

Vaneaxial Fans

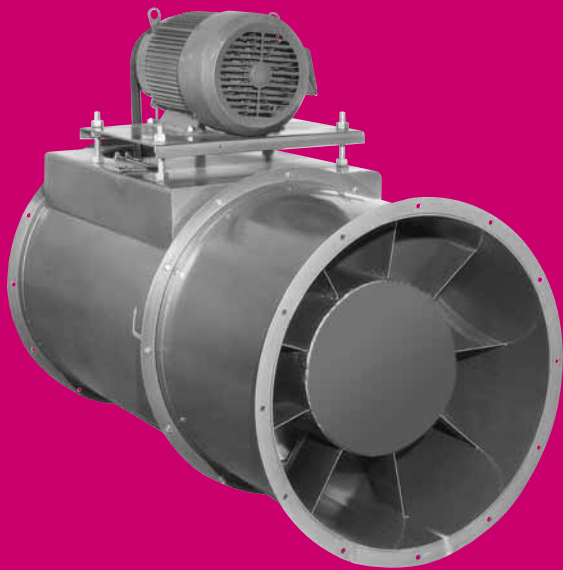
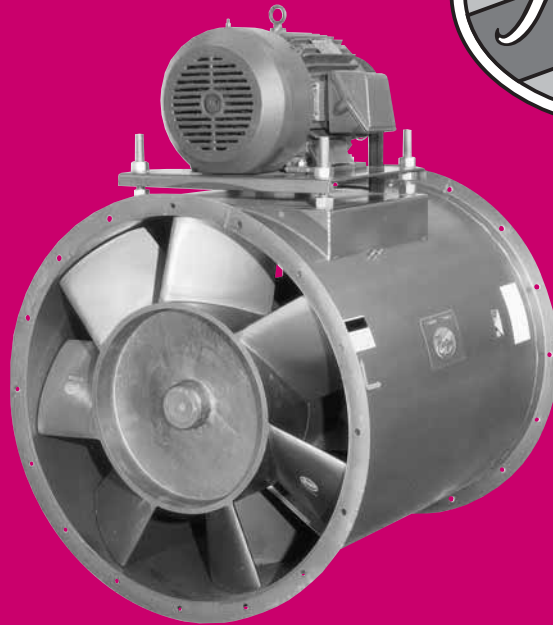
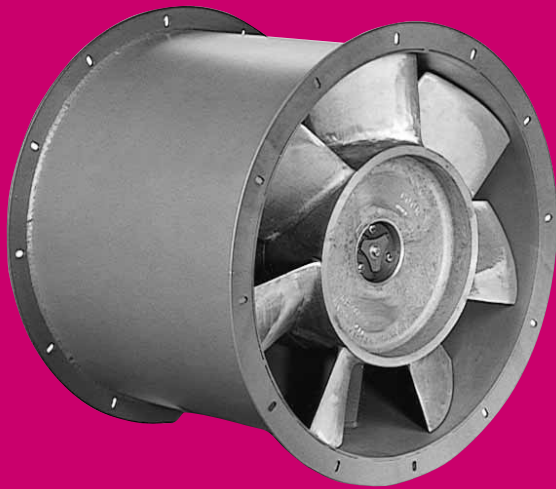
Series 25

Series 53

Series 53C

Series 54

Series 55



HARTZELL®

Hartzell Fan, Inc., Piqua, Ohio 45356
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Certified Ratings for Sound and Air Performance

Hartzell Fan, Inc. certifies that the Series 53C Direct Drive, Vaneaxial Fan, C-faced motor with internal vane section shown on pages 9 and 10, and the Series 54, Belt Drive Vaneaxial VA on pages 11 through 16 are licensed to bear the AMCA seal for air and sound performance. 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.

Sound performance data is available on request. Please contact the factory and ask for Engineering Publication #SD-110.



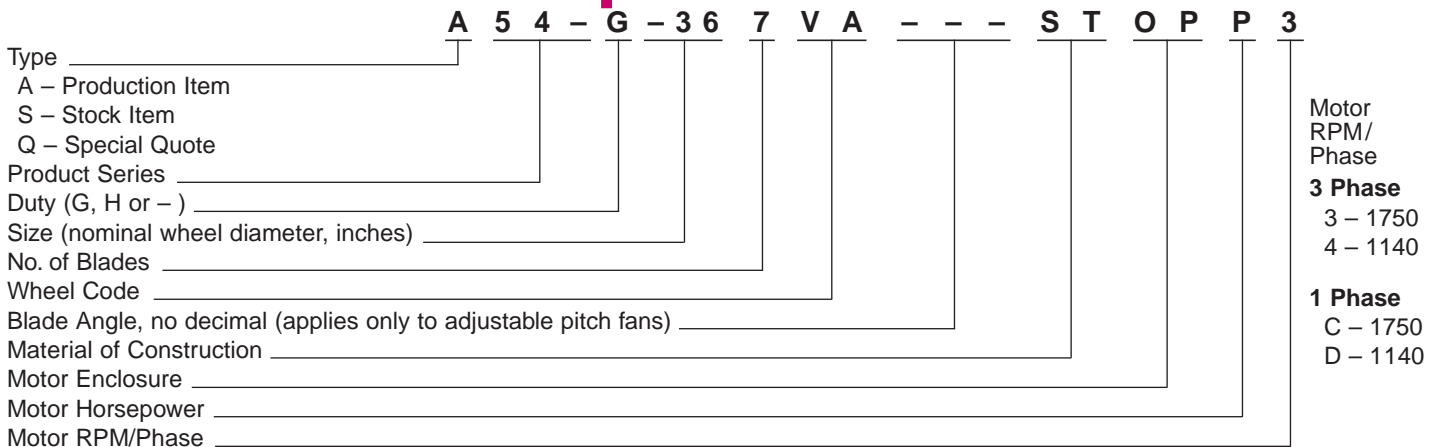
Certified Ratings for Air Performance

Hartzell Fan, Inc. certifies that the Series 53 Direct Drive, Vaneaxial Fan shown on page 8 is licensed to bear the AMCA seal for air performance. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.



Hartzell Fan, Inc. certifies that the Series 25, Miniature Vaneaxial Blower, shown on page 7, and the Vaneaxial Fan, Belt Drive, Series 54, shown on pages 11, 12 and 17, is authorized to bear CE Marking in accordance with Machinery Safety Directive 98/37/EC of the European Union. Reference Technical File E.S. 13.2.1.

Hartzell Model Explanation



Motor Horsepower

Horsepower	1/4	1/3	1/2	3/4	1	1 1/2	2	3	5	7 1/2	10	15	20	25	30	40	50	60	75	100	125	150	200
Code Letter	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z

EXAMPLE:

Assume a required performance of 23,200 CFM, at 3" SP, standard air. Reading across the Series 54 Rating Table on page 15, we find a 36" fan with "G" (General Industrial) Duty construction and a performance of 23,500 CFM at 3" SP. RPM of 1527 and brake horsepower of 19.7. This unit has a 7-blade, type "VA" propeller. Motor horsepower is 25.

The model code can be constructed as follows: Type will be a production item (code A), product series for the Vaneaxial Fan, Type VA is 54, size of the wheel is 36", "G" (General Industrial) Duty construction, number of blades is 7, blade is VA, material of construction is steel (code ST), motor is open. Protected 1.15 S.F. (code OP), motor horsepower is 20 (code P), and motor RPM/phase is 1750 (code 3). This fan is also available in Hartzell HRS.

Note: All other informational fields must be filled with hyphens/dashes (-) if they are not applicable to the fan being considered.

This bulletin lists Hartzell's complete line of Vaneaxial Fans and accessories. More than 70 Hartzell offices can provide specific performance and installation data to meet your requirements. Call your Hartzell representative for assistance. Visit our website (www.hartzellfan.com) or call toll-free (1-800-336-3267) for the name of your Hartzell representative.

Certificates of Design Assessment are issued by the American Bureau of Shipping. The assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. The certificates, by itself, do not reflect that the products are Type Approved.



Vaneaxial Fans

Page 7 –
Series 25, Direct Drive,
Miniature Vaneaxial
Blower



Page 8 –
Series 53, Direct Drive,
Vaneaxial Fan



Page 9 –
Series 53C, Direct Drive,
Vaneaxial Fan, C-faced
motor with internal
vane section



Page 11 –
Series 54, Belt Drive, Type VA,
Vaneaxial Fan, “G” (General Industrial)
Duty construction



Page 12 –
Series 54, Belt Drive, Type VA,
Vaneaxial Fan, “H” (Heavy Industrial)
Duty construction



Page 16 –
Series 54, Belt Drive, Type VB,
Vaneaxial Fan



Page 20 –
Series 55, Belt Drive, Type VA & VB,
Vaneaxial Fan



Construction Features

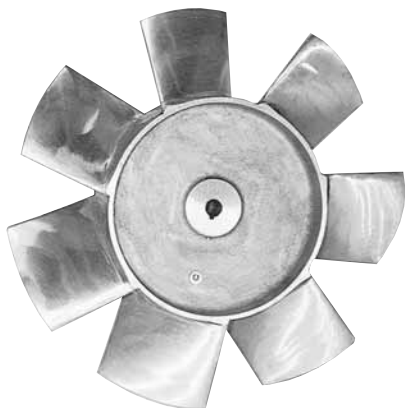
Vaneaxial fans are highly efficient axial flow fans designed for static pressures up to 12". They also offer the compactness and in-line configuration of axial flow fans.

The Vaneaxial is the workhorse of the Hartzell line of duct type fans. Standard fans are designed for low pressure applications from free air to 11/4" SP. Duct Axial® fans are efficient air movers from 1" to 4" at low speeds and with low noise characteristics. The Vaneaxial, however, works up to 12" SP, moving large volumes of air at comparatively low tip speeds.

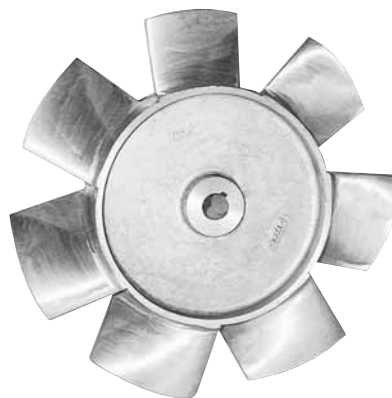
The key part in a Vaneaxial fan is the impeller. The Hartzell airfoil, 7-bladed, one-piece cast aluminum impeller was developed after extensive scientific study and is designed to move large volumes of air at high static pressures. A high hub-to-blade size ratio and 7-bladed configuration effectively prevents the backflow of air, increasing the impeller's efficiency at high pressures.

Vaneaxial fans are available in both direct and belt drive, sizes 12" to 60". Hartzell offers four types of vaneaxial fans:

- Series 53, Direct Drive, Type VA, sizes 18" to 42".
- Series 53C, Direct Drive, Type VA, with internal vane section, sizes 18" to 60".
- Series 54, Belt Drive, Type VA, sizes 12" to 60", wide performance range. Available in both "G" (General Industrial) Duty and "H" (Heavy Industrial) Duty. "G" Duty construction incorporates pivot style motor mounting and flange mounted ball or roller bearings. Applications limited by selection point and motor horsepower, see page 11 for details. "H" Duty construction incorporates motor mounting platform and pillow block foot mounted ball or roller bearings. Available in all sizes, see page 12 for details.
- Series 54, Belt Drive, Type VB, sizes 18" to 48". Lower blade pitch and higher hub-to-diameter ratio makes the "VB" more efficient at high temperatures than standard Vaneaxial. Available only in "H" (Heavy Industrial) Duty construction.
- Series 55, Belt Drive, High Temperature Vaneaxial, Type VA or VB, Sizes 12" to 60". In contrast to standard Vaneaxials, design configuration places the drive assembly on the negative pressure side of the propeller, drawing ambient air outside the system through the belt tube, in and over the belts and bearings. This allows use in applications where the fan is handling air up to 350°F.



Type VA Impeller



Type VB Impeller



Series 54,
Type VA, "G" General
Industrial Duty

General Features

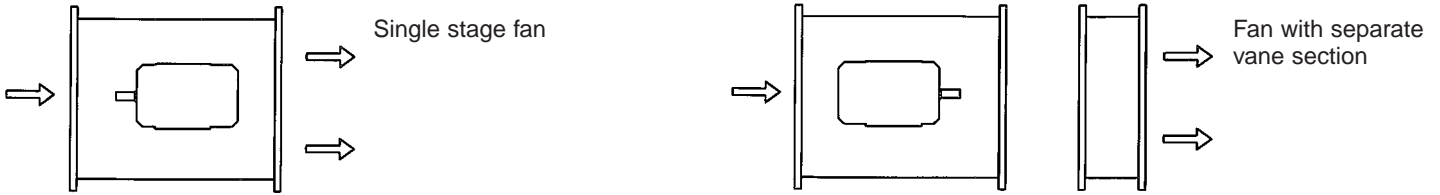
- **Cast Aluminum Alloy airfoil type impeller** with ample safety factors (non-ferrous for non-sparking) individually ground for balance. Dynamically balanced to ensure vibration-free operation.
- **Housings** are heavy gauge hot-rolled steel with continuously welded steel drum and rolled steel flanges.
- **Bearings** on belt drive units are either deep row radial ball type and self-aligning, shielded and mechanically sealed in cast iron on malleable housings, or are double row spherical roller bearings. Long inner race insures load distribution, providing a high radial and thrust load capacity. Both are a relubricable type for continuous service with lubrication tubes extended to the exterior of fan housing as standard. Lubrication tubes extending from motor to exterior of fan housing are standard on Direct Drive Fans.
- **Straightening Vanes** – Nine heavy gauge steel discharge guide vanes are welded in the casing. Aerodynamically designed straightening vanes maximize efficiency. Vanes minimize turbulence, converting velocity pressure to static pressure for increased capability.
- **Shafts** are high strength steel, ground and polished.
- **V-Belt Drives** are oversized for longer life and continuous duty. Belts are oil, heat and static resistant type.
- **Sheaves** are fixed pitch as standard. Variable pitch sheaves are available upon request.
- **Motors** – Totally enclosed motors are standard on Direct Drive Vaneaxials. Belt Drive models feature open-end, drip-proof motor out of air stream as standard. Totally enclosed fan cooled and other special motors can be furnished at extra cost.
- **Welded steel motor base plate** on direct and belt drive models.
- **Protective coatings** – See page 27.
- **Accessories** – See pages 26 and 27.
- **Installation position** – Can be used in any position from horizontal to vertical.



Drive and Mounting Arrangements

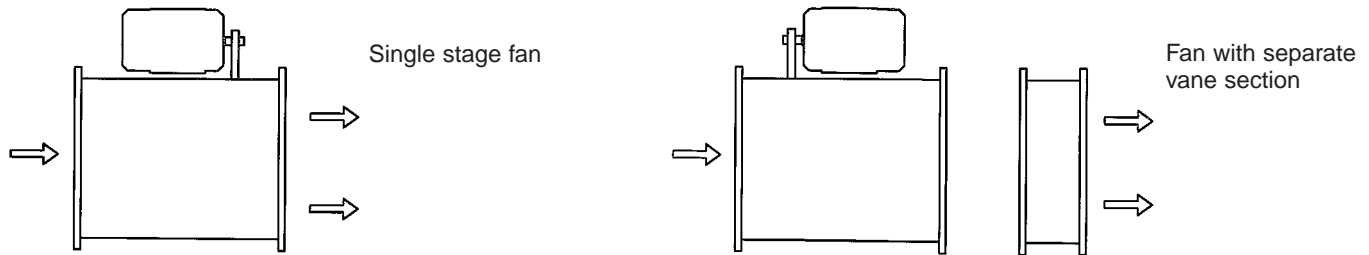
Arrangement #4

For direct drive. Wheel overhung on motor shaft. Motor supported within casing. For vertical, horizontal or inclined mounting positions.

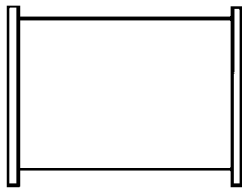


Arrangement #9

For belt drive, wheel overhung on a shaft supported by bearings mounted within casing. Designed for mounting of motor on outside of casing. For vertical, horizontal or inclined mounting positions.

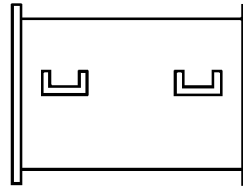


Mounting Arrangements



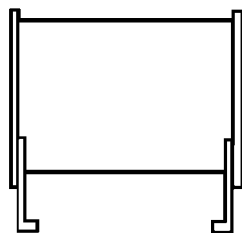
Duct Mounting

Inlet and discharge flanges allow direct mounting to duct work, providing the duct system is structured to support the unit. Can be mounted in the vertical, horizontal or inclined position.



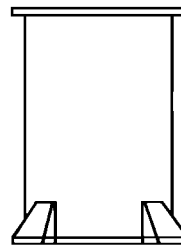
Ceiling Suspension

Side-angle supports enable suspension of unit from the ceiling. Can be used with vibration isolators. Also available for vertical mountings.



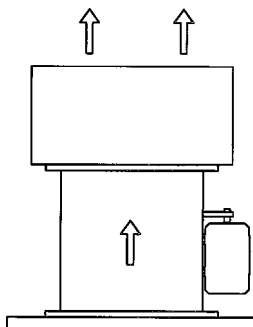
Mounting Feet

Bolted to the inlet and discharge flange, mounting feet allow positioning of the unit on the floor, ceiling, wall or platform. Can be used with vibration isolators.



Floor Mounting

Alternate method of mounting fans in vertical position. Brackets ensure rigid, flush mounting of fan to floor. Specify vertical up or vertical down air flow.



Roof Mounting

When desirable, the belt driven Vaneaxial fan can be mounted as a roof exhaustor. Together with a stack cap and panel, the three elements combine to provide a roof exhaustor unit with high static pressure capabilities. Back draft dampers offer weatherproof closure for vertical air discharge.

CFM Limitation for Damper Operation

CFM	FAN SIZE					
	12"	14"	18"	21"	24"	26"
Minimum	990	1355	2250	3070	4020	4725
Maximum	2435	3330	5535	7560	9895	11630

CFM	FAN SIZE					
	29"	36"	42"	48"	54"	60"
Minimum	5885	9095	12395	16165	20485	25315
Maximum	14490	22385	30515	39795	50425	62310

For performance, refer to the appropriate Vaneaxial Rating Table, allowing 1/8" SP resistance for the stack cap. Minimum velocity required through stack cap for damper operation is 1300 FPM, maximum is 3200 FPM.



Selection Guide

How To Use Capacity Tables

Select size, RPM and BHP for a given air delivery and pressure of a vaneaxial fan from the rating tables.

Performance ratings are based on standard air conditions, sea level 70°F and 29.92 inches barometric pressure giving an air density of .075 lbs. per cubic foot. The specific gravity of air equals 1.00 at these conditions.

If non-standard temperature or altitude is involved, correct to standard air density (see Table 1).

For speeds above ratings consult factory.

Altitude – Temperature Correction

For an application where the fan operates at other than ambient conditions (temperature, altitude, or both), correction factors must be applied to the selection of the fan. In addition, the standard construction of the fan must be modified.

Correction factors for temperatures and altitudes are provided in Table 1. When a fan operates at other than ambient conditions, the correction factors in Table 1 will be required to correct static pressure and horsepower.

First select size, RPM and BHP of the fan needed. If temperature or altitude is involved, correct to standard air.

Table 1 Combined Altitude/Temperature Correction Factors

Temp.* (°F)	-50	-25	0	25	50	70	100	125	150	175	200	225	250	275	300	325	350
Factor	0.77	0.82	0.87	0.92	0.96	1.00	1.06	1.10	1.15	1.20	1.25	1.29	1.34	1.39	1.43	1.48	1.53

Alt.** (Ft.)	0	1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000
Factor	1.00	1.04	1.08	1.12	1.16	1.20	1.25	1.30	1.35	1.40	1.46

Above table has inverted values. Actual density is the reciprocal of the above values.

*At sea level. **At 70°F.

For corrections involving both temperature and altitude, correction factors should be multiplied.

Example: 150°F at 7,000 ft.: Temperature factor 1.15 x altitude factor 1.30 = 1.50 combined correction factor.

Discharge Cones

Ratings shown in this bulletin are for vaneaxial fans with inlet and outlet ducts of the same diameter as the fan. Discharge cones may be used on the vaneaxial fans to adapt to larger diameters (see Fig. A). The result is a static pressure regain.

Table 2 shows the amount of additional static pressure capability, which results from using the discharge cone. Add the amount of .45 (VP₁ - VP₂) to the vaneaxial fan's static pressure, or fan with cone (SP₂):

$$SP_2 = SP_1 + .45(VP_1 - VP_2)$$

Discharge cones may also be used to transform large ducts to the vaneaxial fan inlet size (see Fig. B). Since these cones have gently tapered sides, the friction loss is negligible, about .08 x the difference in velocity pressures (see Table 3).

If the fan is to be used with ducts smaller in diameter than the unit (see Fig. C), the difference in velocity pressure across the cone must be added to the static pressure for which the vaneaxial fan is used.

Example: Assume the required performance to be 25,000 CFM at 1.80" SP, 225°F and 2,000 feet altitude.

1. Temperature factor 1.29 x altitude factor 1.08 = 1.39 combined correction factor.
2. 1.80" SP x 1.39 = 2.5" SP for 70°F at sea level.
3. A Series 55 Belt Drive Vaneaxial, 36" diameter fan selected from the rating table (page 22) for the new conditions show 25,000 CFM, 2.5" SP at 1,595 RPM at 21.8 peak fan BHP. The 225°F temperature necessitates Series 55, high temperature construction.
4. Correct the horsepower and static pressure in item 3 to non-standard performance by dividing by the factor:

$$2.5" \text{ SP} \div 1.39 = 1.80" \text{ SP}$$

$$21.8 \text{ BHP} \div 1.39 = 15.7 \text{ BHP}$$
5. Final performance of the unit at the assumed conditions: 25,000 CFM at 1.80" SP, 1,595 RPM, 15.7 BHP at 225°F and 2,000 feet altitude.
6. Size motor for cold startups or contact your Hartzell Representative for assistance. Use a special high altitude motor if altitude exceeds 3,300 feet.

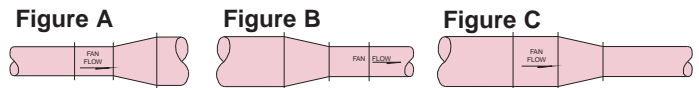


Table 2 Velocity Pressure for Corresponding Air Velocities and Static Pressure Regain (0.075 lbs./ft.³, 25°- 30° included angle.)

VELOCITY FPM	VELOCITY PRESSURE	SP REGAIN	VELOCITY FPM	VELOCITY PRESSURE	SP REGAIN	VELOCITY FPM	VELOCITY PRESSURE	SP REGAIN
1000	0.06	0.013	2750	0.47	0.098	4500	1.26	0.262
1250	0.10	0.020	3000	0.56	0.116	4750	1.41	0.292
1500	0.14	0.029	3250	0.66	0.137	5000	1.56	0.323
1750	0.19	0.040	3500	0.76	0.158	5250	1.72	0.357
2000	0.25	0.052	3750	0.88	0.182	5500	1.89	0.391
2250	0.32	0.065	4000	1.00	0.207	5750	2.06	0.428
2500	0.39	0.081	4250	1.13	0.234	6000	2.24	0.466

High Temperature Construction

Direct Drive Duct Fans – Series 25, 53 and 53C

Temperature: 104°F standard.

104° to 140°F – Class F insulation required on motor.

140° to 176°F – Class H insulation required on motor.

176° to 212°F – Class HH insulation required on motor.

For direct drive units with airstream temperatures above 212°F, contact factory.

Belt Drive Vaneaxial Fans – Series 54 and 55

Maximum Temperature for the Series 54 is 200°F.

Maximum Temperature for the Series 55 is 350°F. For applications with airstream temperatures between 200°F and 350°F, high temperature construction consists of purging fan bearings with high temperatures grease as well as opening the end of the bearing cover so that cool ambient air is drawn over the belts and bearings. If the motor ambient temperature is higher than 104°F, specially insulated motors are required. For airstream temperatures above 350°F, contact factory.



Series 25 Miniature Vaneaxial Blower

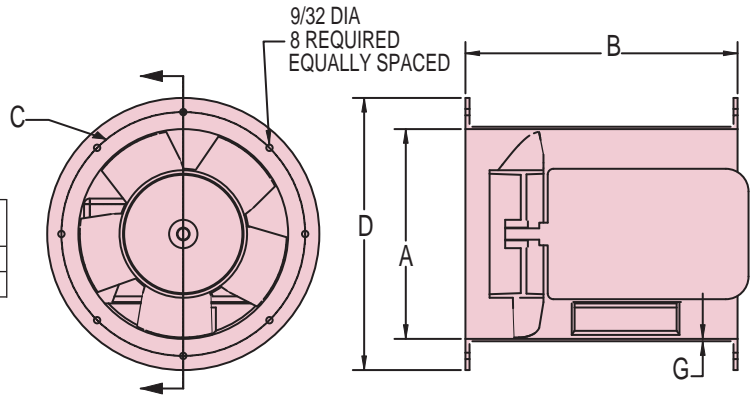


Series 25



- **Applications** – Handling relatively clean and corrosive-free air at temperatures not exceeding the motor rating. Designed for flange mounting in any position.
- **Performance** – from 70 CFM to 1,000 CFM and pressures from 0" SP to 3/4" SP. Available in sizes 8 and 9.
- **Housings** – are continuously welded heavy gauge, hot rolled steel with flanged punched inlet and outlet connections for easy installation.
- **Axial Impellers** – are 5-bladed true airfoil, solid cast aluminum with straight bored and keyed hub and precision balanced.
- **Standard Finish** – Standard fans are pretreated and painted with blue industrial duty air dry enamel. alternate coatings are available for corrosive environments.
- **Motors** – are totally enclosed long life industrial type foot mounted as standard. Special motors are available upon request.
- **Accessories** – See pages 26 and 27.

CE Hartzell Fan, Inc. certifies that the Miniature Vaneaxial Blower, Series 25, shown on Page 7, is authorized to bear CE Marking in accordance with Machinery Safety Directive 98/37/EC of the European Union. Reference Technical File E.S.13.2.1.



Principal Dimensions

Fan Size	A	B	C	D	G	Min. Motor Frame	Max. Motor Frame
8	8 1/2	12	10	11 1/4	10 Ga.	48	56
9	9 1/4	12	10 3/4	12	10 Ga.	48	56

Note: Dimensions and specifications are subject to change. Certified prints are available.

Rating Table — Series 25 – Miniature Vaneaxial Blower, A25- - - 5 - - -ST- - - -

Size	Model	Motor (Fan)		Peak Fan BHP	Cubic Feet Per Minute vs. Static Pressure						
		HP	RPM		Free Air	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"
8	A25----85TA---ST__D3	1/4	1750	0.02	329						
	A25----85TA---ST__F2	1/2	3450	0.15	648	609	570	509			
8	A25----85VA---ST__D3	1/4	1750	0.02	371	291					
	A25----85VA---ST__F2	1/2	3450	0.19	732	690	658	614	567	500	
9	A25----95TA---ST__D3	1/4	1750	0.03	483	391					
	A25----95TA---ST__F2	1/2	3450	0.22	953	909	864	820	764		
9	A25----95VA---ST__D3	1/4	1750	0.03	508	423					
	A25----95VA---ST__F2	1/2	3450	0.25	1002	960	917	873	828	777	696

Performance certified is for installation Type D: ducted inlet/ducted outlet. Performance data is based on standard air conditions (0.075 #/ft.³). Performance ratings do not include the effects of appurtenances (accessories).

Bold-type information provided in the Rating Table above is needed when preparing a model code. Refer to page 2 for more information.



Series 53, Direct Drive, Type VA



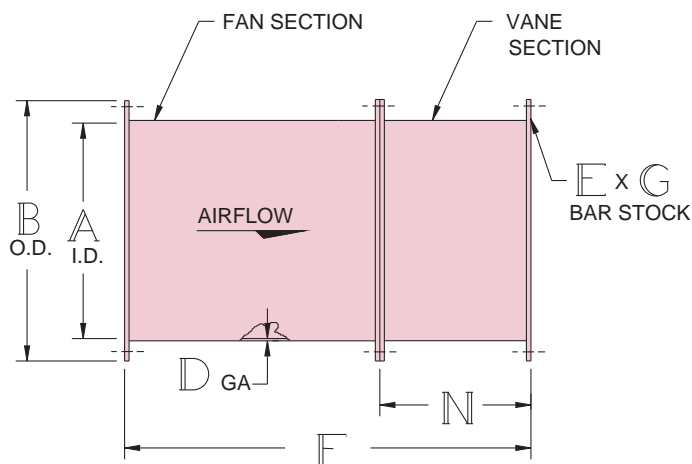
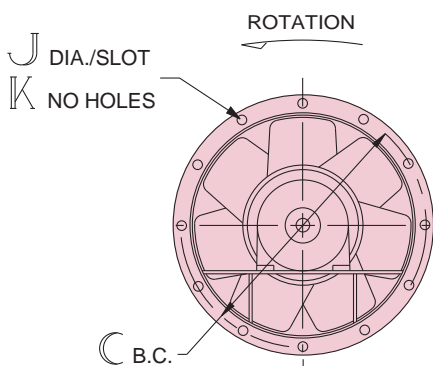
Series 53

- **Applications** – Handling relatively clean and corrosive-free air at temperatures not exceeding the motor rating.
- Available in sizes 18" to 42" ... **performance** from 3410 CFM at 1" to 23,900 CFM at 3½" SP.
- **Impeller** – 7-blade airfoil design, cast aluminum construction mounted with split taperlock bushing for easy installation and removal. Large hub to blade ratio prevents backflow of air, moves large volumes of air at high pressures.
- **Housings** – Heavy gauge, hot rolled steel housing with continuously welded steel drum and rolled steel flanges.
- **Rigid motor mounts** – Provide support for foot-mounted motors.
- **Motors** – Totally enclosed fan cooled are standard. Special motors are available upon request. Extended motor leads to exterior of housing are available as an option.
- **Guide Vane Section** – Separate vane section designed to insure maximum efficiency in converting velocity pressure to static pressure with minimal turbulence.
- **Extended Lube Tubes** from motor to exterior of fan housing are standard.
- **Accessories** – See pages 26 and 27.
- **Protective coatings** – See page 27.



Hartzell Fan, Inc. certifies that the Series 53, Direct Drive Vaneaxial Fan, shown hereon, is licensed to bear the AMCA seal for air performance. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

ABS Certificate
of Design Assessment
Received



Principal Dimensions

Fan Size	A	B	C	D	E	F	G	J	K	N	Max. Motor Frame	Estimated Weight*
18	18	21 ^{5/16}	19 ^{3/4}	10	1/4	33 ^{1/2}	1 ^{1/2}	7/16 X 1 ^{3/16}	12	14	145T	190
21	21	24 ^{5/16}	22 ^{3/4}	10	1/4	42	1 ^{1/2}	7/16 X 1 ^{3/16}	12	17	145T	260
26	26	30 ^{7/16}	28	7	3/8	42	2	7/16 X 1 ^{3/16}	12	21	184T	480
29	29	33 ^{7/16}	31	7	3/8	50	2	7/16 X 1 ^{3/16}	12	23	215T	650
36	36	40 ^{7/16}	38	7	3/8	56	2	9/16 X 1 ^{3/16}	16	29	254T	920
42	42	46 ^{7/16}	44 ^{3/8}	7	3/8	62	2	9/16 X 1 ^{3/16}	16	33	284T	1280

*Estimated Weight is less motor, drives and accessories.

Note: Specifications are subject to change.
Certified prints are available.



Series 53C, Direct Drive, Type VA with Internal Vane Section



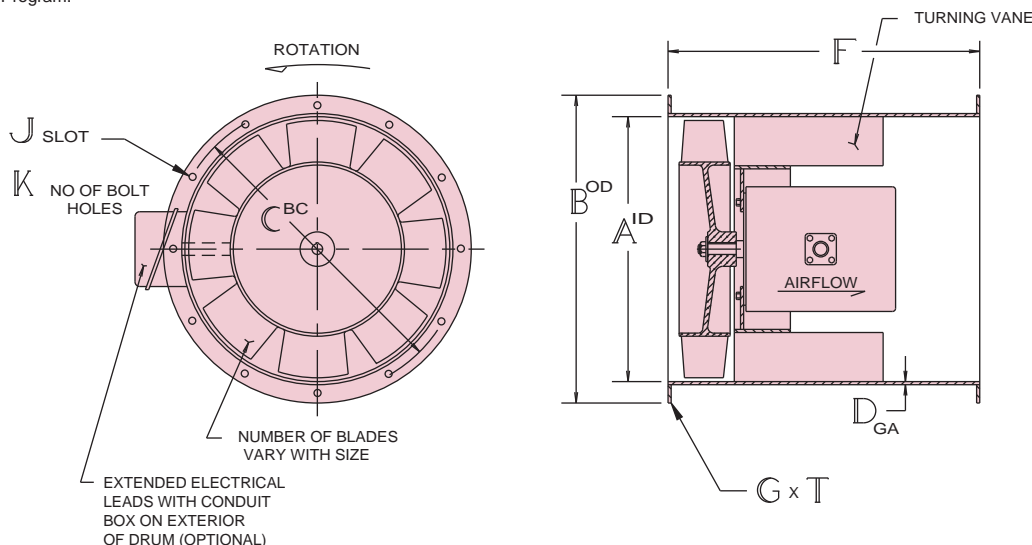
Series 53C

- **Applications** – Handling relatively clean and corrosive-free air at temperatures not exceeding the motor rating.
- Available in sizes 18" to 60"...**performance** from 3850 CFM at free air to 105,000 CFM at 5" SP.
- **Impeller** – 7-blade airfoil design, cast aluminum construction mounted with split taperlock bushing for easy installation and removal.
- **Housings** – Heavy gauge, hot rolled steel housing with continuously welded steel drum and rolled steel flanges with **internal guide vane** section designed to insure maximum efficiency in converting velocity pressure to static pressure with minimal turbulence.
- **Rigid "C" face motor mounts** – Provide support for motors.
- **Motors** – Totally enclosed fan cooled "C" face are standard. Special motors are available upon request. Extended motor leads to exterior of housing are standard.
- **Extended Lube Tubes** from motor to exterior of fan housing are standard.
- **Accessories** – See pages 26 and 27.
- **Protective coatings** – See page 27.



Hartzell Fan, Inc. certifies that the Series 53C Direct Drive, Vaneaxial Fan, C-faced motor with internal vane section shown hereon is licensed to bear the AMCA seal for air and sound performance. 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.

ABS Certificate of Design Assessment Received



Principal Dimensions

Fan Size	A	B	C	D	F	G	J	K	T	Min. Motor Frame Size	Max. Motor Frame (ODP)	Max. Motor Frame (TEFC)	Estimated Weight*
18	18	21 ^{5/16}	19 ^{3/4}	10	19	1 ^{1/2}	7/16 X 1 ^{3/16}	12	1/4	56TC	145TC	145TC	110
21	21	24 ^{5/16}	22 ^{3/4}	10	20	1 ^{1/2}	7/16 X 1 ^{3/16}	12	1/4	56TC	145TC	145TC	140
26	26	30 ^{7/16}	28	7	22	2	7/16 X 1 ^{3/16}	12	1/4	182TC	184TC	184TC	230
29	29	33 ^{7/16}	31	7	25	2	7/16 X 1 ^{3/16}	12	1/4	213TC	215TC	215TC	320
36	36	40 ^{7/16}	38	7	32	2	9/16 X 1 ^{3/16}	16	1/4	254TC	286TC	286TC	490
42	42	46 ^{7/16}	44 ^{3/8}	7	37	2	9/16 X 1 ^{3/16}	16	3/8	284TC	326TC	326TC	690
48	48	53 ^{7/16}	50 ^{1/2}	7	42	2 ^{1/2}	9/16 X 1 ^{3/16}	16	3/8	284TC	405TC	405TC	700
54	54	59 ^{9/16}	56 ^{1/2}	1/4	46	2 ^{1/2}	9/16 X 1 ^{3/16}	16	3/8	326TC	445TC	445TC	1420
60	60	65 ^{9/16}	63 ^{1/4}	1/4	46	2 ^{1/2}	9/16 X 1 ^{3/16}	16	3/8	364TC	445TC	445TC	1510

*Estimated Weight is less motor, drives and accessories.

Note: Specifications are subject to change.
Certified prints are available.



Performance Data – Series 53 and 53C

Rating Table – Series 53 (Direct Drive Vaneaxials, Type VA)

Size	Model	Motor (Fan)		Peak Fan BHP	CFM @ Static Pressure													
		HP	RPM		Free Air	1/4"	1/2"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/4"	2 1/2"	2 3/4"	3"	3 1/2"
18	A53--187VA--ST_H3	1	1730	0.74	3998	3784	3570	3353	3090	2633								
21	A53--217VA--ST_F4	1/2	1140	0.55	4582	4154	3724	3207										
	A53--217VA--ST_J3	2	1730	2.09	6954	6669	6385	6120	5841	5522	5191	4833	4483					
26	A53--267VA--ST_I4	1 1/2	1155	1.62	8320	7893	7455	6948	6355	5410								
	A53--267VA--ST_L3	5	1730	5.47	12462	12169	11889	11612	11320	11002	10666	10310	9930	9507	9005	8333		
29	A53--297VA--ST_K4	3	1170	3.05	12476	11926	11340	10822	10405	9642	8925	7887						
	A53--297VA--ST_N3	10	1755	10.18	18714	18347	17981	17594	17201	16824	16475	16159	15894	15608	15178	14583	14113	13111
36	A53--367VA--ST_M4	7 1/2	1165	8.46	23855	23168	22459	21727	21054	20482	19968	19152	18137					
42	A53--427VA--ST_O4	15	1170	17.01	38130	37330	36532	35681	34831	34027	33293	32666	32073					

Performance certified is for installation Type D: ducted inlet/ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).

Bold-type information provided in the Rating Table above is needed when preparing a model code. See page 2 for the complete Hartzell Model Code Explanation and example.

Rating Table – Series 53C (Direct Drive Vaneaxials, Type VA, with Internal Vane Section)

Size	Model	Blade Type	Motor (Fan)		Peak Fan BHP	CFM @ Static Pressure												
			HP	RPM		Free Air	1/2"	1"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"		
18	A53C--187VA--ST_G3	VA	3/4	1730	0.76	3856	3436	2878										
21	A53C--217VA--ST_F4	VA	1/2	1140	0.51	4297	3393											
	A53C--217VA--ST_J3	VA	2	1730	1.89	6520	6005	5366	4662									
26	A53C--267VA--ST_I4	VA	1 1/2	1155	1.62	8349	7401	6223										
	A53C--267VA--ST_L3	VA	5	1730	5.53	12506	11889	11243	10572	9790	8721	6890						
29	A53C--297VA--ST_K4	VA	3	1170	3.10	12002	10995	9749	8047									
	A53C--297VA--ST_N3	VA	10	1755	10.47	18002	17362	16674	15919	15078	14156	13125	11606					
36	A53C--367VA--ST_M4	VA	7 1/2	1165	8.54	22399	21272	20057	18727	17160	14847							
	A53C--367VA--ST_O3	VA	25	1760	28.67	33839	33103	32353	31575	30769	29935	29067	28147	27159	26074	24840		
42	A53C--427VA--ST_O4	VA	15	1170	16.58	35802	34502	33137	31690	30137								
	A53C--427VA--ST_P4	VA	20	1170	18.80	35802	34502	33137	31690	30137	28402	26337	23209					
	A53C--427VA--ST_T3	VA	50	1770	57.17	54162	53307	52448	51567	50664	49736	48781	47809	46803	45758			
48	A53C--487VA--ST_M6	VA	7 1/2	690	7.96	32217	29376	25816	20527									
	A53C--487VA--ST_O5	VA	15	880	16.47	41088	38938	36521	33704	30484	25305							
	A53C--487VA--ST_R4	VA	30	1180	33.31	55095	53525	51869	50099									
	A53C--487VA--ST_S4	VA	40	1180	39.71	55095	53525	51869	50099	48172	46072	43806	41383	38439	33876			
54	A53C--487VA--ST_W3	VA	100	1775	113.90	82876	81842	80795	79720	78616	77480	76310	75102					
	A53C--547VA--ST_O6	VA	15	690	14.32	45951	42817	39115	34677	27298								
	A53C--547VA--ST_O5	VA	25	880	27.80	58604	56210	53605	50684	47384								
	A53C--547VA--ST_U4	VA	60	1180	68.46	78583	76824	74996	73074	71044	68862	66531	64037	61441				
60	A53C--547VA--ST_Z3	VA	200	1780	211.32	118540	117379	116213	115023	113809	112569	111301	110003	108674	107310	105895		
	A53C--607VA--ST_O7	VA	15	575	14.07	52601	48369	43180	36455									
	A53C--607VA--ST_O6	VA	25	690	24.28	63121	59683	55791	51229	45950	36873							
	A53C--607VA--ST_S5	VA	40	875	44.75	80045	77385	74547	71461	68046								
	A53C--607VA--ST_T5	VA	50	875	49.61	80045	77385	74547	71461	68046	64278	60240	55138	47118				
A53C--607VA--ST_W4	VA	100	1175	112.79	107489	105531	103515	101420	99235	96944	94509	91941	89228	86363				

Performance certified is for installation Type D: ducted inlet/ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).

Bold-type information provided in the Rating Table above is needed when preparing a model code. See page 2 for the complete Hartzell Model Code Explanation and example.



Series 54, Belt Drive, Type VA, "G" Duty

Stock Models Available in Hartzell's HRS Program.



Series 54, "G" (General Industrial) Duty Construction

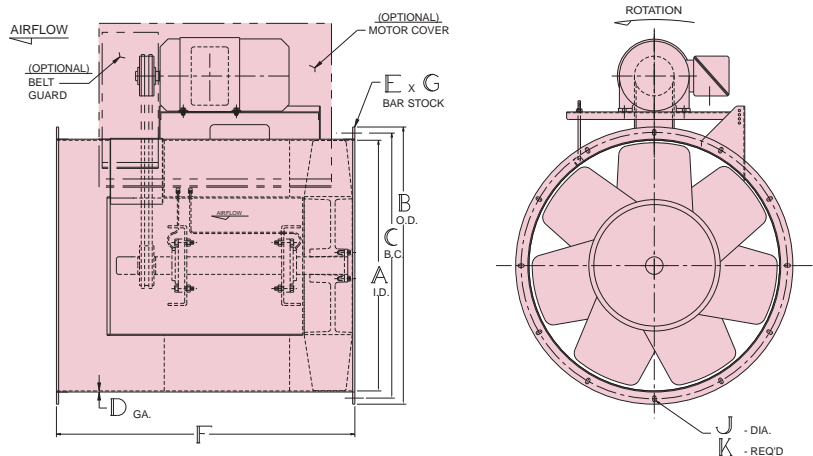


Hartzell Fan, Inc. certifies that the Series 54, Belt Drive Vaneaxial Fan, shown hereon, is licensed to bear the AMCA seal for air and sound performance. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



Hartzell Fan, Inc. certifies that the Vaneaxial Fan, Belt Drive, Series 54, shown on Page 11, is authorized to bear CE Marking in accordance with Machinery Safety Directive 98/37/EC of the European Union. Reference Technical File E.S.13.2.1.

- **"G" (General Industrial) Duty Construction** – Designed for industrial service with value, application, and performance range taken together. Available in sizes 12" to 60"...performance from 1,000 to 92,000 CFM, and static pressure capability up to 6" W.G.. See pages 13-16.
- **Applications** – Where it is advantageous to have the motor out of the air-stream or the versatility of a belt drive configuration. Maximum temperature 180°F. In installations where air is at elevated temperatures or contaminated, Hartzell Series 55 fans should be used; see page 20.
- **Impellers** – 7-blade, airfoil design, cast aluminum construction mounted with split taperlock bushing for easy installation and removal. Large hub to blade ratio prevents backflow of air.
- **Housing** – One-piece, heavy gauge hot rolled steel housing with continuously welded steel drum and rolled steel flanges.
- **Guide Vanes** – Nine heavy gauge steel discharge guide vanes are welded in the fan housing.
- **Motor Out of the Airstream** – Exterior mounting on fully adjustable pivot style motor base. Open-end motors are standard. Motors larger than 30 HP will be shipped separately for mounting on unit at job site. Motor HP and frame size limits are identified in the dimension table.
- **Bearings** are heavy duty ball or roller type, in cast iron flange mount housings, selected for minimum L-50 Life of 200,000 hours and include extended lubrication fittings as standard. Shafts are turned ground and polished 1045 steel sized to operate well below critical speed.
- **Drives** are fixed pitch as standard. Variable pitch drives are available upon request.
- **High Temperature Construction** – See Series 55 dimensions on page 20.
- **Accessories** – See pages 26 and 27.
- **Protective Coatings** – See page 27 .



Principal Dimensions

Fan Size	A	B	C	D	E	F	G	J	K	Max. Motor Frame	Estimated Weight*
12	12	14 ³ / ₄	13 ³ / ₈	12	1/4	20	1 1/4	5/16	6	184T	80
14	14	16 ³ / ₄	15 1/2	12	1/4	23	1 1/4	5/16	6	184T	100
18	18	21 1/4	19 ³ / ₄	12	1/4	29	1 1/2	7/16 X 13/16	12	215T	180
21	21	24 1/4	22 ³ / ₄	12	1/4	31	1 1/2	7/16 X 13/16	12	256T	230
26	26	30 ⁵ / ₁₆	28	10	1/4	32	2	7/16 X 13/16	12	256T	340
29	29	33 ⁵ / ₁₆	31	10	3/8	36	2	7/16 X 13/16	12	284T	460
36	36	40 ⁵ / ₁₆	38	10	3/8	42	2	9/16 X 13/16	16	286T	680
42	42	46 ⁵ / ₁₆	44 ³ / ₈	10	3/8	50	2	9/16 X 13/16	16	326T	900
48	48	53 1/2	50 1/2	7	3/8	56	2 1/2	9/16 X 13/16	16	364T	1125
54	54	59 ⁵ / ₈	56 1/2	7/4	3/8	62	2 1/2	9/16 X 13/16	16	365T	1725
60	60	65 ⁵ / ₈	63 1/4	7/4	3/8	69	2 1/2	9/16 X 13/16	16	405T	1875

*Estimated Weight is less motor, drives and accessories.

Note: Specifications are subject to change. Certified prints are available.



Series 54, Belt Drive, Type VA, "H" Duty



**Series 54,
"H" (Heavy Industrial)
Duty construction**

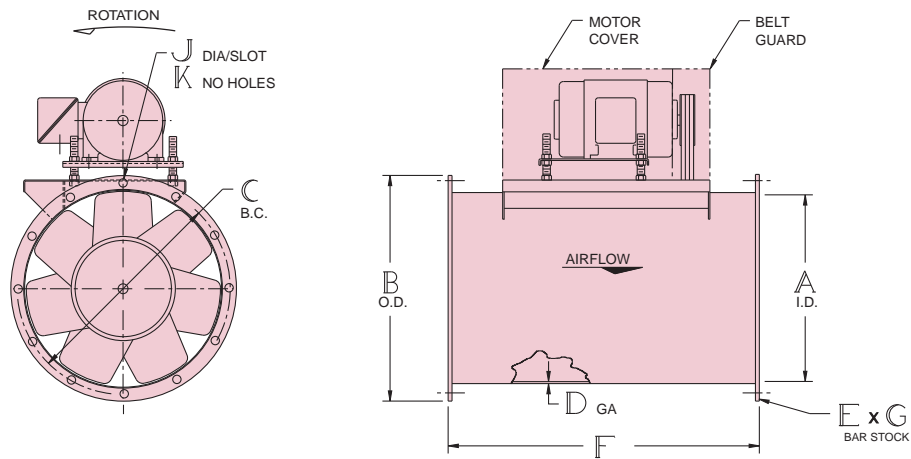


Hartzell Fan, Inc. certifies that the Series 54, Belt Drive Vaneaxial Fan VA, shown hereon, is licensed to bear the AMCA seal for air and sound performance. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



Hartzell Fan, Inc. certifies that the Vaneaxial Fan, Belt Drive, Series 54, shown on page 12, is authorized to bear CE Marking in accordance with Machinery Safety Directive 98/37/EC of the European Union. Reference Technical File E.S. 13.2.1.

- **"H" (Heavy Industrial) Duty Construction** – Designed for heavyweight service with ruggedness, use, and performance range taken together. Available in sizes 12" to 60"...performance from 1,000 to 116,000 CFM, and static pressure capability up to 8" W.G.. See pages 13-16.
- **Applications** – Where it is advantageous to have the motor out of the airstream or the versatility of a belt drive configuration. Maximum temperature 180°F. In installations where air is at elevated temperatures or contaminated, Hartzell Series 55 fans should be used; see page 20.
- **Impellers** – 7-blade, airfoil design, cast aluminum construction mounted with split taperlock bushing for easy installation and removal. Large hub to blade ratio prevents backflow of air, moves large volumes of air at high pressures. Applications are limited to maximum tip speed of 22,000 FPM.
- **Housing** – One-piece, heavy gauge hot rolled steel housing with continuously welded steel drum and rolled steel flanges.
- **Guide Vanes** – Nine heavy gauge steel discharge guide vanes are welded in the fan housing.
- **Motor Out of the Airstream** – Exterior mounting on fully adjustable platform style motor base supported by external housing assembly base weldment. Open-end motors are standard. Motors larger than 30 HP will be shipped separately for mounting on unit at job site. Motor HP and frame size limits are identified in the dimension table.
- **Bearings** are heavy duty ball or roller type, in cast iron pillow block housings, selected for minimum L-50 Life of 500,000 hours for horizontal fans; and 300,000 for vertical fans, and include extended lubrication fittings as standard. Shafts are turned ground and polished 1045 steel sized to operate well below critical speed.
- **Drives** are fixed pitch as standard. Variable pitch drives are available upon request.
- **High Temperature Construction** – See Series 55 dimensions on page 20.
- **Accessories** – See pages 26 and 27.
- **Protective Coatings** – See page 27.



Principal Dimensions

Fan Size	A	B	C	D	E	F	G	J	K	Max. Motor Frame	Estimated Weight*
12	12	14 ^{13/16}	13 ^{3/8}	10	1/4	20	1 ^{1/4}	5/16	6	182T	108
14	14	16 ^{13/16}	15 ^{1/2}	10	1/4	23	1 ^{1/4}	5/16	6	182T	143
18	18	21 ^{5/16}	19 ^{3/4}	10	1/4	29	1 ^{1/2}	7/16 X 13/16	12	215T	202
21	21	24 ^{5/16}	22 ^{3/4}	10	1/4	31	1 ^{1/2}	7/16 X 13/16	12	254T	301
26	26	30 ^{7/16}	28	7	3/8	32	2	7/16 X 13/16	12	284T	450
29	29	33 ^{7/16}	31	7	3/8	36	2	7/16 X 13/16	12	286T	692
36	36	40 ^{7/16}	38	7	3/8	42	2	9/16 X 13/16	16	326T	906
42	42	46 ^{7/16}	44 ^{3/8}	7	3/8	50	2	9/16 X 13/16	16	364T	1286
48	48	53 ^{7/16}	50 ^{1/2}	7	3/8	56	2 ^{1/2}	9/16 X 13/16	16	365T	1759
54	54	59 ^{9/16}	56 ^{1/2}	1/4	3/8	62	2 ^{1/2}	9/16 X 13/16	16	404T	1941
60	60	65 ^{9/16}	63 ^{1/4}	1/4	3/8	69	2 ^{1/2}	9/16 X 13/16	16	444T	2218

*Estimated Weight is less motor, drives and accessories.

Note: Specifications are subject to change.
Certified prints are available.



Performance Data – Series 54, Type VA

Size 12 – A54- _ -127VA---ST_____

"G" (General Industrial) or "H" (Heavy Industrial)
Duty Construction Availability

"H" (Heavy Industrial)
Duty Construction Only

Contact Factory
for Availability

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1250	1592	1853	0.17	2073	0.26	2280	0.36	2490	0.48	2705	0.62						
1500	1910	2224	0.30	2408	0.40	2585	0.52	2757	0.64	2931	0.78	3289	1.11				
1750	2228	2595	0.47	2753	0.59	2908	0.72	3057	0.86	3204	1.01	3504	1.34	3812	1.73	4119	2.15
2000	2547	2965	0.70	3104	0.84	3241	0.98	3375	1.13	3504	1.29	3762	1.64	4027	2.04	4297	2.48
2250	2865	3336	1.00	3460	1.15	3582	1.31	3702	1.48	3820	1.65	4050	2.02	4279	2.42	4515	2.87
2500	3183	3707	1.38	3818	1.54	3929	1.71	4038	1.90	4145	2.08	4355	2.47	4561	2.90	4767	3.35
2750	3501	4077	1.83	4179	2.01	4280	2.20	4379	2.40	4478	2.60	4671	3.02	4859	3.46	5047	3.93
3000	3820	4448	2.38	4541	2.58	4634	2.78	4725	2.99	4816	3.20	4996	3.65	5170	4.12	5342	4.61
3250	4138	4819	3.02	4905	3.24	4990	3.46	5075	3.68	5159	3.91	5326	4.39	5490	4.89	5650	5.40
3500	4456	5189	3.78	5269	4.01	5349	4.24	5428	4.48	5506	4.73	5662	5.23				
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2200	2801	4714	3.28	4956	3.79	5202	4.34										
2300	2928	4797	3.45	5031	3.98	5263	4.52	5500	5.11								
2400	3056	4886	3.64	5111	4.18	5333	4.73	5557	5.31								
2500	3183	4980	3.85	5195	4.39	5411	4.95	5624	5.54								
2600	3310	5079	4.07	5284	4.61	5492	5.18										
2700	3438	5182	4.31	5379	4.85	5577	5.43										
2800	3565	5289	4.56	5477	5.11	5668	5.69										
2900	3692	5400	4.84	5580	5.38												

Size 14 – A54- _ -147VA---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1000	935	1048	0.04	1338	0.11												
1500	1403	1573	0.13	1771	0.23	1959	0.33	2158	0.45	2399	0.61						
2000	1871	2097	0.32	2250	0.44	2392	0.57	2533	0.70	2676	0.85	2985	1.20				
2500	2339	2621	0.62	2746	0.77	2863	0.93	2976	1.09	3089	1.25	3316	1.61	3555	2.02	3825	2.50
3000	2806	3145	1.07	3251	1.25	3351	1.44	3447	1.63	3541	1.83	3729	2.22	3917	2.63	4112	3.10
3500	3274	3669	1.70	3761	1.91	3848	2.13	3932	2.35	4014	2.58	4176	3.02	4337	3.48	4498	3.96
4000	3742	4194	2.54	4274	2.78	4352	3.03	4427	3.28	4500	3.53	4643	4.05	4784	4.55	4925	5.07
4500	4210	4718	3.61	4790	3.89	4860	4.16	4927	4.44	4993	4.73	5122	5.30	5249	5.88	5375	6.45
5000	4677	5242	4.96	5307	5.26	5370	5.57	5432	5.88	5493	6.19	5610	6.82	5725	7.46	5839	8.10
5500	5145	5766	6.60	5826	6.93	5884	7.27	5940	7.61	5996	7.95						
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2000	1871																
2250	2105																
2500	2339																
2750	2572	4193	3.30														
3000	2806	4316	3.62	4540	4.20	4798	4.85										
3250	3040	4479	4.02	4667	4.58	4869	5.19	5103	5.88								
3500	3274	4662	4.48	4831	5.04	5005	5.65	5187	6.29	5398	7.01						
3750	3508	4859	5.00	5013	5.57	5170	6.18	5332	6.82	5500	7.51	5687	8.24	5892	9.05		

Size 18 – A54- _ -187VA---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2500	1415	1054	0.17	1207	0.30	1363	0.45	1499	0.62	1637	0.81						
3250	1839	1371	0.38	1490	0.53	1609	0.71	1731	0.91	1837	1.13	2047	1.59	2262	2.12		
4000	2264	1687	0.70	1788	0.90	1877	1.09	1978	1.31	2082	1.56	2256	2.08	2426	2.64	2599	3.25
4750	2688	2003	1.18	2090	1.41	2168	1.63	2243	1.87	2328	2.13	2500	2.73	2646	3.34	2789	3.99
5500	3112	2320	1.83	2395	2.09	2466	2.36	2531	2.62	2595	2.89	2744	3.52	2891	4.22	3019	4.92
6250	3537	2636	2.68	2703	2.98	2767	3.28	2826	3.58	2883	3.88	3002	4.52	3136	5.26	3267	6.06
7000	3961	2952	3.77	3013	4.11	3070	4.44	3126	4.78	3177	5.11	3279	5.79	3390	6.54	3510	7.38
7750	4386	3269	5.12	3324	5.49	3376	5.86	3427	6.23	3476	6.60	3568	7.34	3660	8.11	3763	8.97
8500	4810	3585	6.75	3635	7.16	3684	7.57	3731	7.98	3777	8.38	3863	9.19	3946	10.0	4030	10.9
9250	5234	3901	8.70	3948	9.15	3992	9.59	4036	10.0	4079	10.5	4161	11.4	4238	12.2	4315	13.1
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	2264	2773	3.91														
4500	2546	2873	4.40	3028	5.12	3184	5.89										
5000	2829	2999	4.98	3136	5.72	3274	6.50	3414	7.33	3555	8.19						
5500	3112	3142	5.66	3266	6.42	3391	7.23	3516	8.06	3642	8.94	3770	9.86	3898	10.8		
6000	3395	3299	6.43	3412	7.23	3525	8.06	3639	8.92	3754	9.81	3869	10.7	3985	11.7	4102	12.7
6500	3678	3463	7.30	3570	8.14	3674	9.00	3778	9.89	3883	10.8	3989	11.8	4095	12.7	4201	13.7
7000	3961	3629	8.27	3733	9.15	3833	10.1	3930	11.0	4026	11.9	4123	12.9	4221	13.9	4320	14.9
7500	4244	3790	9.32	3900	10.3	3997	11.2	4090	12.2	4181	13.2	4270	14.2	4361	15.2	4452	16.3

Performance certified is for belt drive fans, installation Type D: ducted inlet/ducted outlet.
Power rating (BHP) includes transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

To complete model code for your selection, add class of construction ("G" or "H"), motor enclosure code, motor nameplate horsepower code, and motor speed code. Refer to page 2 for additional model code information.



Performance Data – Series 54, Type VA

Size 21 – A54- _ -217VA---ST_____

"G" (General Industrial) or "H" (Heavy Industrial)
Duty Construction Availability

"H" (Heavy Industrial)
Duty Construction Only

Contact Factory
for Availability

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	1247	775	0.15	911	0.29	1035	0.45	1151	0.63	1264	0.84	1592	1.67	1754	2.24	1904	2.86
4000	1663	1033	0.35	1137	0.53	1237	0.73	1331	0.95	1418	1.17	1756	2.22	1894	2.82	2032	3.48
5000	2079	1291	0.68	1375	0.90	1456	1.14	1536	1.40	1614	1.67	2070	2.96	2267	4.64	2370	5.41
6000	2495	1550	1.18	1619	1.44	1688	1.71	1756	2.00	1823	2.31	2375	5.02	2474	5.86	2570	6.74
7000	2910	1808	1.88	1868	2.17	1927	2.48	1985	2.81	2044	3.15	2690	10.0	2982	11.0	3075	12.0
8000	3326	2066	2.80	2119	3.14	2171	3.49	2222	3.85	2273	4.22	3097	12.3	3183	13.4	3268	14.5
9000	3742	2324	3.99	2371	4.37	2418	4.75	2464	5.15	2509	5.56	3490	17.3	3558	18.4	3626	19.6
10000	4158	2583	5.47	2625	5.89	2667	6.32	2708	6.75	2749	7.20						
11000	4573	2841	7.28	2879	7.74	2917	8.21	2955	8.68	2993	9.17						
12000	4989	3099	9.45	3134	9.95	3169	10.5	3204	11.0	3239	11.5						
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	2079	2163	4.19	2282	4.93												
5750	2391	2264	4.82	2383	5.61	2494	6.42	2597	7.27	2702	8.17						
6500	2702	2381	5.59	2488	6.40	2595	7.25	2699	8.15	2799	9.07	2890	10.0	2982	11.0	3075	12.0
7250	3014	2516	6.52	2611	7.36	2707	8.23	2803	9.15	2898	10.1	2992	11.1	3085	12.1	3168	13.2
8000	3326	2661	7.60	2750	8.49	2837	9.40	2922	10.3	3010	11.3	3097	12.3	3183	13.4	3268	14.5
8750	3638	2813	8.83	2896	9.78	2978	10.7	3057	11.7	3136	12.7	3215	13.8	3295	14.9	3375	16.0
9500	3950	2967	10.2	3048	11.2	3126	12.3	3201	13.3	3275	14.4	3348	15.4	3421	16.5	3493	17.7
10250	4261	3126	11.7	3203	12.8	3278	13.9	3350	15.0	3420	16.2	3490	17.3	3558	18.4	3626	19.6

Size 26 – A54- _ -267VA---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	1627	830	0.49	908	0.72	985	0.98	1067	1.29	1136	1.60	1271	2.28				
7500	2034	1038	0.96	1102	1.24	1160	1.53	1223	1.87	1289	2.25	1407	3.02	1509	3.82	1636	4.81
9000	2441	1245	1.65	1300	1.99	1350	2.33	1398	2.69	1450	3.09	1560	4.00	1660	4.93	1747	5.86
10500	2848	1453	2.63	1500	3.02	1544	3.41	1586	3.82	1628	4.24	1718	5.19	1813	6.26	1902	7.36
12000	3255	1660	3.92	1702	4.37	1742	4.82	1779	5.28	1816	5.74	1888	6.72	1970	7.84	2053	9.06
13500	3662	1868	5.58	1905	6.09	1941	6.59	1975	7.10	2008	7.62	2073	8.68	2138	9.80	2212	11.1
15000	4068	2075	7.65	2109	8.22	2142	8.78	2173	9.34	2204	9.91	2263	11.1	2321	12.3	2379	13.5
16500	4475	2283	10.2	2314	10.8	2344	11.4	2373	12.0	2401	12.7	2455	13.9	2508	15.2	2561	16.5
18000	4882	2490	13.2	2519	13.9	2547	14.6	2574	15.2	2600	15.9	2650	17.3	2700	18.7	2748	20.1
19500	5289	2698	16.8	2724	17.5	2750	18.3	2775	19.0	2800	19.7	2847	21.2	2893	22.7	2938	24.2
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9000	2441	1832	6.84	1938	8.03												
10000	2712	1928	7.86	2004	8.93	2083	10.1										
11000	2983	2030	9.03	2102	10.2	2172	11.3	2241	12.5	2322	13.9						
12000	3255	2134	10.3	2205	11.6	2272	12.8	2336	14.0	2400	15.3	2463	16.7	2542	18.2		
13000	3526	2234	11.7	2309	13.1	2376	14.4	2437	15.7	2497	17.1	2557	18.5	2615	19.9	2674	21.3
14000	3797	2338	13.2	2409	14.7	2478	16.2	2542	17.6	2600	19.0	2656	20.5	2712	21.9	2767	23.4
15000	4068	2446	15.0	2513	16.4	2579	18.0	2644	19.6	2705	21.2	2760	22.7	2813	24.2	2865	25.7
16000	4340	2557	16.9	2620	18.4	2682	20.0	2745	21.7	2806	23.3	2865	25.1	2918	26.7	2968	28.3

Size 29 – A54- _ -297VA---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	1526	685	0.51	756	0.80	824	1.12	896	1.48	966	1.89	1107	2.85				
9000	1962	881	1.08	934	1.45	991	1.84	1043	2.26	1099	2.70	1208	3.68	1319	4.83	1428	6.11
11000	2398	1077	1.97	1119	2.43	1165	2.88	1212	3.37	1255	3.87	1344	4.94	1434	6.11	1523	7.42
13000	2834	1273	3.25	1308	3.80	1346	4.32	1385	4.87	1425	5.45	1498	6.64	1573	7.90	1650	9.25
15000	3270	1468	5.00	1499	5.63	1531	6.24	1565	6.85	1599	7.48	1666	8.83	1729	10.2	1793	11.7
17000	3706	1664	7.28	1691	7.99	1719	8.70	1748	9.38	1778	10.1	1838	11.5	1896	13.1	1952	14.6
19000	4142	1860	10.2	1884	11.0	1909	11.8	1934	12.5	1960	13.3	2014	14.9	2068	16.5	2120	18.3
21000	4578	2056	13.7	2078	14.6	2100	15.5	2122	16.3	2145	17.2	2193	18.9	2242	20.7	2291	22.5
23000	5014	2252	18.0	2272	19.0	2292	20.0	2312	20.9	2333	21.9	2376	23.7	2420	25.6	2465	27.6
25000	5450	2447	23.1	2466	24.2	2484	25.3	2503	26.3	2522	27.3	2561	29.3	2601	31.4	2642	33.4
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10500	2289	1591	8.48	1684	10.0												
12000	2616	1666	9.71	1749	11.3	1832	12.9	1913	14.7								
13500	2943	1758	11.3	1831	12.8	1904	14.5	1978	16.3	2051	18.2	2124	20.1	2196	22.2		
15000	3270	1861	13.2	1927	14.8	1992	16.5	2058	18.3	2124	20.2	2190	22.1	2257	24.2	2322	26.3
16500	3597	1969	15.4	2031	17.1	2092	18.8	2151	20.6	2210	22.5	2270	24.5	2330	26.6	2390	28.8
18000	3924	2087	18.1	2141	19.8	2197	21.6	2253	23.4	2308	25.4	2362	27.4	2416	29.5	2471	31.7
19500	4251	2211	21.1	2259	22.9	2308	24.7	2360	26.7	2412	28.7	2463	30.7	2513	32.8	2563	35.0
21000	4578	2338	24.5	2383	26.4	2427	28.3	2472	30.3	2520	32.4	2569	34.5	2617	36.7	2664	38.9

Performance certified is for belt drive fans, installation Type D: ducted inlet/ducted outlet.
Power rating (BHP) includes transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

To complete model code for your selection, add class of construction ("G" or "H"), motor enclosure code, motor nameplate horsepower code, and motor speed code. Refer to page 2 for additional model code information.



Performance Data – Series 54, Type VA

Size 36 – A54- _ -367VA---ST_____

"G" (General Industrial) or "H" (Heavy Industrial)
Duty Construction Availability

"H" (Heavy Industrial)
Duty Construction Only

Contact Factory
for Availability

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
11000	1556	563	0.77	627	1.21	682	1.68	734	2.23	785	2.83	893	4.22				
14000	1981	716	1.59	768	2.14	815	2.71	858	3.32	899	3.99	980	5.46	1063	7.11	1150	8.99
17000	2405	869	2.85	914	3.51	954	4.18	991	4.88	1027	5.61	1095	7.22	1162	8.99	1229	10.9
20000	2829	1023	4.65	1061	5.42	1096	6.20	1129	7.00	1161	7.82	1222	9.56	1280	11.5	1337	13.5
23000	3254	1176	7.07	1210	7.95	1241	8.85	1271	9.75	1300	10.7	1354	12.6	1407	14.6	1457	16.8
26000	3678	1330	10.2	1359	11.2	1388	12.2	1415	13.2	1441	14.3	1491	16.4	1539	18.5	1585	20.8
29000	4103	1483	14.2	1510	15.3	1536	16.4	1561	17.5	1585	18.7	1631	21.0	1675	23.3	1718	25.8
32000	4527	1637	19.0	1661	20.3	1685	21.5	1708	22.7	1730	24.0	1772	26.5	1814	29.1	1853	31.7
35000	4951	1790	24.9	1812	26.2	1834	27.6	1855	29.0	1876	30.3	1916	33.1	1954	35.8	1991	38.7
38000	5376	1943	31.9	1964	33.3	1984	34.8	2004	36.3	2023	37.8	2061	40.7	2097	43.7	2132	46.7
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
16000	2264	1273	12.2	1352	14.5												
18500	2617	1342	14.2	1405	16.4	1470	18.8	1538	21.5								
21000	2971	1430	16.7	1484	19.0	1538	21.4	1594	24.0	1651	26.7	1710	29.6	1771	32.7		
23500	3325	1527	19.7	1575	22.1	1623	24.6	1672	27.2	1721	30.0	1770	32.8	1821	35.8	1872	38.9
26000	3678	1630	23.3	1674	25.8	1718	28.4	1761	31.1	1805	34.0	1849	36.9	1893	39.9	1937	43.0
28500	4032	1737	27.4	1778	30.1	1819	32.8	1859	35.7	1898	38.6	1938	41.6	1978	44.7	2018	47.8
31000	4386	1847	32.3	1886	35.0	1924	37.9	1961	40.8	1998	43.9	2035	47.0	2071	50.2	2108	53.5
33500	4739	1959	37.8	1996	40.7	2032	43.7	2067	46.7	2102	49.9	2136	53.1	2170	56.4	2204	59.8

Size 42 – A54- _ -427VA---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15000	1559	482	1.05	537	1.64	584	2.30	629	3.04	673	3.86	765	5.76				
19000	1975	611	2.14	656	2.88	695	3.65	732	4.49	768	5.39	838	7.40	909	9.64	984	12.2
23000	2391	739	3.80	777	4.69	812	5.60	844	6.55	875	7.54	934	9.73	991	12.1	1049	14.7
27000	2806	868	6.15	901	7.20	931	8.25	960	9.33	987	10.4	1039	12.8	1089	15.4	1138	18.1
31000	3222	996	9.31	1025	10.5	1052	11.7	1078	12.9	1103	14.2	1150	16.8	1195	19.5	1239	22.4
35000	3638	1125	13.4	1150	14.7	1175	16.1	1199	17.5	1221	18.9	1264	21.7	1306	24.6	1346	27.8
39000	4054	1253	18.5	1276	20.0	1299	21.6	1320	23.1	1341	24.6	1381	27.7	1419	30.9	1456	34.2
43000	4469	1382	24.8	1403	26.5	1423	28.2	1443	29.8	1463	31.5	1500	34.9	1535	38.4	1570	41.9
47000	4885	1510	32.4	1530	34.3	1549	36.1	1567	37.9	1585	39.7	1620	43.4	1653	47.1	1685	51.0
51000	5301	1639	41.5	1657	43.4	1674	45.4	1691	47.4	1708	49.4	1741	53.3	1772	57.3	1802	61.4
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
24000	2495	1126	18.3	1184	21.4	1244	24.7										
27000	2806	1187	21.1	1237	24.1	1287	27.4	1339	30.9	1393	34.7	1449	38.7				
30000	3118	1257	24.3	1301	27.5	1346	30.9	1390	34.4	1436	38.1	1483	42.0	1531	46.1	1580	50.4
33000	3430	1332	28.2	1373	31.5	1413	35.0	1453	38.6	1493	42.3	1534	46.2	1575	50.3	1618	54.5
36000	3742	1411	32.6	1448	36.1	1485	39.7	1522	43.4	1559	47.3	1595	51.2	1633	55.3	1670	59.6
39000	4054	1492	37.7	1527	41.3	1562	45.0	1596	48.9	1630	52.9	1664	57.0	1697	61.2	1732	65.5
42000	4365	1575	43.4	1608	47.2	1641	51.1	1673	55.1	1705	59.2	1736	63.5	1768	67.8	1799	72.3
45000	4677	1659	50.0	1691	53.9	1722	57.9	1752	62.1	1782	66.3	1812	70.7	1842	75.2	1871	79.8

Size 48 – A54- _ -487VA---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20000	1592	432	1.47	479	2.26	519	3.12	558	4.10	595	5.17	674	7.65				
25000	1989	539	2.87	578	3.84	613	4.86	645	5.95	676	7.14	737	9.76	798	12.7	863	16.0
30000	2387	647	4.96	681	6.12	711	7.31	739	8.54	766	9.84	818	12.7	868	15.8	919	19.2
35000	2785	755	7.88	784	9.23	811	10.6	836	12.0	860	13.4	906	16.5	950	19.9	993	23.4
40000	3183	863	11.8	889	13.3	913	14.9	935	16.4	957	18.0	999	21.4	1039	24.9	1077	28.8
45000	3581	971	16.7	994	18.5	1016	20.2	1036	22.0	1056	23.8	1095	27.4	1131	31.2	1167	35.3
50000	3979	1079	23.0	1100	24.9	1119	26.8	1139	28.8	1157	30.7	1192	34.7	1226	38.8	1259	43.1
55000	4377	1187	30.6	1206	32.7	1224	34.8	1242	37.0	1259	39.1	1292	43.4	1323	47.9	1354	52.4
60000	4775	1295	39.7	1312	42.0	1329	44.3	1345	46.7	1361	49.0	1392	53.7	1422	58.5	1450	63.4
65000	5173	1402	50.5	1419	53.0	1434	55.5	1449	58.0	1464	60.5	1493	65.6	1521	70.7	1548	75.9
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30000	2387	971	22.8	1025	26.9	1082	31.3										
34000	2706	1022	26.3	1067	30.3	1114	34.5	1162	39.1	1212	44.1						
38000	3024	1083	30.4	1123	34.6	1163	38.9	1203	43.4	1245	48.2	1288	53.3	1332	58.8	1379	64.6
42000	3342	1149	35.3	1185	39.6	1221	44.1	1257	48.8	1293	53.6	1330	58.7	1368	64.0	1406	69.5
46000	3661	1219	41.0	1252	45.5	1285	50.2	1318	55.0	1350	60.0	1383	65.1	1417	70.5	1450	76.0
50000	3979	1291	47.6	1322	52.3	1352	57.1	1383	62.1	1413	67.3	1443	72.6	1473	78.1	1504	83.7
54000	4297	1365	55.1	1394	59.9	1423	65.0	1451	70.2	1480	75.5	1508	81.0	1535	86.7	1563	92.5
58000	4615	1440	63.7	1468	68.6	1495	73.9	1522	79.3	1549	84.8	1575	90.5	1601	96.3	1627	102

Performance certified is for belt drive fans, installation Type D: ducted inlet/ducted outlet.
Power rating (BHP) includes transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

To complete model code for your selection, add class of construction ("G" or "H"), motor enclosure code, motor nameplate horsepower code, and motor speed code. Refer to page 2 for additional model code information.



Performance Data – Series 54, Type VA

Size 54 – A54- _ -547VA---ST_____

"G" (General Industrial) or "H" (Heavy Industrial)
Duty Construction Availability

"H" (Heavy Industrial)
Duty Construction Only

Contact Factory
for Availability

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
26000	1635	393	2.01	434	3.03	470	4.14	503	5.40	536	6.78	603	9.91				
32500	2043	492	3.93	526	5.19	556	6.50	584	7.90	611	9.43	663	12.8	716	16.5	772	20.7
39000	2452	590	6.79	619	8.30	645	9.84	670	11.4	693	13.1	738	16.8	782	20.8	826	25.1
45500	2861	688	10.8	713	12.5	737	14.3	759	16.1	780	18.0	820	21.9	858	26.2	896	30.8
52000	3270	787	16.1	809	18.1	830	20.1	850	22.2	869	24.2	905	28.6	940	33.1	973	38.0
58500	3678	885	22.9	905	25.2	924	27.4	942	29.7	959	32.0	993	36.8	1024	41.7	1055	46.8
65000	4087	983	31.4	1001	33.9	1018	36.5	1035	39.0	1051	41.5	1082	46.7	1112	52.0	1140	57.5
71500	4496	1082	41.8	1098	44.6	1114	47.4	1129	50.1	1144	52.9	1173	58.6	1200	64.3	1227	70.2
78000	4904	1180	54.3	1195	57.3	1210	60.3	1224	63.4	1238	66.4	1265	72.5	1290	78.7	1315	85.0
84500	5313	1278	69.0	1292	72.3	1306	75.6	1319	78.8	1332	82.1	1357	88.7	1381	95.4	1405	102
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
		40000	2515	879	30.5	923	35.6	970	41.1								
45000	2829	928	35.2	966	40.3	1005	45.7	1044	51.5	1085	57.7	1129	64.3				
50000	3144	983	40.7	1017	46.0	1051	51.6	1086	57.4	1121	63.5	1156	69.9	1193	76.7	1231	83.8
55000	3458	1042	47.2	1073	52.7	1104	58.5	1135	64.4	1166	70.6	1198	77.1	1229	83.8	1262	90.8
60000	3773	1104	54.7	1133	60.4	1161	66.4	1190	72.6	1218	79.0	1246	85.6	1275	92.4	1304	99.4
65000	4087	1168	63.2	1195	69.2	1222	75.4	1248	81.9	1274	88.5	1300	95.3	1326	102	1353	109
70000	4401	1233	73.0	1259	79.2	1284	85.7	1309	92.3	1333	99.2	1358	106	1382	113	1406	121
75000	4716	1299	84.1	1324	90.6	1348	97.2	1371	104	1395	111	1418	118	1440	126	1463	134

Size 60 – A54- _ -607VA---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
32000	1630	351	2.62	383	3.95	414	5.41	447	7.00	478	8.76	543	12.9				
40000	2037	439	5.13	464	6.77	490	8.50	515	10.3	540	12.3	592	16.5	643	21.5	694	27.0
48000	2445	527	8.86	547	10.9	569	12.8	591	14.9	612	17.1	654	21.8	697	26.8	739	32.5
56000	2852	615	14.1	632	16.4	650	18.7	669	21.0	688	23.5	723	28.7	759	34.1	797	39.9
64000	3259	703	21.0	717	23.7	733	26.3	749	28.9	766	31.6	799	37.4	829	43.3	861	49.4
72000	3667	790	29.9	804	32.9	817	35.9	831	38.8	846	41.7	876	48.0	904	54.5	931	61.2
80000	4074	878	41.0	890	44.4	902	47.7	915	51.0	928	54.2	954	60.8	981	68.0	1006	75.2
88000	4482	966	54.6	977	58.3	988	62.0	999	65.6	1010	69.1	1034	76.3	1058	83.8	1083	91.7
96000	4889	1054	70.8	1064	75.0	1074	79.0	1084	82.9	1094	86.8	1116	94.6	1138	102	1160	111
104000	5297	1142	90.1	1151	94.5	1160	98.9	1169	103	1179	107	1198	116	1218	124	1239	133
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
		48000	2445	782	38.6	825	45.3	867	52.4								
54000	2750	819	44.1	857	50.8	895	58.0	933	65.6	971	73.5						
60000	3056	862	50.8	896	57.5	930	64.8	965	72.5	999	80.6	1033	89.0	1067	97.8		
66000	3361	909	58.8	941	65.7	971	73.0	1002	80.8	1033	88.9	1064	97.4	1096	106	1127	116
72000	3667	958	68.1	988	75.3	1017	82.8	1045	90.6	1073	98.8	1101	107	1130	116	1159	126
78000	3973	1012	78.7	1037	86.2	1064	94.0	1091	102	1117	110	1143	119	1169	128	1196	137
84000	4278	1067	90.9	1090	98.7	1114	107	1139	115	1164	124	1189	132	1213	142	1237	151
90000	4584	1124	104	1146	113	1168	121	1189	130	1213	138	1236	148	1260	157	1282	166

Performance certified is for belt drive fans, installation Type D: ducted inlet/ducted outlet.
Power rating (BHP) includes transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

To complete model code for your selection, add class of construction ("G" or "H"), motor enclosure code, motor nameplate horsepower code, and motor speed code. Refer to page 2 for additional model code information.



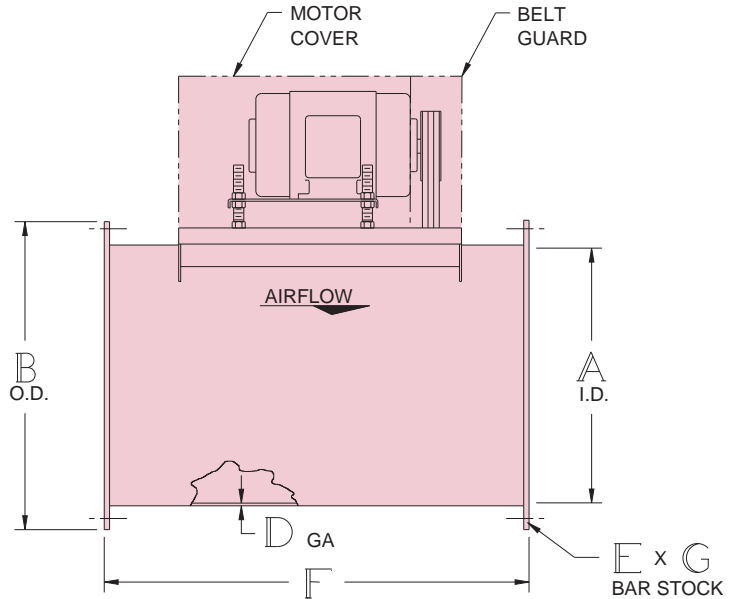
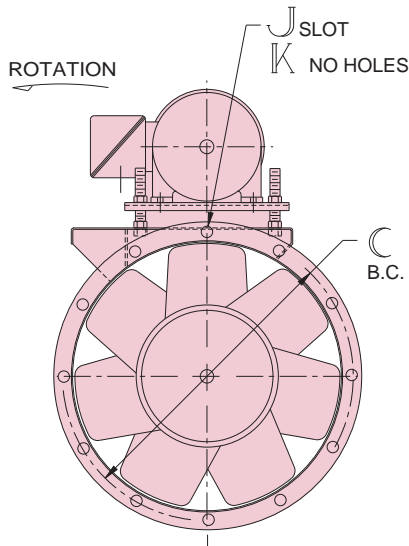
Series 54, Belt Drive, Type VB, "H" Duty



**Series 54,
"H" (Heavy Industrial)
Duty construction**

CE Hartzell Fan, Inc. certifies that the Vaneaxial Fan, Belt Drive, Series 54, shown on page 17, is authorized to bear CE Marking in accordance with Machinery Safety Directive 98/37/EC of the European Union. Reference Technical File E.S. 13.2.1.

- **"H" (Heavy Industrial) Duty Construction** – Designed for heavyweight service with ruggedness, use, and performance range taken together. Available in **sizes** 18" to 48"...**performance** from 1,500 to 54,000 CFM, and static pressure capability up to 12" W.G.. See pages 18-19.
- **Applications** – Developed to meet the demand for a low volume, high pressure requirement. Lower blade pitch and a higher hub-to-diameter ratio makes the "VB" the most effective Vaneaxial at high pressures while moving relatively smaller volumes of air. Maximum temperature 180°F.
- **Sizes** 18" to 48"...**performance** from 3500 to 62,000 CFM.
- **External dimensions and construction** identical to standard Vaneaxial fans.
- **Impellers** – 7-blade airfoil, cast aluminum construction. Designed to move low volumes of air at high static pressures.
- **Housings** – One-piece, heavy gauge, hot rolled steel housing with continuously welded steel drum and rolled steel flanges.
- **Guide Vanes** – Nine heavy gauge steel discharge guide vanes are welded in the fan housing.
- **Motor out of the air stream** – Exterior mounting. Propeller shaft rotates in two heavy duty bearings mounted on steel supports welded to the inner shell with "T" reinforcements. Open end motors are standard. Motors larger than 30 HP will be shipped separately for mounting on unit at job site.
- **Drives** are fixed pitch as standard. Variable pitch drives are available upon request.
- **Extended Lube Tubes** from bearings to exterior of fan housing are standard.
- **High Temperature Construction** – see Series 55 dimensions on page 20.
- **Accessories** – See pages 26 and 27.
- **Protective coatings** – See page 27.



Principal Dimensions

Fan Size	A	B	C	D	E	F	G	J	K	Max. Motor Frame	Estimated Weight*
18	18	21 ⁵ / ₁₆	19 ³ / ₄	10	1/4	29	11/2	7/16 X 1 ³ / ₁₆	12	184T	202
21	21	24 ⁵ / ₁₆	22 ³ / ₄	10	1/4	31	1 ¹ / ₂	7/16 X 1 ³ / ₁₆	12	213T	301
26	26	30 ⁷ / ₁₆	28	7	3/8	32	2	7/16 X 1 ³ / ₁₆	12	254T	450
29	29	33 ⁷ / ₁₆	31	7	3/8	36	2	7/16 X 1 ³ / ₁₆	12	254T	692
33	33	37 ⁷ / ₁₆	36	7	3/8	39	2	9/16 X 1 ³ / ₁₆	12	254T	839
36	36	40 ⁷ / ₁₆	38	7	3/8	42	2	9/16 X 1 ³ / ₁₆	16	256T	906
48	48	53 ⁷ / ₁₆	50 ¹ / ₂	7	3/8	56	2 ¹ / ₂	9/16 X 1 ³ / ₁₆	16	324T	1759

*Estimated Weight is less motor, drives and accessories.

Note: Specifications are subject to change.
Certified prints are available.



Performance Data – Series 54, Type VB

Size 18 – A54- H -187VB---ST_____

"H" (Heavy Industrial)
Duty Construction Only

Contact Factory
for Availability

CFM	Outlet Velocity FPM	Static Pressure															
		0"		½"		1"		1½"		2"		2½"		3"		3½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2500	1415	1701	0.27	1893	0.52	2082	0.81	2280	1.12	2484	1.46	2684	1.85	2867	2.27	3033	2.69
3000	1698	2041	0.47	2202	0.76	2359	1.09	2518	1.44	2683	1.81	2850	2.20	3022	2.64	3189	3.11
3500	1981	2381	0.75	2519	1.08	2655	1.45	2789	1.84	2926	2.25	3067	2.68	3209	3.12	3354	3.59
4000	2264	2722	1.11	2843	1.49	2962	1.90	3080	2.33	3197	2.78	3316	3.26	3439	3.73	3563	4.23
4500	2546	3062	1.59	3169	2.01	3276	2.45	3382	2.92	3486	3.42	3591	3.93	3696	4.46	3804	4.99
5000	2829	3402	2.17	3499	2.64	3595	3.13	3691	3.64	3785	4.17	3879	4.72	3973	5.29	4067	5.88
5500	3112	3742	2.89	3831	3.41	3918	3.94	4005	4.49	4092	5.05	4177	5.64	4263	6.25	4348	6.88
CFM	OV FPM	4"		4½"		5"		6"		7"		8"		9"		10"	
1500	849	2766	2.14	2898	2.47	3024	2.81	3259	3.53	3480	4.31	3687	5.13	3883	6.00	4068	6.91
2250	1273	3088	2.87	3217	3.27	3337	3.67	3561	4.50	3769	5.36	3964	6.27	4149	7.22	4326	8.20
3000	1698	3346	3.60	3492	4.10	3629	4.61	3878	5.65	4095	6.70	4289	7.75	4469	8.82	4640	9.91
3750	2122	3588	4.40	3726	4.94	3862	5.52	4121	6.71	4358	7.96	4576	9.25				
4500	2546	3914	5.54	4024	6.10	4136	6.68	4361	7.91	4589	9.25						

Size 21 – A54- H -217VB---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		½"		1"		1½"		2"		2½"		3"		3½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	1247	1256	0.22	1435	0.47	1614	0.78	1798	1.13	1991	1.55	2172	2.00	2334	2.47	2480	2.96
4000	1663	1675	0.51	1810	0.83	1943	1.20	2077	1.60	2213	2.04	2350	2.51	2494	3.04	2638	3.61
5000	2079	2094	1.00	2201	1.39	2309	1.82	2416	2.28	2523	2.77	2630	3.29	2739	3.84	2848	4.42
6000	2495	2512	1.73	2602	2.19	2692	2.68	2781	3.20	2870	3.75	2960	4.33	3049	4.93	3138	5.56
7000	2910	2931	2.75	3008	3.29	3085	3.84	3162	4.42	3238	5.03	3315	5.67	3391	6.33	3468	7.01
8000	3326	3350	4.11	3417	4.71	3485	5.34	3552	5.99	3619	6.66	3686	7.36	3753	8.07	3820	8.81
9000	3742	3768	5.85	3829	6.53	3889	7.23	3948	7.94	4008	8.68						
CFM	OV FPM	4"		4½"		5"		6"		7"		8"		9"		10"	
2000	832	2358	2.66	2465	3.07	2566	3.49	2757	4.37	2941	5.33	3117	6.35	3283	7.42	3442	8.54
3000	1247	2612	3.46	2732	3.97	2843	4.49	3046	5.57	3227	6.68	3387	7.81	3538	8.98	3680	10.2
4000	1663	2778	4.20	2910	4.81	3033	5.44	3260	6.73	3461	8.05	3642	9.41	3809	10.8	3964	12.2
5000	2079	2959	5.03	3074	5.68	3190	6.37	3418	7.83	3631	9.36	3828	10.9	4010	12.5		
6000	2495	3229	6.21	3319	6.88	3411	7.58	3596	9.06	3789	10.7	3981	12.4				

Size 26 – A54- H -267VB---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		½"		1"		1½"		2"		2½"		3"		3½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	1356	1097	0.42	1231	0.84	1364	1.33	1499	1.89	1640	2.54	1782	3.26	1914	4.02	2034	4.81
6500	1763	1427	0.93	1530	1.45	1632	2.03	1734	2.67	1837	3.36	1941	4.10	2047	4.91	2158	5.79
8000	2170	1756	1.74	1840	2.36	1923	3.03	2006	3.76	2089	4.53	2172	5.35	2256	6.21	2340	7.11
9500	2577	2085	2.91	2156	3.64	2226	4.41	2296	5.22	2366	6.08	2435	6.99	2505	7.93	2575	8.91
11000	2983	2414	4.51	2475	5.35	2536	6.23	2597	7.13	2657	8.09	2717	9.08	2778	10.1	2838	11.2
12500	3390	2744	6.62	2797	7.57	2851	8.55	2904	9.56	2957	10.6	3011	11.7	3064	12.8	3117	13.9
14000	3797	3073	9.30	3121	10.4	3168	11.4	3216	12.6								
CFM	OV FPM	4"		4½"		5"		6"		7"		8"		9"		10"	
4000	1085	2035	4.84	2128	5.56	2214	6.30	2366	7.81	2504	9.38	2634	11.0	2757	12.7	2874	14.5
5500	1492	2187	5.99	2292	6.86	2389	7.76	2563	9.60	2717	11.5	2858	13.5	2988	15.5	3107	17.5
7000	1899	2312	7.11	2414	8.11	2514	9.15	2701	11.3	2871	13.5	3026	15.8	3167	18.1		
8500	2305	2494	8.63	2574	9.63	2655	10.7	2825	13.0	2992	15.4	3152	18.0				
10000	2712	2727	10.7	2794	11.7	2862	12.8	2997	15.1	3135	17.6						

Size 29 – A54- H -297VB---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		½"		1"		1½"		2"		2½"		3"		3½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	1308	909	0.46	1039	1.00	1151	1.59	1270	2.27	1404	3.12	1534	4.03	1649	4.96	1756	5.93
8000	1744	1212	1.10	1315	1.81	1404	2.55	1487	3.31	1573	4.15	1663	5.07	1759	6.10	1861	7.26
10000	2180	1515	2.15	1600	3.03	1677	3.94	1746	4.85	1813	5.80	1880	6.79	1949	7.84	2020	8.94
12000	2616	1818	3.71	1890	4.77	1956	5.85	2019	6.94	2077	8.03	2134	9.15	2189	10.3	2244	11.5
14000	3052	2121	5.89	2183	7.13	2242	8.37	2298	9.64	2352	10.9	2402	12.2	2450	13.5	2498	14.8
16000	3488	2424	8.79	2479	10.2	2531	11.6	2581	13.1	2630	14.5	2677	16.0	2722	17.4	2765	18.9
18000	3924	2727	12.5	2776	14.1	2823	15.7	2868	17.3	2913	18.9						
CFM	OV FPM	4"		4½"		5"		6"		7"		8"		9"		10"	
4000	872	1710	5.48	1787	6.31	1859	7.17	1996	8.97	2128	10.9	2252	12.9	2370	15.1	2481	17.3
6000	1308	1860	6.98	1958	8.07	2048	9.19	2208	11.5	2339	13.8	2456	16.1	2565	18.5	2668	21.0
8000	1744	1962	8.48	2055	9.70	2142	10.9	2307	13.5	2463	16.2	2611	19.1	2745	22.1	2868	25.2
10000	2180	2093	10.1	2169	11.4	2250	12.8	2413	15.8	2564	18.8	2704	21.9	2836	25.1		
12000	2616	2302	12.7	2360	14.0	2419	15.3	2541	18.2	2673	21.4	2809	24.9				

Performance certified is for belt drive fans, installation Type D: ducted inlet/ducted outlet.
Power rating (BHP) includes transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

To complete model code for your selection, add motor enclosure code, motor nameplate horsepower code, and motor speed code. Refer to page 2 for additional model code information.



Performance Data – Series 54, Type VB

Size 33 – A54- H -337VB---ST_____

"H" (Heavy Industrial)
Duty Construction Only

Contact Factory
for Availability

CFM	Outlet Velocity FPM	Static Pressure															
		0"		½"		1"		1½"		2"		2½"		3"		3½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	1347	955	0.71	1055	1.36	1153	2.10	1246	2.91	1334	3.76	1427	4.70	1520	5.71	1610	6.78
10000	1684	1193	1.39	1274	2.18	1353	3.05	1431	3.98	1507	4.97	1580	6.00	1650	7.06	1723	8.20
12000	2020	1432	2.41	1499	3.34	1566	4.33	1632	5.39	1697	6.51	1761	7.67	1823	8.88	1884	10.1
14000	2357	1671	3.82	1729	4.90	1786	6.03	1842	7.22	1899	8.46	1955	9.75	2010	11.1	2065	12.5
16000	2694	1909	5.70	1960	6.94	2010	8.20	2060	9.52	2110	10.9	2159	12.3	2208	13.8	2257	15.3
18000	3031	2148	8.12	2193	9.51	2238	10.9	2282	12.4	2326	13.9	2370	15.4	2415	17.0	2458	18.6
20000	3367	2387	11.1	2428	12.7	2468	14.2	2508	15.8	2548	17.5						
CFM	OV FPM	4"		4½"		5"		6"		7"		8"		9"		10"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
		5000	842	1532	5.79	1604	6.68	1671	7.61	1795	9.54	1910	11.6	2019	13.7	2121	16.0
7500	1263	1670	7.53	1749	8.63	1823	9.75	1959	12.1	2081	14.5	2194	17.0	2298	19.5	2394	22.2
10000	1684	1798	9.40	1873	10.7	1946	12.0	2084	14.7	2213	17.5	2333	20.5	2443	23.4	2546	26.5
12500	2105	1985	12.0	2041	13.3	2098	14.7	2217	17.6	2337	20.7	2454	24.0				
15000	2525	2210	15.3	2260	16.8	2310	18.3	2405	21.4	2498	24.7						

Size 36 – A54- H -367VB---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		½"		1"		1½"		2"		2½"		3"		3½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10000	1415	918	0.98	1005	1.79	1091	2.70	1174	3.69	1252	4.73	1330	5.85	1412	7.08	1493	8.38
12500	1768	1147	1.92	1218	2.90	1287	3.97	1355	5.12	1422	6.33	1487	7.60	1549	8.90	1611	10.3
15000	2122	1377	3.31	1436	4.48	1494	5.71	1551	7.01	1608	8.39	1665	9.82	1720	11.3	1774	12.8
17500	2476	1606	5.26	1657	6.61	1707	8.01	1756	9.47	1806	11.0	1855	12.6	1903	14.2	1951	15.9
20000	2829	1836	7.85	1880	9.39	1924	11.0	1967	12.6	2011	14.3	2054	16.0	2097	17.8	2140	19.7
22500	3183	2065	11.2	2105	12.9	2144	14.7	2183	16.5	2221	18.3	2260	20.2	2298	22.2	2337	24.2
25000	3537	2295	15.3	2330	17.3												
CFM	OV FPM	4"		4½"		5"		6"		7"		8"		9"		10"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
		7500	1061	1474	7.96	1544	9.14	1609	10.4	1729	12.9	1836	15.5	1934	18.3	2026	21.2
10000	1415	1570	9.73	1642	11.1	1711	12.5	1839	15.5	1953	18.5	2059	21.7	2157	24.9	2248	28.3
12500	1768	1675	11.7	1741	13.2	1806	14.8	1932	18.1	2049	21.6	2159	25.2	2262	28.9		
15000	2122	1826	14.4	1877	16.0	1929	17.6	2037	21.1	2146	24.8	2253	28.8				
17500	2476	1999	17.7	2045	19.4	2091	21.2	2179	24.9	2268	28.7						

Size 48 – A54- H -487VB---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		½"		1"		1½"		2"		2½"		3"		3½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
18000	1432	554	1.71	624	3.23	692	5.06	761	7.09	833	9.44	907	12.2	989	15.3	1066	18.7
24000	1910	739	4.04	792	5.99	843	8.16	894	10.6	946	13.2	997	15.9	1050	18.8	1104	22.0
30000	2387	924	7.89	966	10.3	1008	12.8	1049	15.6	1090	18.5	1131	21.7	1172	24.9	1213	28.2
36000	2865	1109	13.6	1144	16.5	1179	19.4	1213	22.6	1248	25.8	1282	29.3	1316	32.9	1350	36.6
42000	3342	1293	21.7	1324	25.0	1354	28.3	1383	31.8	1413	35.5	1442	39.3	1472	43.2	1501	47.3
48000	3820	1478	32.3	1505	36.2	1531	39.9	1557	43.8	1583	47.9	1609	52.0	1635	56.3	1661	60.7
54000	4297	1663	46.0	1687	50.4	1710	54.6	1733	58.9	1756	63.3						
CFM	OV FPM	4"		4½"		5"		6"		7"		8"		9"		10"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
		12000	955	1011	16.6	1056	18.9	1098	21.3	1178	26.5	1255	32.1	1331	38.2	1403	44.8
20000	1592	1142	23.2	1207	27.0	1259	30.7	1349	38.1	1428	45.6	1499	53.3	1563	60.8	1623	68.3
28000	2228	1218	29.2	1264	32.9	1310	36.8	1406	45.3	1511	55.0	1614	65.4	1704	75.9		
36000	2865	1384	40.5	1418	44.4	1453	48.4	1522	56.7	1593	65.7	1665	75.5	1739	86.0		
44000	3501	1581	55.8	1609	60.3	1637	64.8	1693	74.2	1749	83.7						

Performance certified is for belt drive fans, installation Type D: ducted inlet/ducted outlet.
Power rating (BHP) includes transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

To complete model code for your selection, add motor enclosure code, motor nameplate horsepower code, and motor speed code. Refer to page 2 for additional model code information.



Series 55, Belt Drive, Type VA & VB



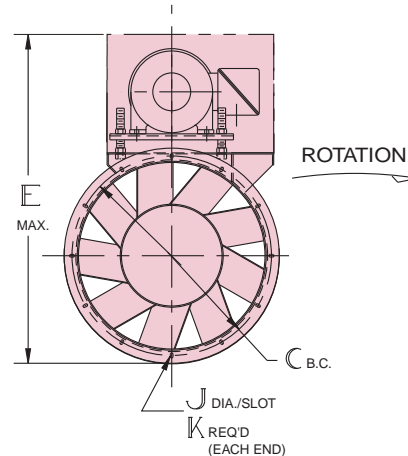
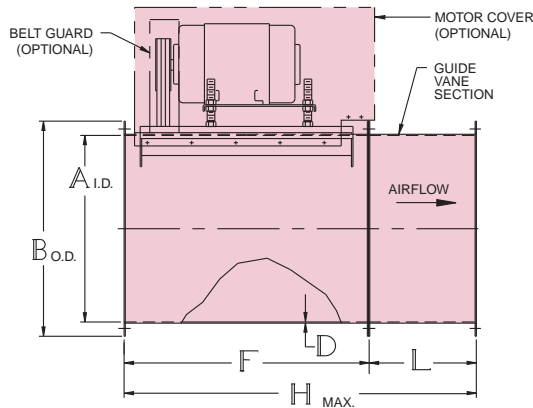
Series 55

ABS Certificate
of Design Assessment
Received

side of the propeller, drawing ambient air from outside the fan in and over the belts and bearings. Allows use in temperatures up to 350°F. if the ambient temperature does not exceed the motor rating.

- **Sizes** 12" to 60"...**performance** from 1,000 to 105,000 CFM. Series 55, high temperature Vaneaxials are available with either the "VA" or "VB" type wheel. Performance for a "VA" or "VB" impeller in Series 55 construction is the same as standard performance. See pages 21-23 for Series 55 with "VA" impeller, pages 24-25 for "VB" impellers.
- **Impellers** – Both "VA" and "VB" type impellers are a one-piece, cast aluminum airfoil design. Type VA are mounted with split taperlock bushing. Type VB are straight bore mounted with shaft shoulder. Both are designed to work efficiently at high static pressures.
- **Housing** – Two-piece, heavy gauge hot rolled steel housing with continuously welded steel drum and rolled steel flanges.
- **Vane Section** – Separate vane section containing guide vanes is located on discharge side of fan.
- **Motor out of the air stream** – Exterior mounting. Propeller shaft rotates in two heavy duty bearings mounted on steel supports welded to the inner shell with "T" reinforcements. Open end motors are standard. Motors larger than 30 HP will be shipped separately for mounting on unit at job site.
- **Drives** – are fixed pitch as standard. Variable pitch drives are available upon request.
- **Extended Lube Tubes** from bearings to exterior of fan housing are standard.
- **Accessories** – See pages 26 and 27.
- **Protective coatings** – See page 27.

- **Applications** – For installations where air is hot or contaminated, the Series 55 high temperature vaneaxial will provide substantially longer service life than standard belt drive vaneaxial fans.
- **High temperature construction** – Belts, bearings, sheave and shaft are enclosed and protected from the air stream. Special guide vane section on discharge side allows for location of drive compartment on the negative-pressure (suction)



Principal Dimensions

Fan Size	A	B	C	D	E	F	H	J	K	L	Max. Motor Frame	Estimated Weight*
12	12	14 ^{13/16}	13 ^{3/8}	10	30	18	28	5/16	6	10	182T	132
14	14	16 ^{13/16}	15 ^{1/2}	10	35	23	35	5/16	6	12	182T	155
18	18	21 ^{5/16}	19 ^{3/4}	10	43	29	43	7/16 x 13/16	12	14	215T	247
21	21	24 ^{9/16}	22 ^{3/4}	10	46	34	51	7/16 x 13/16	12	17	254T	342
26	26	30 ^{7/16}	28	7	51	38	59	7/16 x 13/16	12	21	284T	598
29	29	33 ^{7/16}	31	7	59	38	61	7/16 x 13/16	12	23	286T	760
36	36	40 ^{7/16}	38	7	68	44	73	9/16 x 13/16	16	29 ^{1/4}	326T	1020
42	42	46 ^{7/16}	44 ^{3/8}	7	80	44	77	9/16 x 13/16	16	33	364T	1152
48	48	53 ^{7/16}	50 ^{1/2}	7	80	44	82	9/16 x 13/16	16	38	365T	1347
54	54	59 ^{9/16}	56 ^{1/2}	1/4	86	48	89	9/16 x 13/16	16	41	404T	1957
60	60	65 ^{9/16}	63 ^{1/4}	1/4	98 ^{3/4}	60	105	9/16 x 13/16	16	45	405T	2526

*Estimated Weight is less motor, drives and accessories.

Note: Specifications are subject to change.
Certified prints are available.



Performance Data – Series 55, Type VA

Size 12 – A55---127VA---ST_____

Standard Product Model Contact Factory for Availability

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1000	1273	1754	0.12	2012	0.20	2233	0.28	2472	0.38	2708	0.50						
1200	1528	2105	0.21	2331	0.31	2517	0.39	2703	0.49	2902	0.61	3297	0.90				
1400	1783	2455	0.34	2654	0.45	2823	0.55	2980	0.66	3140	0.77	3480	1.06	3818	1.39	4172	1.77
1600	2037	2806	0.50	2983	0.63	3140	0.75	3280	0.87	3417	0.99	3703	1.27	4002	1.61	4296	1.99
1800	2292	3157	0.71	3316	0.86	3461	1.00	3592	1.13	3715	1.26	3958	1.55	4220	1.89	4486	2.27
2000	2547	3508	0.98	3652	1.14	3786	1.29	3911	1.45	4024	1.59	4244	1.89	4466	2.23	4703	2.61
2200	2801	3859	1.30	3990	1.48	4114	1.65	4232	1.82	4341	1.98	4543	2.31	4741	2.65	4947	3.03
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
1600	2037	4599	2.41														
1800	2292	4747	2.69	5013	3.14	5289	3.63										
2000	2547	4943	3.04	5178	3.49	5415	3.98	5657	4.50	5908	5.05						
2200	2801	5163	3.46	5381	3.92	5596	4.41	5810	4.93	6026	5.48	6247	6.06	6476	6.66	6708	7.30
2400	3056	5406	3.96	5604	4.42	5804	4.91	6002	5.44	6198	5.99	6395	6.57	6594	7.17	6796	7.80

Size 14 – A55---147VA---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1250	1169	1387	0.09	1647	0.16	1874	0.25	2100	0.36	2341	0.49						
1750	1637	1942	0.23	2139	0.34	2312	0.45	2476	0.57	2637	0.71	2960	1.01	3307	1.38		
2250	2105	2497	0.50	2655	0.64	2799	0.78	2933	0.92	3062	1.07	3314	1.39	3563	1.76	3816	2.17
2750	2572	3052	0.91	3183	1.08	3306	1.25	3422	1.42	3533	1.60	3745	1.96	3952	2.35	4156	2.76
3250	3040	3607	1.50	3719	1.70	3825	1.90	3928	2.10	4026	2.31	4213	2.72	4393	3.15	4568	3.60
3750	3508	4162	2.30	4259	2.53	4353	2.76	4444	3.00	4533	3.23	4701	3.71	4862	4.18	5018	4.67
4250	3976	4717	3.34	4803	3.61	4887	3.87	4969	4.14	5048	4.40	5203	4.94	5349	5.47	5491	6.01
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
2250	2105	4076	2.63														
2500	2339	4200	2.89	4433	3.39	4682	3.93										
2750	2572	4360	3.22	4566	3.71	4776	4.25	4990	4.82	5227	5.44						
3000	2806	4543	3.61	4730	4.11	4919	4.64	5110	5.20	5304	5.81	5505	6.44				
3250	3040	4742	4.07	4914	4.57	5087	5.10	5260	5.67	5436	6.27	5613	6.90	5793	7.56	5982	8.26

Size 18 – A55---187VA---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2500	1415	1243	0.30	1389	0.45	1531	0.63	1656	0.81	1774	1.02	2026	1.51	2255	2.07		
3500	1981	1741	0.81	1845	1.02	1949	1.24	2052	1.48	2152	1.74	2328	2.27	2497	2.84	2678	3.50
4500	2546	2238	1.73	2320	1.99	2400	2.26	2480	2.54	2562	2.85	2720	3.49	2865	4.16	2999	4.84
5500	3112	2736	3.16	2802	3.47	2869	3.79	2934	4.12	3000	4.47	3133	5.21	3263	5.99	3388	6.80
6500	3678	3233	5.22	3290	5.58	3346	5.95	3402	6.34	3457	6.73	3568	7.55	3681	8.42	3792	9.33
7500	4244	3730	8.02	3780	8.43	3828	8.86	3877	9.29	3925	9.74	4022	10.6	4118	11.6	4216	12.6
8500	4810	4228	11.7	4271	12.1	4314	12.6	4357	13.1	4400	13.6	4485	14.6	4570	15.7	4655	16.7
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
4000	2264	2976	4.81	3135	5.61	3291	6.47	3436	7.34	3575	8.24	3712	9.19				
4500	2546	3130	5.56	3265	6.35	3406	7.21	3546	8.12	3685	9.08	3817	10.1	3942	11.1	4064	12.1
5000	2829	3312	6.51	3430	7.30	3547	8.13	3673	9.04	3800	10.0	3927	11.0	4052	12.1	4175	13.2
5500	3112	3505	7.62	3615	8.45	3722	9.30	3829	10.2	3938	11.1	4053	12.1	4168	13.2	4284	14.3
6000	3395	3702	8.88	3809	9.77	3910	10.7	4010	11.6	4108	12.5	4206	13.5	4306	14.6	4412	15.7

Size 21 – A55---217VA---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	1247	906	0.22	1052	0.38	1178	0.56	1293	0.77	1404	1.00	1606	1.50				
4500	1871	1360	0.73	1461	0.97	1555	1.22	1644	1.48	1727	1.76	1883	2.36	2033	3.01	2177	3.72
6000	2495	1813	1.73	1890	2.04	1964	2.37	2035	2.70	2104	3.04	2235	3.76	2356	4.52	2473	5.32
7500	3118	2266	3.37	2328	3.76	2388	4.16	2447	4.57	2505	4.98	2616	5.83	2723	6.72	2824	7.63
9000	3742	2719	5.83	2771	6.30	2822	6.77	2872	7.25	2921	7.74	3017	8.73	3110	9.75	3201	10.8
10500	4365	3173	9.26	3217	9.80	3261	10.4	3304	10.9	3347	11.5	3431	12.6	3513	13.8	3594	14.9
12000	4989	3626	13.8	3665	14.4	3703	15.1	3742	15.7	3779	16.3	3854	17.6	3927	18.9	3999	20.2
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
5000	2079	2396	4.96	2519	5.78	2637	6.65	2755	7.57								
6000	2495	2587	6.16	7.04	2807	7.96	2914	8.93	3015	9.91	3114	10.9	3212	12.0	3310	13.1	
7000	2910	2805	7.68	2904	8.63	3002	9.61	3098	10.6	3192	11.7	3285	12.8	3377	13.9	3465	15.0
8000	3326	3041	9.57	3132	10.6	3220	11.6	3307	12.7	3392	13.8	3477	15.0	3561	16.2	3643	17.4
9000	3742	3289	11.9	3373	13.0	3455	14.1	3535	15.2	3613	16.4	3690	17.6	3766	18.9	3842	20.1

Performance certified is for belt drive fans, installation Type D: ducted inlet/ducted outlet.
 Power rating (BHP) includes transmission losses.
 Performance ratings do not include the effects of appurtenances (accessories).

To complete model code for your selection, add motor enclosure code, motor nameplate horsepower code, and motor speed code. Refer to page 2 for additional model code information.



Performance Data – Series 55, Type VA

Size 26 – A55---267VA---ST_____

Standard Product Model

Contact Factory
for Availability

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	1627	865	0.59	970	0.93	1056	1.27	1141	1.66	1225	2.08	1373	2.98	1513	4.01	1650	5.18
8000	2170	1153	1.40	1237	1.85	1309	2.30	1373	2.75	1435	3.22	1565	4.30	1685	5.45	1795	6.66
10000	2712	1441	2.74	1510	3.30	1573	3.86	1629	4.42	1681	4.98	1781	6.14	1885	7.44	1987	8.84
12000	3255	1729	4.73	1788	5.40	1842	6.08	1893	6.76	1940	7.43	2028	8.77	2111	10.2	2195	11.6
14000	3797	2018	7.51	2068	8.30	2116	9.09	2162	9.88	2205	10.7	2285	12.2	2360	13.8	2432	15.4
16000	4340	2306	11.2	2350	12.1	2393	13.0	2434	13.9	2474	14.8	2549	16.6	2617	18.4	2682	20.2
18000	4882	2594	16.0	2634	17.0	2672	18.0	2710	19.0	2746	20.0	2815	22.0	2880	24.1	2941	26.1
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
		9000	2441	1988	9.02	2082	10.4	2176	11.9	2269	13.5	2362	15.2	2452	17.0	2541	18.9
10500	2848	2133	11.0	2221	12.5	2305	14.1	2387	15.7	2467	17.4	2547	19.1	2628	21.0	2707	23.0
12000	3255	2283	13.3	2368	14.9	2451	16.7	2528	18.4	2602	20.2	2674	22.0	2745	23.9	2815	25.8
13500	3662	2444	16.0	2522	17.8	2599	19.6	2674	21.5	2748	23.5	2818	25.4	2884	27.4	2949	29.4
15000	4068	2623	19.4	2689	21.2	2757	23.1	2827	25.1	2896	27.2	2964	29.3	3031	31.5	3095	33.7

Size 29 – A55---297VA---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	1526	702	0.51	782	0.81	859	1.17	934	1.57	1007	2.01	1147	3.00	1268	4.03		
10000	2180	1003	1.48	1059	1.89	1114	2.34	1169	2.83	1223	3.36	1328	4.50	1430	5.75	1530	7.11
13000	2834	1304	3.24	1348	3.77	1390	4.33	1433	4.91	1475	5.53	1558	6.85	1640	8.27	1721	9.78
16000	3488	1605	6.05	1641	6.70	1675	7.36	1710	8.05	1745	8.76	1813	10.3	1881	11.9	1949	13.5
19000	4142	1906	10.1	1936	10.9	1965	11.7	1995	12.5	2024	13.3	2082	15.0	2140	16.8	2197	18.6
22000	4796	2207	15.7	2233	16.6	2259	17.5	2284	18.4	2309	19.3	2360	21.2	2410	23.2	2460	25.3
25000	5450	2508	23.1	2531	24.1	2554	25.1	2576	26.1	2598	27.2	2643	29.3	2687	31.5	2731	33.7
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
		10000	2180	1626	8.55	1715	10.0	1798	11.5	2005	16.0	2080	17.9	2148	19.7	2215	21.5
12500	2725	1768	10.8	1848	12.5	1927	14.2	2146	19.4	2213	21.4	2279	23.5	2344	25.6	2408	27.8
15000	3270	1940	13.9	2009	15.6	2078	17.5	2146	19.4	2213	21.4	2279	23.5	2344	25.6	2408	27.8
17500	3815	2132	17.8	2193	19.7	2253	21.7	2313	23.7	2372	25.8	2430	28.0	2489	30.3	2546	32.6
20000	4360	2338	22.7	2392	24.7	2446	26.9	2499	29.1	2552	31.3	2604	33.6	2656	36.0	2708	38.4

Size 36 – A55---367VA---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10000	1415	523	0.63	600	1.11	663	1.60	724	2.16	784	2.79	900	4.27	1012	6.03	1110	7.88
15000	2122	785	2.13	841	2.86	888	3.56	932	4.27	973	5.01	1056	6.64	1136	8.43	1215	10.4
20000	2829	1047	5.05	1090	6.02	1130	6.98	1166	7.92	1199	8.86	1263	10.8	1326	12.8	1387	15.0
25000	3537	1308	9.87	1344	11.1	1377	12.3	1408	13.5	1438	14.7	1493	17.0	1545	19.4	1595	21.8
30000	4244	1570	17.0	1600	18.5	1628	20.0	1655	21.4	1682	22.8	1731	25.7	1777	28.5	1821	31.3
35000	4951	1832	27.1	1858	28.8	1882	30.5	1906	32.2	1929	33.9	1974	37.2	2016	40.5	2056	43.8
40000	5659	2093	40.4	2117	42.4	2138	44.4	2160	46.3	2180	48.2	2220	52.0	2259	55.8	2296	59.7
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
		16000	2264	1318	13.4	1391	15.7	1464	18.3	1534	21.1	1603	24.0	1668	26.9	1729	29.8
20000	2829	1448	17.3	1508	19.7	1567	22.3	1626	25.0	1684	27.9	1742	30.9	1801	34.1	1858	37.5
24000	3395	1603	22.7	1654	25.3	1705	28.1	1755	30.9	1805	33.8	1855	36.9	1904	40.1	1953	43.4
28000	3961	1774	29.9	1818	32.7	1863	35.6	1907	38.6	1951	41.7	1994	44.9	2037	48.2	2080	51.6
32000	4527	1955	38.9	1995	42.0	2034	45.1	2073	48.3	2112	51.6	2150	55.0	2189	58.5	2227	62.1

Size 42 – A55---427VA---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15000	1559	477	0.93	543	1.63	595	2.32	654	3.19	709	4.14	805	6.14	902	8.65	989	11.4
21000	2183	668	2.56	720	3.58	761	4.51	799	5.45	836	6.45	920	8.90	999	11.6	1068	14.2
27000	2806	859	5.44	901	6.77	938	8.04	970	9.23	999	10.4	1057	12.9	1121	15.8	1186	19.1
33000	3430	1050	9.93	1085	11.6	1117	13.1	1146	14.7	1173	16.2	1222	19.1	1269	22.0	1317	25.2
39000	4054	1241	16.4	1272	18.4	1299	20.2	1325	22.1	1350	23.9	1395	27.4	1437	30.8	1477	34.3
45000	4677	1432	25.2	1459	27.5	1484	29.7	1507	31.8	1529	33.9	1572	38.1	1610	42.1	1646	46.0
51000	5301	1623	36.7	1647	39.3	1669	41.8	1690	44.2	1711	46.7	1750	51.5	1787	56.2	1820	60.6
CFM	OV FPM	3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
		24000	2495	1189	19.6	1248	22.8	1308	26.3	1369	30.2	1428	34.4	1487	38.8	1542	43.1
29000	3014	1287	24.5	1346	28.2	1398	31.8	1448	35.5	1497	39.3	1546	43.4	1596	47.9	1647	52.7
34000	3534	1393	30.2	1445	34.2	1497	38.4	1547	42.7	1596	47.1	1639	51.2	1682	55.5	1724	60.0
39000	4054	1516	37.8	1558	41.7	1603	46.1	1648	50.6	1694	55.4	1738	60.2	1782	65.2	1824	70.2
44000	4573	1653	47.8	1688	51.8	1723	55.8	1761	60.4	1801	65.2	1841	70.3	1882	75.6	1921	81.0

Performance certified is for belt drive fans, installation Type D: ducted inlet/ducted outlet.
Power rating (BHP) includes transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

To complete model code for your selection, add motor enclosure code, motor nameplate horsepower code, and motor speed code. Refer to page 2 for additional model code information.



Performance Data – Series 55, Type VA

Size 48 – A55---487VA---ST_____

Standard Product Model

Contact Factory
for Availability

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20000	1592	427	1.37	478	2.24	531	3.29	584	4.53	635	5.94	731	9.12	817	12.7	893	16.5
28000	2228	598	3.77	634	4.93	671	6.20	708	7.61	746	9.16	822	12.7	895	16.6	965	20.9
36000	2865	769	8.01	798	9.48	825	11.0	854	12.6	883	14.4	942	18.2	1001	22.5	1059	27.1
44000	3501	940	14.6	964	16.4	986	18.2	1009	20.1	1032	22.1	1079	26.3	1127	30.9	1176	35.9
52000	4138	1111	24.1	1131	26.3	1150	28.4	1170	30.6	1189	32.8	1228	37.5	1268	42.5	1309	47.8
60000	4775	1282	37.1	1300	39.6	1317	42.0	1333	44.5	1350	47.0	1383	52.2	1417	57.6	1452	63.3
68000	5411	1453	54.0	1469	56.9	1484	59.6	1498	62.3	1513	65.1	1542	70.9	1572	76.8	1602	83.0
CFM	OV FPM	Static Pressure															
		3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30000	2387	1050	27.0	1111	32.1	1170	37.4	1225	42.9	1279	48.7	1328	54.3	1374	60.0	1420	65.8
36000	2865	1117	32.1	1173	37.4	1227	43.0	1279	48.8	1330	54.9	1379	61.3	1426	67.8	1472	74.5
42000	3342	1196	38.6	1246	44.2	1295	50.0	1343	56.1	1390	62.4	1436	69.0	1481	75.8	1525	82.8
48000	3820	1285	46.8	1329	52.6	1374	58.6	1417	65.0	1460	71.6	1503	78.4	1545	85.5	1586	92.7
54000	4297	1383	57.0	1422	63.0	1462	69.3	1501	75.8	1540	82.6	1579	89.7	1618	97.0	1656	105

Size 54 – A55---547VA---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25000	1572	381	1.72	430	2.95	476	4.30	519	5.77	561	7.42	640	11.2	710	15.4	775	19.9
35000	2201	533	4.71	569	6.41	603	8.17	637	10.0	669	11.9	730	16.1	790	20.7	848	25.8
45000	2829	685	10.0	714	12.2	740	14.4	767	16.7	794	19.0	845	23.9	894	29.0	941	34.5
55000	3458	837	18.3	861	21.0	883	23.6	905	26.3	927	29.1	971	34.7	1013	40.6	1054	46.7
65000	4087	990	30.1	1010	33.4	1029	36.5	1048	39.6	1066	42.8	1104	49.3	1140	56.0	1177	62.9
75000	4716	1142	46.3	1160	50.2	1177	53.7	1193	57.3	1209	60.9	1241	68.3	1273	75.8	1306	83.5
85000	5344	1294	67.4	1311	72.0	1325	75.9	1340	79.9	1354	84.0	1383	92.2	1411	101	1439	109
CFM	OV FPM	Static Pressure															
		3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40000	2515	943	35.4	992	41.4	1038	47.7	1083	54.3	1126	61.3	1169	68.4	1209	75.7	1248	83.1
48000	3018	1017	43.7	1061	50.0	1104	56.7	1146	63.7	1187	71.0	1226	78.5	1264	86.2	1301	94.2
56000	3521	1105	54.6	1143	61.3	1180	68.2	1218	75.5	1255	83.1	1292	91.0	1328	99.1	1364	108
64000	4024	1200	68.1	1234	75.3	1268	82.7	1301	90.3	1334	98.2	1367	106	1400	115	1432	124
72000	4527	1299	84.5	1331	92.3	1363	100	1393	108	1423	117	1452	125	1482	134	1511	143

Size 60 – A55---607VA---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		¼"		½"		¾"		1"		1½"		2"		2½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
32000	1630	354	2.54	410	4.41	459	6.50	505	8.90	547	11.5	624	17.4	691	24.1	752	31.1
44000	2241	487	6.60	530	9.17	568	11.8	604	14.5	639	17.6	705	24.3	765	31.5	821	39.4
56000	2852	620	13.6	655	16.9	686	20.2	716	23.5	745	26.9	801	34.3	854	42.6	904	51.3
68000	3463	753	24.4	782	28.5	809	32.3	834	36.3	859	40.3	907	48.5	953	57.4	998	67.1
80000	4074	886	39.7	912	44.6	934	49.1	956	53.7	978	58.4	1020	67.8	1061	77.5	1100	87.7
92000	4686	1018	60.3	1042	66.2	1062	71.4	1081	76.6	1100	81.9	1138	92.6	1174	103	1210	115
104000	5297	1151	87.2	1173	94.1	1191	99.9	1208	106	1225	112	1259	124	1292	136	1324	148
CFM	OV FPM	Static Pressure															
		3"		3½"		4"		4½"		5"		5½"		6"		6½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
45000	2292	880	48.9	930	58.1	976	67.8	1020	77.5	1061	87.6	1102	98.0	1140	109	1178	120
55000	2801	945	59.1	991	68.7	1035	78.9	1077	89.6	1118	101	1157	112	1195	124	1231	136
65000	3310	1018	72.7	1061	82.9	1102	93.5	1141	105	1180	116	1217	128	1253	141	1288	154
75000	3820	1097	89.1	1137	100	1175	112	1212	124	1248	136	1283	148	1317	161	1351	174
85000	4329	1182	109	1218	121	1254	133	1289	146	1323	159	1356	172	1388	186		

Performance certified is for belt drive fans, installation Type D: ducted inlet/ducted outlet.
Power rating (BHP) includes transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

To complete model code for your selection, add motor enclosure code, motor nameplate horse-power code, and motor speed code. Refer to page 2 for additional model code information.



Performance Data – Series 55, Type VB

Size 18 – A55---187VB---ST_____

Standard Product Model

Contact Factory
for Availability

CFM	Outlet Velocity FPM	Static Pressure															
		0"		½"		1"		1½"		2"		2½"		3"		3½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2500	1415	1998	0.58	2300	1.03	2546	1.51	2769	2.04	2975	2.59	3169	3.18	3357	3.82	3541	4.55
3000	1698	2398	1.00	2660	1.53	2879	2.09	3078	2.68	3265	3.31	3442	3.98	3609	4.64	3771	5.34
3500	1981	2797	1.59	3028	2.21	3228	2.84	3408	3.50	3577	4.19	3739	4.93	3895	5.69	4044	6.46
4000	2264	3197	2.37	3402	3.07	3586	3.80	3752	4.53	3907	5.29	4055	6.07	4199	6.90	4338	7.76
4500	2547	3597	3.37	3782	4.16	3950	4.97	4105	5.79	4249	6.62	4387	7.47	4520	8.35	4649	9.27
5000	2829	3996	4.62	4164	5.50	4320	6.40	4465	7.30	4600	8.21						
5500	3112	4396	6.15	4550	7.12	4694	8.10										
CFM	OV FPM	Static Pressure															
		4"		4½"		5"		6"		7"		8"		9"		10"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1500	849	3388	4.02	3550	4.67	3701	5.33	3981	6.74	4236	8.23	4473	9.80	4695	11.5		
2000	1132	3574	4.69	3758	5.42	3929	6.16	4225	7.72	4490	9.35						
2500	1415	3719	5.32	3892	6.14	4062	6.98	4390	8.71	4689	10.5						
3000	1698	3928	6.08	4084	6.91	4237	7.78	4533	9.67								
3500	1981	4187	7.24	4327	8.05	4464	8.89										

Size 21 – A55---217VB---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		½"		1"		1½"		2"		2½"		3"		3½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	1247	1480	0.36	1745	0.76	1945	1.20	2129	1.69	2305	2.22	2471	2.80	2626	3.39	2775	4.02
3750	1559	1851	0.69	2082	1.21	2254	1.72	2412	2.28	2562	2.87	2706	3.50	2847	4.17	2982	4.87
4500	1871	2221	1.20	2426	1.82	2582	2.42	2721	3.05	2853	3.71	2980	4.41	3103	5.13	3224	5.89
5250	2183	2591	1.90	2774	2.63	2920	3.34	3047	4.05	3164	4.79	3279	5.55	3390	6.34	3498	7.16
6000	2494	2961	2.84	3125	3.67	3263	4.49	3381	5.29	3490	6.11	3594	6.95	3694	7.81	3793	8.70
6750	2806	3331	4.05	3480	4.98	3609	5.90	3722	6.81	3824	7.72	3921	8.65	4013	9.59		
7500	3118	3701	5.55	3837	6.59	3958	7.62										
CFM	OV FPM	Static Pressure															
		4"		4½"		5"		6"		7"		8"		9"		10"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2000	831	2746	3.87	2889	4.52	3024	5.20	3273	6.63	3498	8.15	3707	9.75	3902	11.4		
3000	1247	2919	4.68	3061	5.39	3198	6.14	3458	7.72	3696	9.41	3914	11.2				
4000	1663	3185	5.94	3307	6.72	3425	7.50	3651	9.15	3868	10.9						
5000	2079	3512	7.53	3621	8.40	3726	9.28	3932	11.1								
6000	2494	3890	9.62	3984	10.6												

Size 26 – A55---267VB---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		½"		1"		1½"		2"		2½"		3"		3½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	1356	1293	0.70	1497	1.38	1649	2.09	1790	2.87	1924	3.72	2052	4.64	2174	5.60	2289	6.59
6000	1627	1552	1.20	1734	2.02	1870	2.84	1993	3.72	2111	4.65	2224	5.64	2335	6.69	2441	7.79
7000	1899	1811	1.91	1975	2.87	2100	3.81	2211	4.79	2317	5.81	2419	6.89	2517	8.01	2614	9.18
8000	2170	2069	2.85	2218	3.95	2336	5.03	2439	6.12	2535	7.24	2627	8.41	2718	9.62	2805	10.9
9000	2441	2328	4.05	2463	5.30	2576	6.52	2672	7.73	2762	8.97	2846	10.2	2929	11.5	3010	12.9
10000	2712	2587	5.56	2711	6.94	2817	8.31	2909	9.66	2994	11.0	3073	12.4	3150	13.8	3224	15.2
11000	2983	2845	7.40	2960	8.93	3060	10.4	3149	11.9	3229	13.4						
CFM	OV FPM	Static Pressure															
		4"		4½"		5"		6"		7"		8"		9"		10"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	814	2206	5.90	2322	6.89	2430	7.93	2630	10.1	2811	12.4	2979	14.9	3136	17.4		
4500	1221	2341	7.09	2457	8.18	2569	9.32	2778	11.7	2970	14.3	3145	17.0				
6000	1627	2545	8.93	2644	10.1	2740	11.3	2924	13.8	3102	16.5						
7500	2034	2797	11.2	2886	12.6	2972	13.9	3140	16.7								
9000	2441	3089	14.3	3166	15.7	3242	17.1										

Size 29 – A55---297VB---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		½"		1"		1½"		2"		2½"		3"		3½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	1308	961	0.61	1109	1.24	1238	1.97	1359	2.78	1476	3.68	1591	4.68	1707	5.81	1823	7.04
7500	1635	1201	1.20	1323	1.95	1432	2.81	1535	3.73	1633	4.71	1729	5.76	1821	6.89	1913	8.09
9000	1962	1442	2.07	1545	2.95	1640	3.93	1729	4.98	1815	6.08	1898	7.23	1979	8.44	2059	9.70
10500	2289	1682	3.29	1772	4.30	1856	5.40	1935	6.57	2011	7.80	2085	9.08	2157	10.4	2228	11.8
12000	2616	1922	4.91	2001	6.06	2076	7.28	2148	8.56	2217	9.92	2284	11.3	2349	12.8	2413	14.3
13500	2943	2163	6.99	2233	8.28	2301	9.62	2366	11.0	2429	12.5	2490	14.0	2550	15.6	2608	17.2
15000	3270	2403	9.59	2467	11.0	2528	12.5	2588	14.0	2646	15.6	2703	17.2	2758	18.9	2811	20.7
CFM	OV FPM	Static Pressure															
		4"		4½"		5"		6"		7"		8"		9"		10"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	872	1898	7.29	2001	8.53	2099	9.83	2281	12.6	2447	15.6	2603	18.7	2748	22.0	2886	25.5
5500	1199	1937	8.13	2054	9.52	2163	11.0	2352	14.0	2521	17.1	2677	20.4	2822	23.9		
7000	1526	1975	8.99	2075	10.4	2173	11.9	2373	15.1	2562	18.6	2736	22.2	2890	26.0		
8500	1853	2088	10.4	2169	11.8	2251	13.3	2415	16.4	2579	19.9	2742	23.7	2906	27.7		
10000	2180	2242	12.4	2313	13.8	2382	15.3	2521	18.4	2659	21.9	2799	25.6				

Performance certified is for belt drive fans, installation Type D: ducted inlet/ducted outlet. Power rating (BHP) includes transmission losses. Performance ratings do not include the effects of appurtenances (accessories).

To complete model code for your selection, add motor enclosure code, motor nameplate horsepower code, and motor speed code. Refer to page 2 for additional model code information.



Performance Data – Series 55, Type VB

Size 33 – A55---337VB---ST_____

Standard Product Model

Contact Factory
for Availability

CFM	Outlet Velocity FPM	Static Pressure															
		0"		½"		1"		1½"		2"		2½"		3"		3½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	1347	985	0.91	1127	1.79	1240	2.76	1351	3.83	1455	4.99	1551	6.22	1645	7.54	1741	8.99
9500	1599	1169	1.52	1295	2.56	1396	3.66	1490	4.83	1583	6.11	1673	7.46	1757	8.86	1838	10.3
11000	1852	1354	2.37	1466	3.56	1559	4.80	1643	6.10	1723	7.47	1804	8.94	1884	10.5	1960	12.1
12500	2105	1539	3.47	1639	4.82	1726	6.22	1803	7.65	1876	9.14	1946	10.7	2018	12.3	2089	14.0
14000	2357	1723	4.88	1814	6.39	1895	7.94	1968	9.52	2035	11.1	2100	12.8	2163	14.6	2226	16.4
15500	2610	1908	6.62	1991	8.29	2066	9.99	2135	11.7	2198	13.5	2259	15.3	2317	17.2	2374	19.1
17000	2862	2093	8.73	2169	10.6	2239	12.4	2305	14.3	2365	16.2	2422	18.2	2476	20.2	2530	22.2
CFM	OV FPM	4"		4½"		5"		6"		7"		8"		9"		10"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
		5000	842	1677	8.18	1766	9.56	1852	11.0	2012	14.1	2163	17.6	2306	21.3	2441	25.2
7000	1179	1781	9.69	1866	11.2	1946	12.7	2096	15.9	2236	19.4	2369	23.0	2495	27.0		
9000	1515	1885	11.4	1970	13.0	2052	14.8	2206	18.4	2342	22.0	2469	25.9				
11000	1852	2032	13.7	2102	15.4	2170	17.1	2308	20.9	2445	25.0						
13000	2189	2201	16.6	2266	18.4	2330	20.3	2450	24.2								

Size 36 – A55---367VB---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		½"		1"		1½"		2"		2½"		3"		3½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	1132	827	1.07	1001	2.48	1150	4.18	1292	6.22	1421	8.48	1532	10.8	1635	13.2	1735	15.9
10000	1415	1034	2.09	1180	3.79	1305	5.70	1423	7.87	1537	10.3	1649	13.0	1753	15.9	1845	18.7
12000	1698	1241	3.61	1366	5.62	1476	7.79	1578	10.1	1677	12.7	1773	15.5	1868	18.6	1961	21.8
14000	1981	1448	5.73	1556	8.04	1655	10.5	1747	13.1	1834	15.9	1919	18.8	2002	22.0	2084	25.3
16000	2264	1655	8.55	1751	11.2	1840	13.9	1924	16.8	2003	19.8	2079	23.0	2154	26.3	2228	29.8
18000	2546	1862	12.2	1948	15.1	2029	18.2	2106	21.3	2178	24.6	2249	28.0	2317	31.5		
20000	2829	2068	16.7	2147	20.0	2221	23.3	2292	26.8								
CFM	OV FPM	4"		4½"		5"		6"		7"		8"		9"		10"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
		6000	849	1754	16.5	1848	19.3	1937	22.2	2103	28.4	2253	35.0				
8000	1132	1830	18.7	1920	21.6	2007	24.7	2170	31.3	2322	38.3						
10000	1415	1932	21.6	2014	24.7	2095	27.9	2250	34.7								
12000	1698	2050	25.2	2132	28.6	2208	32.0										
14000	1981	2165	28.9	2246	32.6	2324	36.5										

Size 48 – A55---487VB---ST_____

CFM	Outlet Velocity FPM	Static Pressure															
		0"		½"		1"		1½"		2"		2½"		3"		3½"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
16000	1273	507	1.14	607	2.74	688	4.54	764	6.57	838	8.86	911	11.4	983	14.2	1059	17.2
20000	1592	633	2.22	719	4.19	788	6.29	852	8.56	913	11.0	974	13.7	1033	16.6	1092	19.6
24000	1910	760	3.84	835	6.18	896	8.61	952	11.2	1006	13.9	1057	16.8	1108	19.8	1159	23.0
28000	2228	887	6.10	954	8.82	1009	11.6	1059	14.5	1107	17.5	1153	20.6	1198	23.9	1242	27.3
32000	2546	1014	9.10	1074	12.2	1125	15.4	1171	18.6	1214	21.9	1256	25.3	1297	28.9	1336	32.5
36000	2865	1140	13.0	1195	16.5	1242	20.0	1285	23.6	1325	27.2	1363	31.0	1401	34.8	1437	38.7
40000	3183	1267	17.8	1317	21.7	1361	25.6	1401	29.5	1439	33.5	1474	37.6	1509	41.7	1543	46.0
CFM	OV FPM	4"		4½"		5"		6"		7"		8"		9"		10"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
		10000	796	1094	17.7	1155	20.8	1213	24.1	1320	31.0	1418	38.4	1509	46.3	1596	54.8
15000	1194	1129	20.1	1194	23.5	1254	27.0	1363	34.5	1462	42.5	1554	50.9	1641	59.8	1722	69.0
20000	1592	1150	22.9	1207	26.3	1267	30.0	1385	38.0	1494	46.6	1592	55.6	1681	65.1		
25000	1989	1226	27.4	1274	31.0	1321	34.7	1414	42.6	1506	51.1	1602	60.4	1697	70.4		
30000	2387	1329	33.4	1370	37.2	1411	41.1	1491	49.4	1569	58.1	1647	67.4	1724	77.2		

Performance certified is for belt drive fans, installation Type D: ducted inlet/ducted outlet.
Power rating (BHP) includes transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

To complete model code for your selection, add motor enclosure code, motor nameplate horse-power code, and motor speed code. Refer to page 2 for additional model code information.



Options and Accessories

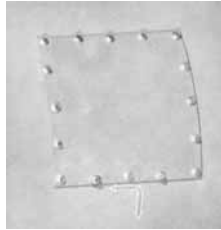
Companion Flanges

Drilled to fit the flanges of the Vaneaxial Fan; allows easy installation. Available for "G" (General Industrial) or "H" (Heavy Industrial) Duty construction fans.



Access Door

For maintenance of the internal parts of Vaneaxial Fans. Available for Series 53 and 55 only. Inspection Door only available on Series 54, "G" (General Industrial) or "H" (Heavy Industrial) Duty construction fans.



Inlet and Outlet Cones

Available for adapting to larger diameters. The result is a static pressure regain. Available for "G" (General Industrial) or "H" (Heavy Industrial) Duty construction fans.

Mounting Feet

Bolted to inlet and discharge flanges, mounting feet allow positioning of the Vaneaxial Fan on the floor, ceiling, wall or platform. Can be used with vibration isolators. Available for "G" (General Industrial) or "H" (Heavy Industrial) Duty construction fans.



Inlet Bell

Inlet orifice may be used in place of the inlet duct in installations where no duct work precedes the fan. Available for "G" (General Industrial) or "H" (Heavy Industrial) Duty construction fans.



Ceiling Suspension

Side mounting brackets can be used with vibration isolators. Shown with supports for horizontal mount. Also available for vertical mountings. Available for "G" (General Industrial) or "H" (Heavy Industrial) Duty construction fans.



Vaneaxial Fan with Bomb Bay Construction

The Bomb Bay arrangement offers easy access to the drive assembly. Unlatching the Bomb Bay section facilitates maintenance of belts, bearings, propeller and shaft of belt drive units and motor and propeller of direct drive units without removing the fan from the system. Available for fans with "H" (Heavy Industrial) Duty construction only.

Dimensions on Bomb Bay construction vary from standard units. Request certified prints.



Hub Covers

Hub covers for the VA and VB blades are available to prevent material build-up in the hub area of the wheel. Hub covers also enhance a more laminar airflow. Available for "G" (General Industrial) or "H" (Heavy Industrial) Duty construction fans.

Shaft Seal and Slinger

A neoprene shaft seal and slinger are available for Series 55 belt drive units in corrosive applications. A shaft seal does not make the inner cylinder gas tight.

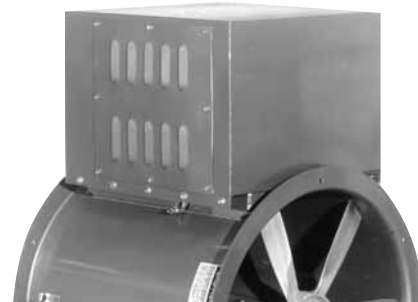
Guard

Spiral ring guard offers protection on intake or discharge side. Available for "G" (General Industrial) or "H" (Heavy Industrial) Duty construction fans.



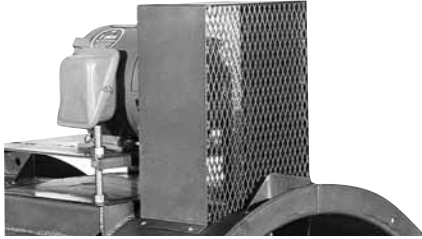
Combination Motor Cover and Belt Guard

Designed to fit all belt drive Vaneaxial Fans. Covers are vented. Specify horizontal or vertical mounting. Available for "G" (General Industrial) or "H" (Heavy Industrial) Duty construction fans.



Belt Guard

Covers motor sheave and belts outside fan housing. Available for "G" (General Industrial) or "H" (Heavy Industrial) Duty construction fans.



Caution: The drive assembly or the periphery of the blades of a fan less than seven (7) feet above the floor or working level must be guarded to be in accordance with OSHA regulations.

Protective Coatings

Series 55 high temperature Vaneaxial Fans should always be used in applications where the air is tempered or contaminated. Hartzell offers a variety of coatings to meet most industrial corrosive problems. Contact your local Hartzell representative for competent technical help.

Roof Mounted

Together with a stack cap and panel, the Vaneaxial Fans can be mounted as roof exhausters. In combination, these three units provide a roof exhauster unit with high static pressure capabilities. Back draft dampers offer weatherproof closure for vertical air discharge.

For performance, refer to the appropriate Fan Rating Table, or Performance Curve, allowing 1/8" SP resistance for the stack cap. See page 5 for CFM limits.



Sound Muffler

This sound attenuative device is a simple lined tube that can be used on either the intake or exhaust side of a Vaneaxial Fan to reduce the noise. It cannot be used in wet atmosphere or with air velocities over 5000 FPM or above 250 (in the airstream). The resistance to airflow is negligible since the internal surface is fairly smooth and the internal diameter of the muffler is the same as the fan with no internal obstruction to impede airflow. Available for "G" (General Industrial) or "H" (Heavy Industrial) Duty construction fans.

In general, the muffler should be mounted between the fan and the area of concern (the listener).

If both the intake and exhaust of the fan are critical, use a muffler on both sides of the fan.

The outstanding features of this muffler are:

- The typical attenuation for fans with discharge velocities from 1500-3000 FPM is approximately as follows for one muffler:

Band	1	2	3	4	5	6	7	8
dB Attenuation	0	1	3	10	13	12	10	8

- For one muffler the reduction in some value is approximately 35%. With a muffler on both intake and exhaust, the noises are reduced approximately 50%.
- There is no appreciable static pressure loss when one or two mufflers are inserted into a duct system.
- The mounting flanges match the corresponding fan flanges and are drilled for easy attachment. By using flexible connections between fan and muffler, the sound attenuation is helped, particularly in the lower bands.
- The absorbent material has a black rubberized surface next to the airstream which prevents erosion up to 5000 FPM velocity, and is held in place with an expanded metal liner.



SAFETY ACCESSORIES, APPLICATION AND USE WARNING

The safe application and use of equipment supplied by Hartzell Fan, Inc. is the responsibility of the installer, the user, the owner, and the employer. Since the application and use of its equipment can vary greatly, Hartzell Fan, Inc. offers various product types, optional safety accessories, and sound performance data per laboratory tests. Hartzell Fan, Inc. sells its equipment with and without safety accessories, and accordingly, it can supply such safety accessories only upon receipt of an order. The need for safety accessories will frequently depend upon the type of system, fan location and operating procedures being employed. The proper protective safety accessories to meet company standards, local codes, and the requirements of the Occupation Safety and Health Act must be determined by the user since safety requirements vary depending on the location and use of the equipment. If applicable local conditions, standards, codes or OSHA rules require the addition of the safety accessories, the user should specify and obtain the required safety accessories from Hartzell Fan, Inc. and should not allow the operation of the equipment without them.

Owners, employers, users and installers should read "RECOMMENDED SAFETY PRACTICES FOR USERS AND INSTALLERS OF INDUSTRIAL AND COMMERCIAL FANS" published by the Air Movement and Control Association International, Inc., 30 West University Drive, Arlington Heights, Illinois 60004. A copy of this publication is enclosed with each fan shipped from Hartzell Fan, Inc., and is available upon request at Hartzell's office in Piqua, Ohio 45356.

Please contact Hartzell Fan, Inc. or your local Hartzell representative for more information on product types, safety accessories, and sound performance estimates.

Remember, the selection of safety accessories and the safe application and use of equipment supplied by Hartzell Fan, Inc. is **your** responsibility.



Hartzell Warranty

LIMITED WARRANTIES

Hartzell represents to Buyer that any goods to be delivered hereunder will be produced in compliance with the requirements of the Fair Labor Standards Act of 1938 as amended.

Hartzell also warrants to Buyer its goods to be free from defects in workmanship and material under normal use and service for one (1) year after tender of delivery by Hartzell, plus six months allowance for shipment to approved stocking dealers and distributors. No warranty extends to future performance of goods and any claims for breach of warranty or otherwise accrues upon tender of delivery. The foregoing constitute Hartzell's sole and exclusive warranties and are in lieu of all other warranties, whether written, oral, express, implied or statutory.

LIMITATION OF LIABILITY FOR BREACH OF WARRANTY

Hartzell's obligation for any breach of warranty is limited to repairing or replacing, at its option, without cost to Buyer at its factory any goods which shall, within such a warranty period, be returned to it with transportation charges prepaid, and which its examination shall disclose to its satisfaction to have been defective. Any request for repair or replacement should be directed to Hartzell Fan, Inc., P.O. Box 919, Piqua, Ohio 45356. Hartzell will not pay for any repairs made outside its factory without its prior written consent. This does not apply to any such Hartzell goods which have failed as a result of faulty installation or abuse, or incorrect electrical connections or alterations, made by others, or use under abnormal operating conditions or misapplication of the goods.

LIMITATION OF LIABILITY

To the extent the above limitation of liability for breach of warranty is not applicable, the liability of Hartzell on any claim of any kind, including negligence, for any loss or damage arising out of or connected with, or resulting from the sale and purchase of the goods or services covered by these Terms and Conditions of Sale or from the performance or breach of any contract pertaining to such sale or purchase or from the design manufacture, sale, delivery, resale, installation, technical direction installation, inspection repair, operation or use of any goods or services covered by these Terms and Conditions shall, in no case exceed the price allocable to the goods or services which gave rise to the claim and shall terminate one year after tender of delivery of said goods or services, plus six months allowance for shipment to approved stocking dealers and distributors. In no event will Hartzell be responsible or liable for any labor or other incidental costs associated with the removal or replacement of defective products or materials.

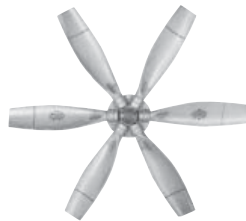
In no event whether as a result of breach of contract, or warranty or alleged negligence, defects, incorrect advice or other causes, shall Hartzell be liable for special or consequential damages, including, but not limited to, loss of profits or revenue, loss of use of the equipment or any associated equipment, cost of substitute equipment, facilities or services, down time costs, or claims of customers of the Buyer for such damages. Hartzell neither assumes nor authorizes any person to assume for it any other liability in connection with the sale of its goods or services.

NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS

HARTZELL DOES NOT WARRANT THAT SAID GOODS ARE OF MERCHANTABILITY QUALITY OR THAT THEY ARE FIT FOR ANY PARTICULAR PURPOSE. THERE IS NO IMPLIED WARRANTY OF MERCHANTABILITY AND THERE IS NO IMPLIED WARRANTY OF FITNESS.



Propeller Fans



Cooling Tower &
Heat Exchanger Fans



Duct Fans



Duct Axial Fans



Vaneaxial Blowers



Cool Blast & Utility Fans



Steel Centrifugal Blowers



Roof Ventilators –
Steel & Fiberglass



Heating Equipment –
Gas & Steam



Fiberglass
Axial Flow Fans



Fiberglass Centrifugal
Blowers



Marine –
Mine Duty Blowers

Hartzell Fan, Inc., Piqua, Ohio 45356 • Plants in Piqua, Ohio and Portland, Indiana.