



**Model VPBD  
Belt Driven**



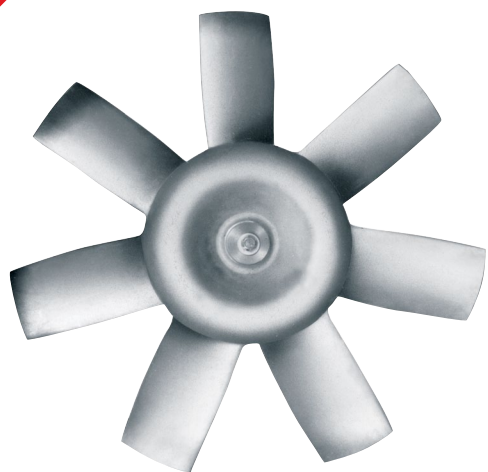
## **TUBEAXIAL & VANEAXIAL FANS**

**Type "P" Direct Drive & Belt Driven**

**Models PTA / PTABD**

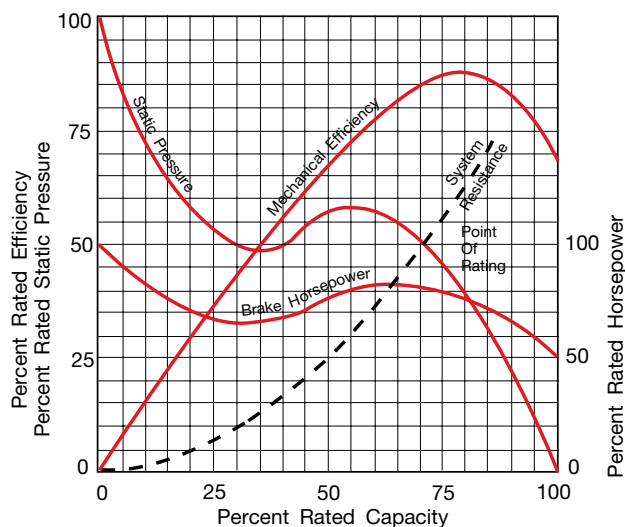
**Models VP / VPBD**

# Tubeaxial / Vaneaxial Fans



Cast Aluminum Propeller

## Typical Performance/System Curve For Direct Drive VP



Aerovent, A Twin City Fan Company, certifies that the VP and VPBD Vaneaxial Fans shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

## Models

**PTA | PTABD | VP | VPBD**

The Type "P" Tubeaxial and Vaneaxial Fans from Aerovent are designed to handle a wide range of requirements, from general ventilation to process air supply. Its mounting flexibility, which allows it to be mounted as part of the ductwork, makes it ideal for many industrial and commercial applications.

The Type "P" Tubeaxial includes all of the design advantages of the Vaneaxial Fan, except that guide vanes are not provided.

### Propeller

The heart of the Type "P" fans lies in its propeller. Cast of high strength aluminum alloy, the one-piece propeller has been developed to maximize the highest efficiency possible. Attention to detail in blade and hub design have created what is felt to be the most efficient and reliable axial fan on the market today. With the wide range of hub-to-tip ratios available, there is a fan size to meet any air movement requirements.

### Capabilities

- Propeller diameters 12" to 60"
- Airflow to 103,000 CFM
- Static pressures to 7.0" w.g.
- 37 unique diameters and hub-to-tip ratios

### Hub-To-Tip Ratio

The multitude of propellers evolves from nine basic castings. Each casting is machined and cut to the proper diameter. By cutting the same model casting to one of several different diameters, different hub-to-tip ratios are created. Since each hub ratio has slightly different pressure/efficiency characteristics, the freedom of having several propellers (different hub ratios) for a set diameter provides the opportunity to maximize efficiency at the required point of rating.

### Housing

Housings are one-piece, heavy-gauge, hot-rolled steel construction. Flanges on both the inlet and outlet are integrally rolled and punched for attachment to ductwork or accessories as necessary. The sheet seam is continuously welded and ground smooth to assure efficient airflow through the housing. On Arrangement 4 direct drive units neither the propeller nor the motor protrudes beyond the housing, allowing for an easy mount into existing ductwork.

### Guide Vanes (VP/VPBD Only)

The fan housing is fitted with aerodynamically designed stationary straightening guide vanes on the air discharge side of the propeller. The guide vanes are welded to both the inner cylinder and the fan housing interior and function to aid in the elimination of swirl and turbulence downstream of the fan thereby recovering rotational energy losses, improving efficiency and static pressure capability, and reducing fan noise generation.

# Arrangements

## Arrangement 9 Belt Driven

For applications that require the motor to be out of the airstream or the versatility of a belt driven fan, the Arrangement 9 VPBD or PTABD is the perfect choice. Driven through either a fixed or adjustable V-belt drive system, the exact point of rating can be achieved. Any future change in rating can be accomplished through a simple sheave change. Good for operation up to 200°F as standard, the Arrangement 9 can be customized to handle even the most severe of conditions. Performance tables for belt driven units are located on pages 8 through 16 and 19 through 24. Selection examples are found on page 6.

### Shaft and Bearings/Inner Cylinder

Shafts for belt driven units are ground and polished steel construction machined to a suitable diameter to allow the rotating assembly to operate well below the first critical speed.

Bearings are ball or roller type selected for a minimum average life of 200,000 hours. Bearing life is determined in accordance with standards set forth by AFBMA (Anti-Friction Bearing Manufacturers Association). All bearings are provided with extended lubrication lines terminating at the housing exterior.

The complete shaft and bearing assembly is mounted within the inner cylinder, safely isolating these components from the high velocity airstream.

### Belt Fairing

The V-belt drive assembly is extended through a two-piece belt fairing. The belt fairing is an aerodynamically designed tube, welded continuously to both the inner cylinder (bearing housing) and the fan housing, thus protecting the V-belts from the direct blast of the airstream.



Model VPBD

### Motor

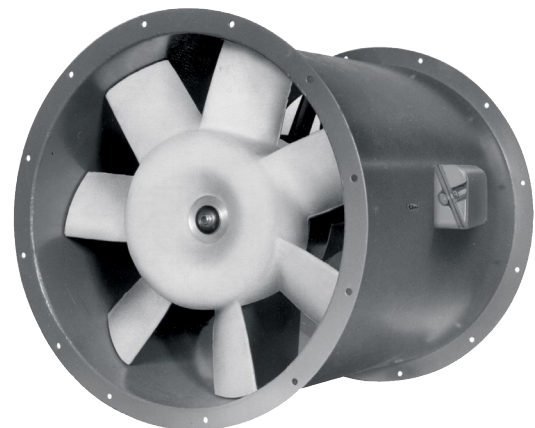
Motors for Arrangement 9 fans are standard foot-mounted NEMA design. All of the various enclosures (open drip-proof, totally enclosed, explosion proof, etc.) can be accommodated through the use of an adjustable motor base. This motor mounting platform pivots at several locations to offer a wide range of adjustment for belt tension.

## Arrangement 4 Direct Drive

Where space constraints require the use of a complete "in line" fan or the desire is for a simple, dependable fan with minimum maintenance requirements, the direct drive Arrangement 4 is the logical choice. Constructed with the fan propeller mounted directly on the motor shaft, this fan provides premium efficiency with minimal obstructions in the airstream. Performance tables for direct drive units are located on pages 17 and 18.

### Motor

Motors for direct drive fans are foot-mounted, NEMA standard, totally enclosed fan cooled (TEFC), continuous duty, ball bearing type with Class "F" insulation and of cast iron construction when commercially available. Motors which are equipped with grease lubricated bearings have extended lube lines to the housing exterior. For ease of wiring the motor, wiring connections are extended to an external conduit box mounted on the fan exterior. The fan housing exterior has a duplicate motor nameplate mounted adjacent to the fan nameplate.



Model PTA



# Accessories



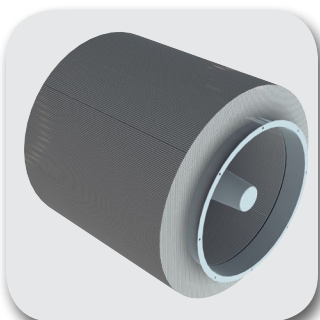
Inlet Bell



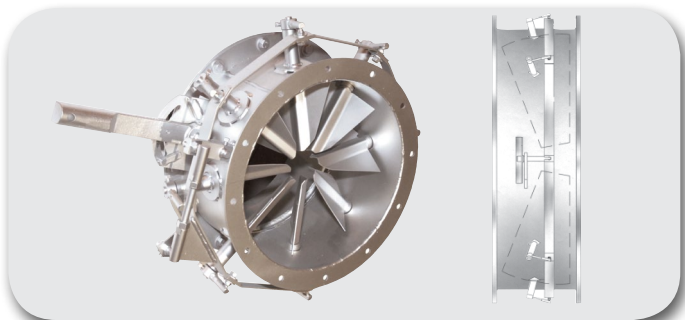
Inlet/Outlet Cone



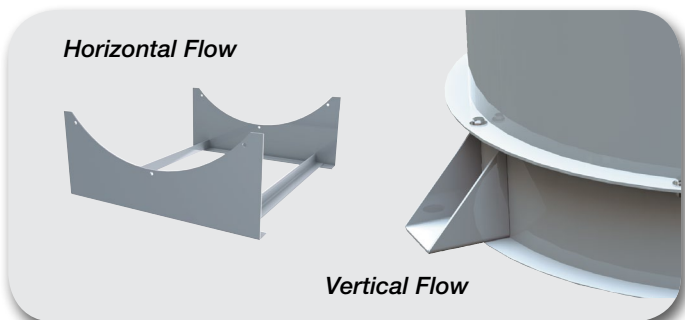
Companion Flanges



Sound Attenuation



Variable Inlet Vanes



Support Legs

## Inlet Bell

For systems with no ductwork on the fan inlet, it is advantageous to install an inlet bell to avoid inlet losses. The inlet bell is a toroidal shape to provide a smooth entrance to the fan. Inlet bells are flanged, drilled, and bolted to the fan's flanged inlet.

## Inlet/Outlet Cones

Transition pieces, called cones, can be provided for both the inlet and outlet. Cones are flanged on both ends and drilled to match the fan's flange. Cones are available with an access door if required.

Outlet cones can be utilized to provide static pressure regain, transforming velocity pressure losses into static pressure.

## Companion Flanges

For ease of installation to adjacent ductwork, companion flanges can be provided. Flanges are rolled angle rings, drilled to match the fan's inlet or outlet flange.

## Sound Attenuation

For applications requiring quiet operation, custom built attenuation packages can be provided on the fan inlet or outlet. Attenuators are aerodynamically and acoustically matched to the specific system requirements and are designed to significantly reduce noise while adding only minor resistance to airflow.

## Variable Inlet Vanes

For frequent or continuous volume control, variable inlet vanes can be provided. Variable inlet vanes are available for each specific fan size and are bolted to the fan's flanged inlet. The vane action during dampening works to spin the air in the direction of the wheel rotation thus resulting in lower power consumption. The vane operator mechanism is outside of the airstream and is controlled by a single lever.

Variable inlet vanes can be set up for manual or automatic operation. The variable inlet vane's inlet is flanged and drilled to accept ductwork or an inlet bell as the system requires.

## Support Legs

**Horizontal Flow** — For horizontal flow with floor mounting, support legs are welded to the fan flange with bolt holes aligned for connection of ductwork.

**Vertical Flow** — For vertical flow with either floor or ceiling mounting, support legs are welded to the fan housing for four-point support.

## Suspension Clips

For horizontal flow with ceiling mounting, clips of formed angle are welded to the fan housing for suspension via tie rods to the ceiling support structure.

## Vibration Isolation

All Type "P" fans can be provided with spring or rubber-in-shear isolators as an option. Spring isolators are standard 1-inch in deflection and can be provided for floor mount or ceiling (hung) orientation. It should be noted that use of a loosely fitting flex connector on the fan inlet must be avoided as inlet obstructions and loss of rating may occur.

## Belt Guard

Available for Arrangement 9 belt driven fans, the belt guard encloses the motor sheave and V-belts. The guard is easily removable for inspection and maintenance.

## Weather Cover

For outdoor installations with Arrangement 9 belt driven fans, the weather cover completely encloses the motor and V-belt drive from the elements. Provided with slots for ventilation, the cover is easily removable for inspection and maintenance. Weather covers are available for either horizontal or vertical flow fans.

## Screening

Safety screening can be provided for installation to the fan inlet, fan outlet, cone or bell.

## Clamshell Construction

Clamshell construction provides complete accessibility to the internal components of the fan.

## Shaft Seal

To limit the air entering the inner cylinder and avoid contact of airstream contaminants with the bearing and V-belt drive, a shaft seal can be provided. The shaft seal consists of a nonasbestos rubbing ring at the wheel end of the inner cylinder held in place by a cover plate. Please note that a shaft seal does not make the inner cylinder gas-tight.

## Housing Door

**General Observation** — For inspection and maintenance of the internal section (V-belt drive area) of VPBD and PTABD units a general observation access door can be provided. Doors are 5" x 5" for fans sizes 12" to 18" and 8" x 8" for all others. Doors are gasketed, single skinned and bolted in place to the housing exterior. As standard, doors are located adjacent to the motor base (for belt driven fans) or adjacent to the motor conduit box (for direct drive).

**Wheel Area** — Similar in size and attachment to the general observation access door, a wheel area access door is also available. Wheel area doors differ from general observation doors in that they are double skinned to maintain a flush surface to the housing interior, thus eliminating the pressure losses resulting from a single skinned door in this critical pressure developing area.

## Spark-Resistant Construction

Belt driven units are available with spark-resistant construction. Various grades of spark resistance are as dictated by AMCA, Types A, B, and C.

## Discharge Cap

All Type "P" units can be provided with a discharge cap for rooftop mounting. Discharge caps are designed for vertical discharge with a backdraft damper to seal out the weather when the fan is shut off. See discharge cap CFM limits on page 7.

## Curb Cap

Type "P" units can be supplied with a base (curb cap), to attach to the fan flange for curb mounting. The combination of a curb cap and discharge cap creates an upblast style, power roof ventilator.



Belt Guard



Weather Cover



Safety Screen



Clamshell Construction



Shaft Seal



Housing Door



Discharge Cap



Curb Cap

# Fan Selection

## Useful Formulas

Total Pressure (TP) =  
Static Pressure (SP) + Velocity Pressure (VP)

$$\text{Velocity (Vel.)} = \frac{\text{CFM}}{\text{Area in ft}^2}$$

$$\text{Velocity Pressure (VP)} = \left( \frac{\text{Vel.}}{1096.7} \right)^2 \times \text{Density in lb/ft}^3$$

$$\text{Efficiency} = \frac{\text{CFM} \times \text{Pressure (in. w.g.)}}{6356 \times \text{Brake Horsepower}}$$

Where total (or mechanical) efficiency is calculated using total pressure and static efficiency is calculated using static pressure.

## Performance Tables

Performance tables in this catalog are based on standard air density which is defined by AMCA as that of dry air at 70°F and sea level pressure (29.92 inches of mercury). This is equal to a density value of 0.075 lb/ft³.

When required performance is at other than standard conditions, the values must be converted to equivalent standard values before the fan can be selected from the performance tables, and then reconverted back to the actual conditions after the specific selection is made. The table of temperature and altitude density ratios on page 7 should be used for this purpose with example 2 below displaying this procedure.

## Sample Selections

The following examples illustrate conditions that may be encountered with Type "P" units. For additional performance corrections refer to the Aerovent Fan Selector Program.

**Example 1:** Select the most efficient Arr. 9 VPBD for 10,000 CFM @ 1.5" SP at standard conditions (0.075 lb/ft³ density). The performance tables direct us to the 32" fan size. Turning to page 13 for specifics on the 32" fan size we find there are four different hub-to-tip ratios to choose from: 32B4, 32B5, 32B6, 32B7. We compare each performance of the four hub-to-tip ratios to determine the most efficient (lowest horsepower) selection. Consequently, our fan selection is 32B6 @ 1047 RPM @ 3.56 BHP. The static efficiency is 66.2%.

**Example 2:** Select an Arr. 9 VPBD for 10,000 CFM @ 1.5" @ 150°F and 10,000 ft elevation. Using the "Temperature & Altitude Density Ratio" chart on page 7, we find a factor of 0.598. Divide the operating static pressure by this factor (1.5 ÷ 0.598) = 2.5" SP equivalent static at standard air and density. The performance tables direct us to the 28" fan size. Turning to page 12 for specifics we find four hub-to-tip ratios. Comparing each we select the 28B6 as the most efficient selection at 1542 RPM and 5.92 BHP.

This is the brake horsepower required at standard air density (often referred to as cold, or starting horsepower). However, actual BHP at the operating conditions of 150°F and 10,000 ft altitude will be 5.92 x 0.598 = 3.54. Selection: 28B6 @ 1542 RPM @ 3.54 BHP.

**Example 3:** If the operating density is known, this same air density ratio can be calculated by:

$$\text{Operating density} \div 0.075 = \text{Factor}$$

This factor is then used as in Example 2.

**Example 4:** Select the most economic Arr. 9 VPBD for 10,000 CFM @ 1.5" SP at standard conditions (0.075 lb/ft³ density). In evaluating first cost it should be noted that fan versus fan, the smaller the hub ratio the less the cost of a fan. For example, a Model 36B4 is less expensive than a 36B5, a 36B5 is less expensive than a 36B6, and so on. With this in mind, we start with our premium efficient selection (32B6) and compare with the smallest hub ratio for each diameter smaller.

Fan Size	RPM	BHP
32B6	1047	3.56
28B4	1519	3.72
24B4	2045	4.33
21B4	2859	5.36

An educated review can now be made based on first cost (including cone cost if applicable), power consumption, space allotment, tip speed, outlet velocity, and of course, total pressure considerations.

## Model Nomenclature

Type "P" model numbers are represented as follows. Refer to page 2 for an explanation of hub-to-tip ratios.

**VPBD 36 B 4**

**Approximation of Hub-To-Tip Ratio**  
Where: 3 ≅ 40%, 4 ≅ 43%, 5 ≅ 50%  
6 ≅ 57%, 7 ≅ 66%

**Drive**  
B = Belt Driven (Arr. 9)  
D = Direct Drive (Arr. 4)

**Fan Diameter (inches)**

**Model**  
VPBD = Vaneaxial, Belt Driven  
VP = Vaneaxial, Direct Drive  
PTABD = Tubeaxial, Belt Driven  
PTA = Tubeaxial, Direct Drive





## Temperature & Altitude Density Ratios

AIR TEMP °F	ALTITUDE IN FEET ABOVE SEA LEVEL												
	0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	15000	20000
	BAROMETRIC PRESSURE IN INCHES OF MERCURY												
	29.92	28.86	27.82	26.82	25.84	24.90	23.98	23.09	22.22	21.39	20.58	16.89	13.75
70	1.000	0.964	0.93	0.896	0.864	0.832	0.801	0.772	0.743	0.714	0.688	0.564	0.46
100	0.946	0.912	0.88	0.848	0.818	0.787	0.758	0.730	0.703	0.676	0.651	0.534	0.435
150	0.869	0.838	0.808	0.770	0.751	0.723	0.696	0.670	0.646	0.620	0.598	0.490	0.400
200	0.803	0.774	0.747	0.720	0.694	0.668	0.643	0.200	0.596	0.573	0.552	0.453	0.369
250	0.747	0.720	0.694	0.669	0.645	0.622	0.598	0.576	0.555	0.533	0.514	0.421	0.344

## Bare Fan Weights (lb)

FAN SIZE	ARR. 9
12B6	61
12B7	79
15B5	79
15B6	98
15B7	121
18B4	93
18B5	112
18B6	135
18B7	158
21B4	128
21B5	150
21B6	173
21B7	224
24B4	195
24B5	218
24B6	269
24B7	335
28B4	254
28B5	305
28B6	370
28B7	444

FAN SIZE	ARR. 9
32B4	346
32B5	412
32B6	485
32B7	646
36B4	461
36B5	534
36B6	695
36B7	875
42B4	728
42B5	889
42B6	1068
48B4	1007
48B5	1186
54B3	1092
54B4	1272
60B3	1357

FAN SIZE	ARR. 4
12D7	65
15D6	86
15D7	97
18D5	103
18D6	115
18D7	130
21D4	133
21D5	137
21D6	149
21D7	176
24D4	173
24D5	193
24D6	215
24D7	261
28D4	227
28D5	260
28D6	300
28D7	347

FAN SIZE	ARR. 4
32D4	298
32D5	343
32D6	391
32D7	493
36D4	391
36D5	438
36D6	541
36D7	670
42D4	619
42D5	722
42D6	851
48D4	841
48D5	970
54D3	930
54D4	1056
60D3	1132

## Housing Gauges

FAN SIZE	HOUSING GAUGE
12	14
15	12
18	12
21	12
24	10
28	10
32	10
36	10
42	7
48	7
54	7
60	7

## Accessory Weights (lb)

FAN SIZE	BELT GUARD	WEATHER COVER	INLET/ OUTLET SCREEN	INLET BELL	INLET/ OUTLET CONE	COMPANION FLANGE	SUPPORT LEGS		VARIABLE INLET VANES	DISCHARGE CAP	CURB CAP
							HORIZ. FLOW	VERT. FLOW			
12	4	7	3	8	9	5	10	10	42	30	15
15	6	11	3	10	11	8	12	10	45	40	16
18	8	18	4	12	16	10	12	10	60	55	17
21	10	21	5	13	21	11	20	10	62	65	23
24	11	23	7	20	30	13	24	17	68	78	26
28	12	26	8	22	40	15	32	17	71	98	34
32	14	32	10	25	54	17	47	17	80	120	45
36	16	34	11	52	82	19	58	17	89	165	51
42	18	40	13	62	100	25	83	19	98	230	64
48	21	45	18	70	114	33	97	19	107	288	72
54	25	56	24	76	128	37	126	26	116	384	82
60	30	68	33	86	139	41	265	26	134	400	133

## Motor Weights (lb)

FRAME	48	56	143T	145T	182T	184T	213T	215T	254T
ODP	7	11	33	44	71	82	124	144	185
TE	9	14	40	53	85	98	149	173	222

FRAME	256T	284T	286T	324T	326T	364T	365T	404T	405T
ODP	214	266	310	404	452	620	680	869	938
TE	257	319	372	485	542	744	816	1043	1126

## Discharge Cap Limits

SIZE	MINIMUM CFM TO OPEN		MAXIMUM CFM
	STAINLESS	ALUMINUM	
12	1390	1065	2500
15	2130	1629	3885
18	3130	2395	5575
21	4190	3205	7590
24	5455	4170	9895
28	7400	5659	13495
32	9779	7480	17585
36	12525	9580	22200
42	16850	12885	30370
48	21950	16765	39575
54	27670	21160	50000
60	34880	26050	61645

## Vaneaxial

## VPBD | Size 12B6

Wheel Dia.: 12"  
Outlet Area: 0.807 ft<sup>2</sup>

**Tip Speed: 3.14 x RPM**  
**Fan Efficiency Grade: FEG71**

CFM	OV	0.25" SP		0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		1.75" SP		2" SP		2.5" SP		3" SP		3.5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	1115	1517	0.09	1743	0.14	1957	0.19																
1000	1239	1635	0.10	1844	0.16	2041	0.22	2232	0.29														
1200	1487	1884	0.15	2062	0.22	2333	0.28	2397	0.36	2558	0.43	2718	0.52										
1400	1735	2144	0.22	2295	0.29	2448	0.37	2593	0.44	2734	0.53	2875	0.61	3010	0.70	3147	0.80						
1600	1983	2411	0.31	2541	0.38	2675	0.46	2808	0.55	2936	0.64	3059	0.74	3182	0.83	3305	0.93	3542	1.14				
1800	2230	2682	0.42	2797	0.50	2914	0.58	3033	0.68	3152	0.78	3266	0.88	3377	0.99	3486	1.09	3705	1.31	3915	1.55		
2000	2478	2956	0.56	3059	0.64	3163	0.73	3270	0.83	3377	0.94	3484	1.05	3588	1.17	3698	1.28	3885	1.51	4083	1.76	4273	
2200	2726	3232	0.72	3326	0.81	3420	0.91	3515	1.01	3612	1.13	3710	1.25	3807	1.37	3903	1.50	4086	1.74	4265	2.00	4444	
2400	2974	3509	0.92	3595	1.02	3681	1.12	3768	1.23	3856	1.35	3945	1.47	4035	1.60	4124	1.73	4299	2.01	4466	2.28	4630	
2600	3222	3788	1.15	3867	1.26	3947	1.37	4027	1.48	4107	1.60	4188	1.73	4270	1.86	4353	2.00	4518	2.30	4678	2.58	4832	
2800	3470	4067	1.42	4141	1.53	4215	1.65	4289	1.77	4363	1.90	4438	2.03	4513	2.16	4590	2.31	4743	2.61	4896	2.93	5044	

## VPBD | Size 12B7

Wheel Dia.: 12"  
Outlet Area: 0.807 ft<sup>2</sup>

**Tip Speed: 3.14 x RPM**  
**Fan Efficiency Grade: FEG71**

CFM	OV	0.75" SP		1" SP		1.25" SP		1.5" SP		1.75" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	1115	1933	0.20	2079	0.25	2217	0.31	2343	0.36														
1000	1239	2055	0.23	2187	0.29	2318	0.35	2443	0.41	2557	0.47	2676	0.54										
1200	1487	2324	0.32	2432	0.39	2540	0.45	2650	0.52	2760	0.59	2868	0.66	3061	0.81	3265	0.97						
1400	1735	2612	0.45	2704	0.51	2796	0.58	2888	0.65	2928	0.73	3076	0.81	3264	0.97	3441	1.14	3602	1.32	3777	1.51		
1600	1983	2910	0.60	2991	0.67	3072	0.74	3153	0.82	3233	0.90	3314	0.99	3479	1.16	3644	1.35	3806	1.54	3955	1.74	4096	1.94
1800	2230	3215	0.80	3288	0.87	3361	0.95	3433	1.03	3505	1.12	3576	1.21	3720	1.40	3865	1.59	4012	1.80	4159	2.01	4302	2.23
2000	2478	3526	1.04	3592	1.12	3658	1.20	3723	1.29	3788	1.38	3853	1.47	3981	1.67	4110	1.88	4241	2.09	4373	2.32	4506	2.55
2200	2726	3841	1.33	3901	1.41	3961	1.50	4021	1.60	4080	1.69	4139	1.79	4257	2.00	4374	2.21	4491	2.44	4609	2.67	4729	2.91
2400	2974	4159	1.67	4214	1.76	4269	1.86	4324	1.96	4378	2.06	4433	2.16	4541	2.37	4649	2.6	4756	2.84	4864	3.09	4972	3.34
2600	3222	4479	2.07	4530	2.17	4581	2.27	4631	2.38	4682	2.48	4732	2.59	4833	2.81	4933	3.05	5032	3.3	5131	3.55	5230	3.82
2800	3470	4801	2.54	4848	2.64	4896	2.75	4943	2.86	4990	2.97	5037	3.09	5130	3.32	5223	3.56	5316	3.82	5408	4.08	5500	4.36

## VPBD | Size 15B5

**Wheel Dia.: 15"**  
**Outlet Area: 1.254 ft<sup>2</sup>**

**Tip Speed: 3.93 x RPM**  
**Fan Efficiency Grade: FEG75**

CFM		OV	0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		1.75" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1400	1117																							
1800	1437		1662	0.27																				
2200	1756		1882	0.37	2034	0.49	2184	0.62																
2600	2075		2121	0.51	2251	0.64	2380	0.79	2503	0.93														
3000	2394		2373	0.69	2486	0.84	2598	0.99	2711	1.16	2818	1.32	2926	1.49										
3400	2713		2632	0.92	2732	1.07	2832	1.24	2931	1.42	3031	1.60	3128	1.79	3221	1.98								
3800	3033		2898	1.20	2987	1.37	3076	1.55	3165	1.74	3254	1.93	3343	2.14	3432	2.34	3600	2.76	3779	3.22				
4200	3352		3167	1.53	3248	1.72	3329	1.91	3409	2.11	3490	2.32	3570	2.54	3651	2.76	3811	3.22	3963	3.68	4120	4.17		
4600	3671		3439	1.93	3513	2.13	3587	2.34	3660	2.55	3734	2.77	3808	3.00	3881	3.24	4028	3.72	4174	4.23	4313	4.73	4454	5.26
5000	3990		3713	2.41	3781	2.62	3849	2.84	3917	3.07	3985	3.30	4053	3.54	4120	3.79	4255	4.30	4391	4.83	4526	5.38		
5400	4310		3989	2.95	4052	3.18	4115	3.42	4178	3.66	4241	3.91	4304	4.16	4367	4.42	4492	4.95						

**VPBD | Size 15B6**

**Wheel Dia.: 15"**  
**Outlet Area: 1.254 ft<sup>2</sup>**

**Tip Speed: 3.93 x RPM**  
**Fan Efficiency Grade: FEG75**

CFM	OV	0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		1.75" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1400	1117																						
1800	1437	1831	0.48	1974	0.59																		
2200	1756	2000	0.61	2120	0.74	2240	0.87	2357	1.01														
2600	2075	2206	0.79	2304	0.92	2405	1.07	2507	1.22	2609	1.38	2808	1.71										
3000	2394	2434	1.02	2518	1.17	2603	1.32	2689	1.48	2776	1.64	2953	1.99	3127	2.37	3299	2.77						
3400	2713	2675	1.31	2749	1.46	2822	1.62	2897	1.80	2972	1.97	3125	2.34	3281	2.73	3437	3.15	3589	3.58	3740	4.03		
3800	3033	2925	1.66	2990	1.83	3056	2.00	3122	2.18	3188	2.36	3322	2.75	3459	3.16	3598	3.59	3738	4.04	3877	4.52	4012	5.00
4200	3352	3181	2.08	3240	2.26	3299	2.45	3358	2.64	3418	2.83	3537	3.24	3658	3.67	3782	4.12	3907	4.58	4033	5.07	4160	5.58
4600	3671	3441	2.58	3495	2.77	3548	2.97	3602	3.17	3656	3.38	3765	3.81	3874	4.26	3985	4.72	4097	5.21	4211	5.71	4326	6.23
5000	3990	3704	3.17	3754	3.37	3803	3.58	3853	3.80	3902	4.01	4002	4.47	4102	4.94	4202	5.42	4304	5.93	4406	6.45	4510	6.99
5400	4310	3971	3.85	4016	4.06	4062	4.29	4107	4.51	4153	4.74	4245	5.22	4337	5.71	4430	6.22	4523	6.74				

## VPBD | Size 15B7

**Wheel Dia.: 15"**  
**Outlet Area: 1.254 ft<sup>2</sup>**

**Tip Speed: 3.93 x RPM**  
**Fan Efficiency Grade: FEG75**

[illegible]

Performance certified is for installation Type B: Free inlet, ducted outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories).

Class I
Class II



**VPBD | Size 18B4**

Wheel Dia.: 18"  
Outlet Area: 1.799 ft<sup>2</sup>

Tip Speed: 4.71 x RPM  
Fan Efficiency Grade: FEG85

CFM	OV	0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		1.75" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2000	1112																						
2500	1390	1406	0.32																				
3000	1668	1546	0.41	1706	0.58	1855	0.76																
3500	1946	1705	0.53	1842	0.71	1979	0.90	2109	1.11														
4000	2223	1875	0.68	1994	0.87	2115	1.08	2235	1.29	2351	1.53	2461	1.77										
4500	2501	2052	0.86	2159	1.06	2265	1.28	2372	1.52	2479	1.76	2585	2.02	2686	2.29								
5000	2779	2233	1.08	2332	1.30	2427	1.53	2523	1.78	2619	2.03	2715	2.30	2811	2.58	2995	3.17						
5500	3057	2418	1.34	2509	1.57	2597	1.82	2684	2.08	2771	2.35	2858	2.63	2946	2.92	3120	3.54	3286	4.19				
6000	3335	2605	1.66	2690	1.90	2772	2.15	2852	2.43	2932	2.71	3011	3.01	3091	3.31	3252	3.95	3411	4.62	3564	5.33	3710	6.08
6500	3613	2795	2.02	2873	2.27	2951	2.54	3026	2.83	3100	3.13	3173	3.44	3246	3.76	3394	4.42	3543	5.12	3689	5.85	3832	6.62
7000	3891	2986	2.44	3060	2.71	3132	2.99	3203	3.28	3273	3.59	3341	3.92	3409	4.25	3545	4.94	3683	5.67	3821	6.42	3957	7.21
7500	4169	3179	2.91	3248	3.20	3316	3.49	3383	3.80	3449	4.12	3514	4.46	3577	4.80	3704	5.53	3832	6.28	3961	7.06		
8000	4447	3373	3.46	3438	3.75	3502	4.06	3565	4.38	3628	4.72	3689	5.06	3750	5.42	3869	6.17	3988	6.96				
8500	4725	3568	4.07	3629	4.38	3690	4.70	3750	5.04	3809	5.38	3868	5.74	3926	6.11								
9000	5003	3764	4.75	3822	5.08	3879	5.41	3936	5.76	3993	6.12												
9500	5281	3961	5.51																				

**VPBD | Size 18B5**

Wheel Dia.: 18"  
Outlet Area: 1.799 ft<sup>2</sup>

Tip Speed: 4.71 x RPM  
Fan Efficiency Grade: FEG85

CFM	OV	0.75" SP		1" SP		1.25" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2000	1112																						
2500	1390																						
3000	1668	1539	0.58	1673	0.75																		
3500	1946	1666	0.71	1786	0.90	1904	1.11																
4000	2223	1813	0.88	1912	1.07			2122	1.52														
4500	2501	1973	1.09	2057	1.29	2145	1.51	2238	1.75	2424	2.28												
5000	2779	2137	1.34	2214	1.56	2291	1.79	2370	2.03	2537	2.57												
5500	3057	2305	1.64	2377	1.87	2447	2.11	2516	2.37	2662	2.92	2704	3.17										
												2816	3.53	2967	4.18	3105	4.83						
6000	3335	2476	2.00	2544	2.24	2609	2.49	2672	2.76	2801	3.32	2937	3.94	3079	4.62	3218	5.33	3347	6.03				
6500	3613	2649	2.40	2713	2.66	2774	2.93	2834	3.21	2951	3.79	3072	4.42	3199	5.10	3330	5.84	3459	6.61				
7000	3891	2824	2.87	2884	3.15	2942	3.43	2999	3.72	3109	4.33	3218	4.97	3331	5.66	3450	6.40	3572	7.20	3692	8.02	3808	
7500	4169	3000	3.41	3057	3.70	3112	3.99	3166	4.30	3271	4.93	3372	5.60	3475	6.30	3582	7.05	3693	7.85	3806	8.69	3919	
8000	4447	3178	4.01	3231	4.31	3284	4.63	3335	4.94	3435	5.61	3532	6.30	3627	7.02	3723	7.78	3824	8.58	3928	9.43		
8500	4725	3358	4.69	3408	5.01	3457	5.33	3506	5.67	3602	6.36	3694	7.08	3784	7.82	3874	8.60	3965	9.41				
9000	5003	3538	5.45	3585	5.78	3632	6.12	3679	6.47	3771	7.19	3859	7.93	3945	8.71								
9500	5281	3719	6.29	3764	6.63	3809	6.99	3853	7.35	3941	8.11												

**VPBD | Size 18B6**

Wheel Dia.: 18"  
Outlet Area: 1.799 ft<sup>2</sup>

Tip Speed: 4.71 x RPM  
Fan Efficiency Grade: FEG80

CFM	OV	1.5" SP		1.75" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2000	1112																						
2500	1390																						
3000	1668																						
3500	1946	1893	1.30	1984	1.50																		
4000	2223	2008	1.52	2094	1.74	2177	1.97																
4500	2501	2139	1.80	2214	2.03	2290	2.27	2440	2.78														
5000	2779	2287	2.14	2351	2.37	2417	2.62	2553	3.15	2689	3.71	2816	4.30										
5500	3057	2444	2.53	2501	2.78	2558	3.03	2678	3.57	2802	4.16	2926	4.77	3045	5.42								
6000	3335	2607	3.00	2659	3.25	2711	3.52	2816	4.07	2927	4.67	3041	5.31	3155	5.97	3266	6.66	3371	7.37				
6500	3613	2773	3.53	2822	3.80	2870	4.07	2966	4.65	3064	5.26	3166	5.90	3271	6.59	3377	7.31	3481	8.05	3581	8.80	3677	
7000	3891	2941	4.13	2988	4.41	3034	4.71	3123	5.31	3213	5.94	3304	6.60	3399	7.30	3496	8.03	3594	8.79	3691	9.57	3787	
7500	4169	3112	4.81	3157	5.11	3200	5.42	3285	6.05	3368	6.70	3451	7.38	3537	8.09	3625	8.83	3715	9.60	3806	10.40		
8000	4447	3284	5.57	3327	5.89	3368	6.21	3449	6.87	3528	7.56	3606	8.26	3684	8.98	3764	9.74						
8500	4725	3459	6.43	3499	6.76	3538	7.10	3616	7.79	3692	8.51	3765	9.23										
9000	5003	3635	7.38	3673	7.73	3710	8.08	3785	8.80														
9500	5281	3812	8.42																				

**VPBD | Size 18B7**

Wheel Dia.: 18"  
Outlet Area: 1.799 ft<sup>2</sup>

Tip Speed: 4.71 x RPM  
Fan Efficiency Grade: FEG80

CFM	OV	2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP		6" SP		6.5" SP		7" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2000	1112																						
2500	1390																						
3000	1668	1929	1.43																				
3500	1946	2038	1.68	2185	2.08																		
4000	2223	2175	1.99			2429	2.86	2558	3.34														
4500	2501	2326	2.37	2440	2.81	2552	3.27	2665	3.76	2779	4.28	2894	4.83										
5000	2779	2484	2.80	2591	3.28	2693	3.77	2794	4.27	2895	4.80	2997	5.36	3100	5.94	3204	6.56						
5500	3057	2651	3.31	2749	3.82	2845	4.34	2939	4.88	3031	5.43	3122	5.99	3214	6.58	3307	7.20	3401	7.85	3495	8.52	3589	9.21
6000	3335	2824	3.89	2913	4.42	3003	4.98	3091	5.55	3178	6.14	3262	6.73	3346	7.33	3430	7.96	3515	8.61	3600	9.29	3686	9.99
6500	3613	3003	4.56	3084	5.11	3167	5.70	3250	6.31	3332	6.93	3412	7.56	3490	8.19	3568	8.84	3646	9.51	3723	10.18	3801	10.89
7000	3891	3187	5.33	3261	5.90	3337	6.51	3414	7.15	3491	7.80	3567	8.47	3642	9.14	3715	9.82	3788	10.51				
7500	4169	3374	6.20	3443	6.80	3512	7.43	3583	8.08	3655	8.76	3727	9.47	3798	10.18								
8000	4447	3564	7.19	3628	7.81	3692	8.46	3758	9.14														
8500	4725	3756	8.28	3816	8.94																		
9000	5003																						
9500	5281																						

Performance certified for installation Type B: Free inlet, ducted outlet.

# VPBD | Size 21B4

Wheel Dia.: 21"  
Outlet Area: 2.448 ft<sup>2</sup>

Tip Speed: 5.50 x RPM  
Fan Efficiency Grade: FEG80

CFM	OV	0.5" SP		0.75" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	1225	1122	0.38																				
3500	1430	1200	0.46																				
4000	1634	1286	0.55	1424	0.77																		
4500	1838	1382	0.66	1505	0.90	1626	1.15																
5000	2042	1484	0.79	1594	1.04	1705	1.31	1914	1.90														
5500	2247	1591	0.94	1690	1.21	1791	1.50	1990	2.12														
6000	2451	1701	1.12	1792	1.40	1883	1.70	2068	2.35	2244	3.05												
6500	2655	1812	1.32	1898	1.61	1982	1.93	2152	2.61	2321	3.35	2477	4.12										
7000	2859	1926	1.56	2006	1.86	2084	2.19	2241	2.90	2400	3.67	2554	4.48										
7500	3064	2041	1.83	2116	2.14	2190	2.48	2336	3.23	2484	4.02	2631	4.86	2771	5.74								
8000	3268	2157	2.14	2228	2.46	2298	2.80	2435	3.58	2572	4.40	2712	5.27	2849	6.19	2978	7.13						
8500	3472	2274	2.48	2342	2.81	2408	3.17	2538	3.97	2666	4.83	2797	5.72	2927	6.66	3055	7.64	3175	8.65				
9000	3676	2392	2.87	2456	3.21	2520	3.58	2643	4.39	2764	5.28	2886	6.21	3010	7.18	3133	8.19	3253	9.24	3366	10.31		
10000	4085	2631	3.76	2689	4.13	2746	4.52	2859	5.36	2969	6.31	3078	7.31	3188	8.34	3299	9.40	3410	10.50	3520	11.64	3627	12.81
11000	4493	2872	4.85	2925	5.24	2977	5.65	3081	6.54	3182	7.51	3281	8.56	3380	9.67	3480	10.80	3581	11.96	3683	13.15	3784	14.38
12000	4902	3114	6.13	3163	6.55	3211	6.99	3307	7.93	3401	8.93	3493	10.02	3584	11.18	3675	12.38	3766	13.61	3858	14.86	3951	16.14

# VPBD | Size 21B5

Wheel Dia.: 21"  
Outlet Area: 2.448 ft<sup>2</sup>

Tip Speed: 5.50 x RPM  
Fan Efficiency Grade: FEG80

CFM	OV	0.75" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	1225																						
3500	1430	1237	0.66																				
4000	1634	1308	0.77	1422	1.00																		
4500	1838	1383	0.89	1493	1.15																		
5000	2042	1470	1.04	1566	1.30	1757	1.89																
5500	2247	1565	1.22	1648	1.48	1827	2.10																
6000	2451	1665	1.42	1740	1.70	1899	2.33	2061	3.03														
6500	2655	1768	1.66	1837	1.95	1979	2.59	2131	3.32	2274	4.09												
7000	2859	1873	1.94	1938	2.24	2066	2.89	2204	3.63	2345	4.45	2474	5.27										
7500	3064	1979	2.25	2041	2.56	2159	3.23	2284	3.98	2416	4.82	2545	5.70	2664	6.59								
8000	3268	2086	2.59	2145	2.92	2257	3.61	2370	4.37	2491	5.22	2615	6.14	2735	7.08	2845	8.02						
8500	3472	2195	2.98	2251	3.32	2358	4.04	2463	4.82	2573	5.67	2688	6.60	2805	7.59	2916	8.59	3020	9.60				
9000	3676	2304	3.41	2358	3.77	2461	4.52	2560	5.32	2660	6.17	2767	7.11	2877	8.12	2986	9.17	3091	10.24	3189	11.30		
10000	4085	2525	4.40	2574	4.79	2670	5.60	2761	6.45	2850	7.35	2940	8.30	3034	9.31	3133	10.40	3232	11.55	3330	12.72	3424	13.91
11000	4493	2749	5.60	2794	6.02	2883	6.89	2968	7.79	3050	8.74	3130	9.72	3212	10.76	3297	11.86	3385	13.02	3475	14.24	3565	15.51
12000	4902	2975	7.02	3017	7.47	3099	8.39	3179	9.36	3256	10.36	3331	11.40	3405	12.48	3479	13.59	3556	14.77	3635	15.99		

# VPBD | Size 21B6

Wheel Dia.: 21"  
Outlet Area: 2.448 ft<sup>2</sup>

Tip Speed: 5.50 x RPM  
Fan Efficiency Grade: FEG85

CFM	OV	1.5" SP		1.75" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	1225																						
3500	1430																						
4000	1634																						
4500	1838	1610	1.60	1696	1.87																		
5000	2042	1679	1.80	1758	2.08	1835	2.37																
5500	2247	1755	2.02	1828	2.31	1900	2.62	2041	3.26														
6000	2451	1838	2.27	1905	2.57	1972	2.89	2104	3.56	2233	4.27												
6500	2655	1926	2.55	1988	2.87	2050	3.20	2174	3.89	2295	4.63	2414	5.39										
7000	2859	2019	2.87	2077	3.20	2134	3.54	2250	4.26	2364	5.02	2476	5.81	2586	6.63								
7500	3064	2116	3.23	2169	3.57	2223	3.92	2331	4.66	2439	5.45	2545	6.27	2650	7.12	2752	7.99	2854	8.89				
8000	3268	2215	3.63	2265	3.98	2316	4.35	2417	5.11	2518	5.91	2619	6.76	2718	7.64	2816	8.54	2913	9.47	3009	10.43		
8500	3472	2317	4.08	2364	4.44	2412	4.82	2507	5.60	2601	6.42	2697	7.29	2791	8.19	2885	9.13	2978	10.10	3069	11.08	3159	12.08
9000	3676	2421	4.57	2465	4.94	2510	5.33	2600	6.14	2689	6.98	2779	7.87	2869	8.80	2958	9.76	3047	10.75	3135	11.77	3221	12.80
10000	4085	2634	5.71	2674	6.10	2714	6.51	2794	7.36	2875	8.26	2955	9.19	3036	10.16	3117	11.16	3198	12.20	3278	13.27	3358	14.37
11000	4493	2853	7.07	2888	7.49	2924	7.92	2997	8.81	3070	9.75	3143	10.73	3216	11.74	3290	12.79	3363	13.87	3437	14.98	3510	16.12
12000	4902	3075	8.67	3107	9.11	3140	9.57	3206	10.51	3272	11.48	3339	12.51	3406	13.57	3474	14.67	3541	15.79	3608	16.94	3675	18.12

# VPBD | Size 21B7

Wheel Dia.: 21"  
Outlet Area: 2.448 ft<sup>2</sup>

Tip Speed: 5.50 x RPM  
Fan Efficiency Grade: FEG80

CFM	OV	2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP		6" SP		6.5" SP		7" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	1225	1644	1.91	1841	2.69	2025	3.58	2199	4.59	2366	5.71	2466	6.46	2620	7.75	2770	9.17	2856	10.04	2997	11.61	3078	12.56
3500	1430																						
4000	1634																						
4500	1838																						
5000	2042	1786	2.42	1905	2.98	2025	3.58	2199	4.59	2366	5.71	2466	6.46	2620	7.75	2770	9.17	2856	10.04	2997	11.61	3078	12.56
5500	2247	1874	2.75	1981	3.31	2090	3.93																
6000	2451	1969	3.13	2068	3.72	2166	4.34																
6500	2655	2068	3.54	2162	4.17	2253	4.82																
7000	2859	2170	4.00	2259	4.67	2345	5.35	2429	6.04	2513	6.76	2598	7.52	2684	8.33	2770	9.17	2856	10.04	2997	11.61	3078	12.56
7500	3064	2275	4.51	2359	5.21	2441	5.93	2521	6.65	2600	7.40	2679	8.18	2757	8.98	2837	9.82	2917	10.70	2987	11.45	3062	12.36
8000	3268	2384	5.09	2462	5.81	2540	6.56	2617	7.33	2692	8.11	2766	8.90	2840	9.73	2913	10.57	2987	11.45	3062	12.36	3138	13.33
8500	3472	2495	5.72	2568	6.46	2642	7.24	2716	8.05	2788	8.87	2858	9.70	2928	10.54	2997	11.41	3066	12.29	3136	13.22	3206	14.17
9000	3676	2609	6.43	2677	7.19	2747	8.00	2817	8.83	2886	9.69	2954	10.56	3020	11.43	3086	12.32	3152	13.24	3217	14.17		
10000	4085	2843	8.07	2903	8.87	2964	9.71	3026	10.59	3089	11.51	3152	12.45	3214	13.41								
11000	4493	3081	10.01	3136	10.87	3190	11.76	3246	12.68														
12000	4902																						

**VPBD | Size 24B4**Wheel Dia.: 24"  
Outlet Area: 3.191 ft<sup>2</sup>Tip Speed: 6.28 x RPM  
Fan Efficiency Grade: FEG80

CFM	OV	0.5" SP		0.75" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	1567	1084	0.67	1208	0.96																		
5500	1724	1145	0.77	1259	1.07	1367	1.40																
6000	1880	1211	0.89	1314	1.20	1418	1.55																
6500	2037	1280	1.02	1373	1.34	1470	1.70	1651	2.48														
7000	2194	1350	1.18	1436	1.51	1525	1.87	1701	2.69														
7500	2350	1423	1.35	1503	1.69	1585	2.07	1752	2.91	1905	3.81												
8000	2507	1496	1.54	1573	1.90	1648	2.28	1804	3.14	1956	4.09												
8500	2664	1571	1.76	1643	2.13	1714	2.52	1860	3.40	2006	4.38	2141	5.40										
9000	2820	1646	2.00	1716	2.38	1783	2.79	1918	3.68	2058	4.69	2192	5.75										
10000	3134	1799	2.55	1863	2.96	1924	3.39	2045	4.33	2168	5.36	2294	6.50	2416	7.69	2528	8.89						
11000	3447	1954	3.22	2013	3.66	2070	4.12	2180	5.10	2290	6.17	2404	7.34	2518	8.59	2630	9.90	2734	11.21				
12000	3761	2111	4.00	2165	4.47	2218	4.96	2321	5.99	2421	7.11	2523	8.31	2627	9.59	2732	10.95	2835	12.37	2933	13.80	3026	15.24
13000	4074	2269	4.92	2320	5.42	2369	5.93	2466	7.03	2559	8.19	2651	9.42	2746	10.74	2842	12.13	2939	13.60	3035	15.13	3128	16.68
14000	4387	2429	5.98	2476	6.51	2522	7.05	2613	8.20	2701	9.42	2787	10.70	2873	12.05	2961	13.48	3050	14.97	3140	16.54	3230	18.17
15000	4701	2589	7.19	2633	7.75	2677	8.33	2762	9.52	2846	10.80	2927	12.14	3007	13.54	3087	14.99	3169	16.51	3253	18.12		
16000	5014	2750	8.56	2792	9.16	2833	9.77	2914	11.03	2993	12.35	3070	13.74	3145	15.18	3220	16.69	3296	18.26				

**VPBD | Size 24B5**Wheel Dia.: 24"  
Outlet Area: 3.191 ft<sup>2</sup>Tip Speed: 6.28 x RPM  
Fan Efficiency Grade: FEG85

CFM	OV	0.75" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	1567	1132	0.92	1237	1.21																		
5500	1724	1183	1.03	1281	1.34																		
6000	1880	1238	1.15	1330	1.48	1504	2.17																
6500	2037	1297	1.29	1382	1.63	1548	2.36																
7000	2194	1359	1.45	1438	1.80			1743	3.38														
7500	2350	1424	1.63	1497	1.99	1644	2.78	1786	3.63	1922	4.53												
8000	2507	1491	1.84	1559	2.20	1697	3.01	1833	3.90	1963	4.83												
8500	2664	1559	2.06	1623	2.43	1752	3.26	1882	4.18	2008	5.16	2128	6.16										
9000	2820	1629	2.31	1689	2.69	1811	3.54	1934	4.48	2055	5.49	2171	6.53	2284	7.61								
10000	3134	1772	2.88	1826	3.29	1935	4.18	2045	5.16	2155	6.21	2265	7.34	2370	8.48	2473	9.66	2574	10.88				
11000	3447	1918	3.57	1967	4.00	2066	4.93	2165	5.95	2265	7.04	2366	8.21	2466	9.44	2563	10.70	2657	11.97	2750	13.29	2841	14.63
12000	3761	2067	4.37	2112	4.83	2202	5.80	2293	6.87	2384	8.00	2476	9.21	2568	10.48	2660	11.81	2750	13.17	2838	14.56	2924	15.96
13000	4074	2218	5.31	2259	5.79	2342	6.81	2426	7.92	2510	9.10	2594	10.35	2678	11.64	2764	13.02	2849	14.45	2933	15.92	3015	17.40
14000	4387	2370	6.39	2409	6.91	2486	7.98	2563	9.12	2641	10.35	2719	11.64	2797	12.98	2875	14.37	2954	15.84	3033	17.36	3112	18.93
15000	4701	2524	7.63	2560	8.17	2631	9.29	2703	10.48	2775	11.74	2848	13.07	2921	14.47	2994	15.91	3067	17.40	3141	18.96		
16000	5014	2678	9.02	2712	9.59	2779	10.77	2846	12.01	2914	13.32	2982	14.69	3050	16.12	3118	17.61						

**VPBD | Size 24B6**Wheel Dia.: 24"  
Outlet Area: 3.191 ft<sup>2</sup>Tip Speed: 6.28 x RPM  
Fan Efficiency Grade: FEG80

CFM	OV	1.5" SP		1.75" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	1567																						
5500	1724	1368	1.95																				
6000	1880	1411	2.14	1483	2.49																		
6500	2037	1458	2.33	1526	2.70	1592	3.08																
7000	2194	1510	2.56	1573	2.93	1636	3.33	1758	4.14														
7500	2350	1565	2.80	1624	3.19	1684	3.60	1800	4.44	1913	5.33												
8000	2507	1623	3.07	1679	3.47	1735	3.89	1845	4.76	1953	5.68	2059	6.64										
8500	2664	1684	3.38	1736	3.78	1789	4.21	1894	5.11	1997	6.05	2098	7.04										
9000	2820	1747	3.70	1796	4.12	1846	4.56	1945	5.47	2044	6.45	2141	7.47	2236	8.52								
10000	3134	1877	4.44	1922	4.89	1967	5.35	2057	6.31	2146	7.33	2235	8.40	2323	9.51	2409	10.65	2495	11.84	2579	13.05		
11000	3447	2014	5.32	2055	5.79	2095	6.27	2177	7.29	2258	8.34	2339	9.45	2421	10.63	2501	11.82	2580	13.05	2659	14.33	2736	15.61
12000	3761	2155	6.35	2192	6.84	2229	7.35	2304	8.41	2379	9.52	2453	10.67	2527	11.86	2602	13.12	2676	14.41	2749	15.73	2822	17.08
13000	4074	2300	7.55	2333	8.05	2367	8.58	2436	9.69	2505	10.84	2574	12.05	2643	13.30	2711	14.57	2780	15.91	2849	17.29	2917	18.70
14000	4387	2447	8.91	2478	9.45	2509	9.99	2572	11.14	2636	12.34	2700	13.59	2764	14.89	2828	16.22	2892	17.60	2956	19.01		
15000	4701	2596	10.46	2625	11.03	2654	11.60	2712	12.78	2772	14.04	2831	15.33	2891	16.67	2951	18.06						
16000	5014	2746	12.2	2773	12.79	2801	13.4	2855	14.63	2910	15.92	2966	17.27										

**VPBD | Size 24B7**Wheel Dia.: 24"  
Outlet Area: 3.191 ft<sup>2</sup>Tip Speed: 6.28 x RPM  
Fan Efficiency Grade: FEG75

CFM	OV	2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP		6" SP		6.5" SP		7" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	1567																						
5500	1724	1460	2.62																				
6000	1880	1506	2.86	1621	3.58																		
6500	2037	1559	3.14	1664	3.87	1770	4.66																
7000	2194	1618	3.47	1714	4.20			1910	5.85														
7500	2350	1680	3.83	1770	4.58	1860	5.38	1951	6.24	2043	7.16												
8000	2507	1744	4.21	1830	5.00	1914	5.82	1998	6.68	2084	7.61	2170	8.59										
8500	2664	1811	4.64	1893	5.46	1972	6.29	2051	7.17	2131	8.11	2212	9.10	2293	10.13								
9000	2820	1879	5.09	1958	5.95	2034	6.83	2109	7.73	2183	8.66	2259	9.66	2335	10.70	2412	11.80	2488	12.92				
10000	3134	2020	6.12	2092	7.04	2163	7.99	2232	8.96	2300	9.95	2367	10.96	2434	12.01	2502	13.12	2571	14.27	2640	15.47	2709	16.71
11000	3447	2168	7.34	2232	8.30	2298	9.32	2363	10.37	2426	11.42	2488	12.5	2549	13.59	2611	14.73	2672	15.88	2733	17.07	2795	18.32
12000	3761	2321	8.77	2379	9.77	2438	10.83	2498	11.93	2558	13.08	2617	14.24	2674	15.39	2731	16.58	2787	17.77	2843	19.00		
13000	4074	2478	10.43	2530	11.46	2584	12.57	2639	13.72	2694	14.91												
14000	4387	2637	12.31	2686	13.42	2735	14.56	2785	15.75	2836	16.99												
15000	4701	2799	14.47	2844	15.63							2750	16.15	2804	17.38	2858	18.64						
16000	5014																						



**VPBD | Size 28B4**

Wheel Dia.: 28"  
Outlet Area: 4.353 ft<sup>2</sup>

Tip Speed: 7.33 x RPM  
Fan Efficiency Grade: FEG85

CFM	OV	0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		1.75" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	1378	892	0.75	1008	1.10																		
7000	1608	966	0.92	1069	1.30	1168	1.72																
8000	1838	1047	1.12	1140	1.53	1229	1.97	1315	2.45														
9000	2068	1132	1.36	1217	1.80	1298	2.27	1378	2.78	1455	3.31	1530	3.86										
10000	2297	1222	1.65	1299	2.12	1374	2.63	1447	3.16	1519	3.72	1589	4.30	1657	4.90								
11000	2527	1316	2.00	1385	2.49	1454	3.02	1522	3.59	1589	4.17	1654	4.78	1718	5.41	1842	6.73						
12000	2757	1412	2.42	1474	2.92	1538	3.48	1602	4.08	1664	4.69	1725	5.33	1785	5.99	1902	7.37	2015	8.81				
13000	2986	1509	2.89	1567	3.42	1625	3.99	1685	4.62	1743	5.27	1800	5.93	1856	6.62	1967	8.06	2074	9.56	2179	11.14		
14000	3216	1609	3.45	1662	3.99	1715	4.58	1770	5.22	1825	5.91	1879	6.61	1932	7.32	2036	8.81	2138	10.38	2238	12.02	2335	13.70
15000	3446	1709	4.08	1758	4.64	1808	5.25	1859	5.91	1910	6.61	1961	7.35	2012	8.11	2110	9.65	2207	11.27	2302	12.97	2394	14.71
16000	3676	1810	4.79	1856	5.38	1903	6.01	1950	6.68	1998	7.41	2046	8.16	2094	8.95	2187	10.55	2279	12.23	2370	14.00		
17000	3905	1912	5.59	1956	6.21	1999	6.86	2043	7.55	2087	8.27	2133	9.06	2178	9.87	2268	11.56	2355	13.29	2441	15.09		
18000	4135	2015	6.48	2056	7.13	2097	7.81	2138	8.51	2180	9.26	2222	10.05	2265	10.88	2350	12.63	2434	14.44				
19000	4365	2118	7.47	2157	8.15	2195	8.84	2234	9.57	2274	10.35	2313	11.14	2353	11.98	2434	13.78						
20000	4595	2222	8.57	2258	9.27	2295	10.00	2332	10.75	2369	11.54	2406	12.35										
22000	5054	2430	11.09																				

**VPBD | Size 28B5**

Wheel Dia.: 28"  
Outlet Area: 4.353 ft<sup>2</sup>

Tip Speed: 7.33 x RPM  
Fan Efficiency Grade: FEG85

CFM	OV	0.75" SP		1" SP		1.25" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	1378	924	1.09																				
7000	1608	983	1.29	1070	1.69																		
8000	1838	1049	1.52	1130	1.96	1207	2.42	1281	2.90														
9000	2068	1123	1.80	1195	2.27	1266	2.76	1335	3.27	1467	4.35												
10000	2297	1203	2.14	1267	2.62	1332	3.14	1396	3.69	1519	4.83												
11000	2527	1287	2.54	1345	3.04	1403	3.58	1462	4.15	1578	5.37	1689	6.65	1796	7.98								
12000	2757	1374	3.01	1427	3.53	1480	4.09	1533	4.67	1641	5.95	1746	7.30	1847	8.70	1945	10.15						
13000	2986	1463	3.55	1512	4.09	1561	4.67	1610	5.28	1709	6.59	1808	8.01	1904	9.48	1997	10.99	2088	12.56				
14000	3216	1555	4.18	1599	4.73	1645	5.34	1690	5.96	1781	7.31	1873	8.76	1965	10.31	2054	11.9	2141	13.54	2226	15.23		
15000	3446	1647	4.88	1689	5.47	1731	6.08	1773	6.73	1858	8.12	1944	9.62	2030	11.21	2115	12.87	2198	14.58	2279	16.33	2359	18.13
16000	3676	1741	5.67	1780	6.28	1819	6.92	1859	7.60	1938	9.02	2018	10.56	2098	12.18	2179	13.90	2259	15.69	2337	17.52	2413	19.37
17000	3905	1835	6.56	1872	7.20	1909	7.86	1946	8.55	2021	10.03	2096	11.61	2171	13.26	2247	15.02	2323	16.87	2398	18.76		
18000	4135	1930	7.54	1965	8.21	2000	8.90	2035	9.61	2105	11.12	2176	12.75	2247	14.46	2318	16.24	2390	18.12				
19000	4365	2026	8.63	2059	9.33	2092	10.04	2125	10.78	2192	12.35	2259	14.01	2326	15.76	2393	17.59						
20000	4595	2123	9.85	2154	10.56	2186	11.32	2217	12.08	2280	13.68	2343	15.37	2407	17.17								
22000	5054	2317	12.61	2346	13.40	2374	14.19	2403	15.02														

**VPBD | Size 28B6**

Wheel Dia.: 28"  
Outlet Area: 4.353 ft<sup>2</sup>

Tip Speed: 7.33 x RPM  
Fan Efficiency Grade: FEG80

CFM	OV	1.5" SP		1.75" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	1378																						
7000	1608																						
8000	1838	1208	2.85	1272	3.32																		
9000	2068	1266	3.24	1325	3.75	1382	4.26																
10000	2297	1331	3.69	1385	4.22	1438	4.77	1542	5.92														
11000	2527	1403	4.21	1452	4.76	1501	5.34	1597	6.55	1691	7.81												
12000	2757	1479	4.81	1524	5.38	1569	5.98	1659	7.25	1747	8.57	1833	9.95	1918	11.38								
13000	2986	1559	5.49	1601	6.10	1642	6.71	1725	8.01	1808	9.40	1889	10.83	1969	12.32	2048	13.87						
14000	3216	1642	6.26	1681	6.89	1719	7.53	1796	8.87	1873	10.29	1950	11.80	2026	13.36	2100	14.94	2173	16.57	2246	18.27		
15000	3446	1728	7.14	1764	7.79	1800	8.45	1871	9.83	1943	11.30	2015	12.84	2087	14.46	2157	16.10	2227	17.80	2296	19.55	2364	21.33
16000	3676	1816	8.13	1849	8.78	1883	9.48	1950	10.91	2017	12.42	2084	13.99	2152	15.65	2219	17.36	2285	19.11	2351	20.92	2416	22.76
17000	3905	1905	9.21	1936	9.89	1968	10.61	2031	12.09	2094	13.64	2157	15.26	2221	16.96	2284	18.70	2347	20.51	2410	22.38		
18000	4135	1996	10.43	2025	11.13	2055	11.87	2114	13.38	2174	14.99	2234	16.67	2293	18.38	2353	20.17	2413	22.03				
19000	4365	2088	11.77	2116	12.51	2143	13.24	2199	14.81	2256	16.46	2313	18.19	2369	19.95	2426	21.79						
20000	4595	2181	13.24	2207	13.99	2233	14.76	2286	16.37	2340	18.07	2393	19.81	2447	21.64								
22000	5054	2369	16.59	2393	17.41	2417	18.24																

**VPBD | Size 28B7**

Wheel Dia.: 28"  
Outlet Area: 4.353 ft<sup>2</sup>

Tip Speed: 7.33 x RPM  
Fan Efficiency Grade: FEG80

CFM	OV	2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP		6" SP		6.5" SP		7" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	1378																						
7000	1608																						
8000	1838	1286	3.78																				
9000	2068	1345	4.29	1441	5.32																		
10000	2297	1415	4.91	1500	5.96	1586	7.09	1672	8.31														
11000	2527	1491	5.62	1569	6.72	1646	7.87	1724	9.10	1802	10.41												
12000	2757	1570	6.41	1643	7.57	1715	8.78	1786	10.04	1857	11.36	1929	12.77	2000	14.22								
13000	2986	1653	7.31	1722	8.54	1789	9.80	1855	11.10	1921	12.47	1986	13.87	2052	15.36	2119	16.92	2185	18.53				
14000	3216	1739	8.31	1804	9.61	1867	10.93	1929	12.29	1990	13.69	2051	15.14	2112	16.65	2174	18.23	2235	19.85	2296	21.53	2358	23.28
15000	3446	1828	9.44	1888	10.78	1948	12.17	2007	13.61	2065	15.07	2122	16.56	2179	18.11	2236	19.70	2293	21.35	2350	23.05	2407	24.80
16000	3676	1920	10.72	1975	12.09	2032	13.55	2088	15.05	2143	16.57	2197	18.12	2251	19.72	2304	21.34	2357	23.01	2411	24.76		
17000	3905	2013	12.13	2065	13.55	2118	15.05	2171	16.61	2223	18.19	2275	19.82	2326	21.47	2377	23.16	2427	24.87				
18000	4135	2108	13.70	2157	15.17	2206	16.70	2256	18.31	2306	19.96	2356	21.67	2405	23.39	2453	25.12						
19000	4365	2205	15.45	2250	16.94	2296	18.51	2343	20.16	2391	21.88	2438	23.63										
20000	4595	2302	17.34	2345	18.90	2389	20.53	2433	22.21														
22000	5054																						

**VPBD | Size 32B4**Wheel Dia.: 32"  
Outlet Area: 5.672 ft<sup>2</sup>Tip Speed: 8.38 x RPM  
Fan Efficiency Grade: FEG85

CFM	OV	0.5" SP		0.75" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	1410	779	1.00	877	1.47																		
9000	1587	827	1.17	918	1.67	1003	2.20																
10000	1763	880	1.36	963	1.89	1043	2.46																
11000	1939	936	1.59	1012	2.14	1087	2.74	1228	4.04														
12000	2116	993	1.84	1065	2.43	1134	3.05	1267	4.41														
13000	2292	1053	2.14	1119	2.75	1184	3.40	1310	4.83	1429	6.36												
14000	2468	1115	2.49	1176	3.11	1237	3.80	1355	5.27	1469	6.87	1578	8.57										
15000	2645	1178	2.88	1235	3.52	1292	4.23	1403	5.75	1512	7.42	1616	9.18	1717	11.03								
16000	2821	1243	3.32	1295	3.98	1348	4.70	1454	6.29	1557	8.01	1657	9.83	1753	11.73								
17000	2997	1308	3.82	1357	4.49	1407	5.24	1507	6.88	1605	8.65	1700	10.53	1793	12.50	1883	14.55						
18000	3173	1374	4.37	1420	5.06	1467	5.83	1562	7.53	1655	9.35	1746	11.28	1835	13.31	1922	15.43	2007	17.62				
20000	3526	1507	5.64	1548	6.39	1590	7.19	1675	8.96	1760	10.90	1844	12.95	1926	15.09	2007	17.34	2086	19.65	2163	22.02	2239	24.47
22000	3879	1642	7.18	1679	7.97	1717	8.82	1793	10.65	1871	12.69	1948	14.86	2024	17.11	2099	19.46	2173	21.89	2246	24.41	2317	26.97
24000	4231	1778	8.99	1812	9.85	1847	10.75	1916	12.65	1987	14.76	2058	17.03	2129	19.42	2199	21.88	2267	24.39	2336	27.05		
26000	4584	1915	11.12	1947	12.04	1979	12.99	2042	14.97	2107	17.15	2173	19.51	2239	22.01	2304	24.59	2368	27.22				
28000	4937	2053	13.58	2083	14.57	2112	15.56	2171	17.66	2231	19.91	2291	22.31	2352	24.89								

**VPBD | Size 32B5**Wheel Dia.: 32"  
Outlet Area: 5.672 ft<sup>2</sup>Tip Speed: 8.38 x RPM  
Fan Efficiency Grade: FEG85

CFM	OV	0.75" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	1410	814	1.45																				
9000	1587	854	1.65	931	2.17																		
10000	1763	897	1.88	970	2.44																		
11000	1939	945	2.14	1012	2.72	1140	3.99																
12000	2116	996	2.44	1057	3.04	1178	4.38	1292	5.80														
13000	2292	1050	2.78	1106	3.41	1219	4.79	1327	6.29														
14000	2468	1105	3.17	1157	3.81	1262	5.24	1366	6.82	1464	8.45												
15000	2645	1163	3.61	1211	4.27	1309	5.74	1407	7.37	1502	9.10	1592	10.86										
16000	2821	1222	4.10	1267	4.79	1358	6.29	1450	7.96	1541	9.76	1628	11.60	1713	13.53								
17000	2997	1282	4.66	1324	5.36	1410	6.92	1496	8.61	1583	10.47	1667	12.40	1748	14.37	1828	16.43						
18000	3173	1343	5.27	1383	6.00	1463	7.58	1544	9.32	1626	11.21	1708	13.24	1786	15.28	1863	17.40	1938	19.58				
20000	3526	1467	6.69	1502	7.45	1575	9.14	1648	10.98	1721	12.93	1794	15.01	1868	17.23	1940	19.50	2010	21.81	2078	24.15	2146	26.59
22000	3879	1593	8.38	1625	9.20	1691	10.97	1757	12.89	1823	14.94	1889	17.08	1956	19.37	2023	21.76	2090	24.26	2154	26.74	2218	29.32
24000	4231	1721	10.38	1750	11.25	1810	13.11	1870	15.10	1931	17.25	1992	19.51	2052	21.83	2114	24.32	2175	26.88				
26000	4584	1850	12.71	1877	13.64	1932	15.60	1988	17.70	2043	19.90	2099	22.24	2155	24.68	2211	27.21						
28000	4937	1980	15.40	2005	16.39	2056	18.45	2108	20.65	2159	22.93	2211	25.36										

**VPBD | Size 32B6**Wheel Dia.: 32"  
Outlet Area: 5.672 ft<sup>2</sup>Tip Speed: 8.38 x RPM  
Fan Efficiency Grade: FEG80

CFM	OV	1.5" SP		1.75" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	1410																						
9000	1587																						
10000	1763	1047	3.56																				
11000	1939	1083	3.93	1138	4.57																		
12000	2116	1123	4.34	1175	5.01	1225	5.70																
13000	2292	1167	4.79	1215	5.49	1263	6.22	1355	7.72														
14000	2468	1213	5.28	1258	6.00	1303	6.76	1391	8.33	1477	9.99												
15000	2645	1262	5.83	1304	6.57	1347	7.37	1430	8.99	1511	10.69	1591	12.48										
16000	2821	1314	6.46	1353	7.21	1393	8.02	1472	9.71	1549	11.47	1625	13.31	1700	15.22								
17000	2997	1368	7.15	1405	7.93	1442	8.75	1516	10.47	1590	12.30	1663	14.21	1734	16.17	1804	18.19						
18000	3173	1423	7.90	1458	8.71	1493	9.55	1562	11.29	1633	13.18	1702	15.14	1771	17.18	1838	19.26	1904	21.40				
20000	3526	1537	9.62	1568	10.47	1600	11.36	1662	13.19	1725	15.14	1788	17.20	1851	19.34	1914	21.58	1975	23.84	2035	26.14	2095	28.52
22000	3879	1655	11.67	1683	12.56	1712	13.50	1769	15.44	1826	17.48	1883	19.60	1940	21.81	1998	24.16	2055	26.55	2111	28.98		
24000	4231	1776	14.07	1802	15.02	1828	15.99	1880	18.02	1932	20.14	1984	22.35	2037	24.67	2089	27.04	2142	29.54				
26000	4584	1900	16.87	1923	17.84	1947	18.87	1995	20.99	2043	23.20	2091	25.51	2139	27.89								
28000	4937	2025	20.06	2047	21.11	2069	22.18	2113	24.38														

**VPBD | Size 32B7**Wheel Dia.: 32"  
Outlet Area: 5.672 ft<sup>2</sup>Tip Speed: 8.38 x RPM  
Fan Efficiency Grade: FEG75

CFM	OV	2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP		6" SP		6.5" SP		7" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	1410																						
9000	1587																						
10000	1763	1105	4.74																				
11000	1939	1144	5.24	1230	6.54																		
12000	2116	1188	5.80	1266	7.11	1345	8.55																
13000	2292	1238	6.46	1309	7.80	1382	9.26	1454	10.80														
14000	2468	1290	7.19	1357	8.58	1423	10.04	1491	11.63	1558	13.29												
15000	2645	1344	7.98	1408	9.44	1470	10.95	1532	12.54	1595	14.24	1658	16.01	1721	17.87								
16000	2821	1400	8.85	1461	10.38	1520	11.95	1578	13.57	1636	15.27	1695	17.08	1754	18.96	1813	20.92						
17000	2997	1458	9.81	1516	11.41	1572	13.03	1627	14.71	1682	16.46	1737	18.28	1792	20.17	1848	22.17	1903	24.21				
18000	3173	1517	10.85	1572	12.50	1626	14.21	1679	15.96	1731	17.75	1783	19.61	1834	21.50	1887	23.53	1939	25.60	1992	27.77	2044	29.97
20000	3526	1640	13.26	1689	15.00	1738	16.82	1787	18.71	1835	20.63	1882	22.58	1929	24.59	1976	26.67	2022	28.76	2069	30.96	2116	33.22
22000	3879	1768	16.14	1811	17.95	1856	19.88	1900	21.86	1945	23.93	1989	26.02	2033	28.17	2075	30.30	2118	32.52				
24000	4231	1898	19.48	1938	21.42	1978	23.41	2019	25.51	2060	27.68	2101	29.9	2141	32.14								
26000	4584	2031	23.37	2068	25.42	2104	27.49	2141	29.66														
28000	4937																						

VPBD   Size 36B4				Wheel Dia.: 36" Outlet Area: 7.166 ft²												Tip Speed: 8.38 x RPM Fan Efficiency Grade: FEG85									
				0.5" SP		0.75" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
				RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10000	1395	682	1.25	769	1.84																				
11000	1535	715	1.41	797	2.03	874	2.70																		
12000	1675	751	1.60	827	2.24	900	2.94																		
13000	1814	788	1.80	860	2.48	929	3.21																		
14000	1954	827	2.03	894	2.73	960	3.50	1084	5.14																
15000	2093	868	2.29	931	3.03	992	3.80	1111	5.52																
16000	2233	909	2.58	968	3.33	1027	4.15	1140	5.92	1247	7.83														
18000	2512	995	3.26	1048	4.06	1100	4.93	1203	6.82	1302	8.85	1397	11.01												
20000	2791	1084	4.10	1131	4.93	1178	5.85	1272	7.85	1364	10.01	1452	12.29	1538	14.69										
22000	3070	1175	5.11	1217	5.97	1260	6.93	1346	9.04	1430	11.29	1513	13.71	1594	16.25	1672	18.86	1748	21.56						
24000	3349	1268	6.30	1306	7.21	1344	8.18	1423	10.38	1501	12.75	1578	15.27	1655	17.96	1728	20.67	1800	23.51	1871	26.45				
26000	3628	1361	7.67	1396	8.63	1432	9.67	1504	11.93	1576	14.40	1648	17.03	1719	19.79	1790	22.71	1858	25.66	1925	28.71	1990	31.81		
28000	3907	1456	9.27	1488	10.28	1521	11.36	1587	13.67	1655	16.27	1722	19.01	1788	21.85	1854	24.84	1920	27.98	1983	31.13	2046	34.41		
30000	4186	1551	11.09	1581	12.16	1611	13.27	1673	15.68	1735	18.31	1799	21.20	1861	24.16	1923	27.25	1985	30.48	2046	33.80	2105	37.15		
32000	4466	1646	13.14	1675	14.29	1703	15.45	1760	17.93	1819	20.66	1878	23.60	1937	26.70	1995	29.88	2053	33.17	2111	36.61	2168	40.12		
34000	4745	1742	15.46	1769	16.66	1796	17.89	1849	20.45	1904	23.25	1959	26.24	2015	29.45	2070	32.76	2125	36.17	2180	39.70	2234	43.33		

VPBD   Size 36B5			Wheel Dia.: 36" Outlet Area: 7.166 ft²												Tip Speed: 8.38 x RPM Fan Efficiency Grade: FEG85												
			CFM		OV	0.75" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP	
						RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10000	1395		720	1.81																							
11000	1535		748	2.01		818	2.65																				
12000	1675		777	2.22		844	2.91																				
13000	1814		809	2.46		872	3.18	991	4.72																		
14000	1954		842	2.72		902	3.47	1015	5.07																		
15000	2093		878	3.02		933	3.78	1042	5.46	1144	7.25																
16000	2233		916	3.36		967	4.13	1070	5.87	1168	7.73																
18000	2512		994	4.13		1039	4.95	1131	6.77	1222	8.78	1309	10.88														
20000	2791		1076	5.07		1116	5.92	1198	7.82	1281	9.92	1363	12.19	1441	14.51	1517	16.92										
22000	3070		1160	6.18		1197	7.08	1271	9.06	1346	11.24	1422	13.62	1496	16.11	1567	18.64	1636	21.24								
24000	3349		1246	7.48		1280	8.44	1348	10.51	1416	12.76	1485	15.19	1554	17.79	1622	20.5	1688	23.27	1752	26.09	1815	28.98				
26000	3628		1334	9.00		1365	10.00	1427	12.14	1490	14.49	1554	17.03	1617	19.67	1681	22.51	1744	25.44	1805	28.40	1865	31.44	1924	34.55		
28000	3907		1423	10.75	1452	11.81	1509	14.02	1568	16.48	1626	19.06	1685	21.81	1744	24.70	1803	27.73	1862	30.88	1919	34.06	1975	37.29			
30000	4186		1513	12.74	1539	13.83	1593	16.17	1647	18.67	1702	21.38	1757	24.22	1811	27.14	1867	30.29	1922	33.51	1977	36.86	2031	40.27			
32000	4466		1603	14.98	1628	16.13	1678	18.56	1729	21.16	1780	23.93	1831	26.85	1883	29.93	1934	33.08	1986	36.40	2038	39.85	2089	43.35			
34000	4745		1694	17.49	1718	18.73	1765	21.26	1813	23.96	1860	26.77	1908	29.78	1957	32.96	2005	36.2	2053	39.55	2102	43.07	2151	46.7			

CFM		OV		Wheel Dia.: 36"												Tip Speed: 8.38 x RPM									
				Outlet Area: 7.166 ft²												Fan Efficiency Grade: FEG80									
				1.5" SP		1.75" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10000	1395																								
11000	1535																								
12000	1675	903	4.26																						
13000	1814	928	4.62	977	5.39																				
14000	1954	954	4.99	1001	5.80	1046	6.62																		
15000	2093	983	5.41	1027	6.24	1071	7.11																		
16000	2233	1014	5.86	1056	6.72	1097	7.60	1178	9.46																
18000	2512	1082	6.92	1119	7.81	1156	8.74	1230	10.71	1302	12.78	1373	14.95												
20000	2791	1155	8.16	1189	9.11	1222	10.07	1289	12.13	1355	14.30	1420	16.56	1485	18.95										
22000	3070	1232	9.61	1262	10.58	1293	11.62	1354	13.76	1415	16.03	1475	18.40	1535	20.88	1594	23.44	1652	26.08						
24000	3349	1312	11.28	1340	12.32	1368	13.39	1424	15.63	1480	17.98	1536	20.46	1591	23.02	1646	25.68	1700	28.41	1754	31.24	1807	34.12		
26000	3628	1395	13.23	1420	14.29	1446	15.42	1498	17.76	1549	20.18	1601	22.75	1653	25.43	1704	28.18	1755	31.03	1805	33.93	1855	36.93		
28000	3907	1479	15.43	1503	16.56	1527	17.73	1575	20.16	1623	22.71	1671	25.35	1718	28.06	1766	30.91	1814	33.87	1862	36.93	1909	40.02		
30000	4186	1566	17.97	1588	19.14	1610	20.35	1654	22.84	1699	25.49	1744	28.24	1788	31.04	1833	33.99	1878	37.03	1922	40.11	1967	43.35		
32000	4466	1653	20.78	1674	22.02	1694	23.25	1735	25.83	1777	28.56	1819	31.40	1861	34.34	1903	37.37	1945	40.48	1987	43.69	2029	46.99		
34000	4745	1742	23.96	1761	25.23	1780	26.52	1819	29.22	1858	32.03	1897	34.93	1937	37.99	1976	41.09	2016	44.32						

[illegible]

Performance certified is for installation Type B: Free inlet, ducted outlet.  
Power rating (BHP) does not include transmission losses.  
Performance ratings do not include the effects of appurtenances (accessories).

Class I	Class II
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**VPBD | Size 48B5**

Wheel Dia.: 48"

Outlet Area: 12.76 ft<sup>2</sup>

Tip Speed: 12.57 x RPM

Fan Efficiency Grade: FEG85

CFM	OV	0.75" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP		5.5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20000	1567	566	3.66	618	4.82																		
22000	1724	591	4.10	641	5.36																		
24000	1881	619	4.60	665	5.91	752	8.69																
26000	2038	648	5.16	691	6.51	774	9.46																
28000	2194	680	5.83	719	7.19	797	10.25	871	13.51														
30000	2351	712	6.54	748	7.94	822	11.11	893	14.53	961	18.13												
32000	2508	745	7.33	780	8.82	848	12.02	917	15.63	982	19.35												
34000	2665	780	8.25	812	9.76	876	13.04	941	16.73	1004	20.62	1064	24.62										
36000	2821	815	9.25	845	10.79	905	14.15	967	17.94	1027	21.94	1086	26.16	1142	30.43								
38000	2978	850	10.33	879	11.93	936	15.40	994	19.22	1052	23.37	1108	27.67	1163	32.15	1216	36.72						
42000	3292	922	12.83	948	14.51	1000	18.17	1052	22.15	1105	26.49	1157	31.04	1209	35.85	1258	40.63	1307	45.64	1355	50.78		
46000	3605	996	15.81	1020	17.61	1067	21.42	1114	25.56	1162	30.04	1210	34.78	1258	39.79	1305	44.94	1351	50.21	1396	55.58	1441	61.16
50000	3918	1071	19.30	1093	21.20	1136	25.18	1179	29.48	1223	34.13	1267	39.03	1311	44.16	1355	49.55	1399	55.16	1442	60.86	1484	66.64
54000	4232	1147	23.34	1167	25.34	1207	29.53	1247	34.01	1287	38.79	1328	43.90	1368	49.13	1409	54.68	1450	60.47	1491	66.48	1531	72.56
58000	4545	1224	28.00	1242	30.07	1279	34.45	1316	39.09	1354	44.11	1391	49.29	1429	54.80	1467	60.50	1505	66.41				
62000	4859	1301	33.26	1318	35.45	1352	40.01	1387	44.88	1422	50.01	1457	55.41	1492	61.03	1528	67.00						

**VPBD | Size 54B3**

Wheel Dia.: 54"

Outlet Area: 16.12 ft<sup>2</sup>

Tip Speed: 14.14 x RPM

Fan Efficiency Grade: FEG85

CFM	OV	0.5" SP		0.75" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP			
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
22000	1365	481	2.71	544	4.01																				
24000	1489	502	3.02	561	4.37																				
28000	1737	547	3.75	600	5.22																			650	6.80
32000	1985	596	4.65	644	6.25																			689	7.92
36000	2233	646	5.69	691	7.46	733	9.28	812	13.17	889	17.51														
40000	2481	700	7.00	739	8.80	779	10.81	852	14.92	923	19.44														
44000	2730	755	8.57	790	10.41	827	12.54	896	16.96	962	21.68													1026	26.75
48000	2978	811	10.40	843	12.31	877	14.51	942	19.23	1004	24.20													1063	29.39
52000	3226	869	12.58	898	14.55	928	16.74	990	21.77	1048	26.96	1104	32.40	1159	38.16	1213	44.21	1267	50.65	1319	57.22				
56000	3474	927	15.05	954	17.12	982	19.39	1039	24.54	1095	30.11	1148	35.79	1199	41.66	1250	47.89	1301	54.50	1350	61.22				
60000	3722	986	17.89	1011	20.05	1036	22.34	1089	27.60	1142	33.43	1194	39.53	1243	45.69	1290	51.97	1338	58.72	1385	65.67				
64000	3970	1045	21.09	1068	23.32	1092	25.74	1141	31.07	1191	37.10	1241	43.55	1288	49.99	1333	56.52	1378	63.38	1422	70.42				
68000	4218	1104	24.65	1127	27.09	1149	29.56	1194	34.95	1241	41.10	1288	47.74	1334	54.59	1378	61.49	1421	68.57						
72000	4467	1164	28.68	1185	31.17	1206	33.76	1249	39.36	1293	45.60	1337	52.37	1381	59.51	1424	66.78								
76000	4715	1225	33.22	1244	35.75	1264	38.45	1304	44.16	1345	50.45	1387	57.39	1430	64.90										
80000	4963	1285	38.14	1304	40.86	1323	43.67	1361	49.59	1399	55.91	1439	62.99												

**VPBD | Size 54B4**

Wheel Dia.: 54"

Outlet Area: 16.12 ft<sup>2</sup>

Tip Speed: 14.14 x RPM

Fan Efficiency Grade: FEG85

CFM	OV	0.5" SP		0.75" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
22000	1365	450	2.74	509	4.04																		
24000	1489	469	3.05	525	4.42																		
28000	1737	511	3.78	561	5.27	608	6.86																
32000	1985	557	4.69	601	6.28	645	8.03	726	11.73														
36000	2233	606	5.80	646	7.52	684	9.32	760	13.33	831	17.60												
40000	2481	657	7.16	692	8.92	728	10.90	797	15.09	864	19.67	928	24.51										
44000	2730	710	8.80	741	10.61	774	12.69	837	17.08	900	21.94	960	27.02	1018	32.35								
48000	2978	763	10.69	792	12.61	821	14.71	880	19.37	938	24.39	995	29.77	1050	35.37	1103	41.15						
52000	3226	818	12.94	844	14.92	871	17.11	925	21.93	979	27.16	1033	32.81	1085	38.66	1135	44.66	1184	50.88	1232	57.31		
56000	3474	873	15.50	897	17.58	922	19.84	972	24.81	1023	30.33	1073	36.12	1122	42.19	1170	48.50	1217	55.02	1263	61.73	1308	68.62
60000	3722	928	18.38	951	20.60	974	22.94	1021	28.10	1068	33.76	1115	39.77	1161	46.02	1207	52.61	1252	59.41	1296	66.38	1339	73.51
64000	3970	984	21.68	1006	24.05	1027	26.45	1071	31.76	1115	37.58	1159	43.81	1203	50.33	1246	57.06	1289	64.11	1331	71.32		
68000	4218	1041	25.44	1061	27.87	1081	30.39	1122	35.84	1163	41.78	1205	48.27	1246	54.95	1287	61.90	1328	69.18				
72000	4467	1097	29.54	1116	32.09	1135	34.73	1174	40.40	1212	46.41	1252	53.10	1291	60.03	1330	67.22						
76000	4715	1154	34.16	1172	36.82	1190	39.57	1226	45.35	1263	51.63	1300	58.36	1337	65.48								
80000	4963	1211	39.24	1228	42.01	1245	44.87	1280	50.95	1314	57.26												

**VPBD | Size 60B3**

Wheel Dia.: 60"

Outlet Area: 19.87 ft<sup>2</sup>

Tip Speed: 15.71 x RPM

Fan Efficiency Grade: FEG85

CFM	OV	0.25" SP		0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
24000	1208	345	1.60	411	2.92																		
28000	1409	380	2.04	439	3.47																		
32000	1610	417	2.58	471	4.15	495	5.11																
36000	1812	456	3.25	505	4.94	551	6.79	595	8.78	638	10.95												
40000	2013	497	4.10	541	5.86	584	7.86	624	9.94	663	12.16	702	14.57										
44000	2214	538	5.09	577	6.89	618	9.06	656	11.29	692	13.60	728	16.09	798	21.45								
48000	2416	580	6.26	616	8.15	653	10.38	689	12.77	723	15.21	757	17.82	822	23.32	885	29.27						
52000	2617	623	7.65	656	9.62	690	11.92	724	14.46	756	17.03	788	19.75	849	25.43	909	31.63						
56000	2818	666	9.24	696	11.28	727	13.60	759	16.25	791	19.08	820	21.83	878	27.75	934	34.05	990	40.90				
60000	3020	710	11.09	738	13.23	766	15.58	796	18.30	826	21.25	854	24.18	909	30.32	962	36.80	1015	43.82	1066	51.09		
64000	3221	754	13.17	780	15.41	806	17.83	834	20.60	861	23.54	889	26.73	942	33.19	992	39.84	1042	46.98	1091	54.49	1139	
68000	3422	798	15.51	822	17.82	847	20.37	872	23.11	898	26.16	925	29.50	976	36.29	1024	43.20	1071	50.46	1117	58.02	1163	
76000	3825	886	21.00	908	23.57	930	26.29	952	29.16	975	32.30	998	35.66	1045	43.01	1091	50.69						
84000	4227	975	27.76	995	30.56	1015	33.50	1035	36.58	1055	39.81	1075	43.18	1118	50.88	1160	59.05						
92000	4630	1064	35.85	1082	38.86	1100	41.98	1118	45.23	1137	48.73	1155	52.23										
100000	5033	1154	45.52	1170	48.69																		

**VP | Size 12D7**

Wheel Dia.: 12"

Outlet Area: 0.807 ft<sup>2</sup>

Tip Speed: 3.14 x RPM

Fan Efficiency Grade: FEG80

PROP	RPM	0.25" SP		0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		2" SP		2.5" SP		3" SP		4" SP		5" SP	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
12D7	1750	1011	0.13	920	0.14	796	0.15																
	3500	2150	0.92	2108	0.96	2065	0.99	2022	1.02	1977	1.04	1932	1.07	1840	1.12	1734	1.16	1591	1.20				

**VP | Size 15D6, D7**

Wheel Dia.: 15"

Outlet Area: 1.254 ft<sup>2</sup>

Tip Speed: 3.93 x RPM

Fan Efficiency Grade: FEG80 (15D6), FEG75 (15D7)

PROP	RPM	0.25" SP		0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		2" SP		2.5" SP		3" SP		4" SP		5" SP	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
15D6	1750	2250	0.32	2113	0.36	1948	0.4	1758	0.43														
	3500	4685	2.34	4625	2.43	4564	2.51	4501	2.59	4435	2.68	4368	2.76	4225	2.92	4068	3.06	3895	3.2	3517	3.41		
15D7	1750	2430	0.33	2245	0.37	2027	0.41	1674	0.43														
	3500	5116	2.41	5033	2.49	4947	2.57	4860	2.65	4771	2.74	4679	2.81	4491	2.97	4289	3.12	4054	3.26	3348	3.41		

**VP | Size 18D5, D6, D7**

Wheel Dia.: 18"

Outlet Area: 1.799 ft<sup>2</sup>

Tip Speed: 4.71 x RPM

Fan Efficiency Grade: FEG85 (18D5), FEG85 (18D6), FEG85 (18D7)

PROP	RPM	0.25" SP		0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		2" SP		2.5" SP		3" SP		4" SP		5" SP	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
18D5	1170	2743	0.22	2110	0.25																		
	1750	4463	0.64	4180	0.70	3828	0.77	3124	0.83														
18D6	1170	2834	0.25	2402	0.29																		
	4523	0.75	4297	0.81	4040	0.88	3745	0.94	3403	1.00													
18D7	1170	2671	0.25	2355	0.29	1885	0.32																
	1750	4209	0.74	4038	0.82	3849	0.89	3635	0.95	3390	1.00	3098	1.05										
	3500	8656	5.44	8578	5.60	8498	5.77	8417	5.93	8335	6.09	8250	6.24	8075	6.55	7892	6.84	7698	7.11	7269	7.60	6781	8.04

**VP | Size 21D4, D5, D6, D7**

Wheel Dia.: 21"

Outlet Area: 2.448 ft<sup>2</sup>

Tip Speed: 5.50 x RPM

Fan Efficiency Grade: FEG85 (21D4), FEG85 (21D5), FEG90 (21D6), FEG85 (21D7)

PROP	RPM	0.25" SP		0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		2" SP		2.5" SP		3" SP		4" SP		5" SP	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
21D4	880	2674	0.17																				
	1170	4163	0.36	3333	0.42																		
21D5	1170	6705	1.05	6328	1.18	5852	1.28	5291	1.38	4603	1.43												
	1750	3085	0.21																				
21D6	1170	4550	0.44	3945	0.51																		
	1750	7195	1.34	6885	1.44	6532	1.55	6115	1.66	5651	1.76	5074	1.83										
21D7	880	3222	0.22																				
	1170	4623	0.46	4162	0.54	3532	0.60																
	1750	7221	1.40	6976	1.51	6706	1.62	6392	1.74	6027	1.86	5620	1.95										
21D7	880	3089	0.24	2522	0.29																		
	1170	4353	0.51	4024	0.59	3619	0.65	3057	0.69														
	1750	6750	1.56	6558	1.68	6353	1.80	6132	1.91	5889	2.01	5621	2.10	4982	2.26								

**VP | Size 24D4, D5, D6, D7**

Wheel Dia.: 24"

Outlet Area: 3.191 ft<sup>2</sup>

Tip Speed: 6.28 x RPM

Fan Efficiency Grade: FEG85 (24D4), FEG90 (24D5), FEG90 (24D6), FEG85 (24D7)

PROP	RPM	0.25" SP		0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		2" SP		2.5" SP		3" SP		4" SP		5" SP	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
24D4	880	4462	0.33																				
	1170	6513	0.69	5724	0.80	4662	0.87																
24D5	1170	10244	2.08	9844	2.27	9391	2.45	8846	2.60	8237	2.75	7552	2.88										
	1750	4866	0.36	3700	0.43																		
24D6	1170	6910	0.75	6306	0.87	5483	0.98																
	1750	10735	2.31	10415	2.48	10062	2.65	9656	2.83	9164	3.02	8621	3.18	7282	3.37								
24D7	880	5025	0.41	4238	0.49																		
	1170	7019	0.88	6567	0.99	5992	1.10	5276	1.19														
	1750	10827	2.74	10564	2.90	10282	3.07	9978	3.23	9639	3.40	9257	3.58	8384	3.87	7200	4.04						
24D7	880	4765	0.45	4207	0.52	3381	0.57																
	1170	6602	0.96	6249	1.08	5842	1.18	5360	1.27	4744	1.34												
	1750	10142	2.97	9927	3.16	9701	3.35	9464	3.53	9212	3.69	8942	3.85	8337	4.12	7623	4.36	6639	4.51				

**VP | Size 28D4, D5, D6, D7**

Wheel Dia.: 28"

Outlet Area: 4.353 ft<sup>2</sup>

Tip Speed: 7.33 x RPM

Fan Efficiency Grade: FEG90 (28D4), FEG90 (28D5), FEG85 (28D6), FEG85 (28D7)

PROP	RPM	0.25" SP		0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		2" SP		2.5" SP		3" SP		4" SP		5" SP	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
28D4	880	7383	0.60	5856	0.72																		
	1170	10393	1.25	9605	1.46	8487	1.62	7107	1.71														
	1750	16076	3.81	15651	4.13	15184	4.43	14656	4.73	14008	5.02	13254	5.27	11562	5.64								
28D5	880	8063	0.72	6968	0.87																		
	1170	11182	1.56	10567	1.74	9768	1.94	8796	2.10	7530	2.18												
	1750	17173	4.91	16814	5.17	16430	5.44	16015	5.71	15558	5.98	15030	6.28	13798	6.83	12360	7.20						
28D6	880	8246	0.82	7430	0.96	6321	1.07																
	1170	11347	1.80	10840	1.98	10248	2.16	9530	2.34	8698	2.48	7562	2.56										
	1750	17357	5.71	17048	5.97	16724	6.23	16382	6.49	16020	6.75	15630	7.02	14731	7.59	13698	8.08	12476	8.44				
28D7	880	7961	0.90	7328	1.03	6529	1.14	5356	1.21														
	1170	10904	1.96	10484	2.15	10019	2.33	9487	2.50	8881	2.65	8176	2.77										
	1750	16634	6.21	16373	6.51	16101	6.79	15819	7.07	15524	7.35	15215	7.62	14541	8.13	13777	8.60	12923	9.02	10495	9.50		



**VP | Size 32D4, D5, D6, D7**

Wheel Dia.: 32"

Outlet Area: 5.672 ft<sup>2</sup>

Tip Speed: 8.38 x RPM

Fan Efficiency Grade: FEG90 (32D4), FEG90 (32D5), FEG85 (32D6), FEG85 (32D7)

PROP	RPM	0.25" SP		0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		2" SP		2.5" SP		3" SP		4" SP		5" SP	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
32D4	880	11546	1.13	10135	1.35	8170	1.47																
	1170	15941	2.43	15156	2.73	14147	3.02	12871	3.27	11382	3.43												
32D5	880	12324	1.35	11258	1.56	9803	1.75																
	1170	16886	2.97	16225	3.23	15459	3.51	14494	3.81	13396	4.05	12104	4.22										
	1750	25757	9.45	25354	9.84	24933	10.23	24488	10.63	24016	11.03	23512	11.44	22330	12.31	20924	13.16	19383	13.79				
32D6	880	12560	1.53	11706	1.72	10590	1.93	9184	2.07														
	1170	17129	3.39	16563	3.65	15936	3.91	15208	4.19	14354	4.46	13415	4.69										
	1750	26058	10.86	25706	11.24	25340	11.63	24960	12.01	24563	12.40	24146	12.80	23234	13.60	22167	14.46	20976	15.24	18103	16.31		
32D7	880	11915	1.71	11269	1.92	10519	2.10	9626	2.26	8469	2.38												
	1170	16184	3.78	15734	4.08	15254	4.36	14737	4.63	14168	4.87	13542	5.08	12061	5.48								
	1750	24563	12.09	24276	12.55	23982	13.00	23680	13.44	23369	13.87	23050	14.29	22378	15.11	21653	15.86	20862	16.55	19053	17.81	16675	18.73

**VP | Size 36D4, D5, D6, D7**

Wheel Dia.: 36"

Outlet Area: 7.166 ft<sup>2</sup>

Tip Speed: 9.42 x RPM

Fan Efficiency Grade: FEG90 (36D4), FEG90 (36D5), FEG85 (36D6), FEG80 (36D7)

PROP	RPM	0.25" SP		0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		2" SP		2.5" SP		3" SP		4" SP		5" SP	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
36D4	880	16908	2.01	15599	2.32	13758	2.59	11408	2.72														
	1170	23101	4.39	22281	4.81	21339	5.23	20147	5.64	18741	6.00	17177	6.27										
36D5	880	17812	2.36	16739	2.65	15304	2.96	13573	3.19														
	1170	24226	5.25	23510	5.63	22719	6.01	21811	6.41	20711	6.83	19494	7.20	16518	7.65								
	1750	36790	16.87	36344	17.43	35881	17.99	35400	18.55	34898	19.12	34373	19.69	33232	20.86	31885	22.11	30324	23.35	26812	25.14		
36D6	880	18039	2.76	17189	3.04	16189	3.33	14978	3.61	13544	3.83												
	1170	24434	6.21	23844	6.58	23212	6.95	22530	7.33	21773	7.71	20919	8.11	18967	8.78	16345	9.17						
	1750	37013	20.09	36638	20.64	36252	21.19	35856	21.75	35448	22.31	35027	22.86	34142	23.98	33184	25.11	32118	26.29	29668	28.51	26746	30.16
36D7	880	16937	3.01	16260	3.32	15513	3.61	14667	3.85	13701	4.08	12550	4.27										
	1170	22887	6.74	22404	7.18	21899	7.59	21368	7.99	20804	8.37	20200	8.72	18847	9.33	17252	9.89	15076	10.23				
	1750	34618	21.75	34307	22.41	33990	23.06	33667	23.71	33337	24.34	33000	24.97	32303	26.18	31571	27.35	30796	28.44	29085	30.39	27127	32.15

**VP | Size 42D4, D5, D6**

Wheel Dia.: 42"

Outlet Area: 9.793 ft<sup>2</sup>

Tip Speed: 11.00 x RPM

Fan Efficiency Grade: FEG85 (42D4), FEG90 (42D5), FEG85 (42D6)

PROP	RPM	0.25" SP		0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		2" SP		2.5" SP		3" SP		4" SP		5" SP	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
42D4	880	26744	3.91	25325	4.43	23435	4.91	21092	5.30	18321	5.51												
	1170	36280	8.64	35328	9.35	34282	10.05	33100	10.73	31654	11.37	29964	11.94	26183	12.78								
42D5	880	28687	4.93	27528	5.38	26173	5.85	24459	6.36	22520	6.76	20179	7.01										
	1170	38756	11.13	37949	11.72	37088	12.33	36158	12.93	35137	13.56	33958	14.22	31200	15.48	27995	16.32						
42D6	880	29062	5.70	28090	6.14	27015	6.59	25775	7.06	24331	7.53	22727	7.91										
	1170	39168	12.96	38476	13.54	37751	14.12	36986	14.71	36174	15.31	35301	15.91	33289	17.19	30979	18.31	28259	19.14				

**VP | Size 48D4, D5**

Wheel Dia.: 48"

Outlet Area: 12.76 ft<sup>2</sup>

Tip Speed: 12.57 x RPM

Fan Efficiency Grade: FEG90 (48D4), FEG90 (48D5)

PROP	RPM	0.25" SP		0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		2" SP		2.5" SP		3" SP		4" SP		5" SP	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
48D4	880	40854	7.65	39370	8.42	37659	9.17	35471	9.89	32915	10.52	30051	10.98										
	1170	55107	17.19	54071	18.22	52968	19.25	51782	20.26	50490	21.25	49016	22.24	45388	24.07	41326	25.49	36478	26.21				
48D5	880	43198	9.41	41930	10.08	40530	10.76	38926	11.47	36985	12.23	34832	12.89	29600	13.70								
	1170	58123	21.43	57221	22.31	56275	23.21	55278	24.10	54221	25.01	53091	25.93	50452	27.90	47305	29.82	43864	31.26				

**VP | Size 54D3, D4**

Wheel Dia.: 54"

Outlet Area: 16.12 ft<sup>2</sup>

Tip Speed: 14.14 x RPM

Fan Efficiency Grade: FEG85 (54D3), FEG90 (54D4)

PROP	RPM	0.25" SP		0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		2" SP		2.5" SP		3" SP		4" SP		5" SP	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
54D3	880	55364	11.29	53573	12.61	51547	13.81	49065	14.81	45991	15.55	42671	16.25	35015	16.95								
	1170	74569	25.14	73310	26.96	71977	28.72	70555	30.40	69024	32.00	67340	33.48	63143	35.75	58315	37.66	52894	39.19				
54D4	880	59058	13.90	57481	14.97	55747	16.04	53785	17.09	51385	18.13	48608	19.08	42352	20.44								
	1170	79378	31.56	78255	33.00	77079	34.43	75841	35.85	74531	37.27	73135	38.67	69916	41.45	65914	44.11	61581	46.33	50902	48.57		

**VP | Size 60D3**

Wheel Dia.: 60"

Outlet Area: 19.88 ft<sup>2</sup>

Tip Speed: 15.71 x RPM

Fan Efficiency Grade: FEG85

PROP	RPM	0.25" SP		0.5" SP		0.75" SP		1" SP		1.25" SP		1.5" SP		2" SP		2.5" SP		3" SP		4" SP		5" SP	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
60D3	880	76383	18.69	74454	20.52	72341	22.26	69975	23.85	67109	25.15	63696	26.16	56146	27.99								
	1170	102607	41.98	101230	44.50	99790	46.95	98279	49.33	96683	51.63	94988	53.83	91138	57.76	86292	60.71	80962	63.33	68815	67.10		

Performance certified is for installation Type B: Free inlet, ducted outlet.

Performance ratings do not include the effects of appurtenances (accessories).

# Belt Driven Tubeaxial

**PTABD | Size 12B6 – 12B7** Wheel Dia.: 12"

 Outlet Area: 0.807 ft<sup>2</sup>

Tip Speed: 3.14 x RPM

MODEL	CFM	OV	0.5" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
12B6	800	991																				
	1000	1239	1873	0.16																		
	1200	1487	2073	0.22																		
	1400	1735	2285	0.28	2636	0.46																
	1600	1983	2506	0.36	2831	0.56	3123	0.77														
	1800	2230	2736	0.45	3039	0.68	3309	0.90	3562	1.14												
	2000	2478	2974	0.56	3253	0.81	3509	1.06	3746	1.32	3971	1.59										
	2200	2726	3217	0.69	3474	0.96	3717	1.24	3941	1.52	4155	1.80	4358	2.10								
	2400	2974	3464	0.85	3701	1.13	3931	1.43	4145	1.74	4347	2.04	4542	2.35	4729	2.68						
	2600	3222	3714	1.03	3933	1.32	4149	1.65	4356	1.98	4549	2.31	4733	2.64	4913	2.98	5088	3.33	5250	3.67		
12B7	2800	3470	3967	1.24	4171	1.55	4373	1.89	4570	2.25	4757	2.60	4933	2.96	5104	3.31	5271	3.68	5435	4.05	5589	4.42
	3000	3717	4222	1.47	4413	1.80	4602	2.16	4789	2.53	4969	2.92	5140	3.30	5304	3.68	5463	4.06	5619	4.45		
	800	991	1845	0.18																		
	1000	1239	2121	0.26	2455	0.43																
	1200	1487	2431	0.38	2696	0.55	2979	0.77														
	1400	1735	2750	0.54	2978	0.72	3213	0.94	3456	1.20												
	1600	1983	3071	0.74	3285	0.95	3480	1.16	3689	1.42	3902	1.72	4103	2.02								
	1800	2230	3398	0.98	3601	1.24	3776	1.46	3952	1.71	4139	2.01	4328	2.34	4514	2.68						
	2000	2478	3727	1.26	3921	1.57	4086	1.83	4241	2.08	4401	2.36	4569	2.69	4740	3.06	4909	3.44	5072	3.81		
	2200	2726	4060	1.61	4242	1.96	4403	2.26	4547	2.53	4688	2.81	4834	3.12	4986	3.48	5141	3.88	5296	4.29	5449	4.71
12B7	2400	2974	4396	2.01	4567	2.40	4722	2.76	4861	3.07	4992	3.36	5121	3.67	5254	4.00	5392	4.38	5534	4.81	5676	5.25
	2600	3222	4733	2.48	4894	2.91	5043	3.31	5179	3.67	5304	4.00	5423	4.32	5543	4.65	5664	5.00				
	2800	3470	5072	3.02	5224	3.49	5366	3.93	5499	4.34	5620	4.72										
	3000	3717	5412	3.64	5557	4.15	5692	4.63														

Maximum RPM: Class I = 4455 Class II = 5729

Class I

Class II

**PTABD | Size 15B5 – 15B7** Wheel Dia.: 15"

 Outlet Area: 1.253 ft<sup>2</sup>

Tip Speed: 3.93 x RPM

MODEL	CFM	OV	0.5" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15B5	1400	1117																				
	1600	1277	1557	0.23																		
	1800	1437	1648	0.26																		
	2000	1596	1746	0.31																		
	2400	1915	1951	0.42	2264	0.69																
	2800	2235	2159	0.53	2455	0.86	2710	1.19														
	3200	2554	2377	0.68	2660	1.07	2894	1.42	3115	1.80												
	3600	2873	2608	0.86	2866	1.29	3093	1.71	3296	2.11	3492	2.54	3680	2.99								
	4000	3192	2846	1.09	3074	1.53	3299	2.03	3492	2.47	3673	2.92	3851	3.40	4021	3.90						
	4400	3512	3089	1.36	3292	1.81	3505	2.36	3697	2.89	3868	3.37	4032	3.86	4195	4.39	4351	4.93	4504	5.49		
15B6	4800	3831	3336	1.68	3519	2.15	3713	2.72	3903	3.32	4072	3.88	4228	4.41	4378	4.94	4527	5.50				
	5200	4150	3585	2.05	3753	2.55	3928	3.12	4109	3.77	4278	4.41	4430	5.00								
	5600	4469	3836	2.49	3991	3.00	4150	3.58	4318	4.26	4484	4.97										
	1400	1117	1419	0.21																		
	1600	1277	1511	0.25																		
	1800	1437	1609	0.30																		
	2000	1596	1712	0.36	2015	0.61																
	2400	1915	1925	0.48	2203	0.78	2446	1.09														
	2800	2235	2148	0.64	2407	1.00	2630	1.34	2837	1.70												
	3200	2554	2383	0.84	2618	1.24	2829	1.64	3022	2.03	3204	2.44										
15B7	3600	2873	2625	1.09	2836	1.52	3037	1.98	3218	2.42	3389	2.86	3554	3.33								
	4000	3192	2873	1.40	3061	1.84	3250	2.36	3424	2.86	3585	3.35	3739	3.84	3890	4.35	4031	4.87				
	4400	3512	3124	1.76	3295	2.24	3468	2.78	3636	3.35	3791	3.89	3936	4.42	4077	4.96	4216	5.52	4348	6.09	4474	6.67
	4800	3831	3379	2.20	3535	2.70	3693	3.26	3851	3.87	4002	4.49	4142	5.08	4276	5.67	4405	6.25	4533	6.85		
	5200	4150	3635	2.70	3780	3.24	3924	3.82	4071	4.46	4215	5.13	4353	5.80	4482	6.44						
	5600	4469	3893	3.28	4028	3.85	4162	4.46	4297	5.12	4433	5.83										
	1400	1117	1476	0.27																		
	1600	1277	1590	0.33																		
	1800	1437	1714	0.40	1992	0.67																
	2000	1596	1846	0.49	2098	0.77	2332	1.08														
15B7	2400	1915	2120	0.72	2333	1.02	2542	1.38	2741	1.75												
	2800	2235	2401	1.01	2591	1.36	2772	1.73	2951	2.15	3126	2.59	3283	3.01								
	3200	2554	2689	1.38	2863	1.79	3023	2.19	3181	2.62	3338	3.10	3493	3.60	3640	4.10						
	3600	2873	2980	1.84	3142	2.31	3288	2.76	3429	3.21	3569	3.70	3710	4.24	3848	4.79	3984	5.36	4112	5.91		
	4000	3192	3276	2.40	3424	2.92	3562	3.43	3691	3.93	3817	4.43	3944	4.98	4071	5.56	4196	6.17	4320	6.80	4442	7.43
	4400	3512	3574	3.06	3711	3.65	3841	4.22	3963	4.77	4079	5.32	4193	5.87	4309	6.47	4424	7.10	4538	7.76		
	4800	3831	3874	3.86	4002	4.50	4124	5.13	4239	5.74	4349	6.34	4455	6.93								
	5200	4150	4176	4.78	4295	5.48	4409	6.16	4519	6.84												
	5600	4469	4479	5.85																		

Maximum RPM: Class I = 3540 Class II = 4552

Class I

Class II

**PTABD | Size 18B4 – 18B7**

Wheel Dia.: 18"

Outlet Area: 1.799 ft<sup>2</sup>

Tip Speed: 4.71 x RPM

MODEL	CFM	OV	0.5" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
18B4	2000	1112	1334	0.26																		
	3000	1668	1603	0.44	1926	0.80																
	4000	2223	1925	0.70	2194	1.14	2437	1.61	2669	2.11												
	5000	2779	2276	1.09	2507	1.61	2717	2.16	2913	2.74	3105	3.34	3291	3.96								
	6000	3335	2648	1.62	2839	2.22	3031	2.87	3207	3.53	3373	4.20	3534	4.90	3695	5.62						
	7000	3891	3031	2.34	3193	3.01	3359	3.73	3523	4.49	3676	5.26										
	8000	4447	3421	3.28	3562	4.02	3705	4.80														
9000	5003																					
18B5	2000	1112																				
	3000	1668	1490	0.48	1772	0.83																
	4000	2223	1789	0.76	2037	1.23	2250	1.69														
	5000	2779	2111	1.15	2333	1.75	2524	2.32	2697	2.89	2864	3.50										
	6000	3335	2456	1.72	2636	2.36	2821	3.12	2981	3.81	3128	4.47	3271	5.16	3410	5.89	3544	6.65				
	7000	3891	2811	2.50	2962	3.18	3121	4.00	3279	4.88	3419	5.70	3549	6.47	3673	7.25						
	8000	4447	3173	3.51	3304	4.25	3437	5.08	3579	6.05	3717	7.06										
9000	5003	3539	4.78	3655	5.59	3772	6.47															
18B6	2000	1112																				
	3000	1668	1460	0.53	1713	0.90																
	4000	2223	1769	0.87	1992	1.37	2184	1.86														
	5000	2779	2106	1.37	2295	1.98	2470	2.60	2626	3.20	2776	3.82	2915	4.46								
	6000	3335	2458	2.09	2614	2.75	2773	3.51	2920	4.27	3054	4.98	3181	5.70	3307	6.45	3425	7.21				
	7000	3891	2820	3.07	2953	3.79	3088	4.60	3224	5.50	3353	6.40	3471	7.24	3584	8.07	3693	8.91				
	8000	4447	3188	4.35	3304	5.14	3420	6.00	3539	6.95	3658	7.97	3773	9.01								
9000	5003	3559	5.96	3662	6.84	3765	7.76															
18B7	2000	1112	1197	0.35																		
	3000	1668	1520	0.66	1743	1.07																
	4000	2223	1886	1.18	2065	1.68	2233	2.21	2395	2.78	2541	3.35										
	5000	2779	2271	1.96	2422	2.57	2564	3.20	2700	3.85	2833	4.55	2962	5.26	3085	5.97						
	6000	3335	2667	3.06	2797	3.79	2921	4.53	3039	5.28	3154	6.05	3267	6.85	3378	7.69	3486	8.54	3592	9.40		
	7000	3891	3070	4.56	3184	5.41	3293	6.26	3399	7.12	3501	7.99	3601	8.88	3699	9.79						
	8000	4447	3478	6.52	3578	7.47	3676	8.44	3771	9.42												
9000	5003																					

Maximum RPM: Class I = 2949 Class II = 3792

Class I Class II

**PTABD | Size 21B4 – 21B7**

Wheel Dia.: 21"

Outlet Area: 2.448 ft<sup>2</sup>

Tip Speed: 5.50 x RPM

MODEL	CFM	OV	0.5" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
21B4	3000	1225	1166	0.40																		
	4000	1634	1339	0.59	1614	1.06																
	5000	2042	1536	0.84	1773	1.39	1991	2.00														
	6000	2451	1743	1.15	1961	1.82	2150	2.49	2332	3.21												
	7000	2859	1964	1.57	2158	2.33	2334	3.10	2495	3.89	2652	4.72	2805	5.59								
	8000	3268	2194	2.10	2362	2.92	2529	3.82	2679	4.70	2820	5.59	2959	6.53	3095	7.51	3227	8.51				
	10000	4085	2669	3.59	2800	4.53	2935	5.56	3072	6.69	3200	7.81										
	12000	4902	3156	5.75	3264	6.82																
21B5	3000	1225	1091	0.42																		
	4000	1634	1262	0.63																		
	5000	2042	1449	0.90	1667	1.47	1860	2.08														
	6000	2451	1643	1.22	1849	1.95	2020	2.62	2182	3.35												
	7000	2859	1851	1.66	2036	2.49	2199	3.31	2345	4.09	2486	4.93										
	8000	3268	2068	2.23	2227	3.10	2387	4.11	2524	5.01	2651	5.89	2777	6.84	2896	7.82						
	10000	4085	2517	3.84	2639	4.79	2767	5.91	2889	7.18	3020	8.39	3129	9.51	3232	10.61						
	12000	4902	2976	6.17	3077	7.25	3179	8.42														
21B6	3000	1225	1058	0.45																		
	4000	1634	1235	0.69	1457	1.18																
	5000	2042	1425	0.99	1626	1.60	1801	2.22														
	6000	2451	1626	1.38	1812	2.14	1969	2.85	2117	3.59												
	3000	2859	1839	1.92	2002	2.76	2153	3.63	2287	4.46	2415	5.31	2535	6.19								
	4000	3268	2059	2.61	2199	3.49	2342	4.52	2470	5.50	2588	6.44	2700	7.39	2811	8.40	2914	9.42				
	5000	4085	2512	4.54	2623	5.55	2735	6.67	2850	7.93	2961	9.22	3064	10.45	3159	11.62	3252	12.80				
	6000	4902	2975	7.36	3066	8.51	3158	9.74	3251	11.06												
21B7	3000	1225	1078	0.54																		
	4000	1634	1284	0.86	1478	1.41																
	5000	2042	1511	1.34	1675	1.97	1829	2.66	1972	3.38												
	6000	2451	1750	1.99	1892	2.73	2026	3.51	2155	4.33	2280	5.20	2393	6.04								
	7000	2859	1995	2.85	2121	3.71	2240	4.58	2355	5.49	2466	6.45	2574	7.44	2680	8.45	2776	9.43				
	8000	3268	2244	3.96	2357	4.93	2465	5.91	2568	6.92	2669	7.96	2767	9.04	2863	10.15	2957	11.29	3050	12.45	3136	13.58
	10000	4085	2752	7.06	2846	8.26	2936	9.48	3023	10.70	3107	11.94	3190	13.20	3271	14.48						
	12000	4902	3268	11.57																		

Maximum RPM: Class I = 2526 Class II = 3274

Class I Class II

**PTABD | Size 24B4 – 24B7**

Wheel Dia.: 24"

Outlet Area: 3.191 ft<sup>2</sup>

Tip Speed: 6.28 x RPM

MODEL	CFM	OV	0.5" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
24B4	5000	1567	1132	0.72																		
	6000	1880	1261	0.96	1476	1.64																
	7000	2194	1394	1.24	1593	2.02	1771	2.84														
	8000	2507	1533	1.57	1720	2.48	1881	3.36	2037	4.33	2186	5.34										
	10000	3134	1831	2.50	1984	3.55	2133	4.70	2265	5.80	2391	6.93	2515	8.13	2636	9.38						
	12000	3761	2143	3.82	2267	4.98	2397	6.31	2522	7.69	2635	9.01	2743	10.34	2848	11.70						
	14000	4387	2462	5.61	2568	6.91	2676	8.32	2787	9.88												
	16000	5014	2785	7.95																		
24B5	5000	1567	1077	0.76																		
	6000	1880	1202	1.02	1399	1.71																
	7000	2194	1328	1.31	1514	2.13	1676	2.95														
	8000	2507	1460	1.65	1638	2.63	1786	3.52	1926	4.48												
	10000	3134	1744	2.64	1891	3.77	2032	5.00	2153	6.10	2268	7.23	2381	8.45	2489	9.71						
	12000	3761	2041	4.05	2159	5.25	2284	6.69	2403	8.19	2509	9.55	2607	10.86	2703	12.22	2798	13.65				
	14000	4387	2346	5.99	2445	7.29	2548	8.76	2655	10.47	2760	12.25	2855	13.90								
	16000	5014	2654	8.50	2741	9.94	2829	11.50														
24B6	5000	1567	1053	0.85																		
	6000	1880	1180	1.15	1359	1.88																
	7000	2194	1312	1.50	1480	2.38	1625	3.22														
	8000	2507	1451	1.94	1607	2.95	1742	3.92	1868	4.90												
	10000	3134	1744	3.19	1869	4.32	1994	5.61	2106	6.83	2209	8.02	2310	9.25	2405	10.52						
	12000	3761	2047	4.98	2150	6.22	2256	7.66	2360	9.20	2458	10.71	2548	12.15	2634	13.57	2718	15.02	2802	16.55		
	14000	4387	2356	7.41	2445	8.81	2533	10.32	2624	12.00	2714	13.80	2801	15.60								
	16000	5014	2669	10.60	2746	12.15	2824	13.80														
24B7	5000	1567	1091	1.04	1267	1.74																
	6000	1880	1240	1.47	1393	2.25	1537	3.11														
	7000	2194	1397	2.03	1532	2.90	1661	3.85	1783	4.85												
	8000	2507	1557	2.72	1680	3.71	1796	4.74	1907	5.84	2014	6.98	2114	8.12								
	10000	3134	1888	4.63	1991	5.85	2088	7.08	2182	8.36	2273	9.68	2362	11.05	2448	12.45	2533	13.89	2614	15.32		
	12000	3761	2227	7.38	2315	8.82	2399	10.28	2481	11.77	2559	13.26	2637	14.81	2713	16.40	2787	18.03				
	14000	4387	2570	11.11	2646	12.77	2721	14.48	2793	16.19												
	16000	5014																				

Maximum RPM: Class I = 2220 Class II = 2855

Class I

Class II

**PTABD | Size 28B4 – 28B7**

Wheel Dia.: 28"

Outlet Area: 4.353 ft<sup>2</sup>

Tip Speed: 7.33 x RPM

MODEL	CFM	OV	0.5" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
28B4	6000	1378	919	0.82																		
	8000	1838	1078	1.26	1267	2.17																
	10000	2297	1248	1.82	1416	2.93	1565	4.08	1708	5.32												
	12000	2757	1431	2.58	1581	3.90	1715	5.23	1839	6.59	1960	8.04	2077	9.55								
	14000	3216	1624	3.61	1752	5.05	1878	6.62	1991	8.16	2098	9.73	2204	11.39	2307	13.11	2407	14.88				
	16000	3676	1822	4.93	1932	6.47	2046	8.22	2155	10.03	2254	11.79	2349	13.57								
	18000	4135	2025	6.60	2121	8.26	2221	10.11	2323	12.14	2419	14.16										
20000	4595	2229	8.62	2316	10.44	2404	12.39															
28B5	6000	1378	863	0.86																		
	8000	1838	1017	1.35	1188	2.26																
	10000	2297	1176	1.93	1334	3.12	1469	4.27														
	12000	2757	1348	2.73	1492	4.19	1615	5.55	1727	6.91	1835	8.38										
	14000	3216	1531	3.83	1652	5.37	1772	7.12	1876	8.69	1972	10.24	2067	11.91	2158	13.65						
	16000	3676	1718	5.25	1821	6.85	1931	8.81	2033	10.77	2124	12.57	2210	14.34	2293	16.16	2376	18.11				
	18000	4135	1909	7.04	1999	8.74	2094	10.74	2192	13.01	2282	15.21	2364	17.25								
20000	4595	2102	9.24	2183	11.07	2266	13.11	2353	15.46													
28B6	6000	1378	841	0.94																		
	8000	1838	997	1.48	1154	2.44																
	10000	2297	1162	2.17	1306	3.43	1428	4.61	1541	5.87												
	12000	2757	1339	3.15	1465	4.61	1580	6.09	1682	7.50	1780	8.99										
	14000	3216	1524	4.47	1631	6.03	1739	7.84	1835	9.53	1924	11.17	2010	12.86	2092	14.61	2170	16.40				
	16000	3676	1713	6.18	1805	7.84	1901	9.79	1994	11.85	2079	13.80	2158	15.67	2234	17.56	2309	19.52	2381	21.53		
	18000	4135	1906	8.35	1987	10.13	2070	12.13	2156	14.41	2239	16.74	2315	18.95	2387	21.08						
20000	4595	2100	11.00	2174	12.95	2247	15.04	2323	17.37	2400	19.92											
28B7	6000	1378	851	1.08																		
	8000	1838	1024	1.76	1165	2.79	1292	3.88														
	10000	2297	1210	2.73	1332	3.99	1443	5.29	1548	6.63												
	12000	2757	1406	4.10	1510	5.55	1610	7.09	1703	8.64	1792	10.22	1878	11.86								
	14000	3216	1607	5.94	1698	7.57	1786	9.30	1871	11.11	1952	12.91	2029	14.72	2105	16.60	2179	18.51	2248	20.42		
	16000	3676	1812	8.32	1892	10.13	1971	12.05	2048	14.06	2122	16.10	2194	18.17	2263	20.24	2330	22.32	2396	24.46		
	18000	4135	2019	11.31	2091	13.33	2162	15.43	2231	17.60	2299	19.86	2366	22.17	2431	24.50						
20000	4595	2227	14.98	2293	17.21	2357	19.50	2420	21.85													

Maximum RPM: Class I = 1895 Class II = 2436

Class I

Class II



**PTABD | Size 32B4 – 32B7**

Wheel Dia.: 32"

Outlet Area: 5.672 ft<sup>2</sup>

Tip Speed: 8.38 x RPM

MODEL	CFM	OV	0.5" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
32B4	8000	1410	804	1.11																		
	10000	1763	909	1.54	1078	2.70																
	12000	2116	1020	2.07	1172	3.41	1309	4.84														
	14000	2468	1136	2.71	1278	4.30	1400	5.85	1518	7.55												
	16000	2821	1260	3.53	1388	5.31	1503	7.09	1609	8.90	1712	10.82	1812	12.83								
	20000	3526	1519	5.82	1619	7.81	1723	10.09	1818	12.34	1906	14.55	1990	16.79	2073	19.14						
	24000	4231	1786	9.09	1869	11.34	1953	13.80	2040	16.54	2123	19.30										
	28000	4937	2058	13.54	2129	16.07																
32B5	8000	1410	763	1.16																		
	10000	1763	866	1.64	1019	2.80																
	12000	2116	972	2.20	1113	3.57	1237	5.01														
	14000	2468	1082	2.85	1217	4.56	1329	6.12	1435	7.82												
	16000	2821	1199	3.72	1323	5.65	1430	7.49	1526	9.27	1620	11.23										
	20000	3526	1446	6.16	1542	8.23	1642	10.73	1732	13.12	1812	15.32	1889	17.55	1965	19.92	2038	22.37				
	24000	4231	1702	9.69	1779	11.94	1860	14.56	1944	17.56	2023	20.55	2094	23.29								
	28000	4937	1962	14.51	2028	17.03	2095	19.78														
32B6	8000	1410	745	1.25																		
	10000	1763	849	1.78	991	2.97																
	12000	2116	957	2.40	1088	3.86	1202	5.31														
	14000	2468	1070	3.18	1193	4.95	1297	6.57	1395	8.29												
	16000	2821	1189	4.20	1300	6.15	1400	8.11	1489	9.96	1575	11.91	1656	13.96								
	20000	3526	1438	7.06	1524	9.17	1614	11.69	1698	14.23	1773	16.56	1844	18.87	1914	21.26	1982	23.76	2046	26.29		
	24000	4231	1695	11.20	1766	13.56	1838	16.19	1913	19.2	1986	22.32	2053	25.27	2116	28.09						
	28000	4937	1955	16.83	2016	19.49	2077	22.34														
32B7	8000	1410	760	1.51																		
	10000	1763	878	2.21	1002	3.53																
	12000	2116	1005	3.17	1114	4.70	1215	6.32	1308	7.99												
	14000	2468	1137	4.42	1234	6.16	1324	7.96	1410	9.86	1493	11.84										
	16000	2821	1273	6.03	1359	7.96	1441	9.97	1520	12.07	1595	14.23	1668	16.46	1737	18.69						
	20000	3526	1550	10.43	1622	12.81	1690	15.22	1757	17.73	1821	20.27	1884	22.90	1945	25.57	2005	28.32				
	24000	4231	1834	16.83	1894	19.61	1953	22.47	2010	25.36	2066	28.32										
	28000	4937	2120	25.55																		

Maximum RPM: Class I = 1659 Class II = 2132

Class I Class II

**PTABD | Size 36B4 – 36B7**

Wheel Dia.: 36"

Outlet Area: 7.166 ft<sup>2</sup>

Tip Speed: 9.42 x RPM

MODEL	CFM	OV	0.5" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
36B4	10000	1395	706	1.39																		
	12000	1675	777	1.80	931	3.22																
	14000	1954	854	2.31	993	3.88																
	16000	2233	932	2.87	1063	4.67	1180	6.54														
	20000	2791	1100	4.36	1215	6.62	1317	8.85	1411	11.11	1503	13.55	1591	16.08								
	24000	3349	1279	6.52	1374	8.99	1469	11.77	1555	14.46	1635	17.13	1712	19.89	1788	22.79	1862	25.79				
	28000	3907	1464	9.42	1543	12.08	1626	15.16	1708	18.45	1782	21.57	1852	24.65								
32000	4466	1652	13.19	1721	16.13	1791	19.33	1864	22.92													
36B5	10000	1395	674	1.44																		
	12000	1675	745	1.90	886	3.33																
	14000	1954	820	2.44	949	4.03																
	16000	2233	895	3.03	1018	4.90	1125	6.76														
	20000	2791	1056	4.59	1167	7.02	1262	9.30	1349	11.56	1432	13.99										
	24000	3349	1228	6.88	1318	9.45	1410	12.47	1490	15.21	1564	17.87	1635	20.62	1705	23.58	1772	26.60				
	28000	3907	1406	9.99	1481	12.71	1561	16.00	1639	19.52	1710	22.81	1774	25.87	1836	28.96						
32000	4466	1587	14.04	1652	17.00	1719	20.33	1789	24.18	1859	28.27											
36B6	10000	1395	656	1.60																		
	12000	1675	730	2.13	856	3.60																
	14000	1954	806	2.75	923	4.45	1026	6.23														
	16000	2233	885	3.48	996	5.48	1092	7.42														
	20000	2791	1053	5.49	1148	7.92	1235	10.42	1313	12.79	1388	15.28	1458	17.85								
	24000	3349	1229	8.37	1307	10.99	1386	14.03	1460	17.07	1527	19.94	1591	22.82	1653	25.78	1713	28.87				
	28000	3907	1410	12.28	1477	15.18	1544	18.41	1612	22.00	1676	25.56	1736	28.98	1792	32.29	1847	35.66				
32000	4466	1594	17.39	1652	20.57	1710	23.99	1769	27.78	1829	31.90	1887	36.06									
36B7	10000	1395	675	1.93																		
	12000	1675	760	2.64	871	4.26																
	14000	1954	850	3.56	949	5.37	1042	7.33														
	16000	2233	943	4.71	1032	6.70	1117	8.87	1197	11.13	1271	13.41										
	20000	2791	1135	7.82	1211	10.28	1282	12.79	1350	15.41	1416	18.16	1481	21.04	1542	23.88						
	24000	3349	1334	12.27	1399	15.18	1460	18.11	1520	21.14	1577	24.20	1634	27.45	1689	30.75	1743	34.14	1796	37.58	1847	41.02
	28000	3907	1535	18.25	1592	21.62	1647	25.05	1699	28.46	1750	31.94	1800	35.49	1850	39.19						
32000	4466	1739	26.09	1789	29.90	1838	33.77	1886	37.71													

Maximum RPM: Class I = 1474 Class II = 1895

Class I Class II

**PTABD | Size 42B4 – 42B6**

Wheel Dia.: 42"

Outlet Area: 9.793 ft<sup>2</sup>

Tip Speed: 11.00 x RPM

MODEL	CFM	OV	0.5" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
42B4	14000	1430	624	1.95																		
	16000	1634	670	2.35	807	4.26																
	18000	1838	718	2.82	844	4.86																
	20000	2042	768	3.34	887	5.58	995	7.99														
	24000	2451	871	4.59	980	7.27	1075	9.96	1166	12.85												
	28000	2859	982	6.27	1079	9.30	1167	12.41	1247	15.53	1326	18.87	1402	22.34								
	32000	3268	1097	8.41	1181	11.67	1265	15.30	1339	18.79	1410	22.38	1479	26.11	1547	30.01	1614	34.08				
	36000	3676	1215	11.10	1288	14.56	1364	18.50	1437	22.58	1503	26.53	1566	30.53	1628	34.67						
	40000	4085	1335	14.39	1400	18.10	1468	22.27	1536	26.75	1600	31.23										
	44000	4493	1456	18.33	1515	22.33	1575	26.65														
48000	4901	1578	22.99	1632	27.28																	
42B5	14000	1430	586	2.04																		
	16000	1634	631	2.51																		
	18000	1838	678	3.03	792	5.09																
	20000	2042	725	3.59	833	5.86	930	8.31														
	24000	2451	821	4.87	924	7.78	1010	10.46	1091	13.39												
	28000	2859	925	6.62	1018	9.98	1100	13.25	1172	16.33	1243	19.72										
	32000	3268	1034	8.92	1114	12.43	1193	16.42	1262	20.04	1326	23.60	1388	27.33	1448	31.28						
	36000	3676	1145	11.80	1214	15.41	1287	19.81	1356	24.28	1416	28.28	1473	32.25	1529	36.38	1584	40.74				
	40000	4085	1258	15.33	1320	19.18	1384	23.65	1449	28.67	1510	33.57	1564	38.02	1616	42.43						
	44000	4493	1373	19.62	1428	23.67	1485	28.23	1544	33.46	1604	39.12										
48000	4901	1488	24.67	1538	28.96	1590	33.72															
42B6	14000	1430	572	2.23																		
	16000	1634	618	2.76	728	4.70																
	18000	1838	665	3.34	770	5.50																
	20000	2042	713	3.97	813	6.40	900	8.86														
	24000	2451	813	5.54	906	8.57	985	11.41	1058	14.34												
	28000	2859	919	7.66	1001	11.04	1076	14.52	1143	17.80	1207	21.20	1267	24.75								
	32000	3268	1030	10.45	1100	13.98	1171	18.08	1235	22.00	1294	25.76	1350	29.55	1405	33.56	1457	37.66				
	36000	3676	1142	13.91	1204	17.67	1267	22.00	1330	26.70	1386	31.05	1439	35.29	1489	39.48	1539	43.89	1587	48.40		
	40000	4085	1256	18.17	1311	22.17	1367	26.64	1425	31.73	1481	36.93	1532	41.81	1580	46.52						
	44000	4493	1371	23.31	1421	27.60	1472	32.30	1524	37.53	1576	43.16	1626	48.82								
48000	4901	1487	29.41	1533	34.02	1579	38.94	1626	44.28													

Maximum RPM: Class I = 1272 Class II = 1635

Class I

Class II

**PTABD | Size 48B4 – 48B5**

Wheel Dia.: 48"

Outlet Area: 12.77 ft<sup>2</sup>

Tip Speed: 12.57 x RPM

MODEL	CFM	OV	0.5" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
48B4	20000	1566	566	2.90																		
	24000	1879	630	3.84	738	6.56																
	28000	2193	697	4.95	796	8.07	886	11.38														
	32000	2506	766	6.27	860	9.91	941	13.47	1018	17.28	1093	21.36										
	36000	2819	840	7.95	925	11.93	1002	15.96	1072	19.99	1141	24.32	1208	28.87								
	40000	3132	915	9.97	992	14.21	1066	18.78	1132	23.18	1196	27.77	1258	32.57	1318	37.52						
	44000	3446	993	12.42	1062	16.86	1132	21.89	1196	26.83	1255	31.67	1312	36.65	1369	41.93	1424	47.32				
	48000	3759	1071	15.26	1134	19.93	1198	25.20	1261	30.77	1318	36.09	1372	41.40	1424	46.80						
	52000	4072	1151	18.62	1208	23.50	1267	28.99	1327	35.00	1382	40.84										
	56000	4385	1231	22.46	1284	27.62	1338	33.27	1394	39.57												
	60000	4699	1312	26.86	1361	32.28	1411	38.15														
	64000	5012	1393	31.82																		
48B5	20000	1566	538	3.05																		
	24000	1879	601	4.10	700	6.84																
	28000	2193	664	5.24	757	8.50	838	11.79														
	32000	2506	730	6.62	819	10.52	893	14.07	963	17.92												
	36000	2819	800	8.39	882	12.72	953	16.84	1018	20.90	1080	25.26										
	40000	3132	872	10.55	945	15.05	1016	20.00	1077	24.45	1134	28.91	1190	33.74	1244	38.79						
	44000	3446	946	13.16	1011	17.77	1079	23.31	1139	28.47	1193	33.30	1245	38.24	1297	43.60	1346	49.04				
	48000	3759	1021	16.24	1079	20.95	1142	26.77	1202	32.79	1254	38.16	1304	43.51	1352	48.93	1399	54.60				
	52000	4072	1096	19.78	1150	24.76	1207	30.64	1264	37.17	1317	43.48	1365	49.32	1410	54.98						
	56000	4385	1173	23.95	1223	29.19	1274	35.06	1328	41.93	1380	48.99	1428	55.65								
	60000	4699	1250	28.68	1296	34.13	1343	40.14	1393	47.12												
	64000	5012	1327	34.02	1370	39.73	1414	45.97														

Maximum RPM: Class I = 1272 Class II = 1635

Class I

Class II

**PTABD | Size 54B3 – 54B4**

Wheel Dia.: 54"

Outlet Area: 16.12 ft<sup>2</sup>

Tip Speed: 14.14 x RPM

MODEL	CFM	OV	0.5" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
54B3	24000	1489	512	3.31																		
	28000	1737	558	4.12	665	7.37																
	32000	1985	606	5.09	704	8.68	795	12.54														
	36000	2233	656	6.26	747	10.13	830	14.33	910	18.77												
	40000	2481	709	7.67	793	11.79	870	16.34	945	21.15	1016	26.12										
	44000	2730	764	9.33	842	13.76	914	18.56	982	23.66	1050	29.00	1114	34.44								
	48000	2978	819	11.21	891	15.94	960	21.03	1024	26.44	1086	32.06	1148	37.89	1207	43.83						
	52000	3226	876	13.40	943	18.49	1008	23.83	1069	29.53	1127	35.47	1185	41.68	1241	47.88						
	56000	3474	934	15.92	995	21.27	1057	26.95	1115	32.86	1171	39.17	1225	45.68								
	60000	3722	992	18.75	1049	24.43	1107	30.40	1163	36.60	1216	43.11	1268	49.99								
	64000	3970	1051	21.96	1104	27.93	1158	34.19	1212	40.73	1263	47.48										
	68000	4218	1110	25.52	1161	31.90	1211	38.44	1262	45.26												
	72000	4467	1170	29.54	1217	36.15	1265	43.09														
	76000	4715	1230	33.97																		
	80000	4963																				
54B4	24000	1489	486	3.42																		
	28000	1737	529	4.29	629	7.54																
	32000	1985	575	5.32	667	8.91	751	12.84														
	36000	2233	621	6.44	709	10.52	786	14.69														
	40000	2481	670	7.79	753	12.35	825	16.81	894	21.66												
	44000	2730	720	9.36	799	14.39	867	19.25	931	24.29	993	29.69										
	48000	2978	773	11.28	845	16.56	911	21.96	971	27.27	1030	32.97	1086	38.84								
	52000	3226	826	13.46	892	18.93	957	24.98	1014	30.67	1069	36.54	1122	42.65	1174	49.07	1225	55.73				
	56000	3474	880	15.97	940	21.58	1002	28.05	1059	34.42	1111	40.59	1161	46.91	1211	53.64	1259	60.50				
	60000	3722	935	18.84	990	24.62	1049	31.45	1104	38.36	1155	45.06	1203	51.71	1249	58.46						
	64000	3970	990	22.05	1042	28.13	1096	35.06	1150	42.55	1200	49.84	1246	56.85								
	68000	4218	1045	25.62	1094	31.97	1144	39.01	1196	46.92	1245	54.81										
	72000	4467	1101	29.65	1147	36.25	1194	43.49	1243	51.62												
	76000	4715	1158	34.19	1201	41.02	1245	48.44														
	80000	4963	1214	39.07	1255	46.20																

Maximum RPM: Class I = 990 Class II = 1273

Class I

Class II

**PTABD | Size 60B3**

Wheel Dia.: 60"

Outlet Area: 19.87 ft<sup>2</sup>

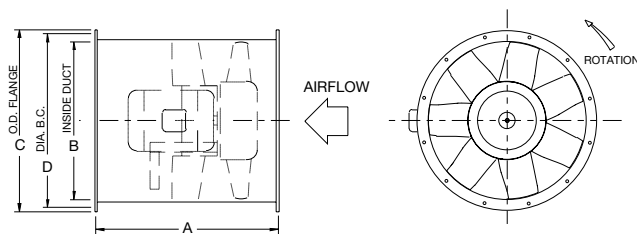
Tip Speed: 15.71 x RPM

MODEL	CFM	OV	0.5" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		3.5" SP		4" SP		4.5" SP		5" SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60B3	24000	1208	421	3.16																		
	28000	1409	448	3.79																		
	32000	1610	480	4.53	583	8.37																
	36000	1812	514	5.39	608	9.54																
	40000	2013	550	6.43	637	10.87	719	15.72														
	44000	2214	587	7.62	669	12.35	744	17.49	816	22.91												
	48000	2416	625	8.97	702	13.96	773	19.49	841	25.22												
	52000	2617	664	10.51	737	15.81	804	21.62	868	27.75	930	34.04										
	56000	2818	704	12.26	773	17.89	836	23.87	897	30.41	956	37.10	1013	43.94								
	60000	3020	745	14.23	809	20.14	870	26.42	928	33.24	983	40.23	1038	47.46	1091	54.86						
	64000	3221	787	16.47	846	22.63	905	29.23	960	36.25	1013	43.64	1065	51.25	1116	58.95						
	68000	3422	829	18.94	885	25.47	941	32.34	994	39.60	1045	47.33	1094	55.24	1142	63.23						
	72000	3624	871	21.64	924	28.51	977	35.66	1029	43.26	1077	51.10	1124	59.32								
	76000	3825	914	24.68	964	31.86	1014	39.29	1064	47.15	1111	55.30										
	80000	4026	957	27.99	1004	35.44	1052	43.27	1100	51.41	1146	59.86										
	84000	4227	1000	31.60	1045	39.39	1090	47.46	1136	55.90												
	88000	4429	1043	35.51	1086	43.62	1130	52.17														
	92000	4630	1087	39.85	1128	48.28																
	96000	4831	1131	44.54																		

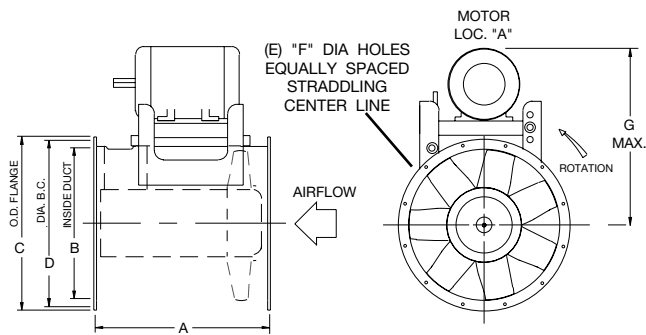
Maximum RPM: Class I = 891 Class II = 1146

Class I

Class II



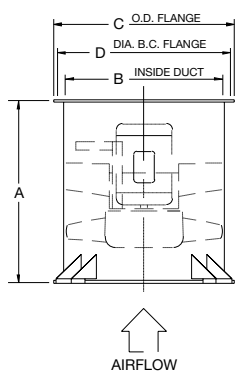
**ARR. 4 - HORIZONTAL**



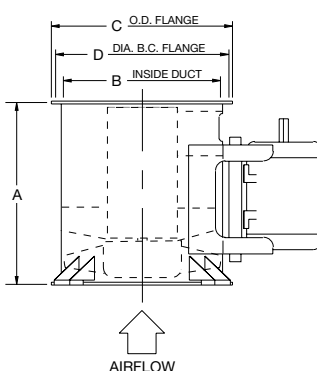
**ARR. 9 - HORIZONTAL**

### HORIZONTAL DISCHARGES

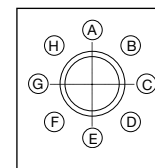
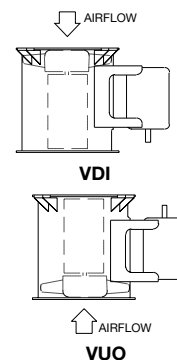
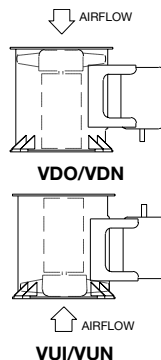
**HOR** = Horizontal - No Clips or Legs    **HCH** = Horizontal Ceiling Hung with Suspension Clips    **HBM** = Horizontal Base Mounted with Support Legs



**ARR. 4 - VERTICAL**



**ARR. 9 - VERTICAL**



**HORIZONTAL MOTOR LOCATIONS (VIEWED FROM FAN OUTLET)**

### VERTICAL DISCHARGES

**VDO** = Vertical Down Floor Mounted With Legs  
**VDN** = Vertical Down Discharge Without Legs  
**VDI** = Vertical Down Ceiling Hung With Legs

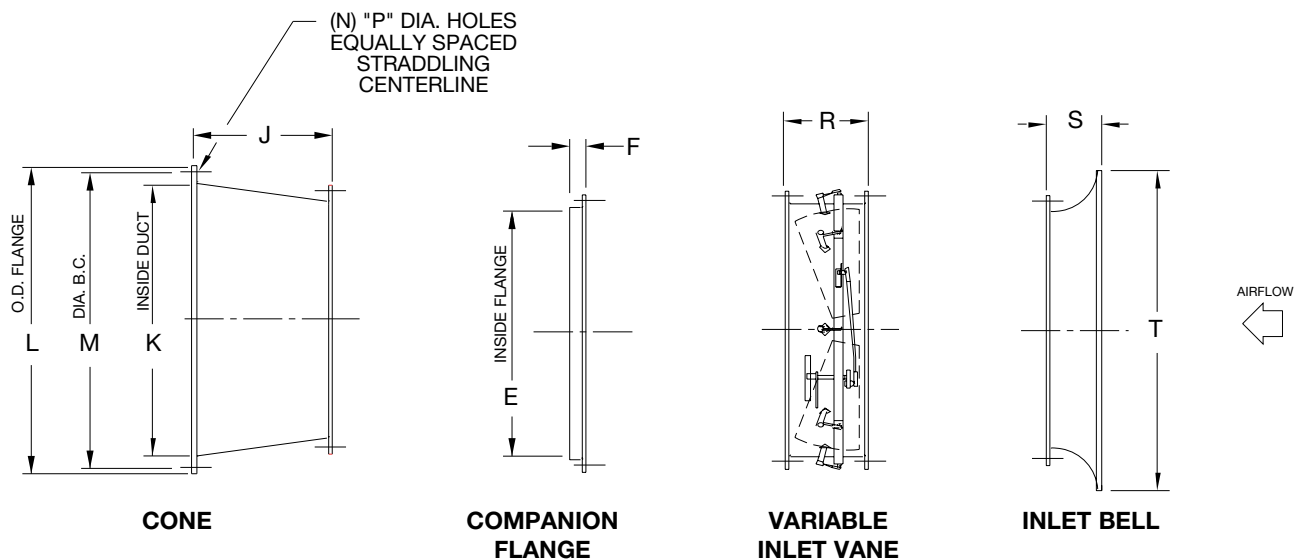
**VUI** = Vertical Up Floor Mounted With Legs  
**VUN** = Vertical Up Discharge Without Legs  
**VUO** = Vertical Up Ceiling Hung With Legs

FAN SIZE	A				B	C	D	E	F	G (MAX.)	MAXIMUM MOTOR FRAME									
	ARR. 9 - HUB RATIO		ARR. 4 - HUB RATIO								ARR. 9 - HUB RATIO					ARR. 4 - HUB RATIO				
	3-5	6-7	3-5	6-7							3	4	5	6	7	3	4	5	6	7
12	NA	24.50	NA	24.5	12.16	15.16	13.88	8	0.44	19.25	NA	NA	NA	184T	184T	NA	NA	NA	NA	145T
15	22.00	27.00	NA	27.00	15.16	18.16	16.88	8	0.44	20.50	NA	NA	215T	215T	215T	NA	NA	NA	145T	184T
18	24.50	28.00	24.50	28.00	18.16	21.16	19.88	8	0.44	27.50	NA	215T	215T	215T	215T	NA	NA	145T	184T	215T
21	27.00	32.00	27.00	32.00	21.19	24.19	22.88	8	0.44	31.75	NA	256T	256T	256T	256T	NA	145T	184T	215T	215T
24	28.00	36.25	28.00	36.25	24.19	27.19	25.88	12	0.44	34.50	NA	256T	256T	256T	256T	NA	184T	215T	215T	256T
28	32.00	40.25	32.00	40.25	28.25	31.25	30.00	12	0.44	38.25	NA	286T	286T	286T	286T	NA	215T	215T	256T	286T
32	36.25	47.00	36.25	47.00	32.25	35.25	34.00	12	0.44	41.00	NA	286T	286T	286T	286T	NA	215T	256T	286T	365T
36	40.25	53.25	40.25	53.25	36.25	39.25	38.00	16	0.44	45.25	NA	326T	326T	326T	326T	NA	256T	286T	365T	405T
42	47.00	53.25	47.00	53.25	42.38	46.38	44.63	16	0.56	49.50	NA	326T	326T	326T	326T	NA	286T	365T	405T	NA
48	53.25	NA	53.25	NA	48.38	52.38	50.63	16	0.56	53.25	NA	326T	326T	NA	NA	NA	365T	405T	NA	NA
54	53.25	NA	53.25	NA	54.38	58.38	56.63	16	0.56	59.00	365T	365T	NA	NA	NA	365T	405T	NA	NA	NA
60	53.25	NA	53.25	NA	60.38	64.38	63.38	20	0.56	60.25	365T	NA	NA	NA	NA	405T	NA	NA	NA	NA

DIMENSIONS ARE NOT TO BE USED FOR CONSTRUCTION. CERTIFIED DRAWINGS AVAILABLE UPON REQUEST.







FAN SIZE	COMPANION FLANGE		CONE						VARIABLE INLET VANE	INLET BELL		FAN AREA (FT <sup>2</sup> )	CONE AREA (FT <sup>2</sup> )
	E	F	J	K	L	M	N	P		S	T		
12	12.16	1.50	8.50	15.16	18.44	16.88	8	0.44	5.50	2.52	15.19	0.81	1.25
15	15.16	1.50	8.50	18.16	21.44	19.88	8	0.44	6.50	3.12	19.77	1.25	1.80
18	18.16	1.50	8.50	21.19	24.50	22.88	8	0.44	7.50	3.71	23.72	1.80	2.45
21	21.19	1.50	8.50	24.19	27.50	25.88	12	0.44	8.75	4.31	27.67	2.45	3.19
24	24.19	1.50	11.50	28.25	31.56	30.00	12	0.44	10.00	4.96	31.63	3.19	4.35
28	28.25	1.50	11.50	32.25	35.56	34.00	12	0.44	11.50	5.75	36.90	4.35	5.67
32	32.25	1.50	11.50	36.25	39.56	38.00	16	0.44	13.00	6.54	42.17	5.67	7.17
36	36.25	1.50	17.00	42.38	46.81	44.63	16	0.56	10.00	7.39	47.44	7.17	9.80
42	42.38	2.00	17.00	48.38	52.81	50.63	16	0.56	11.75	8.59	55.34	9.80	12.77
48	48.38	2.00	17.00	54.38	58.69	56.63	16	0.56	13.25	9.76	63.25	12.77	16.13
54	54.38	2.00	17.00	60.38	64.94	63.38	20	0.56	14.75	10.98	71.16	16.13	19.88
60	60.38	3.00	17.00	66.44	70.94	69.38	24	0.56	16.25	12.20	79.06	19.88	24.08

DIMENSIONS ARE NOT TO BE USED FOR CONSTRUCTION. CERTIFIED DRAWINGS AVAILABLE UPON REQUEST.



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Catalog illustrations cover the general appearance of products at the time of publication and we reserve the right to make changes in design and construction at any time without notice.

Fans, where indicated on drawings and schedules, shall be Arrangement 9, Model PTABD Type "P" Tubeaxial or Model VPBD Type "P" Vaneaxial, V-belt driven with the wheel mounted on a separate shaft and bearings supported completely within an enclosed tube isolated from the high velocity airstream or Arrangement 4, Model PTA Type "P" Tubeaxial or Model VP Type "P" Vaneaxial, direct drive with the propeller mounted directly on the motor shaft and with the propeller and motor assembly enclosed entirely within the fan casing. Fans shall be tested in accordance with AMCA 210 test code for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels. Fans shall be licensed to bear the AMCA certified ratings seal for air and fan efficiency grade (FEG) performance on Models VP and VPBD.

**CONSTRUCTION** — The fan casing shall be constructed of heavy-gauge rolled steel with continuous seam type welding and angle ring flanges. The inner shell and guide vanes shall be integrally welded with the outer fan casing providing a substantial weldment. Flanges at the inlet and outlet of the fan casing are to be the same size for easy mounting of the fan into the ductwork. An adjustable motor base plate assembly shall be welded to the outside of the fan housing to provide belt tension adjustment on belt driven models.

**WHEEL** — The fan wheel shall be a solid one-piece sand casting of A319 alloy aluminum and shall contain seven blades and an integral center hub. The wheel shall have blades of airfoil shape designed with a variable hub ratio system to allow the selected fan to operate at the highest efficiency possible. Wheels shall be machined to the proper diameter so that blade tip clearance shall be within tolerance necessary to insure certified fan performance. The wheel shall be secured to the fan/motor shaft with a Trantorque® or taperlock bushing.

**BEARINGS** — Models PTABD and VPBD Type P Belt Driven Fans shall be supplied with sealed pillow block bearings with lubrication lines extended to the outside of the fan housing for easy maintenance. Bearings shall have a minimum L-10 life as defined by AFBMA of at least 40,000 hours (200,000 hours average life).

**DRIVE** — All drive selections on Models PTABD and VPBD Type P Belt Driven Fans shall be designed with a 1.2/1.5 service factor, unless otherwise specified. Sheaves shall be cast iron with static conducting belts. Belt adjustment shall be accomplished with an adjustable motor slide rail base.

**MOTORS** — Belt driven fan motors shall be NEMA Design B, standard industrial, continuous duty, ball bearing, variable torque and shall be provided with the enclosure type, voltage, phase and hertz as listed in the fan schedule.

Direct drive fan motors shall be NEMA Design B, standard industrial, continuous duty, ball bearing, variable torque and shall be provided with the enclosure type, voltage, phase and hertz as listed in the fan schedule. If motors have regreaseable bearings, external grease fittings with extended grease leads shall be supplied for lubrication of the motor bearings. Direct drive fans shall have the motor wiring extended through liquid-tight conduit to the outside of the housing for easy connection.

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

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

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

- ♦ Plasite 4310
- ♦ Plasite 9500
- ♦ Powder Coat
- ♦ Heresite VR504
- ♦ Hot Dip Galvanizing
- ♦ Plasite 7122L
- ♦ Heresite P413
- ♦ Carbocoat 30 (replaces Sanitile 550 and Eisenheiss 210)
- ♦ Air Dried Epoxy

**ACCESSORIES** — The fan(s), with some exceptions on direct drive models, shall be furnished complete with:

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

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