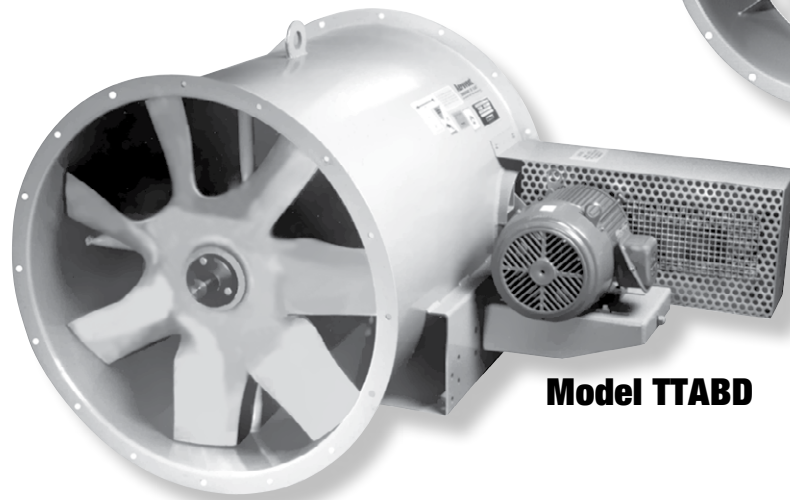


# AEROVENT

INDUSTRIAL VENTILATION SYSTEMS

**Vane Section  
For Model VTBD**



**Model TTABD**

## **TUBEAXIAL & VANEAXIAL FANS**

**Type "T" Belt Driven  
Model TTABD / VTBD**

# Model TTABD/VTBD Tubeaxial/Vaneaxial Fans

Aerovent's Model TTABD tubeaxial fan is a medium pressure tubeaxial fan. It is convertible to a higher pressure vaneaxial, Model VTBD, by attaching a vane section to the discharge.

## Typical Applications

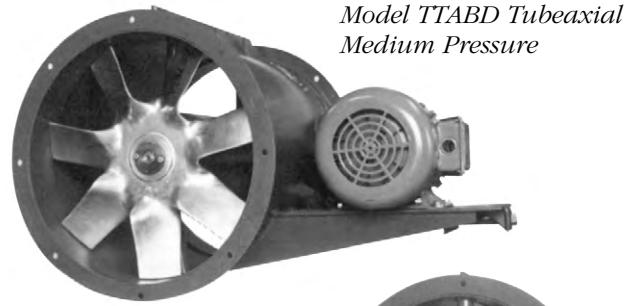
- In-duct space ventilation supply or exhaust
- Roof mounted ventilation
- Industrial fume exhaust
- Spray booth exhaust
- High temperature process ventilation

## Model TTABD – Arrangement 9 Belt Driven Tubeaxial

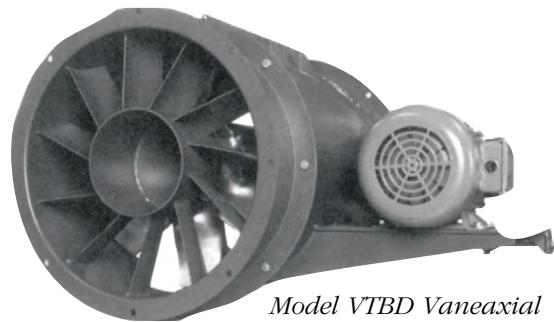
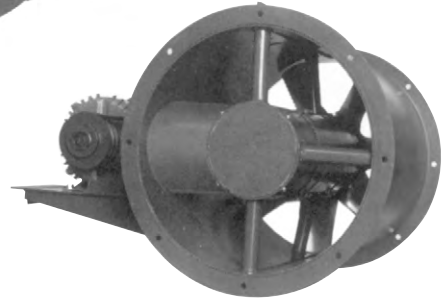
- Available in twelve sizes from 12" to 60" in diameter
- Capacity from 2000 to 83,000 CFM and pressures to 3" w.g.
- Optional high temperature construction to 600°F

## Model VTBD – Arrangement 9 Belt Driven Vaneaxial

- Available in twelve sizes from 12" to 60" in diameter
- Capacity from 2000 to 81,000 CFM and pressures to 4.5" w.g.
- Optional high temperature construction to 600°F



*Model TTABD Tubeaxial  
Medium Pressure*



*Model VTBD Vaneaxial  
Higher Pressure*

## Contents

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The Aerovent Type TTABD Tubeaxial and VTBD Vaneaxial fans shown herein have been tested and rated in accordance with industry accepted test codes, and are guaranteed by Aerovent to deliver rated performance.

# Construction Features

## Propeller Construction

The fan propeller and hub is a precision solid casting of A319 aluminum, having seven airfoil blades and a malleable split taper lock bushing for mounting to the shaft. The blade angle setting is 34° at 3/4 radius. Propellers are statically and dynamically balanced prior to assembly. The complete fan assembly is trim balanced after final assembly. An A240 high temperature aluminum alloy propeller and high temperature lubrication are optional to make this fan suitable for airstream temperatures up to 600°F.



## Housing

Model TTABD and VTBD housings are made of continuously welded, heavy-gauge carbon steel with integrally rolled inlet and outlet flanges. Integral flanges are provided with bolt holes for bolting to fan accessories or ductwork. Housings can be supported by bolting the integral flanges directly to ductwork or can be provided with bolted support legs or welded clips for mounting in a horizontal or vertical position. After fabrication the housing is chemically pretreated, phosphatized, and painted with two coats of air dried acrylic enamel.

Extended grease fittings and grease leads are standardly furnished to permit relubrication of the motor bearings at the exterior of the fan housing.

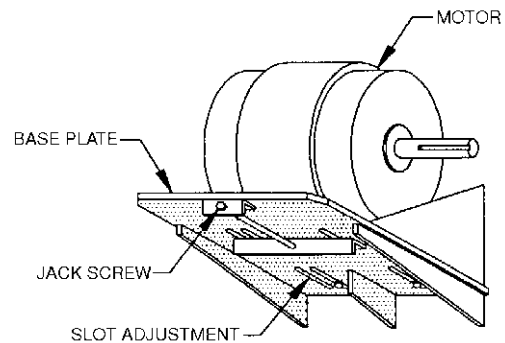
## Belt Driven Design

Well suited for applications where it is advantageous to have the motor out of the airstream due to the presence of corrosive or hazardous fumes, or dirt-laden, hot, or moist air. Arrangement 9 fans include the following features as standard equipment:

- Belts and driven sheave enclosed in a metal tube protected from the airstream.
- Single jackscrew belt tension adjustment (see detail below).
- Standard NEMA foot-mounted motors, of open drip-proof, totally enclosed or explosion-proof design are used on belt driven fans. Motors are squirrel cage induction, single speed, single winding, variable torque type for continuous duty operation.

## Adjusting Belt Tension

All belt driven units are constructed with the motor base plate welded to the outside of the fan casing which provides strength and rigidity. Except for very small motors, the adjustment of the belt tension is accomplished by means of a jackscrew as shown in the illustration below. This arrangement permits adjustment to be made with a minimum of effort, particularly when the motor is of large size.



# Accessories

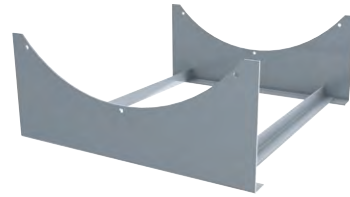
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## Vertical Support Section

The vertical support section is a separate duct section with vertical mounting clips. This section bolts to the fan inlet or outlet and is needed when vertical mounting clips cannot be welded to the fan. (See “Mounting Arrangements,” pages 6 and 7.)

TTABD sizes 12–33 require a vertical mounting section for all vertical discharges when vertical mounting clips are needed. The vertical mounting arrangements are designated by adding an “S” to the mounting arrangement (A1, A2, A3 and A4 become SA1, SA2, SA3 and SA4.)

VTBD sizes 12–33 require a vertical mounting section for vertical floor up and vertical ceiling down only. When vertical mounting clips are needed A1 and A3 become SA1 and SA3.

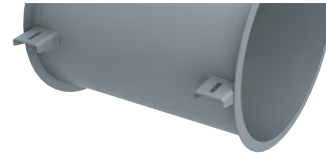


## Horizontal Support Legs

Support legs are available for standard platform or floor mounting. The support legs are bolted to the inlet and discharge flange rings.

## Mounting Brackets

Clips for mounting vibration eliminators are available for vertical floor mounting or vertical and horizontal ceiling suspension.



## Inlet Bell with Guard

A spun aerodynamic inlet bell (necessary to minimize inlet losses on installations where ductwork does not precede the fan) shown bolted to fan inlet flange with an inlet guard of spiral wire bolted to inlet bell to provide personnel safety protection.



## Inlet/Outlet Cone

A round-to-round transition bolted to the inlet or discharge flange of the fan casing to provide a smooth connection of the fan to larger ductwork.



## Shaft Seal

An elastomeric Viton rotary seal rides against a heavy Teflon, bolted-in-place, wear plate which surrounds the shaft of belt driven fans to provide protection of the shaft and bearings when handling dirty, wet or corrosive air. **Note:** The seal does not make the installation gas-tight and is not appropriate in ambient temperatures above 250°F.



# Accessories

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## Motor Cover

A vented cover bolted to the exterior of a belt driven fan to provide drip-proof protection of the motor and drive tube when units are installed outdoors in horizontal or vertical configuration. **Note:** The standard belt guard is not provided when a motor cover is specified.



## Curb Base

A square-to-round transition piece to convert a tubeaxial fan to a roof ventilator when mounted between a roof curb and the fan inlet flange. A stack cap or other device is necessary for weather protection in installations of this type.



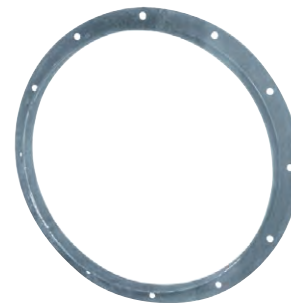
## Stack Cap

A backdraft damper assembly bolted to the fan discharge flange in vertical upblast rooftop installations. Ideally this device should be selected to handle discharge velocities ranging from 1700 (min.) to 3000 FPM (max.) and will add approximately 1/8" pressure drop to system. For higher or lower discharge velocities, consult factory.



## Companion Ring

A rolled angle ring that mates with the fan casing inlet or discharge flange to provide attachment for slip duct connections.



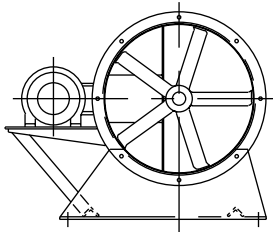
## Propeller Access Section

A short duct section with access door bolted to the inlet or discharge flange of the fan to allow for inspection or cleaning of the fan impeller. Hinged inspection door can be opened or entire half of section can be unbolted for removal of impeller.

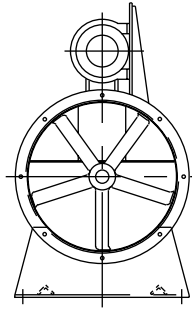


# Mounting Arrangements – TTABD Tubeaxial Fans

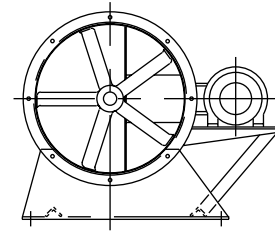
## Horizontal Floor Mounted



**Opposite Std. (Optional Std.)**  
Requires F-2 Motor

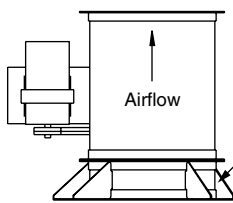


**Top**

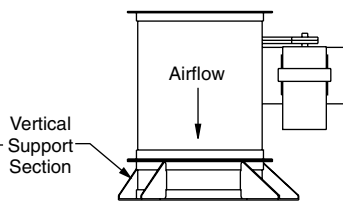


**Standard (Std.)**

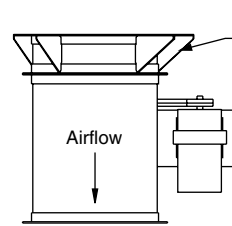
## Vertical Floor & Ceiling Mounted



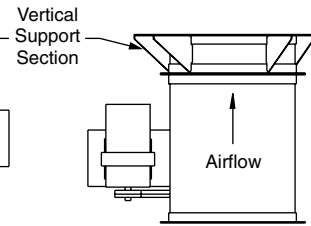
**Floor Up Discharge**  
A1 – Sizes 38–60, No  
Vert. Support Section  
SA1 – Sizes 12–33 With  
Vertical Support Section



**Floor Down Discharge**  
A2 – Sizes 38–60, No  
Vert. Support Section  
SA2 – Sizes 12–33 With  
Vert. Support Section

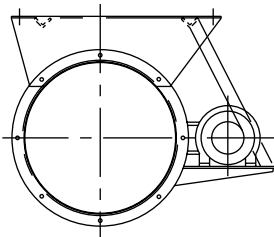


**Ceiling Down Discharge**  
A3 – Sizes 38–60, No  
Vert. Support Section  
SA3 – Sizes 12–33, With  
Vert. Support Section

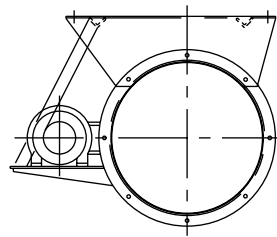


**Ceiling Up Discharge**  
A4 – Sizes 38–60, No  
Vert. Support Section  
SA4 – Sizes 12–33, With  
Vert. Support Section

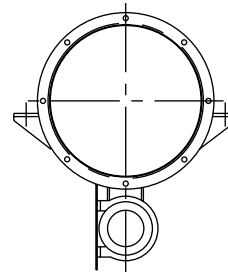
## Horizontal Ceiling Mounted



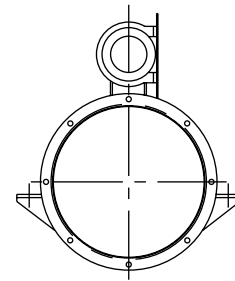
**Right Hand (A9)**



**Left Hand (A10)**  
Requires F-2 Motor



**Bottom (A11)**

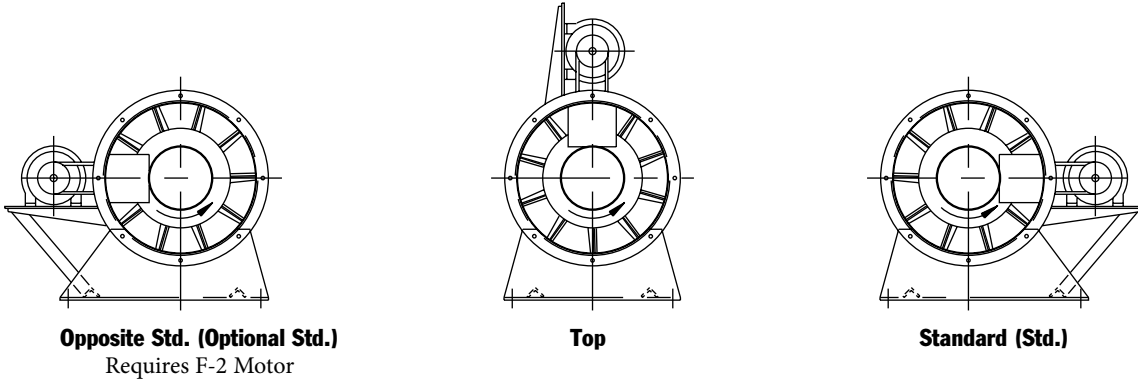


**Top (A12)**

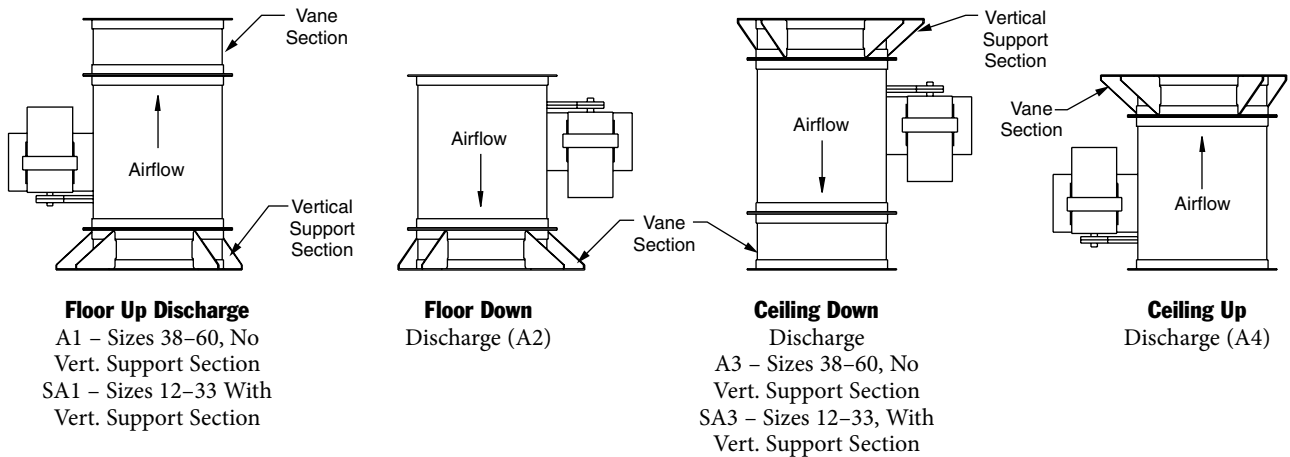


# Mounting Arrangements – VTBD Vaneaxial Fans

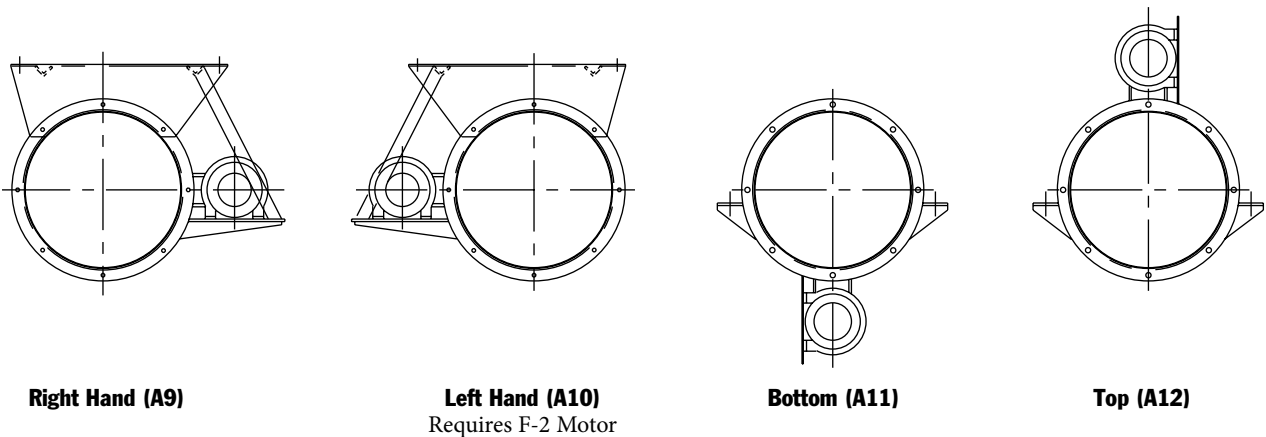
## Horizontal Floor Mounted



## Vertical Floor & Ceiling Mounted



## Horizontal Ceiling Mounted



# Optional Construction

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## Clamshell Construction

An arrangement offering a convenient method for cleaning the propeller or servicing bearings. This feature is limited to fans of 48" and smaller.



*Clamshell Construction*

## Swingout Construction

Allows for entire fan assembly to swing out freely from existing ductwork. This feature allows for easy access and servicing of fans 48" and smaller.

## Spark Resistant Construction

Belt driven fans can be furnished for AMCA Type B and C spark resistant construction with the addition of an aluminum rub ring around the fan shaft. They can be fitted for AMCA Type A spark resistant construction with all aluminum housing construction, an AMPCO 45 fan shaft, and Monel hardware in the airstream.

## Corrosion Resistant Construction

For handling corrosive fumes, etc. Fan casings can be constructed of hot dipped galvanized steel, stainless steel, aluminum, fiberglass or protected with a wide variety of suitable protective coatings such as Plasite, Heresite, Eisenheiss, etc.



*Swingout Construction*

## High Temperature Construction

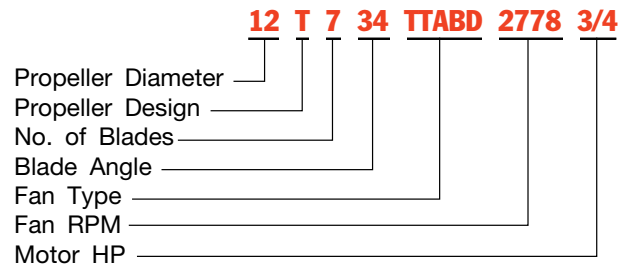
Belt driven fans can be furnished to operate in temperatures ranging from 275°F to 600°F. For this construction, the fan is supplied with an A240 aluminum, solid cast propeller and high temperature bearing lubrication. Note that the fan must be energized to keep the bearings cool during high temperature operation.



# Performance Data – Tubeaxial

## Catalog Number System

To identify a specific fan for ordering or engineering specifications, it is necessary to show the complete information listed in the tables below under “Catalog Number.” All performance data is available in curve form upon request.



## Size 12 TTABD Belt Driven Type T Tubeaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP	
PROP	FAN TYPE	RPM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
12T734	TTABD	2778	3/4	1979	0.69	1782	0.71												
12T734	TTABD	3058	1	2213	0.92	2043	0.94	1831	0.96										
12T734	TTABD	3500	1½	2574	1.38	2433	1.40	2276	1.42	2080	1.44								
12T734	TTABD	3853	2	2860	1.83	2735	1.85	2599	1.88	2447	1.90	2257	1.92						
12T734	TTABD	4410	3	3305	2.74	3199	2.76	3087	2.79	2966	2.82	2835	2.85	2681	2.87				

## Size 15 TTABD Belt Driven Type T Tubeaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP	
PROP	FAN TYPE	RPM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
15T734	TTABD	1915	3/4	2577	0.70	2151	0.72												
15T734	TTABD	2108	1	2903	0.93	2564	0.95												
15T734	TTABD	2413	1½	3402	1.38	3132	1.41	2788	1.44										
15T734	TTABD	2656	2	3793	1.84	3556	1.87	3285	1.90	2910	1.91								
15T734	TTABD	3041	3	4403	2.75	4204	2.78	3987	2.82	3743	2.86	3432	2.87						
15T734	TTABD	3602	5	5279	4.55	5117	4.59	4945	4.63	4762	4.68	4566	4.72	4341	4.76				

## Size 18 TTABD Belt Driven Type T Tubeaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP	
PROP	FAN TYPE	RPM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
18T734	TTABD	1370	1/2	3181	0.51														
18T734	TTABD	1568	3/4	3800	0.75	3257	0.77												
18T734	TTABD	1726	1	4276	0.99	3799	1.03												
18T734	TTABD	1976	1½	5011	1.46	4622	1.51	4180	1.55										
18T734	TTABD	2175	2	5584	1.94	5244	1.99	4860	2.05	4457	2.07								
18T734	TTABD	2490	3	6480	2.88	6193	2.95	5882	3.02	5539	3.07	5187	3.10	4787	3.08				

## Size 22 TTABD Belt Driven Type T Tubeaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP	
PROP	FAN TYPE	RPM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
22T734	TTABD	984	1/2	3922	0.52														
22T734	TTABD	1126	3/4	4781	0.77														
22T734	TTABD	1239	1	5430	1.01	4582	1.04												
22T734	TTABD	1419	1½	6425	1.49	5717	1.55	4842	1.55										
22T734	TTABD	1561	2	7188	1.97	6576	2.04	5893	2.08										
22T734	TTABD	1787	3	8381	2.93	7875	3.02	7304	3.09	6706	3.12								
22T734	TTABD	2119	5	10101	4.84	9692	4.95	9252	5.05	8772	5.14	8259	5.20	7756	5.21				

# Performance Data – Tubeaxial

## Size 25 TTABD Belt Driven Type T Tubeaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP		3.000" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
25T734	TTABD	1045	1	6962	0.95	5660	1.01														
25T734	TTABD	1196	1½	8244	1.38	7247	1.50														
25T734	TTABD	1316	2	9232	1.80	8395	1.95	7358	2.02												
25T734	TTABD	1507	3	10770	2.66	10099	2.82	9290	2.97	8356	3.03										
25T734	TTABD	1786	5	12973	4.34	12441	4.54	11849	4.73	11168	4.92	10409	5.03	9461	5.01						
25T734	TTABD	2045	7½	14991	6.45	14542	6.68	14058	6.90	13530	7.12	12941	7.34	12288	7.50						
25T734	TTABD	2250	10	16577	8.54	16175	8.79	15750	9.04	15297	9.28	14806	9.52	14268	9.76	13074	10.06				
25T734	TTABD	2577	15	19092	12.74	18748	13.03	18390	13.31	18015	13.6	17621	13.87	17204	14.15	16278	14.69	15234	15.07	14082	15.13

## Size 29 TTABD Belt Driven Type T Tubeaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP		3.000" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
29T734	TTABD	816	1	8187	0.97																
29T734	TTABD	934	1½	9815	1.41	8215	1.51														
29T734	TTABD	1028	2	11054	1.84	9705	2.00														
29T734	TTABD	1177	3	12961	2.70	11905	2.89	10602	3.03												
29T734	TTABD	1395	5	15680	4.39	14864	4.63	13916	4.86	12809	5.02										
29T734	TTABD	1597	7½	18156	6.50	17473	6.78	16722	7.04	15869	7.31	14902	7.51	13874	7.57						
29T734	TTABD	1758	10	20112	8.61	19505	8.92	18852	9.21	18138	9.51	17342	9.80	16458	10.01						
29T734	TTABD	3012	15	23175	12.80	22658	13.15	22112	13.50	21534	13.83	20915	14.17	20242	14.51	18725	15.03	16981	15.11		
29T734	TTABD	2214	20	25599	16.97	25134	17.36	24650	17.74	24144	18.12	23611	18.49	23047	18.86	21793	19.59	20382	20.08	18802	20.15

## Size 33 TTABD Belt Driven Type T Tubeaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP		3.000" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
33T734	TTABD	829	2	12871	1.87	10839	2.02														
33T734	TTABD	949	3	15182	2.73	13590	2.96														
33T734	TTABD	1125	5	18460	4.44	17264	4.72	15813	4.98	14106	5.04										
33T734	TTABD	1287	7½	21413	6.55	20423	6.87	19299	7.19	17986	7.47	16550	7.56								
33T734	TTABD	1417	10	23755	8.66	22881	9.02	21922	9.37	20838	9.72	19608	9.99	18310	10.09						
33T734	TTABD	1622	15	27417	12.86	26676	13.28	25885	13.68	25032	14.08	24093	14.48	23057	14.85	20783	15.14				
33T734	TTABD	1785	20	30310	17.04	29646	17.50	28948	17.95	28210	18.40	27421	18.83	26564	19.28	24633	19.99	22478	20.16		
33T734	TTABD	1923	25	32749	21.22	32140	21.72	31504	22.22	30837	22.70	30135	23.17	29389	23.64	27727	24.57	25871	25.14	23650	25.12
33T734	TTABD	2044	30	34883	25.42	34313	25.95	33722	26.48	33107	26.99	32465	27.50	31791	28.00	30315	29.01	28644	29.88	26872	30.27

## Size 38 TTABD Belt Driven Type T Tubeaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP		3.000" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
38T734	TTABD	645	2	14751	1.92																
38T734	TTABD	739	3	17577	2.82	15226	2.98														
38T734	TTABD	876	5	21535	4.59	19739	4.83	17632	5.01												
38T734	TTABD	1003	7½	25108	6.78	23609	7.10	21947	7.32	20056	7.53										
38T734	TTABD	1104	10	27909	8.96	26581	9.33	25143	9.62	23548	9.84	21789	10.08								
38T734	TTABD	1263	15	32271	13.28	31141	13.72	29942	14.12	28668	14.43	27287	14.68	25783	14.94						
38T734	TTABD	1390	20	35726	17.59	34714	18.09	33653	18.55	32538	18.96	31364	19.28	30105	19.55	27321	20.13				
38T734	TTABD	1498	25	38650	21.92	37719	22.48	36751	22.99	35742	23.46	34688	23.86	33583	24.19	31140	24.77	28270	25.32		

## Size 43 TTABD Belt Driven Type T Tubeaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP		3.000" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
43T734	TTABD	526	2	16891	1.95																
43T734	TTABD	603	3	20344	2.88	16865	3.06														
43T734	TTABD	714	5	25080	4.66	22485	4.91	18990	5.07												
43T734	TTABD	818	7½	29373	6.89	27241	7.23	24781	7.47												
43T734	TTABD	900	10	32700	9.08	30818	9.49	28741	9.79	26382	10.06										
43T734	TTABD	1030	15	37905	13.44	36313	13.95	34606	14.38	32755	14.70	30696	14.99	28337	15.27						
43T734	TTABD	1134	20	42027	17.81	40607	18.39	39103	18.91	37509	19.33	35792	19.66	33910	19.99						
43T734	TTABD	1222	25	45495	22.18	44191	22.82	42824	23.40	41386	23.92	39871	24.32	38242	24.67	34634	25.41				
43T734	TTABD	1298	30	48478	26.49	47260	27.18	45991	27.82	44664	28.40	43277	28.89	41816	29.29	38584	30.03				
43T734	TTABD	1429	40	53600	35.18	52505	35.95	51373	36.68	50201	37.36	48984	37.98	47722	38.52	45017	39.37	42018	40.22	38066	40.68

# Performance Data – Tubeaxial

## Size 48 TTABD Belt Driven Type T Tubeaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP		3.000" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
48T734	TTABD	503	3	23062	2.93																
48T734	TTABD	596	5	28694	4.75	25053	5.01														
48T734	TTABD	682	7½	33701	6.98	30765	7.35	27300	7.63												
48T734	TTABD	751	10	37634	9.21	35063	9.67	32136	9.97	28617	10.26										
48T734	TTABD	859	15	43695	13.60	41531	14.17	39179	14.62	36544	14.95	33618	15.32								
48T734	TTABD	946	20	48521	18.01	46596	18.67	44538	19.24	42325	19.66	39864	20.03	37218	20.44						
48T734	TTABD	1019	25	52541	22.39	50777	23.12	48912	23.77	46933	24.30	44806	24.72	42472	25.12						
48T734	TTABD	1083	30	56050	26.78	54406	27.57	52679	28.28	50861	28.90	48940	29.40	46868	29.81	42241	30.71				
48T734	TTABD	1192	40	61999	35.51	60523	36.40	58988	37.22	57388	37.98	55718	38.63	53969	39.17	50106	40.10	45656	41.03		
48T734	TTABD	1284	50	67000	44.23	65639	45.19	64234	46.11	62779	46.96	61269	47.73	59703	48.41	56349	49.48	52630	40.53	47886	51.20
48T734	TTABD	1364	60	71336	52.88	70062	53.92	68752	54.91	67401	55.84	66007	56.70	64566	57.50	61530	58.77	58182	59.81	54600	61.01

## Size 54 TTABD Belt Driven Type T Tubeaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP		3.000" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
54T734	TTABD	412	3	26006	2.94																
54T734	TTABD	488	5	32761	4.76	27470	5.05														
54T734	TTABD	559	7½	38760	7.00	34554	7.38														
54T734	TTABD	615	10	43370	9.21	39730	9.69	35459	10.04												
54T734	TTABD	704	15	50557	13.60	47521	14.23	44149	14.68	40313	15.10										
54T734	TTABD	775	20	56209	17.97	53519	18.71	50606	19.30	47370	19.73	43800	20.21								
54T734	TTABD	835	25	60946	22.34	58489	23.16	55860	23.87	53027	24.39	49873	24.85	46447	25.36						
54T734	TTABD	887	30	65028	26.65	62740	27.55	60313	28.34	57733	28.97	54934	29.47	51889	30.00						
54T734	TTABD	977	40	72055	35.40	70008	36.41	67863	37.34	65608	38.15	63232	38.80	60684	39.35	55047	40.52				

## Size 60 TTABD Belt Driven Type T Tubeaxial

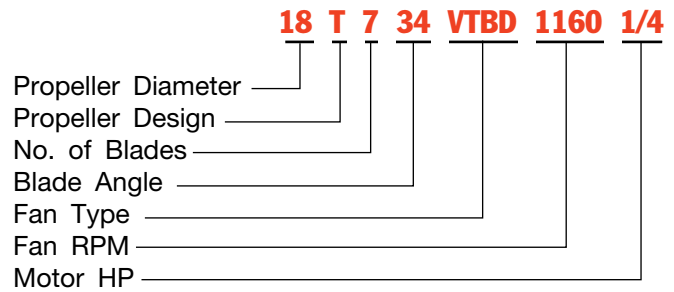
CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP		3.000" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
60T734	TTABD	413	5	37320	4.93																
60T734	TTABD	473	7½	44395	7.25	38632	7.66														
60T734	TTABD	520	10	49772	9.50	44845	10.01	38668	10.40												
60T734	TTABD	596	15	58273	14.06	54212	14.76	49568	15.24	43814	15.65										
60T734	TTABD	656	20	64871	18.56	61285	19.40	57348	20.01	52879	20.52										
60T734	TTABD	706	25	70317	22.98	67046	23.92	63511	24.66	59608	25.21	55304	25.81								
60T734	TTABD	750	30	75080	27.42	72039	28.43	68786	29.30	65277	29.94	61369	30.51	57109	31.13						
60T734	TTABD	826	40	83254	36.37	80540	37.53	77674	38.56	74640	39.42	71393	40.09	67823	40.71						



# Performance Data – Vaneaxial

## Catalog Number System

To identify a specific fan for ordering or engineering specifications, it is necessary to show the complete information listed in the tables below under “Catalog Number.” All performance data is available in curve form upon request.



## Size 12 VTBD Belt Driven Type T Vaneaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP		3.000" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
12T734	VTBD	2778	3/4	1978	0.734	1861	0.752	1723	0.751	1565	0.753										
12T734	VTBD	3058	1	2199	0.974	2095	0.996	1979	1.01	1846	1.00	1698	1.00								
12T734	VTBD	3500	1½	2543	1.45	2456	1.48	2361	1.50	2258	1.51	2142	1.50	2017	1.50						
12T734	VTBD	3853	2	2816	1.93	2738	1.96	2655	1.99	2567	2.01	2470	2.01	2365	2.00	2131	2.01				
12T734	VTBD	4410	3	3243	2.88	3177	2.92	3107	2.95	3034	2.98	2957	3.01	2875	3.01	2693	3.00	2492	3.01		

## Size 15 VTBD Belt Driven Type T Vaneaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP		3.000" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
15T734	VTBD	1915	3/4	2610	0.742	2380	0.753	2097	0.753												
15T734	VTBD	2108	1	2913	0.983	2714	1.00	2478	1.00	2185	1.00										
15T734	VTBD	2413	1½	3384	1.46	3219	1.50	3034	1.51	2820	1.50	2579	1.51								
15T734	VTBD	2656	2	3755	1.94	3609	1.98	3449	2.01	3272	2.01	3073	2.00	2853	2.01						
15T734	VTBD	3041	3	4337	2.89	4213	2.95	4081	2.99	3940	3.01	3786	3.01	3618	3.00	3236	3.02				
15T734	VTBD	3602	5	5178	4.78	5076	4.85	4969	4.91	4858	4.96	4741	4.99	4618	5.01	4346	5.00	4044	5.00	3643	4.98

## Size 18 VTBD Belt Driven Type T Vaneaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
18T734	VTBD	1370	0.5	3287	0.48	2822	0.503								
18T734	VTBD	1568	3/4	3870	0.72	3502	0.745	3032	0.751						
18T734	VTBD	1726	1	4325	0.95	4004	0.981	3629	1.00	3133	0.993				
18T734	VTBD	1976	1½	5032	1.41	4763	1.45	4468	1.48	4130	1.51	3708	1.50		
18T734	VTBD	2175	2	5588	1.87	5349	1.92	5092	1.96	4813	1.99	4494	2.01	4108	2.00
18T734	VTBD	2490	3	6459	2.80	6256	2.85	6041	2.89	5814	2.94	5572	2.98	5305	3.01
18T734	VTBD	2952	5	7725	4.64	7557	4.70	7383	4.75	7202	4.81	7014	4.86	6818	4.91
18T734	VTBD	3379	7½	8887	6.94	8742	7.00	8594	7.07	8441	7.13	8283	7.19	8120	7.25
CATALOG NUMBER				2.000" SP		2.500" SP		3.000" SP		3.500" SP		4.000" SP		4.500" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
18T734	VTBD	1370	0.5												
18T734	VTBD	1568	3/4												
18T734	VTBD	1726	1												
18T734	VTBD	1976	1½												
18T734	VTBD	2175	2												
18T734	VTBD	2490	3	4648	2.99										
18T734	VTBD	2952	5	6391	5.01	5891	5.03	5258	4.96						
18T734	VTBD	3379	7½	7779	7.38	7410	7.49	6996	7.54	6515	7.51	5933	7.42		

# Performance Data – Vaneaxial

## Size 22 VTBD Belt Driven Type T Vaneaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP		3.000" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
22T734	VTBD	984	1/2	4146	0.496	3189	0.500														
22T734	VTBD	1126	3/4	4937	0.732	4249	0.761														
22T734	VTBD	1239	1	5547	0.967	4967	1.01	4182	1.00												
22T734	VTBD	1419	1½	6496	1.44	6019	1.49	5466	1.52	4734	1.51										
22T734	VTBD	1561	2	7231	1.90	6811	1.96	6345	2.01	5797	2.03	5085	2.00								
22T734	VTBD	1787	3	8386	2.84	8030	2.90	7649	2.96	7234	3.01	6762	3.04	6195	3.03						
22T734	VTBD	2119	5	10060	4.70	9769	4.77	9464	4.84	9142	4.91	8803	4.98	8437	5.04	7574	5.06				
22T734	VTBD	2426	7½	11594	7.02	11344	7.11	11085	7.19	10816	7.27	10536	7.35	10245	7.43	9614	7.57	8875	7.61	7942	7.51

## Size 25 VTBD Belt Driven Type T Vaneaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
25T734	VTBD	1045	1	6971	0.933	6175	1.00	5051	0.98						
25T734	VTBD	1196	1½	8181	1.38	7516	1.46	6761	1.51	5675	1.46				
25T734	VTBD	1316	2	9126	1.81	8528	1.90	7896	1.99	7144	2.01				
25T734	VTBD	1507	3	10609	2.69	10094	2.79	9565	2.89	9003	2.99	8358	3.02	7528	2.97
25T734	VTBD	1786	5	12744	4.44	12317	4.55	11878	4.67	11432	4.79	10972	4.91	10471	5.00
25T734	VTBD	2045	7½	14706	6.62	14337	6.75	13960	6.89	13575	7.02	13185	7.16	12790	7.30
25T734	VTBD	2251	10	16257	8.79	15924	8.94	15585	9.09	15239	9.24	14888	9.38	14534	9.54
25T734	VTBD	2577	15	18701	13.14	18412	13.31	18119	13.48	17821	13.65	17520	13.82	17215	13.98
CATALOG NUMBER				2.000" SP		2.500" SP		3.000" SP		3.500" SP		4.000" SP		4.500" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
25T734	VTBD	1045	1												
25T734	VTBD	1196	1½												
25T734	VTBD	1316	2												
25T734	VTBD	1507	3												
25T734	VTBD	1786	5	9260	5.00										
25T734	VTBD	2045	7½	11927	7.52	10909	7.54	9311	7.15						
25T734	VTBD	2251	10	13807	9.85	12998	10.04	12069	10.06	10819	9.78				
25T734	VTBD	2577	15	16596	14.33	15965	14.69	15288	14.98	14539	15.11	13691	15.07	12608	14.77

## Size 29 VTBD Belt Driven Type T Vaneaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
29T734	VTBD	816	1	8293	0.949	7023	1.01								
29T734	VTBD	934	1½	9798	1.39	8784	1.49	7461	1.50						
29T734	VTBD	1028	2	10972	1.83	10073	1.94	9051	2.01	7559	1.94				
29T734	VTBD	1177	3	12798	2.72	12025	2.84	11221	2.96	10295	3.02	9068	2.96		
29T734	VTBD	1395	5	15425	4.47	14786	4.61	14126	4.75	13450	4.90	12707	5.01	11866	5.03
29T734	VTBD	1597	7½	17829	6.65	17277	6.81	16710	6.97	16132	7.14	15544	7.32	14921	7.47
29T734	VTBD	1758	10	19731	8.83	19233	9.01	18724	9.19	18204	9.37	17678	9.56	17143	9.75
29T734	VTBD	2012	15	22715	13.17	22283	13.38	21844	13.59	21397	13.79	20943	13.99	20484	14.20
29T734	VTBD	2214	20	25077	17.51	24686	17.73	24290	17.96	23888	18.19	23481	18.41	23069	18.63
CATALOG NUMBER				2.000" SP		2.500" SP		3.000" SP		3.500" SP		4.000" SP		4.500" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
29T734	VTBD	816	1												
29T734	VTBD	934	1½												
29T734	VTBD	1028	2												
29T734	VTBD	1177	3												
29T734	VTBD	1395	5												
29T734	VTBD	1597	7½	13473	7.55										
29T734	VTBD	1758	10	15977	10.04	14594	10.05								
29T734	VTBD	2012	15	19553	14.64	18546	15.00	17413	15.11	16009	14.95				
29T734	VTBD	2214	20	22234	19.10	21380	19.59	20462	19.97	19447	20.13	18290	20.06	16807	19.63

# Performance Data – Vaneaxial

## Size 33 VTBD Belt Driven Type T Vaneaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
33T734	VTBD	829	2	12840	1.86	11545	1.98	9893	2.00						
33T734	VTBD	949	3	15035	2.74	13934	2.89	12733	3.01	11191	3.00				
33T734	VTBD	1125	5	18188	4.50	17277	4.66	16339	4.84	15333	5.00	14168	5.04	12617	4.92
33T734	VTBD	1287	7½	21047	6.67	20262	6.86	19453	7.06	18630	7.26	17760	7.45	16787	7.54
33T734	VTBD	1417	10	23322	8.86	22615	9.07	21889	9.28	21148	9.50	20397	9.73	19605	9.93
33T734	VTBD	1622	15	26885	13.21	26272	13.45	25648	13.70	25011	13.94	24364	14.19	23713	14.45
33T734	VTBD	1785	20	29703	17.55	29149	17.82	28586	18.09	28015	18.35	27433	18.62	26845	18.89
33T734	VTBD	1923	25	32081	21.89	31569	22.18	31049	22.47	30523	22.76	29989	23.05	29447	23.34
33T734	VTBD	2044	30	34162	26.25	33681	26.56	33194	26.87	32701	27.18	32203	27.48	31698	27.793
CATALOG NUMBER				2.000" SP		2.500" SP		3.000" SP		3.500" SP		4.000" SP		4.500" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
33T734	VTBD	829	2												
33T734	VTBD	949	3												
33T734	VTBD	1125	5												
33T734	VTBD	1287	7½	14180	7.31										
33T734	VTBD	1417	10	17776	10.07	14973	9.58								
33T734	VTBD	1622	15	22341	14.92	20768	15.11	18764	14.89						
33T734	VTBD	1785	20	25654	19.47	24376	19.95	22939	20.13	21208	19.97				
33T734	VTBD	1923	25	28353	23.94	27229	24.55	26008	25.01	24661	25.17	23081	25.02	21009	24.31
33T734	VTBD	2044	30	30672	28.41	29635	29.07	28554	29.69	27373	30.09	26090	30.23	24599	30.07

## Size 38 VTBD Belt Driven Type T Vaneaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
38T734	VTBD	645	2	14889	1.89	13081	1.98								
38T734	VTBD	739	3	17515	2.79	16020	2.93	14323	3.01						
38T734	VTBD	876	5	21248	4.56	20026	4.77	18738	4.90	17306	4.99	15524	5.03		
38T734	VTBD	1003	7½	24649	6.76	23603	7.03	22513	7.23	21376	7.37	20131	7.47	18762	7.55
38T734	VTBD	1104	10	27327	8.94	26388	9.25	25414	9.51	24411	9.71	23363	9.84	22225	9.96
38T734	VTBD	1263	15	31512	13.27	30700	13.64	29867	13.97	29010	14.26	28135	14.49	27235	14.66
38T734	VTBD	1390	20	34833	17.60	34101	18.02	33353	18.40	32588	18.75	31805	19.06	31009	19.30
38T734	VTBD	1498	25	37648	21.95	36972	22.41	36283	22.84	35581	23.23	34865	23.59	34134	23.91
CATALOG NUMBER				2.000" SP		2.500" SP		3.000" SP		3.500" SP		4.000" SP		4.500" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
38T734	VTBD	645	2												
38T734	VTBD	739	3												
38T734	VTBD	876	5												
38T734	VTBD	1003	7½												
38T734	VTBD	1104	10	19454	10.05										
38T734	VTBD	1263	15	25276	14.93	22992	15.09								
38T734	VTBD	1390	20	29351	19.65	27527	19.94	25446	20.11						
38T734	VTBD	1498	25	32641	24.38	31052	24.71	29327	25.01	27350	25.17	23999	24.62		



# Performance Data – Vaneaxial

## Size 43 VTBD Belt Driven Type T Vaneaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
43T734	VTBD	526	2	17242	1.93	14612	2.02								
43T734	VTBD	603	3	20411	2.85	18285	2.98	15614	3.04						
43T734	VTBD	714	5	24847	4.62	23128	4.85	21263	4.97	19084	5.06				
43T734	VTBD	818	7½	28917	6.85	27449	7.15	25913	7.36	24250	7.49	22400	7.59	19597	7.50
43T734	VTBD	900	10	32088	9.05	30772	9.40	29401	9.67	27976	9.86	26425	9.99	24742	10.11
43T734	VTBD	1030	15	37070	13.42	35937	13.85	34767	14.22	33562	14.52	32322	14.73	31010	14.90
43T734	VTBD	1134	20	41028	17.80	40007	18.29	38959	18.73	37883	19.11	36783	19.42	35655	19.65
43T734	VTBD	1222	25	44362	22.19	43420	22.73	42456	23.22	41471	23.66	40462	24.04	39437	24.35
43T734	VTBD	1298	30	47233	26.52	46349	27.09	45448	27.63	44529	28.12	43590	28.56	42634	28.94
43T734	VTBD	1429	40	52169	35.24	51370	35.89	50558	36.50	49733	37.07	48895	37.60	48041	38.08
CATALOG NUMBER				2.000" SP		2.500" SP		3.000" SP		3.500" SP		4.000" SP		4.500" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
43T734	VTBD	526	2												
43T734	VTBD	603	3												
43T734	VTBD	714	5												
43T734	VTBD	818	7½												
43T734	VTBD	900	10												
43T734	VTBD	1030	15	28087	15.16										
43T734	VTBD	1134	20	33215	20.00	30456	20.26								
43T734	VTBD	1222	25	37296	24.79	34940	25.15	32211	25.35						
43T734	VTBD	1298	30	40672	29.50	38560	29.90	36274	30.26	33432	30.34				
43T734	VTBD	1429	40	46298	38.87	44497	39.43	42573	39.87	40518	40.28	38224	40.54	34948	40.19

## Size 48 VTBD Belt Driven Type T Vaneaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
48T734	VTBD	503	3	23320	2.89	20368	3.03								
48T734	VTBD	596	5	28555	4.70	26224	4.93	23603	5.06	19634	5.02				
48T734	VTBD	682	7½	33278	6.93	31289	7.26	29186	7.45	26832	7.59	23696	7.60		
48T734	VTBD	751	10	37015	9.17	35237	9.56	33379	9.84	31397	10.01	29206	10.16	26333	10.16
48T734	VTBD	859	15	42803	13.56	41276	14.05	39689	14.45	38055	14.74	36334	14.94	34465	15.12
48T734	VTBD	946	20	47428	17.99	46054	18.55	44637	19.03	43178	19.43	41683	19.72	40118	19.94
48T734	VTBD	1019	25	51289	22.39	50021	23.00	48720	23.54	47383	24.02	46017	24.41	44618	24.70
48T734	VTBD	1083	30	54663	26.79	53474	27.45	52260	28.05	51016	28.58	49743	29.05	48449	29.42
48T734	VTBD	1192	40	60389	35.56	59316	36.30	58223	36.99	57109	37.62	55973	38.20	54815	38.71
48T734	VTBD	1284	50	65209	44.31	64216	45.12	63208	45.88	62183	46.59	61141	47.25	60082	47.86
48T734	VTBD	1364	60	69390	53.00	68458	53.87	67514	54.69	66555	55.47	65583	56.20	64596	56.88
CATALOG NUMBER				2.000" SP		2.500" SP		3.000" SP		3.500" SP		4.000" SP		4.500" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
48T734	VTBD	503	3												
48T734	VTBD	596	5												
48T734	VTBD	682	7½												
48T734	VTBD	751	10												
48T734	VTBD	859	15	29611	15.17										
48T734	VTBD	946	20	36667	20.31	31523	20.12								
48T734	VTBD	1019	25	41594	25.14	38189	25.47								
48T734	VTBD	1083	30	45735	29.95	42744	30.39	39145	30.57						
48T734	VTBD	1192	40	52448	39.47	49935	40.01	47206	40.50	44126	40.79	39267	40.13		
48T734	VTBD	1284	50	57917	48.86	55683	49.56	53299	50.12	50750	50.63	47928	50.97	43956	50.59
48T734	VTBD	1364	60	62579	58.07	60516	58.97	58372	59.64	56075	60.21	53664	60.75	50997	61.10



# Performance Data – Vaneaxial

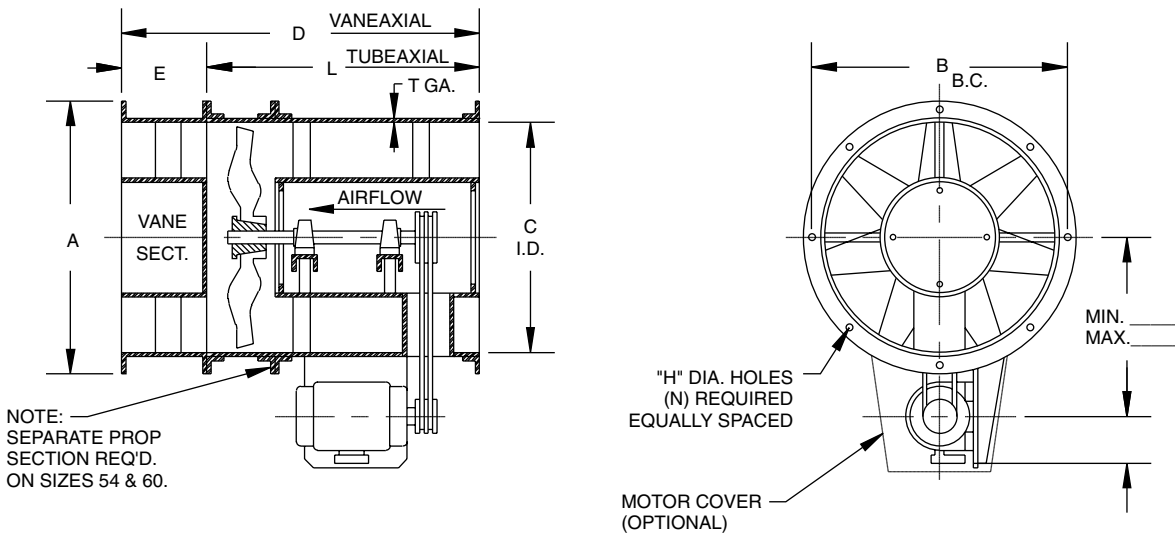
## Size 54 VTBD Belt Driven Type T Vaneaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP		3.000" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
54T734	VTBD	412	3	26623	2.90	22346	3.03														
54T734	VTBD	488	5	32818	4.70	29540	4.93	25570	5.04												
54T734	VTBD	559	7½	38437	6.95	35672	7.29	32642	7.47	28997	7.58										
54T734	VTBD	615	10	42797	9.15	40322	9.57	37713	9.83	34808	10.02	31163	10.07								
54T734	VTBD	704	15	49638	13.54	47520	14.08	45312	14.50	43006	14.77	40480	14.98	37695	15.13						
54T734	VTBD	775	20	55041	17.93	53139	18.55	51167	19.08	49135	19.46	47010	19.74	44704	19.97	39038	20.14				
54T734	VTBD	835	25	59581	22.31	57828	23.00	56021	23.60	54159	24.10	52250	24.46	50246	24.73	45816	25.19	38722	24.78		
54T734	VTBD	887	30	63500	26.64	61858	27.39	60172	28.06	58438	28.64	56666	29.09	54843	29.43	50873	29.97	46222	30.28		
54T734	VTBD	977	40	70256	35.41	68776	36.26	67263	37.04	65716	37.74	64132	38.35	62523	38.85	59168	39.56	55478	40.13	51254	40.47

## Size 60 VTBD Belt Driven Type T Vaneaxial

CATALOG NUMBER				0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP		2.500" SP		3.000" SP	
PROP	FAN TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
60T734	VTBD	413	5	37620	4.87	33189	5.10	26589	5.09												
60T734	VTBD	473	7½	44205	7.18	40527	7.53	36375	7.73	29257	7.55										
60T734	VTBD	520	10	49266	9.43	45981	9.89	42446	10.14	38386	10.32										
60T734	VTBD	596	15	57331	14.00	54527	14.60	51595	15.02	48454	15.29	44977	15.51	40237	15.47						
60T734	VTBD	656	20	63626	18.50	61111	19.21	58494	19.77	55783	20.15	52859	20.42	49697	20.67						
60T734	VTBD	706	25	68837	22.93	66519	23.72	64119	24.38	61646	24.88	59072	25.23	56286	25.52	49696	25.84				
60T734	VTBD	750	30	73402	27.38	71233	28.23	68997	28.97	66692	29.58	64330	30.02	61847	30.36	56354	30.92	47287	30.32		
60T734	VTBD	826	40	81252	36.36	79298	37.33	77295	38.20	75239	38.97	73137	39.6	70990	40.08	66378	40.80	61242	41.36	53178	40.75

# Dimensional Data



NOTE: FLANGED HOUSING CONSTRUCTION IS STANDARD ON STEEL FANS SIZES 15" THROUGH 33", ANGLE RING CONSTRUCTION IS STANDARD ON STEEL FANS SIZES 12" AND 38" THROUGH 60", AND ON ALL SIZES OF ALUMINUM CONSTRUCTION.

SIZE	DIMENSIONS								
	A	B	C	D	E	H	L	N	T
12	14 <sup>3</sup> / <sub>4</sub>	13 <sup>5</sup> / <sub>8</sub>	12	26	6	<sup>3</sup> / <sub>8</sub>	20	8	10
15	17 <sup>3</sup> / <sub>4</sub>	16 <sup>5</sup> / <sub>8</sub>	15	26	6	<sup>3</sup> / <sub>8</sub>	20	8	10
18	21 <sup>7</sup> / <sub>16</sub>	20	18 <sup>3</sup> / <sub>16</sub>	30	6	<sup>7</sup> / <sub>16</sub>	24	8	10
22	25 <sup>7</sup> / <sub>16</sub>	24	22 <sup>3</sup> / <sub>16</sub>	32	8	<sup>7</sup> / <sub>16</sub>	24	8	10
25	28 <sup>9</sup> / <sub>16</sub>	27 <sup>1</sup> / <sub>8</sub>	25 <sup>5</sup> / <sub>16</sub>	42 <sup>1</sup> / <sub>2</sub>	10 <sup>1</sup> / <sub>2</sub>	<sup>7</sup> / <sub>16</sub>	32	8	10
29	32 <sup>9</sup> / <sub>16</sub>	31 <sup>3</sup> / <sub>16</sub>	29 <sup>3</sup> / <sub>16</sub>	47	11	<sup>7</sup> / <sub>16</sub>	36	16	7
33	37 <sup>11</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>4</sub>	33 <sup>5</sup> / <sub>16</sub>	51	15	<sup>7</sup> / <sub>16</sub>	36	16	7
38	42 <sup>11</sup> / <sub>16</sub>	40 <sup>1</sup> / <sub>4</sub>	38 <sup>5</sup> / <sub>16</sub>	57	15	<sup>7</sup> / <sub>16</sub>	42	16	7
43	47 <sup>3</sup> / <sub>4</sub>	45 <sup>5</sup> / <sub>16</sub>	43 <sup>3</sup> / <sub>8</sub>	61	19	<sup>7</sup> / <sub>16</sub>	42	16	7
48	52 <sup>15</sup> / <sub>16</sub>	50 <sup>13</sup> / <sub>16</sub>	48 <sup>9</sup> / <sub>16</sub>	67	19	<sup>7</sup> / <sub>16</sub>	48	16	7
54	59	56 <sup>13</sup> / <sub>16</sub>	54 <sup>1</sup> / <sub>2</sub>	84	24	<sup>7</sup> / <sub>16</sub>	60	24	1/4
60	65	62 <sup>13</sup> / <sub>16</sub>	60 <sup>1</sup> / <sub>2</sub>	84	24	<sup>7</sup> / <sub>16</sub>	60	24	1/4



# Typical Specifications

Fans, where indicated on drawings and schedules, shall be Model TTABD Belt Driven Type T Tubeaxial or Model VTBD Belt Driven Type T Vaneaxial, arrangement 9, as manufactured by Aerovent, Minneapolis, Minnesota, and shall be of the size and capacity as indicated in the fan schedule. Fans shall be tested and certified in accordance with ANSI/ASHRAE 51-1985 and ANSI/AMCA 210-85 test codes and guaranteed by the manufacturer to deliver at the rated published performance levels. In addition, each unit shall be factory run tested prior to shipment.

**CONSTRUCTION** — Fan casings shall be welded of 10 gauge hot rolled steel in sizes through 22" diameter, 7 gauge hot rolled steel from 29" through 43" diameter, and ¼" plate hot rolled steel on sizes 48" diameter and larger. Inlet and outlet flanges shall be of welded angle ring construction on fan casings through 15" diameter and fan casings of 54" and 60" diameter. Inlet and outlet flanges on 18" through 48" diameter shall be integrally rolled from fan casing sheet steel to ensure concentricity and alignment of flanges. Concentricity of fan casings shall be insured through the use of welding jigs and fixtures. The motor base shall be fabricated of minimum ¾" steel plate and welded to the exterior of the fan casing. The adjustment of belt tension shall be accomplished with an adjustable slide rail base.

Fan casings shall be fitted with mounting legs for horizontal floor support, horizontal clips for ceiling suspension, vertical clips for floor or ceiling suspension, or flange mounted for direct duct connection as shown on drawings. Fan mounting supports shall be fabricated from hot rolled steel and shall be suitably braced to insure stability and rigidity.

**PROPELLER** — The propeller shall be cast from A319 aluminum, and shall have seven airfoil blades and a malleable iron split-taper bushing for mounting to the fan shaft. The blade angle setting shall be 34 degrees at a 0.75 radius. Fans shall have the propeller mounted on a separate shaft and bearings in an enclosed tube.

**GUIDE VANES** — Removable fan discharge guide vane sections shall be furnished where specified. Guide vane sections shall be designed to provide for maximum efficiency and straightening of the airflow. A quantity of eleven (11) accurately die-formed stationary guide vanes of 14-gauge hot rolled steel in sizes through 48" diameter, and 10-gauge hot rolled steel in sizes 54" and 60" diameter shall be welded inside the fan housing downstream of the propeller to straighten the airflow and insure optimum fan performance.

**BEARINGS** — All fans shall be supplied with sealed pillow block bearings with grease lines brought to the outside of the fan casing to facilitate servicing. Bearings shall have a minimum L-10 life as defined by AFBMA of at least 20,000 hours (100,000 hours average life).

**DRIVE** — Sheaves shall be cast iron with static conducting belts. Bearings and belts are enclosed in an air insulated housing for protection and shall utilize V-belt drives with a 1.3 safety factor. An OSHA-type belt guard shall be provided for personnel protection.

**MOTOR** — Fan motors shall be foot mounted NEMA Design B, standard industrial continuous duty, ball bearing (ODP, TEAO, TEFC, FCXP) variable torque type suitable for operation on voltage, phase, and hertz, as listed in the fan schedule.

**BALANCING** — The propeller assembly shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. In addition, belt driven fan propellers shall be balanced on the fan shaft after final assembly in the fan casing, in the manufacturing facility, to the following peak velocity values, filter-in, at the fan test speed:

Fan Application Category	Rigidly Mounted - (in./s)	Flexibly Mounted - (in./s)
BV-3	0.15	0.20

**FINISH** — The unit, after fabrication, shall be cleaned and chemically pretreated by a phosphatizing process and shall be painted inside and outside with an air dry enamel. Fan shall be coated with the following optional finish:

- ◆ Air Dry Epoxy
- ◆ Epoxy Phenolic
- ◆ Farboil - Baked Aromatic Epoxy
- ◆ Plastite 4310 - Vinyl Ester
- ◆ Plastite 3070 - Baked Phenolic
- ◆ Plastite 7122/Heresite VR506 - Epoxy Phenolic
- ◆ Carbocoat 30 (Replaces Sanitile 550 and Eisenheiss 210)

**ACCESSORIES** — Unit shall be complete with:

- ◆ Bolted Inspection Door
- ◆ Spark Resistant Construction Type A
- ◆ OSHA Inlet Guard
- ◆ Propeller Access Section
- ◆ Spark Resistant Construction Type B/C
- ◆ OSHA Outlet Guard
- ◆ Swingout Construction
- ◆ Stack Cap [Steel] [Aluminum] [304 SS] [316 SS]
- ◆ Motor Cover
- ◆ Clamshell Construction
- ◆ Curb Base [Steel] [Aluminum] [304 SS] [316 SS]
- ◆ Shaft Seal
- ◆ Support Legs
- ◆ Companion Flanges [Steel] [Aluminum] [304 SS] [316 SS]
- ◆ Inlet Bell
- ◆ Horizontal Ceiling Clips
- ◆ Floor Mounted Vibration Isolators [RIS] [Spring]
- ◆ Cone – Inlet
- ◆ Vertical Mounting Clips
- ◆ Ceiling Mounted Vibration Isolators [RIS] [Spring]
- ◆ Cone – Outlet
- ◆ Vertical Support Section



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