 [in.] 826 x 826 [mm]
Approximate Fan Weight	395 [lbs.] 180 [kg.]

Imperial data – Metric data

All dimensions in inches (millimeters).

Material Gauges	
Fan Tube	12
Windband	20
Curb Cap	12

Minimum CFM required to open butterfly dampers	
Aluminum	Steel
6043	7129



## TAUB-30L (Low Pressure)

HP	RPM	TS	Max BHP	Sones @ F.A.	dBA @ F.A.	Static Pressure (in. wg) / CFM								
						0.000	0.050	0.100	0.125	0.150	0.200	0.250	0.375	
3/4	645	5065	0.65	15.8	64	8200	7690	7115	6783					
	690	5419	0.79	17.7	66	8772	8301	7784	7481	7170				
1	720	5654	0.90	18.7	67	9154	8705	8210	7938	7640				
	755	5929	1.04	20	68	9599	9171	8704	8465	8181	7461			
1 1/2	795	6243	1.21	22	69	10107	9701	9262	9038	8791	8252			
	830	6518	1.38	23	70	10552	10163	9747	9533	9317	8801			
2	865	6793	1.56	25	71	10997	10624	10230	10023	9817	9343	8779		
	905	7107	1.78	27	72	11506	11149	10777	10580	10383	9954	9480		
3	930	7304	1.94	28	73	11824	11476	11118	10926	10734	10332	9871		
	955	7500	2.10	30	73	12142	11803	11458	11271	11084	10708	10259		
3	1000	7853	2.41	32	75	12714	12391	12066	11888	11710	11353	10949		
	1045	8207	2.75	36	76	13286	12977	12667	12501	12331	11989	11631	10451	
3	1090	8560	3.12	39	78	13858	13562	13265	13112	12948	12621	12294	11321	

## TAUB-30H (High Pressure)

HP	RPM	TS	Max BHP	Sones @ F.A.	dBA @ F.A.	Static Pressure (in. wg) / CFM								
						0.000	0.125	0.250	0.375	0.500	0.625	0.750	1.000	
3/4	800	6283	0.61	20	72	7918	6962	5792						
	870	6832	0.78	23	74	8611	7742	6737	5124					
1	910	7147	0.90	25	75	9007	8181	7242	6047					
	955	7500	1.05	27	77	9452	8670	7800	6727					
1 1/2	1025	8050	1.29	30	79	10145	9424	8635	7731	6397				
	1095	8600	1.58	33	80	10838	10171	9435	8624	7652				
2	1150	9032	1.83	34	81	11382	10754	10055	9311	8465	7245			
	1205	9464	2.10	35	82	11927	11333	10668	9986	9203	8265			
3	1290	10131	2.58	38	83	12768	12220	11603	10973	10280	9526	8598		
	1380	10838	3.15	42	84	13659	13147	12580	11995	11392	10708	9950		
5	1465	11506	3.76	47	86	14500	14018	13494	12946	12389	11777	11133	9405	
	1550	12173	4.47	54	88	15341	14885	14400	13884	13359	12824	12215	10843	
5	1635	12841	5.24	62	89	16183	15750	15299	14811	14317	13818	13275	12097	

Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BHP) does not include transmission losses. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The AMCA Certified Ratings Sound Seal applies to sone ratings only.

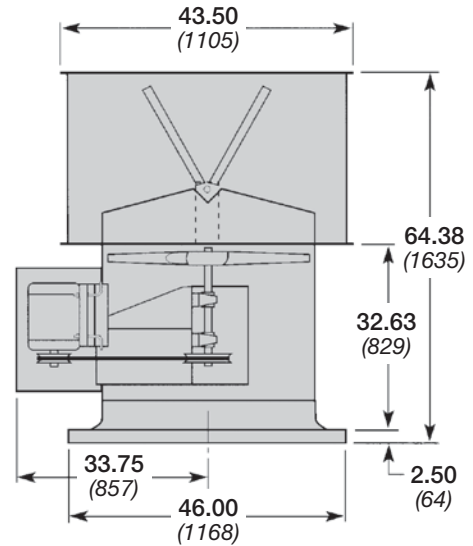
Performance Data	
Maximum RPM	
Low Pressure	790
High Pressure	1275
Specification Data	
Maximum Motor Frame Size	215T
Shaft Diameter	1½ [in.] 38.1 [mm]
Recommended Roof Opening	38½ x 38½ [in.] 978 x 978 [mm]
Approximate Fan Weight	530 [lbs.] 241 [kg.]

Imperial data – Metric data

All dimensions in inches (millimeters).

Material Gauges	
Fan Tube	12
Windband	20
Curb Cap	12

Minimum CFM required to open butterfly dampers	
Aluminum	Steel
7618	10981



## TAUB-36L (Low Pressure)

HP	RPM	TS	Max BHP	Sones @ F.A.	dBA @ F.A.	Static Pressure (in. wg) / CFM							
						0.000	0.050	0.100	0.125	0.150	0.200	0.250	0.375
1	525	4948	0.93	15.2	64	12231	11414	10615	10169				
	545	5136	1.04	15.8	65	12697	11909	11138	10756	10232			
1½	570	5372	1.19	16.7	65	13280	12525	11786	11420	10987			
	590	5560	1.32	17.4	66	13746	13015	12300	11947	11583			
	605	5701	1.42	17.9	67	14095	13383	12684	12339	11995	11052		
2	625	5890	1.56	18.8	67	14561	13872	13194	12859	12526	11683		
	655	6173	1.80	19.9	68	15260	14602	13954	13633	13315	12591		
	675	6361	1.97	21	68	15726	15088	14458	14145	13836	13189	12303	
3	690	6503	2.11	21	69	16076	15451	14834	14528	14225	13622	12793	
	720	6785	2.39	23	69	16775	16176	15584	15290	14998	14419	13707	
	745	7021	2.65	24	70	17357	16779	16205	15921	15638	15078	14457	
3	765	7209	2.87	25	71	17823	17260	16700	16424	16148	15601	15052	
	790	7445	3.16	27	71	18406	17860	17317	17049	16782	16251	15724	

## TAUB-36H (High Pressure)

HP	RPM	TS	Max BHP	Sones @ F.A.	dBA @ F.A.	Static Pressure (in. wg) / CFM							
						0.000	0.125	0.250	0.375	0.500	0.625	0.750	1.000
1	675	6361	0.77	21	72	10993	9732	7998					
	745	7021	1.04	24	74	12133	11019	9601	7515				
1½	800	7539	1.29	27	76	13028	11995	10779	9140				
	855	8058	1.57	30	78	13924	12962	11867	10478	8510			
2	905	8529	1.86	32	80	14738	13833	12825	11597	10081			
	940	8859	2.09	34	81	15308	14440	13488	12354	10955			
3	985	9283	2.40	37	82	16041	15216	14332	13311	12045	10437		
	1030	9707	2.75	40	83	16774	15988	15161	14202	13063	11731		
	1075	10131	3.12	44	85	17507	16756	15965	15070	14041	12834	11307	
5	1125	10602	3.58	48	86	18321	17603	16851	16023	15109	14020	12769	
	1175	11074	4.08	52	87	19136	18448	17732	16966	16120	15116	13996	
	1225	11545	4.62	55	88	19950	19291	18608	17900	17088	16194	15194	12540
	1275	12016	5.20	59	89	20764	20131	19479	18810	18046	17256	16295	14107

Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BHP) does not include transmission losses. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The AMCA Certified Ratings Sound Seal applies to sone ratings only.

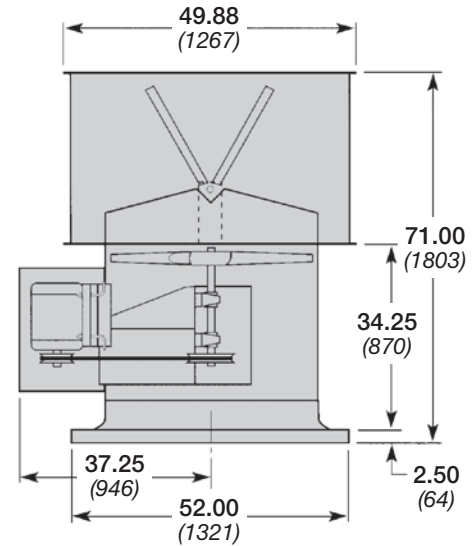
Performance Data	
Maximum RPM	
Low Pressure	735
High Pressure	1030
Specification Data	
Maximum Motor Frame Size	215T
Shaft Diameter	1½ [in.] 38.1 [mm]
Recommended Roof Opening	44½ x 44½ [in.] 1130 x 1130 [mm]
Approximate Fan Weight	715 [lbs.] 325 [kg.]

Imperial data – Metric data

All dimensions in inches (millimeters).

Material Gauges	
Fan Tube	10
Windband	20
Curb Cap	10

Minimum CFM required to open butterfly dampers	
Aluminum	Steel
11045	13551



## TAUB-42L (Low Pressure)

HP	RPM	TS	Max BHP	Sones @ F.A.	dBA @ F.A.	Static Pressure (in. wg) / CFM								
						0.000	0.050	0.100	0.125	0.150	0.200	0.250	0.375	
1½	460	5057	1.29	14.6	63	17129	16169	15017	14337	13655				
	495	5442	1.59	16.4	65	18432	17552	16542	15927	15295				
2	510	5607	1.76	17.2	65	18991	18137	17165	16598	15985	14755			
	525	5772	1.92	18.0	66	19550	18720	17784	17264	16669	15474			
3	540	5937	2.08	18.9	67	20108	19301	18401	17925	17346	16186			
	565	6212	2.40	20	68	21039	20268	19422	18975	18464	17356	16245		
5	590	6487	2.72	22	69	21970	21232	20436	20008	19569	18509	17445		
	620	6817	3.14	24	71	23087	22384	21645	21238	20831	19871	18860		
5	640	7037	3.44	25	71	23832	23151	22446	22052	21658	20768	19790		
	665	7312	3.86	27	72	24763	24108	23444	23065	22685	21879	20938		
	690	7586	4.37	28	73	25694	25062	24431	24072	23706	22975	22073	19800	
	715	7861	4.84	30	74	26625	26015	25406	25074	24721	24016	23195	21004	
5	735	8081	5.24	32	74	27370	26777	26184	25873	25530	24843	24085	21955	

## TAUB-42H (High Pressure)

HP	RPM	TS	Max BHP	Sones @ F.A.	dBA @ F.A.	Static Pressure (in. wg) / CFM								
						0.000	0.125	0.250	0.375	0.500	0.625	0.750	1.000	
1	505	5552	0.92	17.7	69	14272	12245	9526						
	525	5772	1.04	18.7	70	14838	12914	10422						
1½	565	6212	1.28	21	72	15968	14216	12062						
	605	6652	1.58	23	74	17099	15478	13532	11021					
2	635	6982	1.83	25	75	17946	16414	14605	12409					
	665	7312	2.11	27	77	18794	17343	15645	13730	11012				
3	695	7641	2.39	29	78	19642	18265	16669	14886	12545				
	760	8356	3.14	33	80	21479	20244	18846	17260	15510	13161			
5	830	9126	4.10	38	82	23458	22329	21085	19694	18204	16474	14288		
	900	9896	5.22	44	84	25436	24396	23275	22058	20724	19320	17637		
7½	940	10335	5.95	47	85	26567	25570	24512	23386	22109	20793	19397	15550	
	985	10830	6.82	51	86	27838	26888	25895	24827	23646	22421	21131	17848	
	1030	11325	7.83	55	88	29110	28201	27270	26248	25161	23996	22788	19954	

Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BHP) does not include transmission losses. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The AMCA Certified Ratings Sound Seal applies to sone ratings only.

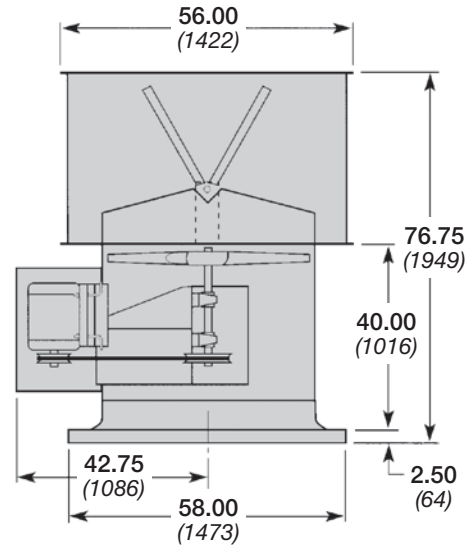
Performance Data	
Maximum RPM	
Low Pressure	645
High Pressure	905
Specification Data	
Maximum Motor Frame Size	254T
Shaft Diameter	1 1/4 [in.] 44.45 [mm]
Recommended Roof Opening	50 1/2 x 50 1/2 [in.] 1283 x 1283 [mm]
Approximate Fan Weight	920 [lbs.] 418 [kg.]

Imperial data – Metric data

All dimensions in inches (millimeters).

Material Gauges	
Fan Tube	10
Windband	20
Curb Cap	10

Minimum CFM required to open butterfly dampers	
Aluminum	Steel
12591	16241



## TAUB-48L (Low Pressure)

HP	RPM	TS	Max BHP	Sones @ F.A.	dBA @ F.A.	Static Pressure (in. wg) / CFM							
						0.000	0.050	0.100	0.125	0.150	0.200	0.250	0.375
1 1/2	355	4461	1.29	15.2	64	20588	19103	17428	16453				
	380	4775	1.59	16.4	65	22038	20665	19168	18276	17365			
2	400	5026	1.85	17.9	66	23198	21894	20484	19705	18840			
	415	5215	2.07	19.2	67	24067	22811	21462	20762	19929			
3	450	5654	2.63	22	69	26097	24939	23717	23084	22420	20882		
	475	5969	3.10	26	71	27547	26449	25309	24709	24110	22708		
5	500	6283	3.61	27	72	28997	27954	26887	26318	25748	24501	23117	
	530	6660	4.30	29	73	30737	29753	28766	28229	27691	26616	25311	
	565	7099	5.21	33	76	32767	31844	30921	30437	29933	28924	27818	
7 1/2	585	7351	5.78	34	77	33927	33035	32144	31690	31203	30229	29229	
	605	7602	6.40	35	77	35086	34225	33363	32932	32466	31524	30583	27767
	625	7853	7.06	36	78	36246	35412	34578	34161	33723	32812	31900	29243
	645	8105	7.76	37	78	37406	36598	35789	35385	34974	34091	33208	30702

## TAUB-48H (High Pressure)

HP	RPM	TS	Max BHP	Sones @ F.A.	dBA @ F.A.	Static Pressure (in. wg) / CFM							
						0.000	0.125	0.250	0.375	0.500	0.625	0.750	1.000
1 1/2	450	5654	1.29	23	72	19561	17102	13778					
	485	6094	1.59	25	73	21082	18907	16002					
2	505	6346	1.84	26	74	21952	19905	17128	13827				
	525	6597	2.06	27	75	22821	20855	18236	15165				
3	565	7099	2.53	30	77	24560	22740	20408	17772				
	605	7602	3.15	33	78	26299	24605	22540	20221	17431			
5	660	8293	4.11	39	81	28690	27146	25409	23266	21009	18394		
	715	8984	5.24	45	83	31081	29664	28189	26227	24269	22013	19611	
7 1/2	765	9613	6.34	49	85	33254	31938	30559	28869	27023	25197	22925	
	820	10304	7.70	54	87	35645	34426	33140	31721	29985	28277	26474	
10	845	10618	8.61	57	88	36732	35551	34305	33001	31316	29651	27998	23946
	875	10995	9.50	61	89	38036	36896	35697	34492	32898	31281	29684	25927
	905	11372	10.45	65	90	39340	38238	37083	35918	34465	32892	31348	27882

Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BHP) does not include transmission losses. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The AMCA Certified Ratings Sound Seal applies to sone ratings only.

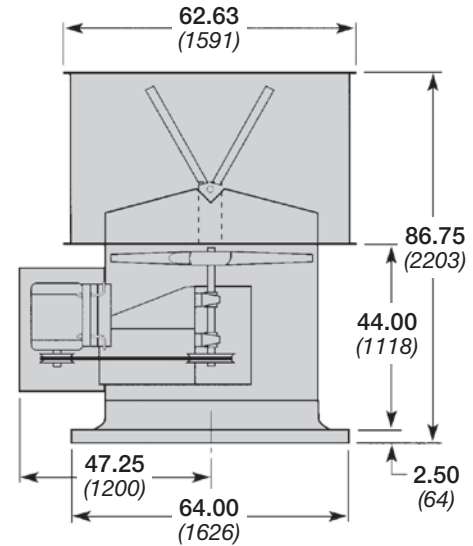
Performance Data	
Maximum RPM	
Low Pressure	595
High Pressure	845
Specification Data	
Maximum Motor Frame Size	256T
Shaft Diameter	2 [in.] 50.8 [mm]
Recommended Roof Opening	56½ x 56½ [in.] 1422 x 1422 [mm]
Approximate Fan Weight	1250 [lbs.] 568 [kg.]

Imperial data – Metric data

All dimensions in inches (millimeters).

Material Gauges	
Fan Tube	10
Windband	18
Curb Cap	10

Minimum CFM required to open butterfly dampers	
Aluminum	Steel
16005	21425



### TAUB-54L (Low Pressure)

HP	RPM	TS	Max BHP	Sones @ F.A.	dBA @ F.A.	Static Pressure (in. wg) / CFM								
						0.000	0.050	0.100	0.125	0.150	0.200	0.250	0.375	
2	335	4735	1.85	19.3	68	27858	25900	23605	22274					
	350	4948	2.11	20	69	29105	27257	25072	23922	22502				
3	380	5372	2.71	23	71	31600	29947	27960	26927	25833				
	400	5654	3.16	25	72	33264	31707	29845	28874	27894	25514			
5	420	5937	3.65	29	74	34927	33444	31705	30797	29863	27760			
	445	6291	4.35	35	75	37006	35607	34007	33161	32289	30507			
7½	470	6644	5.12	42	77	39085	37760	36287	35486	34681	33012	31084		
	490	6927	5.80	44	78	40748	39477	38098	37330	36562	34973	33288		
10	515	7280	6.74	45	80	42827	41618	40348	39617	38887	37395	35872		
	540	7634	7.77	47	81	44906	43753	42583	41887	41190	39789	38336		
10	555	7846	8.43	48	82	46153	45031	43910	43241	42563	41208	39799	35760	
	575	8128	9.38	50	83	47817	46734	45651	45039	44385	43077	41733	38000	
	595	8411	10.39	53	83	49480	48433	47387	46830	46198	44933	43652	40208	

### TAUB-54H (High Pressure)

HP	RPM	TS	Max BHP	Sones @ F.A.	dBA @ F.A.	Static Pressure (in. wg) / CFM								
						0.000	0.125	0.250	0.375	0.500	0.625	0.750	1.000	
3	400	5654	1.67	22	71	25557	22388	18005						
	445	6291	2.29	25	74	28432	25656	22027	16986					
	490	6927	3.07	29	76	31307	28776	25788	22062					
5	515	7280	3.56	31	78	32905	30490	27807	24338	19785				
	550	7775	4.34	35	80	35141	32872	30479	27409	23913				
	585	8270	5.22	40	81	37377	35236	33106	30341	27239	23475			
7½	625	8835	6.38	45	83	39933	37920	35980	33606	30774	27736	23380		
	670	9471	7.84	51	85	42808	40921	39111	37056	34580	31878	28928		
10	700	9896	8.96	55	86	44725	42919	41179	39316	37045	34514	31873		
	735	10390	10.34	61	88	46961	45241	43576	41922	39839	37490	35014	28965	
15	770	10885	11.90	65	89	49197	47556	45959	44384	42512	40386	38085	33038	
	805	11380	13.64	69	90	51434	49863	48328	46822	45151	43234	41056	36501	
	845	11945	15.71	75	91	53989	52493	51021	49586	48133	46321	44364	40101	

Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BHP) does not include transmission losses. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The AMCA Certified Ratings Sound Seal applies to sone ratings only.

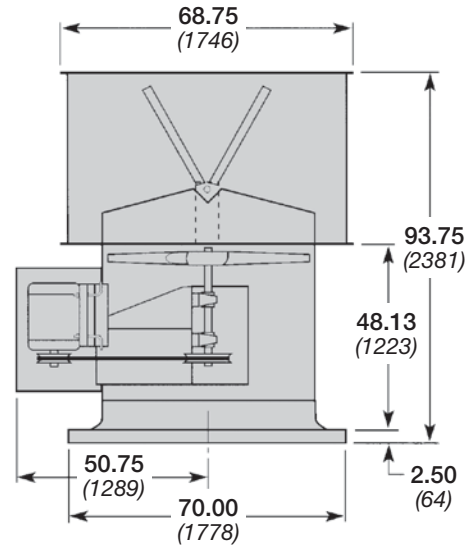
Performance Data	
Maximum RPM	
Low Pressure	515
High Pressure	735
Specification Data	
Maximum Motor Frame Size	284T
Shaft Diameter	2 [in.] 50.8 [mm]
Recommended Roof Opening	62½ x 62½ [in.] 1588 x 1588 [mm]
Approximate Fan Weight	1475 [lbs.] 670 [kg.]

Imperial data – Metric data

All dimensions in inches (millimeters).

Material Gauges	
Fan Tube	10
Windband	18
Curb Cap	10

Minimum CFM required to open butterfly dampers	
Aluminum	Steel
18051	24820



## TAUB-60L (Low Pressure)

HP	RPM	TS	Max BHP	Sones @ F.A.	dBA @ F.A.	Static Pressure (in. wg) / CFM							
						0.000	0.050	0.100	0.125	0.150	0.200	0.250	0.375
3	315	4948	2.39	19.7	69	32132	29408						
	325	5105	2.63	21	70	33152	30528						
	345	5419	3.15	22	71	35192	32754	29689					
5	365	5733	3.73	25	73	37232	34961	32138					
	380	5969	4.20	26	74	38763	36607	33951	32485				
	395	6204	4.72	28	75	40293	38244	35746	34335				
7½	410	6440	5.28	29	76	41823	39867	37524	36165	34613			
	430	6754	6.09	31	77	43863	41998	39844	38576	37281			
	450	7068	6.98	34	78	45903	44121	42097	40960	39722			
10	465	7304	7.70	37	79	47433	45709	43775	42731	41533	38339		
	480	7539	8.47	40	80	48963	47293	45445	44462	43330	41008		
	500	7853	9.58	44	81	51004	49400	47660	46716	45704	43475		
	515	8089	10.46	47	82	52534	50976	49313	48396	47470	45306		

## TAUB-60H (High Pressure)

HP	RPM	TS	Max BHP	Sones @ F.A.	dBA @ F.A.	Static Pressure (in. wg) / CFM							
						0.000	0.125	0.250	0.375	0.500	0.625	0.750	1.000
3	380	5969	2.14	23	75	31149	27225	21706					
	430	6754	3.13	32	79	35247	31875	27989	22495				
5	470	7382	4.05	44	82	38526	35360	31982	27093	21807			
	510	8011	5.21	54	85	41805	38805	35877	32381	27617			
7 1/2	535	8403	5.98	54	85	43854	40943	38274	35124	30430	25897		
	560	8796	6.91	55	85	45904	43070	40642	37625	33512	29709		
	585	9189	7.84	55	86	47953	45188	42986	40089	36874	32552	28201	
10	615	9660	9.16	56	86	50412	47720	45682	43011	40279	35950	32723	
	645	10131	10.50	57	87	52871	50246	48299	45898	43283	40019	36127	
15	690	10838	12.85	61	88	56560	54106	52193	50166	47706	45277	41607	34844
	735	11545	15.57	68	90	60249	57945	56057	54351	52062	49766	47485	40615

Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BHP) does not include transmission losses. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The AMCA Certified Ratings Sound Seal applies to sone ratings only.

Greenheck offers a full-line of tube axial fans for a variety of applications.

## Spark Resistance - Inline Cast Aluminum Propeller

TBI-CA and TDI axial fans are a practical choice for inline applications involving clean air or air containing volatile compounds. Can be used in either ducted or non-ducted applications. Cast aluminum hub and airfoil blades provide spark resistant construction. These models have capabilities best suited for 1 to 3 inches wg (249 - 747 Pa) of static pressure. Three levels of construction provide efficient and economical selections for reliable performance in commercial and industrial applications.

Typical applications include:

- General exhaust, supply or return air
- Industrial or commercial space ventilation
- Fume hood exhaust
- Paint booth exhaust
- Emergency smoke exhaust

Levels four and five available in roof upblast style.

### Lower Pressures



TAUB-CA TAUD



TDI TBI-CA  
Level 3



TBI-CA TDI  
Level 4

### Higher Pressures



TBI-CA TDI  
Level 5

## High Temperatures - Inline Steel Propeller

Model TBI-FS inline fans are the ideal choice for installations for high temperature applications, continuous duty or emergency use. Designed for commercial and industrial applications where air volumes up to 77,000 cfm (130,000 m<sup>3</sup>/hr) and moderate pressures to 4 inches wg (996 Pa). TBI-FS models have continuously welded housing and are belt-driven with motors and drives out of the airstream. All propellers are constructed with airfoil blades that are continuously welded to heavy-duty hubs to ensure long life in the harshest applications.

Typical applications include:

- General exhaust, supply or return air
- Industrial space and warehouse ventilation
- UL/cUL listed for emergency heat and smoke removal
- High temperature process ventilation

High Temp Option	Operating Temperature		Time Duration
	°F	°C	Hours
Std. Construction	180	82	Continuous
HT-I (Inline)	400	204	Continuous
HT-I (Roof Upblast)	500	260	Continuous
HT-II	500	260	4
	572	300	1
HT-III	752	400	2
	1000	538	1
HT-UL/cUL	300	149	5
	750	399	4
	1000	538	0.25

### Lower Pressures



TAUB-L/H TBI-FS  
Level 3



TBI-FS  
Level 4

### Higher Pressures



TBI-FS  
Level 5

# 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 Option II** - 500°F (260°C) for a minimum of 4 hours: Fan shall meet the requirements of IRI for operation at 500°F (260°C) for a minimum of 4 hours in an emergency situation.

**HT Option III** - 1000°F (538°C) for a minimum of 15 hours: Fan shall meet the requirements for the SBCCI "Standard Fire Prevention Code" for operation at 1000°F (538°C) for a minimum of 15 minutes in an emergency situation.

**HT Option IV** - 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.*

Specific Greenheck product warranties are located on [greenheck.com](http://greenheck.com) within the product area tabs and in the Library under Warranties.



Prepared to Support  
Green Building Efforts